

REPORT
FROM THE
SELECT COMMITTEE
ON
NATIONALISED
INDUSTRIES (REPORTS
AND ACCOUNTS)

TOGETHER WITH THE PROCEEDINGS OF THE
COMMITTEE, MINUTES OF EVIDENCE
AND APPENDICES

THE AIR CORPORATIONS

Ordered by The House of Commons to be Printed
14th May 1959

LONDON
HER MAJESTY'S STATIONERY OFFICE
PRICE £1 0s. 0d. NET

213

REPORT FROM THE SELECT COMMITTEE ON
NATIONALISED INDUSTRIES (REPORTS AND ACCOUNTS)

Thursday, 30th October, 1958

Ordered, That a Select Committee be appointed to examine the Reports and Accounts of the Nationalised Industries established by Statute whose controlling Boards are appointed by Ministers of the Crown and whose annual receipts are not wholly or mainly derived from moneys provided by Parliament or advanced from the Exchequer:—

And the Committee was nominated of—

Mr. Albu.	Sir Keith Joseph.
Sir John Barlow.	Colonel Lancaster.
Mr. Blyton.	Sir Toby Low.
Mr. Mark Bonham-Carter.	Mr. Palmer.
Mr. Ernest Davies.	Sir Alexander Spearman.
Mr. Fort.	Dame Irene Ward.
Mr. David Jones.	

Ordered, That the Minutes of the Evidence taken before the Select Committee on Nationalised Industries (Reports and Accounts) in the last Session of Parliament be referred to the Committee.

Ordered, That the Committee have power to send for persons, papers and records.

Ordered, That the Committee have power to report from time to time.

Ordered, That Five be the Quorum of the Committee.

The cost of printing and publishing this volume is estimated by H.M. Stationery Office at £1075 0s. 0d.

The cost of preparing for publication the Shorthand Minutes of Evidence taken in this session and in session 1957-58, and printed with this Report, was £353 11s. 8d.

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REPORT

The Select Committee appointed to examine the Reports and Accounts of the Nationalised Industries established by Statute whose controlling Boards are appointed by Ministers of the Crown and whose annual receipts are not wholly or mainly derived from moneys provided by Parliament or advanced from the Exchequer, have agreed to the following Report:—

THE AIR CORPORATIONS

PART I

1. The Air Corporations face direct competition from overseas airlines and, to a lesser extent, from the British independent airlines. They are a part of one of the largest industries in the world, an industry that is still expanding (Q. 324*); many of their competitors are nationalised, all of them are protected and supported by their Governments. For most airlines are, to a greater or less extent, intentionally or unwittingly, the instruments of national prestige. Small nations are ready to lose money in order to keep their national airlines on the world's air routes; countries which achieve independence hasten to set theirs up (Q. 2540). In judgments on the British European Airways Corporation and the British Overseas Airways Corporation it should be remembered that in such things as the routes they fly (Q. 595) and the aircraft they choose (Q. 433) their motive is not only commercial, it includes the furtherance of British prestige abroad. They accept this state of affairs voluntarily, and not under statutory compulsion, even though they have to compete against airlines which are in many cases supported by subsidies and indirect benefits from their Governments (Appendix 46).

2. This international competition between airlines is hedged in by a number of important limitations. There is, for instance, little or no competition in the fares charged by international airlines, most of which belong to the International Air Transport Association, which in practice lays down the fares to be charged by its members. Such things as safety standards and legal requirements are controlled by the International Civil Aviation Organisation, to which most Governments belong (Q. 856). The airlines cannot themselves decide the places to which they will fly, since it is Governments who make bilateral agreements in these matters (Q. 568). Such limitations considerably constrict the area in which the airlines can compete. Both B.E.A. and B.O.A.C. willingly accept the limitations imposed by I.A.T.A. and I.C.A.O. (Q. 322, 858), but B.O.A.C. drew attention to the difficulties sometimes caused them by the absence of bilateral agreements (Q. 634).

3. Since fares are fixed, competition is concentrated upon such things as the quality of service, the reputation for efficiency and punctuality, and the speed of flights; and the best way of winning traffic from competitors is by flying better aircraft than they have. The results achieved by an airline, then, depend to a large extent on its aircraft. But the success or failure of these aircraft is in the long run dependent, not only on the airline itself,

* References to question numbers, page numbers, and numbered appendices are to questions, pages and appendices in the Minutes of Evidence. Appendices A and B are appendices to this Report. References to numbered paragraphs are to paragraphs of this Report.

which makes the choice, but on the manufacturer ; and in evaluating the results achieved by the Corporations, account should be taken of the extent to which their aircraft have lived up to expectations. The success or failure of an aircraft has the most tremendous repercussions on an airline's operations (Q. 1817-9).

4. The British airlines depend largely on British aircraft. The British aircraft industry is small compared with that of the United States, and the needs of its British customers are far smaller than those of the purchasers for whom the American industry caters. It follows then that the British aircraft industry, on which the British airlines so heavily depend, has to operate at a disadvantage compared with the Americans.

5. In considering the results achieved by an airline, it should be remembered that by far the greater part of its expenditure is fixed, and cannot readily be varied (Q. 1658-9). Moreover, it may take five or six years between the ordering of a new aircraft, and its coming into service (Q. 5) ; so plans have to be made a long way ahead. These factors lend a certain rigidity to the balance-sheets of airlines, and it is a lengthy process to make any considerable reduction in their costs. When improvements are necessary, they may take a comparatively long while to effect.

6. A comparison between two or more airlines at any given moment in time can be misleading in one respect. The progress being achieved by an airline is not always immediately reflected in better operating results. Such matters as re-equipment and re-organisation, which may be vital if an airline is to continue in the front rank of an expanding industry, can temporarily have an adverse effect on its operations. B.O.A.C. believe that they have been particularly at a disadvantage in this respect in the last few years, as a result of their re-equipping (Q. 1357-8).

7. With all these considerations in mind, Your Committee have conducted an inquiry based on the Reports and Accounts of B.E.A. and B.O.A.C. for 1956-57 and 1957-58. They have held thirty-three meetings and have taken evidence on a number of occasions from Marshal of the Royal Air Force Lord Douglas of Kirtleside, G.C.B., M.C., D.F.C., Mr. A. H. Milward, O.B.E., Mr. P. C. F. Lawton, D.F.C., Mr. B. S. Shenstone and Mr. R. L. Weir, O.B.E., respectively the Chairman, Chief Executive, Commercial and Sales Director, Chief Engineer and Financial Controller of B.E.A. ; from Sir Gerard d'Erlanger, K.B.E., Chairman, Sir George Cribbitt, K.B.E., C.M.G., Deputy Chairman, Mr. B. Smallpeice, Managing Director, Mr. C. Abell, Chief Engineer, and Mr. K. W. Bevan, Financial Comptroller of B.O.A.C. ; from Mr. A. H. Wilson, C.B., C.B.E., and Mr. M. M. V. Custance, C.B., Deputy Secretaries, Mr. C. W. Evans, C.B., C.B.E., Under Secretary, and Mr. W. C. Gawthorne, Assistant Secretary, Ministry of Transport and Civil Aviation ; and on one occasion, from Mr. R. E. Hardingham, C.M.G., O.B.E., Chief Executive and Secretary of the Air Registration Board ; from Mr. A. T. K. Grant, C.M.G., Under Secretary, the Treasury ; and from Mr. D. W. G. L. Haviland, C.B., Under Secretary, the Ministry of Supply.

8. It will be noted that Your Committee have not taken evidence from other interested parties—from the aircraft manufacturers, for instance, or from the independent airlines or from the Trade Unions. To have done so

would, they felt, have taken them outside their proper sphere of action. When reference is made in this Report to matters affecting those other parties, no criticism or approval of them is intended.

9. Your Committee began their inquiry in May, 1958, and continued to take evidence for a period stretched over ten months; their Report is based only on evidence given up to March, 1959.

10. Throughout the enquiry the Chairmen and senior executives of the Corporations have given the greatest possible measure of co-operation to Your Committee, who wish to express their gratitude to them. This has taken up a great deal of their time, both in giving evidence and in preparing for it, and it has required a lot of effort by subordinates in preparing the necessary papers and charts. Your Committee welcome the manifest desire of the Chairmen to provide full information and to discuss their problems frankly.

11. During the course of their enquiry, and in their Report, Your Committee have concentrated upon the major problems facing the two Corporations, and upon the matters in which performance appeared to fall below the high standards to be expected of them—standards which indeed were fully accepted by those who gave evidence.

12. Much of Your Committee's Report is factual, and explains the conditions under which the airlines have been operating. Part II of the Report contains much of the information which Your Committee gained; it also includes a number of conclusions and recommendations, large and small, made by Your Committee, together with the facts and the arguments on which they have been based.

13. In this Part of their Report, Your Committee wish to draw attention to the following points. The references in brackets are to the paragraphs in Part II of the Report where the points are established.

14. *Comparative performance of the Corporations.* Statistics of international airlines, summarised in Appendices A and B to this Report (pages lx to lxiv), supply a useful guide to the performance of the Corporations, provided a number of qualifications are made. Your Committee believe that B.E.A. have been achieving a satisfactory passenger load factor* on international routes. Aircraft utilisation† has been low because the Corporation is a short-haul operator, but there is room for improvement. Operating costs, in terms of capacity ton-miles‡, which are not strictly comparable with those of longer-haul operators, have not improved recently as much as they have in the case of most other airlines. B.O.A.C.'s passenger load factor has been satisfactory; this may have been partly at the expense of aircraft utilisation, which has been low but is now improving. Operating costs, per capacity ton-mile, have been high (paragraphs 125 to 159).

British Overseas Airways Corporation

15. *Results.* B.O.A.C.'s overall loss in 1957–58 was due primarily to two factors, the excessive size of their aircraft maintenance costs, and the large losses made on some of their subsidiary companies.

* Defined on page xxxii.

† Defined on page xxxiii.

‡ Defined on page xxxii.

16. *Aircraft maintenance.* As early as 1952 there were indications, known inside B.O.A.C., that the costs of their aircraft maintenance were excessive. This appears to have been clearly established by the middle of 1956. A report in December, 1957, showed that their costs were nearly twice as high as those of Pan American Airways. The management of B.O.A.C. know what has to be done, and some progress has been made, but they told Your Committee that it will take until mid-1960 to negotiate the changes they believe necessary. It is not the duty of Your Committee to comment on these changes, on which they took no evidence from the Trade Union side. But they must point out that a state of affairs which was believed to be unhealthy in 1952, and which was proved to be unhealthy in 1956, may not be healed until the middle of 1960. It is clear that, however rigid the negotiating procedure may have become, it is the responsibility of the management of B.O.A.C. to achieve at a very early date a drastic improvement in the productivity of their aircraft maintenance department. Until this has been done, B.O.A.C. cannot expect to compete on even terms with the other airlines of the world (paragraphs 160 to 170).

17. *Subsidiaries.* In the B.O.A.C. accounts for 1957-58 there was a profit of £129,000 on the Corporation's own operations, and a loss of £591,000 on the operations of their associated and subsidiary companies. It is Your Committee's opinion that recent experience demands that a complete review of B.O.A.C.'s general policy towards their subsidiaries, and of the individual operations of each of them, should urgently be made (paragraphs 182 to 188, 195).

British European Airways Corporation

18. *Domestic services.* In 1957-58, B.E.A. made a profit of about £2½ million on their overseas services, and a loss of about £1½ million on their domestic routes. These latter include services to the Scottish Highlands and Islands and to the Isle of Man, which B.E.A. consider they cannot make profitable and which cannot be justified on commercial grounds. B.E.A., having asked for and having been refused a subsidy for them, have continued to operate them as a social service, and have taken the losses into their accounts without particularising them. As a result, B.E.A.'s annual accounts are not at present a true indication of their efficiency. The losses being made on these services should be published; and if the Government wish these services to be carried on by B.E.A. in the future, provision for them should cease to be absorbed in the accounts of B.E.A., but should be made in the annual Estimates of the appropriate Departments (paragraphs 105 to 117).

19. *Aircraft Maintenance.* B.E.A.'s maintenance costs are now approximately equal to those of their competitors, and are all the time being steadily reduced. However, as they agree, they still have a good deal to learn, and they are constantly comparing their own practices with the way other airlines operate. Their inspectorate is at present much too large, and it is possible that they could benefit from more mechanisation, so there is room for further improvements. When these have been made, B.E.A. should be in a strong position (paragraphs 171 to 177).

Both Corporations

20. *Development of new aircraft.* As more complicated aircraft have come into service, aircraft development has become a major factor in the outcome of the airlines' operations. American aircraft manufacturers, and therefore the users of American aircraft, have the advantage of large initial orders and, in many cases, of orders and development flying by the United States Air Force. The cost of developing new aircraft made in Britain at present appears to fall too heavily on the Corporations (paragraphs 64 to 68).

21. *Obsolescence and amortisation.* The speed at which the capital costs of aircraft are amortised can have a determining influence on fares and profits. B.O.A.C. themselves recognise that they have not in past years put aside adequate sums for depreciation; it seems that their overseas competitors provide amortisation at a higher rate. This means that the financial results B.O.A.C. achieved in those years are not as good as they seemed. B.E.A., on the other hand, consider that their rate of depreciation, which is based on the same principles as that of B.O.A.C., is adequate. This difference of opinion arises from different estimates of the period that is likely to elapse between the introduction of new types of aircraft. If the airlines of the world embark too early on a race to equip themselves with supersonic aircraft, the current rates of depreciation will be quite inadequate for both Corporations (paragraphs 118 to 124, 258 to 260).

22. *Co-operation between the Corporations.* Your Committee believe it may be possible that some economies could result from closer co-operation between B.E.A. and B.O.A.C. They would like to think that this whole question of co-operation was being considered anew. Although there are frequent informal discussions between the Corporations and the Minister on this general matter, it has not been formally discussed since 1954. Your Committee think it could usefully be discussed again (paragraph 230).

The Ministry of Transport and Civil Aviation

23. *The Minister's control over the Corporations.* The evidence has shown that there are a great many important aspects of the Corporations' activities which have become subject to the control of the Minister, although there is no statutory warrant for this. In discussing some of these points individually in this Report, Your Committee have noted the powerful arguments adduced in favour of the Minister's use of them; it is significant that the Corporations have accepted the assumption of these powers by the Minister, generally without protest. Relations between Ministry and Corporations are clearly good, and the last thing Your Committee want to do is to disturb such a relationship. But, faced with the total extent of the Minister's non-statutory powers, they are bound to ask if these do not add up to a degree of control far in excess of that envisaged by the statutes under which B.O.A.C. and B.E.A. were created, and so lead to an undesirable diminution in the authority of the Chairmen and Boards of the Corporations, and in their feeling of responsibility. Your Committee consider it essential to the efficient running on commercial lines of the Air Corporations that there should be a clearcut division of responsibility between the Chairmen on the one hand

and the Minister on the other. When the Minister wishes, on grounds of national interest, to override the commercial judgment of a Chairman, he should do so by a directive, which should be published (paragraph 218).

24. *Procedure.* Your Committee repeat the point which they made in a Report last Session: in dealing with the accounts of a vast industry like this, their task is made more difficult by the lack of specialised assistance. Your Committee hope shortly to make a Special Report on this matter to the House.

PART II

THE SUPPLY OF NEW AIRCRAFT TO THE CORPORATIONS

The choice of new aircraft

25. Your Committee have noted throughout how the financial results of an airline depend to a very large extent on the aircraft flown by the line. This is shown simply but vividly by the experience of B.E.A. on the London—Paris route; if they bring in a new type of aircraft which will fly to Paris ten minutes quicker than Air France, they at once obtain the lion's share of the traffic on that route (Q. 443). It is also their experience that, by introducing faster aircraft, more people are attracted away from surface travel (Q. 441-2.).

26. The choice of aircraft is not only fundamental to the problem of a Board's revenue; it is also by far the most important item in their expenditure, for the cost of new aircraft and spares amounts to more than 80 per cent. of the capital investment by B.E.A. and B.O.A.C. (Q. 4). So the actual process of choosing a new aircraft is at the heart of an airline's operations, and Your Committee spent some time in discovering how the choice was made.

27. The initiative lies with the Corporations. They make the original estimate that a new aircraft will be required (Q. 239, 353). They draw up specifications, which they then discuss with the British aircraft industry. As a result, either a new project will emerge or else, as happened recently with B.O.A.C., it will be clear that no suitable British aircraft will be available at the right time and that the aircraft industry abroad must be approached (Q. 239).

28. Several considerations arise at this stage. First, Government policy is that the Corporations should fly British aircraft whenever possible (Q. 22, 104). B.E.A., for instance, told how they had preferred to order the untried Viscount rather than the D.C.6, which was an available alternative (Q. 434). But, secondly, the British manufacturer does not normally produce an aircraft unless he has had a definite order for it from one of the Corporations or from abroad (Q. 361). As a result there is no possibility of buying a British aircraft "off the peg", which would be considerably cheaper (Q. 360, 1709) and a lot less trouble. In an emergency—such as occurred when the Comet I had to be withdrawn from service—off-the-peg aircraft can be bought only from America; and some foreign airlines are content to have fleets comprised entirely of proved American aircraft (Q. 362).

29. But, in the choice between buying a new type of aircraft and buying aircraft that have already been flown with success by other lines, the British Corporations prefer to fly new aircraft; there are risks involved, and there are considerable attendant disadvantages in this policy (*see* paragraphs 61 to 68), but on the other hand there are advantages that can more than compensate if a Corporation can be the first in the air with a successful new type of aircraft (Q. 12, 427-8, 1709).

30. Thirdly, in choosing an aircraft, no special weight need be given to its export potentialities; in general, the best aircraft from the Corporations' point of view will prove to be the best for export (Q. 18-21, 118, 397).

31. Fourthly, the increasing popularity of jet and turbo-prop aircraft has introduced a new factor; jet aircraft are bought in some cases to replace earlier types, before their useful life is over, in order to be competitive with other airlines (Q. 438).

32. When the Corporations formulate their ideas on a possible new aircraft, these ideas are discussed with a governmental inter-departmental committee, the Transport Aircraft Requirements Committee (T.A.R.C.). This committee forms the point in the Government's scheme of things at which the research programmes both of the Ministry of Supply and of the aircraft industry (Q. 725-30), and the needs of the Corporations, of the independent airline companies and of the Royal Air Force, all converge. The committee consider the requirements both of the civil and military aircraft users, and see if these can be reconciled (Q. 661). (Figures given in July, 1958 showed that 45 per cent. of the initial demand for new transport aircraft since the war came from the nationalised Corporations, 35 per cent. came from R.A.F. Transport Command, 10 per cent. from other British operators, and 10 per cent. (made up only of small types of aircraft) from overseas operators (Q. 680n).)

33. The T.A.R.C. acts as a forum in which the results of research are considered, and the lessons they teach are learned; in view of the natural reluctance of manufacturers to disclose to their competitors the plans they may have and the research they might be undertaking, it is useful to have this body co-ordinating, assimilating and passing on the lessons which can be learned (Q. 147-9). It is clear that the committee, as the reservoir of research information, can offer valuable advice when a Corporation is contemplating an order for a new aircraft. With their wide experience, they should also be able to anticipate the needs of the future (Q. 358-9).

34. As a result of the Corporations' discussions with the T.A.R.C., a definite specification for the new aircraft can be agreed to. It then becomes necessary to decide on the manufacturer for it; and this entails discussions in which the Corporations, the Ministry of Transport and Civil Aviation, the Ministry of Supply and the Treasury take part (Q. 378). To B.E.A., these discussions appear as a process of persuading the Ministries that they have made the right choice of a manufacturer; persuasion to adopt the D.H.121 took several months, and required resistance to a certain amount of Ministry pressure (Q. 382, 388). This was B.E.A.'s only experience of delay

caused by Ministerial intervention (Q. 92, 396), and they do not think the Ministry's interest at this stage is in any way unjustified, since ultimately it is the taxpayer who provides the capital (Q. 392).

35. The Corporations say that they are quite free to choose the manufacturer whom they think best able to produce the aircraft they need (Q. 257-8, 395). But, once they have chosen the most suitable from the designs and performance figures submitted by the manufacturer, they must come back to the Minister of Transport and Civil Aviation for his approval to an order of so many aircraft at a named price (Q. 99, 353).

36. Thus, although the Corporations choose the manufacturer they want, the last word on the purchase of aircraft can rest with the Minister (Q. 391). There is no express statutory provision for this control, but the Government's overriding sanction can be justified; for Treasury approval and guarantee are required for the Corporations' borrowings, foreign expenditure may have to be sanctioned, and a Ministry of Supply development contract may be involved (Page 10).

37. In evaluating the proposal put to them, the Ministry of Transport and Civil Aviation lean on the advice given to them by the Ministry of Supply and the Treasury. The Ministry of Supply are concerned first, because when, as in the past, they have been financing the development of an aircraft, they have had a strong financial interest in seeing that the right choice is made at the outset (Q. 689); secondly, because, with the resources of their research organisation behind them (Q. 692), they can be expected to give the necessary technical advice (Q. 690); thirdly, because they alone are fully informed of the commitments of the various manufacturers at any given time (Q. 85-7, 692).

38. The Treasury take part in the financial discussions, but not until the technical experts of the Ministries and the Corporations have resolved any differences between them (Q. 52-3); indeed they make sure that the Ministries and the Corporations have considered all the alternatives, and are in agreement (Q. 12). The Treasury's outlook is economic; their care is to ensure that the project is reasonable, and that it fulfils a need (Q. 5). They have to take into account what its prospects are (Q. 13), and what its profitability is likely to be (Q. 16-7). They must also be persuaded that the proposed manufacturer is financially sound (Appendix I).

39. It is clear that, in exercising his last word on the subject, the Minister of Transport and Civil Aviation is fortified by a considerable amount of advice. There is no chance, in choosing new aircraft, that the Government's views on the subject will go unexpressed. But the Ministry make clear that, if there is any conflict of opinion, their chief duty will be to the Corporations; their chief task is to see that the Corporations get the best aircraft (Q. 111-2).

The financing of new aircraft

40. The purchase of new aircraft in the recent past has been affected by a change in governmental attitude. Previously, the cost of bringing a new aircraft into service fell directly on the Ministry of Supply, who were able to recoup themselves to some extent by a "development levy" in the sale price of each aircraft. Recently, however, policy has been directed towards

making the aircraft industry itself, with help from the progress payments made by the Corporations, finance the new aircraft as a private venture (Q. 7-8, 379-81, 687). There is evidence to show that, in the case marking the changeover, it was the need to arrange private financing—or, at least, the failure to make it clear that adequate financial backing existed—that delayed the placing of an order for six months (Q. 383-4).

41. Your Committee were told that “delay” was the wrong word to use in this context, since the outcome was an arrangement which was likely to be more financially sound, and which would prove to be the pattern of later contracts; that once the manufacturers started offering private ventures, the order was soon placed; and that in any case the time-lapse should not occur again (Q. 693-701).

42. It seems that the general principle that industry, and not Government, should be responsible for finance is welcomed by the people most concerned. Thus B.O.A.C. said they would prefer to deal with a company which had its own money at stake, and found it simpler than working through the Ministry (Q. 259-60); and the Ministry of Transport witnesses, who said that in any disagreement between the Corporations and the Ministry of Supply their first duty was to the Corporations (Q. 111), would prefer, other things being equal, a private venture (Q. 121). The Ministry of Supply think that the new policy, once it is fully implemented, should not raise new difficulties for the Corporations (Q. 738), and should not slow down the speed at which the industry is developing (Q. 719). All in all, Your Committee believe that in prevailing conditions the new policy need not be a drag on the Corporations in any way—provided that the lesson of the D.H.121 has been learned, and provided that future contracts will not be held up by discussions on the kind of financial backing that is necessary.

The pricing of new aircraft

43. Not surprisingly, the cost of aircraft has risen very considerably since the war (Q. 449); a contract placed for about 36 aircraft of a new type for B.O.A.C. might now amount to as much as £80 million (Q. 12). These prices for British aircraft are not markedly different from those of the Americans (Q. 741).

44. In dealing with such large sums of money it is clear that great care must be taken in assessing whether a proposed price for a new aircraft is reasonable or not; especially as there is no easy way of doing so. The Ministry of Transport and Civil Aviation have to rely mainly on the Ministry of Supply (Q. 128-30), who in turn can only apply tests of a very broad kind (Q. 703). To some extent the price is kept down by the competition amongst manufacturers, and the Transport Aircraft Requirements Committee ask for competing tenders once a specification has been decided on (Q. 661); the Corporations, when they buy aircraft, may do likewise (Q. 415). But the price by itself cannot be the criterion; the commercial prospects of the offered aircraft must be the deciding factor (Q. 417). Your Committee were told that a 10 per cent. increase in capital cost would cause only 1½ per cent. increase in operating costs (Appendix 3).

45. The result of the competition and the checks is that aircraft are bought by the Corporations at what are believed to be reasonable prices (Q. 130). The price might in fact be favourable to the Corporations, for the manufacturers would be keen to receive an original order for a new aircraft



(Q. 704). If the aircraft is delivered late, or if its performance, when delivered, is not as good as had been specified, a penalty clause comes into operation, and the price is reduced (Q. 422-5).

46. One element in the cost of those aircraft which have been partly financed by government money is the development levy which is charged by the Ministry of Supply (Q. 707). The levy on the Viscount 701, for example, amounted to an average of £8,200 on each aircraft (Q. 379). Where the aircraft is a success, as the Viscount has been, the total of these levies can in fact outweigh the cost of development, and the Ministry make a profit (Q. 710). But if the development is undertaken as a private venture, its cost is certain to be reflected in the price charged.

47. The price first agreed for a new aircraft is seldom the price eventually paid for it, for the manufacturers may find that their original calculations were on the low side (Q. 2473). After the contract is signed the price may go up because of "escalation", that is, the practice by which some increases in the wage scales in the industry, and in the price of materials, have a proportionate effect on the price previously agreed to (Q. 420, 426). During the emergence of the Britannia, wage levels increased by about two-thirds, and the price of materials rose by about 50 per cent.; both these increases were, under the escalation clause, reflected in the price paid for the aircraft, and they help to explain why the final cost of an aircraft is so much higher than the original estimate (Appendix 3).

48. In addition, the Corporations might ask for changes in design while the aircraft was being developed or constructed (Q. 150, 420) or was in actual operation (Q. 153). This could conceivably lead to a lowering of the price in certain circumstances (Q. 136), but in the cases which Your Committee considered it had always led to an increase (Appendices 2 and 3).

49. The combined effect of these changes in cost has been quite sizeable. Thus the average cost of each of the first 22 Viscount 802's, for which a basic cost of £251,000 had been originally approved, eventually rose to £323,000 (Appendix 2).

50. The history of the Britannia is even more instructive; here the design and specification evolved over a period of seven or eight years from the time that approval was first given to the project (Appendix 2). From the original concept of a comparatively small and inexpensive aircraft, there have developed the two main versions now in service with B.O.A.C., the Britannia 102 and the Britannia 312, both of which have a far better performance and far greater carrying capacity than was originally contemplated (Appendix 2). The change can be seen from this Table (Appendix 3):—

	First specification	B 102, as delivered	B 312, as delivered
All-up weight	103,000 lbs.	155,000 lbs.	180,000 lbs.
Engines	Centaurus 663	Proteus 705	Proteus 755
Payload	12,702 lbs.	24,150 lbs.	26,600 lbs.
Seating	42-48	100	114

51. It is clear from this that the Britannias now in service are quite different aircraft from those originally ordered ; and it is only to be expected that the actual price paid for them should vary greatly from what was originally expected. The contract had, in fact, to be re-negotiated during that period no less than five times (Appendix 3). As a result, an aircraft which was expected in 1949 to cost £520,000, cost in April, 1955, nearly £1m. in its long-range edition, and £768,000 in its shorter-range form (Appendix 2).

52. Thus it emerges that an aircraft which eventually goes into service is quite different from that which was originally contemplated, and may cost very considerably more. But the aircraft was first chosen partly on the basis of the figure given for its capital cost (Q. 131). If that figure proves in truth to be illusory, the question arises whether or not this invalidates the arguments for choosing that aircraft.

53. Several factors must be taken into account before a balance can be struck. In the first place, the alternative aircraft might have needed to be modified as much as, if not more than, the chosen design. Secondly, the physical changes may be to the eventual advantage of the Corporations, and the final design might give better value for money. Thirdly, all major modifications—that is, those which would add more than £50,000 to the price—are brought to the attention of the Minister (Q. 137). Finally, if the eventual price were to exceed expectation to a great extent, the aircraft could be refused ; and this acts as a powerful safeguard (Q. 131–2).

Conclusion

54. To sum up : before the Corporations can get new aircraft, a very considerable number of interests have to be satisfied with the proposal in question ; the project must find its way through a number of committees and departments. Your Committee accept that the public interest requires this type of safeguard, but the result is a diffusion of responsibility. Both Corporations insisted (Q. 257–8, 396), as did the Ministries (Q. 19, 83–4, 91), that they always got the kind of aircraft they wanted. Your Committee were however concerned to investigate whether the aircraft required would be available on time, and whether particular steps were taken to provide such an aircraft from British factories.

55. At the heart of the matter lies the Transport Aircraft Requirements Committee ; here, the wishes of the Corporations meet the policy of the Government, the experience of the nation's scientists, and the capability of the aircraft industry. If there is a place at which the procedure can be improved, it should be at this focal point. Your Committee looked again at the record of the T.A.R.C.

56. This committee exists to co-ordinate military and civil demands for new aircraft, and to make plans for new British aircraft of all kinds. In an industry with comparatively small requirements in number, the result of amalgamating the demands from more than one source can be of benefit to all. Thus the action of the T.A.R.C. in reconciling the needs of the Corporations with those of Transport Command can be of vital importance.

57. The measure of their success can perhaps be seen in the eventual equipment of Transport Command with Comets and Britannias (Q. 245, 735); the measure of their failure might be gauged from their not having foreseen the need for a British aircraft to match the Boeing 707 (Q. 682). Such an aircraft, to be used by both B.O.A.C. and Transport Command, was considered; but the military demand was cancelled, and the T.A.R.C. after considerable thought concluded that B.O.A.C. did not need that type of aircraft at that time. When, due to foreign competition, it was realised that an aircraft of this kind was, after all, required, it was then too late to produce it in Britain (Q. 683); in consequence a large proportion of British transatlantic traffic must now be carried in American aircraft (Q. 239).

58. Complaints have at various times been made about the lethargic working of this committee, though it was argued by the Ministry of Supply witness that any member of the committee could have convened a meeting if he had thought that it would have been helpful (Q. 667). Both B.E.A. and B.O.A.C. agreed that the committee had been operating with more energy in recent months (Q. 244, 369, 376), since, in fact, the Defence White Paper of 1957 (Q. 667); both are satisfied with its present working (Q. 252, 376-7), and the Ministry of Transport and Civil Aviation think it is fulfilling an important function (Q. 142). But it is clear that in the past enthusiasm for it has been little more than lukewarm (Q. 102, 354).

59. It is a part of the committee's function to obtain as much information as possible about research and development in foreign aircraft industries (Q. 371); but in this field the committee were not, in July 1958, as well-informed as they would have liked to have been (Q. 674). This lack of information was reflected in the remark by the Chairman of B.O.A.C. that they knew "practically nothing" of what went on in the American and French aircraft industries (Q. 341). Here again, however, it seems that an improvement is being made in the committee's working, and in a letter to Your Committee in January, 1959, the Ministry of Supply could say:

"We now feel satisfied that all significant information that is made public about [foreign aircraft projects] reaches a focal point within the Department . . . We are also satisfied that within the limitations necessarily imposed by considerations of staff numbers, adequate internal machinery exists for collating and assessing the material received."*

60. Your Committee believe that the operations of the Corporations have on occasion been adversely affected by the past working of the T.A.R.C.; but they believe that the T.A.R.C. is now more alive to its important duties. Your Committee considered whether things might have worked out better if the T.A.R.C. had been placed under the Ministry of Transport and Civil Aviation rather than under the Ministry of Supply; but the wider issues involved, such as the interests of the Service Departments, carried the matter outside Your Committee's scope. Accordingly, they merely draw attention to the vital rôle that is played by the T.A.R.C. and recommend that its functioning should be watched with the greatest care, and that its mistakes of the past should not be allowed to recur.

* Letter from Ministry of Supply, 16th January, 1959; not published.

DEVELOPMENT FLYING

61. The decision to fly a new type of aircraft carries with it the certainty that each Corporation will have to accept a considerable number of development troubles, with the loss of traffic and goodwill that inevitably flow from them. Once the Corporation have taken delivery of a new aircraft, and have flown it for more hours than its prototype had flown, new difficulties may appear (Q. 1469-70); once the aircraft is flown on world-wide routes, weather conditions may impose strains which the prototype did not have to face (Q. 1479). The defects that come to light, however minor they may seem, must be rectified (and the aircraft if necessary withdrawn while the rectification takes place) because of the very high standards of safety to which aircraft must always conform (Q. 2153). There may be something on the credit side if the Corporations accept an aircraft in an early state of development; they thereby get the aircraft into service more quickly, and the development flying can be useful for crew training (Q. 1750-3). But, generally speaking, they must expect many troubles and a lot of attendant expense (Q. 1709).

62. This expense falls squarely on the shoulders of the Corporations (Q. 265, 1723, 2141-3). Despite the fact that the failings may be due to the manufacturer's design (Q. 1478), once the guarantee period (six months in the case of the Viscount) has passed the Corporation have to pay these development costs (Q. 429). In so doing, they are paying for the further development of an aircraft which the manufacturer may sell later, in perfected form, to the Royal Air Force Transport Command (Q. 268-9) or to other airlines (Q. 665).

63. The possible extent of the Corporations' liability in this respect can be shown in B.O.A.C.'s experience of the Britannia, an aircraft of a brilliant, revolutionary design which has been bedevilled by a variety of troubles (Q. 1462-6). This aircraft first went into regular service in February, 1957 (Q. 1463), but its teething troubles continued with such persistence that, eighteen months later, B.O.A.C. could report a month of the greatest irregularity up to that date (Q. 1465). After nearly two years' service, the continuing troubles meant that, reluctantly, B.O.A.C. had to replace a considerable part of the electrical systems, at a cost of £25,000 per aircraft (Q. 2138-40); and this, said the Chief Engineer of B.O.A.C., was one fairly small example of the kind of trouble that the failure of a component could cause (Q. 2146). B.E.A.'s Viscount, an earlier radically new design, has not been without its difficulties, too (Q. 429); after six years in service, B.E.A. spent more than £300,000 last year in putting new main spars on the early Viscounts (Q. 2150), and the Viscount is one of the most dependable aircraft known (Q. 1088).

64. As more complicated aircraft have come into service, the development of new aircraft has become a major factor in the outcome of the airlines' operations. When passenger aircraft fly at a speed faster than that of sound, the development costs are, as the Chairman of B.O.A.C. said, likely to prove "astronomical" (Q. 1766). It is clear that consideration must be given to the wisdom of expecting the Corporations to carry a burden of this kind in their trading accounts—though this in no way diminishes their responsibility to choose on commercial grounds the aircraft most suitable for their

purposes—in order to benefit other British aircraft users (including the R.A.F.) and the British aircraft industry, and in order to give effect to the general wish that they should continue to operate new British aircraft.

65. With this in mind, Your Committee asked a number of questions about the equivalent state of affairs in the American air transport industry. To some extent, a comparison with it is unreal, because it is on such a vastly larger scale than our own. Thus, a single aircraft firm there might be larger than the combined size of all the British firms; and the demand for aircraft there means that vast orders can be placed, so that the development cost can be spread over a greater number of operators, and the manufacturers are able to bear a greater proportion of it themselves (Appendix 8). Yet it is clear that the fact that the United States Air Force has been able to place a large order for an aircraft, which is subsequently taken into civil use (as happened with the Boeing 707, which began life as the K.C.135, a freighter-tanker for the U.S. Air Force—Q. 273), has meant that the civil user has been spared much, though not all (Q. 2138), of the development cost.

66. The advantage which American air manufacturers derive from large sales to the U.S. Air Force results in aircraft which have been more fully developed. These aircraft are subsequently bought not only by American operators, but also by the European competitors of our airlines (Q. 1711). It is not surprising then that B.E.A. and B.O.A.C., especially the latter (Q. 368), should be attracted to the idea that R.A.F. Transport Command should purchase the same type of aircraft as the Corporations do (Q. 247). They point to a significant difference between the history of the Britannia and that of the Comet. The Britannia was developed, at considerable cost, by B.O.A.C., and was then bought by the R.A.F. (Q. 268); the Comet II was bought by the R.A.F., and flown so extensively that since the later version of this aircraft (the Comet IV) has entered B.O.A.C. service, it has had a relatively trouble-free existence (Q. 1725–6).

67. The Ministry of Supply witness doubted if the American industry received as much benefit from Air Force orders as B.O.A.C. averred; in some cases, it was said, the U.S. Air Force did not accept aircraft until they had proved themselves in civil use (Q. 737). But however that may be, the American manufacturers would still be at an advantage compared with the British, because the large size of the initial orders helps to spread the development costs (Q. 1735). So, in Britain, where the demand for new aircraft (whether military or civil) is small, there are obvious advantages from standardising the demands from both kinds of user. Two examples were given of projects which had been started in order to meet a combined military and civil need (though neither has in fact successfully emerged as a dual-purpose aircraft) (Q. 737). It seems to Your Committee that much more should be attempted in this respect, and here again the Transport Aircraft Requirements Committee is the point at which the attempt might be made. Conversations are going on about the possibility of the Royal Air Force as well as B.O.A.C. flying the V.C.10 when it is produced (Q. 247, 1743–4); it would be more satisfactory if co-operation of this kind could be foreseen earlier, and designs made to a joint requirement.

68. In the present circumstances, when B.O.A.C. in particular receive no help of this kind, it is not surprising that they should suggest that a direct subsidy should be given to cover their high development costs (Q. 1710). Whatever arrangements are made, it must be left to the Government to make them. Your Committee emphasise that the cost of developing new aircraft at present appears to fall too heavily on the Corporations, and places them at a disadvantage compared with their foreign competitors who use American aircraft.

FARES

I.A.T.A.

69. The International Air Transport Association (I.A.T.A.) was set up in 1944 (Q. 747) and its membership comprises some 80 of the world's major airlines (Q. 749-53). It exists to promote "safe, regular and economical air transport for the benefit of the people of the world" (Q. 746). It is of particular importance to the Air Corporations, both of which belong to it, because it settles the fares to be charged on all international routes over which they fly. It has, in other words, a powerful influence on the revenue of each Corporation, and hence on their ability to make a profit (Q. 546).

70. The Association sets up a number of committees, one of which—the Costs Committee—prepares a report which gives all member-airlines an estimate of the cost of operations in the coming year (Q. 764). Armed with this, representatives attend an annual Traffic Conference which settles what the international fares shall be for that year. It does so by splitting up into three parts, each of which fixes fares for a particular area of the world; one for Europe and Africa, one for the Americas, and the third for the rest of the world (Q. 761). Only the airlines who operate in those areas are allowed to deliberate in the appropriate part of the Conference; thus B.E.A. attend only that part of the Conference which deals with fares in Europe and Africa, while B.O.A.C. attend all three (Q. 762-3). Each airline in turn states what changes in fares it would like to see in the coming year (Q. 761). The Conference then decides whether or not to recommend a change; and every decision must be unanimous (Q. 758).

71. These decisions can be enforced only when the Governments concerned give effect to them (Q. 756, 166) under the terms of the bilateral arrangements which they have agreed among themselves (page 10; Q. 163). Nevertheless, it is only rarely that the Governments do not agree to the I.A.T.A. proposals (Q. 170); so, generally speaking, the fares decided by the Conference are the fares which passengers throughout the world have to pay.

72. In order that decisions may be reached unanimously, there must be a considerable amount of give-and-take among the airlines. Each Conference, then, is preceded by lengthy discussions (Q. 768-9); the airlines approach each problem from their own individual standpoints (Q. 523), and the agreements they reach are likely to be compromises (Q. 524). Results are achieved only after very hard bargaining (Q. 793), and it seems that the final decisions are sometimes based on the need to strike a bargain, rather than on an objective calculation based on cost (Q. 788, 848).

73. If agreement is not reached about the fare on a particular route, it will be settled, bilaterally, between the Governments concerned (and in the meanwhile the existing fares will continue in force—Q. 812). As a result of those bilateral negotiations, an airline might be allowed to operate with fares lower than those of other operators. To avoid the possibility of this, the other airlines will be prepared to compromise, and accept a fare rather lower than they would have wished. Thus the rule, by which I.A.T.A. fare decisions have to be reached unanimously, helps to keep the level of fares down (Q. 789–90, 808). As a result, B.O.A.C. think that the international fares being charged at present, for the present standards of comfort of air travel, are, generally speaking, too low (Q. 770, 776, 790); it is the passengers who get the immediate benefit from the Conference's unanimity rule (Q. 794).

74. In the long view, however, the rule may not have been working to the passenger's advantage. For any attempt to introduce a new class of travel must also be agreed unanimously by the Conference (Q. 810, 820); and the British operators have sometimes experienced the greatest difficulty in getting the Conference to agree to the new cheap classes of travel which they favour (Q. 769, 806–7), and through which a lower level of fares is justified on strict commercial grounds.

75. Both Corporations were however emphatic in their support for I.A.T.A.; without it, there would be anarchy (Q. 322, 457). The advantages which are gained from its common standards and practices far outweigh its disadvantages (Q. 838), and in consequence it is the policy of the Ministry of Transport and Civil Aviation to see that no action taken by a British airline should damage or weaken I.A.T.A. (Q. 2300).

76. It is clear then that fare-fixing by I.A.T.A. is here to stay, and that both Corporations are content that this should be so. In these circumstances, comment must be made on one aspect of I.A.T.A.'s method of work. The need for unanimity within the Traffic Conference at present operates so that a single carrier could, by its refusal to agree, throw all the other airlines and their Governments to the vast inconvenience of having to negotiate among themselves every individual fare on every route separately (Q. 992). It is even possible for that carrier to do so when it has no personal concern in the matter; thus, at the recent conference, an American airline which only carries freight across the Atlantic was able to hold up agreement on all passenger fares within Europe and Africa (Q. 977, 985–9). This last aspect of the arrangement seems to Your Committee to be quite lunatic.

Fares policy

77. After an airline has assessed what fare it thinks it should charge on a particular route, it enters the bargaining arena of I.A.T.A., where, as noted above, it may have to accept a different figure (Q. 513, 788–9). The airline industry throughout the world has been pursuing "the mass market" since the war; in doing so, the industry has tried persistently to attract more passengers by lowering fares (Q. 771). But if it lowers fares substantially without reducing unit costs, the industry would move towards bankruptcy; and the Chairman of B.O.A.C. said that this was what was happening now (Q. 323).

78. The British Corporations are as anxious as anyone to attract a wider public, and agree that this can be done by lowering the general level of fares (Q. 453, 526-7). But they think that a policy of reduced fares makes sense only when it is accompanied by reduced costs. Thus they prefer in the present circumstances, not an indiscriminate lowering of fares, but cheaper fares in return for lower standards of comfort. These standards of comfort, as well as fares, are controlled by I.A.T.A. (Q. 819). So the British Corporations' policy within I.A.T.A. has been to foster the introduction of the new, cheap "Economy" Class (Q. 456, 523); and the fact that they want this new class of travel does not controvert in any way the belief that, for some of the existing classes, fares may already be too cheap (Q. 517).

79. Both B.E.A. and B.O.A.C. deserve credit for the way they have advocated cheaper travel. They are meeting increasing competition, not only from other international airlines, but also from the British independent companies, who have recently proposed to reduce some of their fares to a considerable extent (Q. 2508, 2537). In these circumstances, it is interesting to compare the fares policies of the two Corporations, and to see the frame of mind in which they separately approach the annual Traffic Conference of I.A.T.A., and to contrast their aims.

80. B.O.A.C. agree that their ability to make money must depend partly on attracting a wider public into air travel (Q. 525-6, 546) and to this end they are putting in more and more seats for the Tourist Class (Q. 550). The newly introduced Economy Class has proved popular (Q. 1043) but, with fares at their present level, is not so profitable as the Tourist Class (Q. 532). Neither are the First Class and the De Luxe Class (on the Atlantic Route) altogether profitable (Q. 516).

81. B.O.A.C. believe that Tourist Class fares are at present just about right (Q. 795). Using these as an index—that is, as a fare which makes exactly the right profit—other B.O.A.C. fares would have to be altered to the following general extents in order to make them equally profitable (Page 61):—

De Luxe Class (Atlantic routes only), raised by 10 per cent.

First Class (Atlantic route), lowered by 6 per cent.

(Africa and Far East routes), raised by 16 per cent.

(Australia route), raised by 28 per cent.

Economy Class (Atlantic routes only), raised by 12 per cent.

Three qualifications should be borne in mind in considering these figures. First, commercial policy may not require that each class should be equally profitable. Secondly, the figures are based on B.O.A.C.'s present costs which are at present very high compared with those of their competitors, but which, as explained later, they expect to reduce considerably. Thirdly, the implications, here based on the evidence of B.O.A.C., may be true of all other long-haul operators as well. Nevertheless, they explain B.O.A.C.'s general approach to the Traffic Conference; they want higher fares from First Class, De Luxe and Economy Class passengers, some of whom are at present being subsidised by the Tourist passenger (Q. 330). As the largest provider

of De Luxe travel across the Atlantic (Q. 518), B.O.A.C. would like to see those fares at an economic level, and also the First Class fares ; the increases they hope for would be "substantial", and would, they say, be justified (Q. 795). They think it likely that an increase along these lines will be made within a year or two (Q. 803, 519). The Economy Class is still very new, but its fares may, they say, need to be increased slightly (Q. 795).

82. B.E.A.'s problem is very different from B.O.A.C.'s ; on international routes in 1957-58, for instance, only 1 per cent. of B.E.A. revenue came from First Class passengers* (Q. 870), the rest coming from the Tourist Class. On the shorter flights which they operate, passengers do not need the same standards of comfort that they require on long journeys (Q. 456) ; and thus B.E.A.'s attitude to fares differs considerably from that of B.O.A.C. Each class, overall, they say, makes a profit (Q. 872). Their average fares have not increased over the last ten years (and, in relation to the value of money, have in that period gone down by about 40 per cent.) (Q. 458-62). Their immediate policy is to lower fares, and to introduce into Europe an Economy Class, with less amenities, which would in time replace the present Tourist Class (Q. 968, 977, 1026-9).

83. In these circumstances, it is not surprising that B.E.A. and B.O.A.C. should sometimes find themselves on opposing sides in disagreements within I.A.T.A. ; this has happened in 1958 on the proposal that a surcharge should be added to the fares on all jet aircraft (Q. 993-1003). It arises, more fundamentally, on the question whether or not I.A.T.A. is in the habit of allowing enough profit margin on all their fares ; B.E.A. think so, B.O.A.C. think not (Q. 770, 776-7). When these differences of opinion occur, or when a difference of opinion exists between the nationalised airlines and the independents, the Minister of Transport and Civil Aviation can intervene, as he did recently in a dispute with the independents over night fares (Q. 2298-2301). But he does so only when there is a matter of exceptional public interest at stake, and in order to avoid damage to I.A.T.A. (Q. 2296, 2300). If he did not intervene, the difference would be thrashed out within I.A.T.A.

84. Your Committee see nothing wrong in the idea of the British airlines being engaged in disputes of this kind. Their functions are different and so inevitably, on some points, will their opinions be. It is right that in most cases these should be debated by the airlines of the world within I.A.T.A., and that the decisions should be taken there.

85. Your Committee think, however, that it could with advantage be made more clear that when international fares are raised, they are raised not at the whim of B.O.A.C. or B.E.A., certainly not at the behest of the Government then in power, but as the expression of the wills of all the different airlines from all the different countries which have an interest in the matter.

Cabotage fares

86. I.A.T.A. control fares charged on international routes, but not on "cabotage" routes—that is, routes wholly within one state or between that

* For B.O.A.C., the figure is over 40 per cent. (B.O.A.C. letter of 23rd March, 1959; not published). B.E.A.'s figure will rise appreciably now that the Viscount 806 is being used more (Q. 870).

state and an overseas colony or territory. Since cabotage routes can sometimes fly parallel to international routes, there can be direct competition between the two, and a cabotage operator may be able to under-cut the fare which has been imposed on his competitor by I.A.T.A. (Q. 2172-3). Furthermore there is international agreement that cabotage traffic is reserved to the country concerned, but there is the belief that on some of these routes some operators are breaking this agreement and taking traffic to which they have no right (Q. 580-1).

87. Each country reserves the right to charge what fares it wishes in its own domestic sphere (Q. 845); and the British Corporations, though free from I.A.T.A. control, have agreed that their cabotage and domestic fares should all be controlled by the Minister of Transport and Civil Aviation. Yet this control has no statutory basis at all (Q. 172). It is, say the Ministry, a kind of unwritten gentleman's agreement between the airlines and the Department (Q. 173, 2182). It operates over the cabotage and domestic fares charged by the independent airlines in just the same way as it does over the Corporations' fares (Q. 2165-6, 2194).

88. The Ministry justify their control on the grounds that it is desirable to avoid the conflicts that could arise with other Governments as a result of a war of fares between competing airlines, and they can do this by seeing that cabotage fares conform to the general I.A.T.A. structure. It is also desirable that the relationship between the fares of the Corporations and of the British independent airlines operating on parallel routes should be reasonable. In any disputes on these matters the Minister can, by use of this control, act as a referee. If he did not carry out this function, it would be necessary for someone else to do so (Q. 2170-1, Appendix 16).

89. Your Committee considered two cases in which this ministerial control had imposed on the Corporations decisions which they would not have taken had they been free agents. The first was on the Cyprus route, and affected B.E.A. The second was on the route to West Africa, and concerned B.O.A.C.

90. B.E.A. and an independent airline compete for the London-Cyprus traffic. Each charges the same fare for carrying H.M. Forces; but, for carrying civilians, the B.E.A. return fare was £108, while the independent, flying older aircraft with less comfortable accommodation, charged £80 and gained traffic. B.E.A. were prepared to introduce a night service at a comparable fare, and asked in 1956 that they might be allowed to do so. The competition, however, seemed to the Minister to be small, because the independent's service was only fortnightly, while B.E.A. operated almost daily; if B.E.A. were allowed to charge their cheap fare, the independent would be deprived of the traffic he had built up. On the other hand, B.E.A. feared that the independent's service might become more frequent, in which case the competition would become substantial. In these circumstances, the Minister refused his permission for the time being; he promised however that if and when the independent's service became more frequent, he would reconsider the matter. This he did when, in 1958, the independent's service became weekly. By that time, the independent company was flying more



modern aircraft, and the difference between the two services had narrowed. Accordingly, the Minister gave permission to B.E.A. to introduce a night service to Cyprus, three times a week, at a return fare of £85. B.E.A. think this decision satisfactory. The Ministry think it hard to see what fairer decision could have been reached. It has, however, taken two years to resolve the conflict (Q. 1191–1202, 1221–2, 2174–80 ; Appendix 16) and meanwhile people travelling to and from Cyprus by B.E.A. at night have been paying a higher fare than B.E.A. thought appropriate.

91. The Minister's action over the West African fares is complicated by the fact that it was made in response to an I.A.T.A. recommendation, and thus is not a true example of the control he exercises, without statutory warrant, over fares ; but the recommendation would mainly have affected cabotage fares, and it was for that reason that the Minister acted in the way he did. I.A.T.A. proposed, in July, 1957, that First Class fares between Europe and Africa should be increased by 10 per cent., and Tourist fares by 5 per cent. The Minister, believing that the profits on the Tourist Class seats were already satisfactory and that any overall loss was due to providing too much luxury accommodation for First Class passengers, approved the First Class increase, but refused that proposed for the Tourist Class. In this, he was supported by the governments of the Colonies concerned (Appendix 11, Q. 179). B.O.A.C. accepted the Minister's decision even though it has resulted in a loss of money for them (Q. 565) ; this loss may be made good when new aircraft are introduced on the route (Q. 575).

92. Thus, the evidence is that the Ministry have acted on a few occasions in the past in a way that has interfered with the commercial judgment of the Corporations (Q. 180), and have done so without statutory authority (Q. 172). To keep this fact in perspective, it should be added that the Corporations have always accepted this practice (Q. 563, 873–4), that the Ministry have been able on occasion to use this informal power to help the consumer (Q. 165), and that they have never actually forced a Corporation into a decision (Q. 2191). But, while the power has not got legal backing, nothing is to prevent an aggrieved or piqued airline, whether nationalised or independent, from refusing to accept the Minister's ruling (Q. 2189–90).

93. It is outside Your Committee's province to consider the Ministry's policy towards the independent airlines, and they therefore express no opinion on the rights or wrongs of his decisions in these instances, nor on whether he should or should not exercise control over cabotage route fares. But they recommend that, if it is considered right for him to fix these fares, his power to do so should be made statutory.

Domestic fares

94. Domestic fares are also under the direct control of the Minister, and again this control is exercised without specific statutory warrant (Q. 960–2). B.E.A. have in the past disputed the Minister's right of control (Q. 921), but they now accept it (Q. 873). He is, they point out, under considerable pressure from the Regional Advisory Councils not to raise fares (Q. 873), but the final decision is his ; if domestic fares were too low or too high it would be his fault.

95. Although B.E.A. make a loss on their domestic routes (*see* paragraphs 104 to 117 below), this is not due to the Minister forcing them to keep their fares too low; on the contrary, B.E.A. expressed themselves well satisfied with the Minister's handling of their domestic fares (Q. 873-4), and said they had never been in serious disagreement with him about them (Q. 923-5). More potent than the Minister's control is the fact that B.E.A. are in competition with the railways, road transport and, in some cases, independent airlines; all decisions on fares have to take that competition into account.

96. It was encouraging to find, as a result, that B.E.A. believe that it is by lowering fares that they will increase revenue. If they are to do better on their domestic services, it will be by charging lower fares (Q. 875); and point is lent to this by the success they have achieved on their new cheap week-end service to Glasgow, where their fare (2½d. per mile) is very close to the second class rail fare (Q. 1034-5). The Advisory Councils are not likely to resent any new lowering of fares, and, provided the result is an increase in revenue, neither is the Minister likely to withhold his assent.

97. Thus the Minister's control is not proving restrictive to B.E.A. Nevertheless, it again seems to Your Committee that, if the Minister is to control the fares charged by the Corporations and other airlines on domestic routes, he should have a statutory power to do so. But in view of the fact that the airlines are in effective competition with other forms of transport over their domestic routes, Your Committee question whether the Minister needs to control the fares charged on them.

ROUTES

International routes

98. To a certain limited extent, B.E.A. and B.O.A.C. operate on parallel routes within Europe. Your Committee noted the satisfactory agreement of January, 1958, under which B.O.A.C. are now free, after consulting B.E.A., to apply for the Minister's permission to operate through any point in Europe. In return for this, B.E.A. have been allowed to extend their services to Beirut, Tel Aviv and Cairo, and, on behalf of their subsidiary Cyprus Airways, to the Persian Gulf (H.C. 240 of 1957-58, p. 12).

99. A Corporation would plan to open up a new route whenever their market research organisation indicated the likelihood of its being profitable (Q. 604). In addition they are constantly receiving suggestions, from Government departments or from people on the spot, that the institution of a new route would be welcomed (Q. 606, 929); but, say B.O.A.C., such suggestions have nearly always already been considered and rejected for commercial reasons (Q. 606).

100. Each Corporation choose the international routes they wish to operate. They may in doing so have regard to British prestige overseas (Q. 595), but the chief reason for operating a route is the probability that the Corporation will ultimately make money from it, either directly, or indirectly through the value of traffic it feeds into other routes (Q. 601, 613-4, 963-5).

101. However, a Corporation's decision that it would be desirable to operate a particular route is not in itself enough, for they will not be able

to do so unless and until the Governments of the affected countries give their permission. For, on all international routes, traffic rights have to be negotiated between the Governments concerned. Your Committee were told of several cases in which B.O.A.C. had been prevented from operating routes because foreign countries—either the country of destination, or intermediate countries—would not grant the necessary rights. An anomalous instance of this was quoted: Trans Canada Airlines were allowed to fly from London to Toronto, but B.O.A.C. were not allowed to fly from Toronto to London (Q. 637). Again, B.O.A.C. have been under pressure to re-open their route to South America; but they contend that the only way this could be made profitable is by picking up the intermediate traffic, especially in Latin Europe, and the countries there have consistently refused to grant the necessary picking-up rights (Q. 617). Failure to get these rights reflects in no way on the Corporation, but it may adversely affect their results.

102. The Corporations have agreed not to operate new routes without first obtaining the Minister's permission (page 10). Thus, as well as having to get traffic rights from foreign countries, the wish of the Corporations to operate a particular service could be affected by departmental action. A case of this kind, concerning traffic on the West African route, was considered by Your Committee.

103. The Minister had granted to some independent airlines the right to operate cheap services to the Gold Coast in aircraft which were, generally speaking, not comparable to those of B.O.A.C. When that country achieved self-government as Ghana, all operators had to start charging I.A.T.A. fares, and the independent airlines, with their out-of-date aircraft, would have been at a disadvantage compared with B.O.A.C. But they had generated much of the demand for traffic in that area and to some extent—by flying round the West African coast instead of across the Sahara, as B.O.A.C. do—they were catering for special needs. The Minister agreed that, as they would now have to charge I.A.T.A. fares, they should be allowed to fly more modern aircraft; and he ordained that, when new cheap tourist services came into being, the independent airlines should be allowed to cater for up to 30 per cent. of the traffic in the area* (Q. 2195-7). The 30 per cent. was meant to maintain for the independents the traffic they had generated in the first place (Q. 2209); it did not mean that they would automatically thereafter share in any increase in traffic that B.O.A.C. might generate, because it still remained up to them to win that share (Q. 2210-2). B.O.A.C. protested about the agreement, which they thought might restrict their development of services in the area (Q. 2199, 1677); but their protest was rejected, and they have since accepted the situation (Q. 2201). Your Committee comment on this matter in paragraphs 205 to 208 of this Report.

Domestic routes

104. If there is little in the way of Governmental action at home that influences a Corporation in the choice of their international routes, the case is different when we turn to the routes operated by B.E.A. within the United Kingdom.

* The same proportions would also apply to traffic to East Africa, once economy class services have been introduced by B.O.A.C. and the independent airlines.

105. Nearly a quarter of B.E.A.'s revenue comes from these services. Of this revenue, about 40 per cent. came in 1957-58 from the First Class and Tourist passengers on the major trunk routes, those between London, Glasgow, Belfast and Edinburgh; the rest came from Tourist Class passengers on the subsidiary routes, to the Channel Islands, the Scottish Highlands and Islands, and the Isle of Man (Q. 870). Some of these domestic services exist chiefly to cater for the summer holiday traffic; for example, twenty times as many people go to the Channel Islands in August as in February, and this presents B.E.A. with an "almost insuperable difficulty" (Q. 894). Furthermore, all these routes are short, and B.E.A.'s experience is that no route of less than 260 miles (with the occasional exception of the London-Paris route) makes a profit (Q. 947-8). For those reasons, B.E.A. have been losing money on their domestic routes, and have relied for their overall profit on the money they make from their international services; in 1957-58, they gained about £2½m. on their services abroad, and lost £1½m. of that at home (Q. 872).

106. Not all the domestic routes are uneconomic; indeed, there is a sharp distinction between the trunk routes, which might make a profit, and the services to the Isle of Man and the Scottish Highlands and Islands, which will probably always make a loss (Q. 876-7). In between these two groups is the route to the Channel Islands, which is likely to become profitable although in the past it has not always been so (Q. 878). An arbitrary calculation, based only on variable, apportioned and allocated costs, shows these results for some different groups of domestic routes in 1957-58 (Appendix 17):

Trunk routes	...	...	+£117,000
Highlands and Islands	...	...	-£268,000
Channel Islands	...	...	+£24,000

In addition to their own visible profit, the Trunk Routes also act as "feeder services" for B.E.A.'s international routes, and help to increase the profits made there.

107. It follows that some of the domestic routes flown by B.E.A. can be justified wholly on commercial grounds. Others cannot, and it was to these that Your Committee turned their attention. They were told that the main reason why B.E.A. fly to the Highlands and Islands is because the Minister wishes that they should do so (Q. 210). They fly there, in other words, not as a commercial proposition, but as a form of social service (Q. 912).

108. The extent to which B.E.A. make an annual loss on their services to the Highlands and Islands, and to the Isle of Man, is not published in their Annual Report; its publication in former years created "a lot of trouble and argument" (Q. 884). The loss on the service to the Highlands and Islands, based on total cost, was £264,000 in 1956-57, and £365,000 in 1957-58 (Appendix 17). Your Committee think that figures such as these should be published.

109. Fares to these outlying parts are already as high as they can be (Q. 1989), and there is no possibility of building up greatly increased traffic (Q. 876). Although the Ministry have no statutory power to pay a subsidy

to the Air Corporations, they have from time to time considered whether a subsidy would be desirable, and have decided that the balance of argument is against it.

110. Their argument goes as follows: the industry is, under its statute, given a certain amount of protection, and in return it is expected to perform some uneconomic services for the public good. There is an analogy with bus services, most of which would be uneconomic if they were not, by the licensing system, afforded a degree of protection on the routes they operate; it is this protection which enables them to pay for their unremunerative services out of their profits on other routes (Appendix 19). When it was argued that a better analogy could be drawn with David MacBrayne Ltd., who operate a sea and road service in the Highlands and Islands area and who are voted an annual subsidy on the Estimates for the Scottish Home Department, the Ministry of Transport and Civil Aviation averred that MacBrayne's only operate services which are uneconomic; there are no profits against which they can set off losses, it is all rough and no smooth. So long as B.E.A. continue to make an overall profit on their services, there need be no question of subsidising them on these particular routes (Q. 1978), where their loss is in any case very small in relation to their total trade (Q. 1998-9). All major national airlines are expected to fly some unprofitable routes; there is, say the Ministry, no reason why B.E.A. should be an exception to the general rule (Q. 1991-2).

111. It is not in issue that, while these services continue, they will need to be supported by a subsidy of some kind; the problem is, should the subsidy come from a reduction of the profits or should it come through the annual Estimates of the appropriate Department (Q. 1981, 2009-10)? The Ministry, by continually refusing to compensate B.E.A. for operating these services (Q. 913-5), have in effect ordained that people in Scotland and the Isle of Man should be subsidised as a result of direct Government policy, without annual parliamentary approval; for the subsidy is being paid, not openly through the Civil Estimates, but quietly through the accounts of a nationalised industry (Q. 2011).

112. It is not wholly clear how far the responsibility for this should be ascribed to the Minister, and how far to the Corporation. The Corporation have frequently asked to be compensated for their losses on this service, and the Minister, who lacks, in any case, the statutory power to pay them a subsidy (Appendix 19), has always refused (Q. 913-4). It seems that B.E.A. have acquiesced after protest in this refusal, for there has been no need for the Minister to make a formal directive on the point.

113. Your Committee are not concerned to decide on the merits of the policy by which these or any other outlying parts should receive subsidised air services. They do, however, question whether B.E.A. should on their own initiative provide uneconomic services which could not be made profitable, or which did not offer some other commercial advantage such as "feeder" traffic.

114. When a previous committee were considering the Report and Accounts of the North of Scotland Hydro-Electric Board for 1956, they accepted the

duty of that Board to subsidise the inhabitants of the outlying parts. That was because that Board is, by statute, ordered to collaborate as far as possible in the social and economic betterment of its area (H.C. 304 of 1956-57). Considerations of this kind do not apply to B.E.A. who, it is clear, are not well pleased at being the agent of Government policy in this respect (Q. 913).

115. Your Committee are ordered to examine the accounts of the nationalised industries; they must report that B.E.A.'s annual accounts do not at present give a true indication of their efficiency, because the fact that B.E.A. are carrying this burden is obscured. This is another reason why they should publish a detailed profit-and-loss account for these social service routes. Your Committee consider that B.E.A. would be wise to go further and insist on a formal direction from the Minister that they should continue these particular operations. That would place the responsibility for the ensuing losses firmly where it belongs.

116. Your Committee have carefully considered the argument of the Ministry as set out in paragraph 110. They doubt its validity as applied generally to air transport, which differs in so many respects from other forms of travel; and there must be some limits, financial and geographical, to the extent to which the argument is carried. Can a loss as big as £365,000 be justified in this way? Is there any reason why travellers carried by B.E.A. between two foreign cities should subsidise those from the Scottish mainland to the islands? In any case, without condemning the whole argument, even for air transport, Your Committee consider that it is not applicable to the special circumstances and the high costs of the Highlands and Islands, and Isle of Man, routes; they note that it has not been argued on behalf of any other route in the United Kingdom which B.E.A. have been unwilling, on commercial grounds, to operate.

117. If the Government wish these services to be carried on by B.E.A. in the future, and accept—as Your Committee accept—that they cannot be carried on by B.E.A. without loss, Your Committee recommend that provision for them should cease to be absorbed in the accounts of B.E.A., but should be made in the annual Estimates of the appropriate Departments.

AMORTISATION AND THE SALE OF SECOND-HAND AIRCRAFT

118. Each Corporation spoke to Your Committee of the mounting capital cost of the aircraft they operated. The speed at which these costs are amortised is a matter of considerable importance to them and can indeed have a determining influence on the fares charged (Q. 295-6, 448) and on profits. The current practice is for the cost of aircraft to be written off over a period of seven years, leaving then a residual value of 25 per cent. (Q. 285, 445). This rate, which must be approved by the Corporations' auditors (Q. 2489), is thought to be about the same as that employed by most airlines in the world (Q. 285, 2490).

119. There are, then, two factors which come into a calculation of amortisation rates; first, the number of years for which the airline will use an aircraft, and secondly the market value of the aircraft when the airline

no longer has any use for it. Seven years, down to a 25 per cent. residual value, may be generally acceptable in the airline industry, but has it proved adequate for the British Corporations? Your Committee turned first to consider the experience of B.E.A. and B.O.A.C. in selling aircraft in the second-hand market.

120. It has in the past proved easy enough to sell aircraft when the Corporations no longer have any use for them: since 1947, for instance, B.E.A. have made a profit of well over £400,000 on the sale of obsolete aircraft (Q. 1020-1). But, in the last two to three years, the preference for jet or turbo-prop aircraft has grown to such an extent that piston aircraft have proved very hard to sell (Q. 313, 1493). Elizabethans—which are the harder to dispose of, since so few of them were built (Q. 2495)—are a case in point; in March, 1959, B.E.A. could point out that 13 out of 19 still remained unsold (Q. 2494). At the same time, B.O.A.C. have been having difficulty in selling Argonauts and Constellations (Q. 1381); the value of the Argonauts has now largely been written off, but the Constellations represented, in December last year, a very considerable amount of assets which could not then be realised (Q. 1498).

121. It was too soon for B.O.A.C. to say, in June 1958, whether the usual depreciation rates were going to prove right for their fleet of Britannias (Q. 309), but they were able to assess the accuracy of the rates as applied to their Constellations. These aircraft, which were bought at high prices to replace the Comet I when it was withdrawn from service, were in use only for three or four years (Q. 1499). Nevertheless, the depreciation rates seemed to be adequate until the end of 1956; then came the fall in demand, noted above, for this kind of aircraft, and, instead of the Corporation getting back the calculated residual value, the aircraft proved difficult to sell (Q. 1493).

122. If B.E.A. had something of the same story to tell about their Elizabethans (Q. 2493-4), their experience with the Viscount has been very different. They do not aim to sell these before their useful life is ended (Q. 2493); they do not find here, as B.O.A.C. find elsewhere, that their aircraft cease to be competitive at an age when they are still capable of much more flying (Q. 298). On the contrary, they expect to go on using the Viscount 700 for a full ten years (Q. 2489), and it is not surprising that they differ from B.O.A.C. in their views on whether or not depreciation rates have in the recent past been what they should have been. For B.E.A. think their depreciation rates have been adequate (Q. 2489), while B.O.A.C. think that, in their own case, they should have allocated more for this purpose (Q. 2351).

123. This divergence of view goes further; it projects into the future, for each Corporation has different views on the basis on which they should depreciate in the years to come. B.E.A. think that the expense of flying aircraft faster than sound may be so great that there may not be the continuous advance in the speed of air travel over the next few years as there has been in the past. If this were to be so, the present and next generation of aircraft would have a longer operational life than their predecessors, and it would be legitimate to amortise them more slowly (Q. 782). B.O.A.C.

hope B.E.A. may prove right, but they are doubtful if that is what will happen (Q. 288, 782); they foresee some of their Britannias actually going out of service after only three or four years in use (Q. 781), and accordingly think the amortisation period should be reduced (Q. 307). So, while B.E.A. are considering whether to seek to increase the amortisation life of their aircraft (Q. 2489), and are talking to other airlines in the hope of getting a general agreement to do the same (Q. 783), B.O.A.C. wish that they could allot more funds each year to depreciation (Q. 2353-4).

124. In this, it seems that B.O.A.C. are prompted by the realisation that they have not, in past years, put aside adequate sums for depreciation. They produced figures (Appendix 23), showing depreciation sums expressed as a percentage of total costs, for themselves and for several of their competitors. The percentages were:—

	P.A.A. (Atlantic)	T.W.A. (International)	K.L.M.	Scandi- navian Air Services	Qantas Empire Airways	B.O.A.C.
1951... ..	10.4	9.4	11.7	6.4	8.0	7.4
1957... ..	10.9	8.3	11.8	9.7	10.0	7.3

It can be seen that B.O.A.C.'s figure is very much lower than the others (20 per cent. lower than the average of the others in 1951, 27 per cent. lower in 1957), and it seems that even after allowing for the generally higher costs of B.O.A.C., their overseas competitors provide a higher depreciation rate. With so many aircraft remaining unsold and unused on their hands (Q. 1381), it is not surprising that they should now regret that higher depreciation was not allowed for during those years (Q. 2351). The implication is that the financial results achieved in those years are not as good as they seemed.

OPERATIONS OF THE AIRLINES

125. In earlier examinations of nationalised industries, Select Committees have been hampered by the difficulty of making a comparison between the industry and its rivals or competitors overseas. On this occasion, Your Committee have been able to compare the results achieved by the nationalised air corporations with those of foreign airlines, as a result of the information published in their Reports, or in the annual statistical bulletin published by the International Civil Aviation Organisation. For the extraction and assembling of these statistics, Your Committee are indebted to the Ministry of Transport and Civil Aviation (Appendices A and B to this Report; also Appendices 20 and 21).

126. In making comparisons between these figures, several qualifications must be borne in mind. For one thing, the figures do not always relate to the same period of time—some of them being for the calendar year 1957, some of them for the financial year 1957-58. Secondly, the figures should not be isolated from other results being achieved at the same time by the Corporations: thus in 1957 B.O.A.C. were introducing new types of aircraft into service, and the disruption is reflected in their statistics (Q. 1357-8).

127. Allowance should also be made for the fact that the different airlines are of different sizes, and the scale of operations of each should be remembered when comparisons are made. The different total capacities, in millions of ton-miles*, of airlines in question in 1957 were these:—

Swissair	Scandinavian Air Services	K.L.M.	Air France	Pan American Airways	Trans World Airlines	Sabena	B.E.A.	B.O.A.C.
116	254	316	363	826	861	131	160	329

128. Another important distinction that must be made when comparing results lies in the fact that the different companies are catering for different kinds of services. B.E.A., for instance, stress that their results reflect throughout the fact that journeys made by their aircraft are, on average, very much shorter than those made by their competitors. They are indeed the only major airline in the world that concentrates on short-haul operations, and has no long-haul business. The difference between a short-haul carrier, like B.E.A., and a long-haul carrier, like B.O.A.C., is a factor which must be reckoned with constantly in these comparisons. The average passenger journey lengths of some of the airlines are given, in statute miles, in this Table (page 126):

S.A.S.	K.L.M.	Air France	P.A.A.	T.W.A.	Swissair	B.O.A.C.	B.E.A.
671	1,313	763	1,306	893	489	2,929	329

129. Provided these various qualifications are made, the statistics provide a valuable point from which to start to assess the results of the British air corporations.

B.E.A. Operations

Passenger Load Factor

130. A vital factor in the financial results of an airline is the extent to which it can sell the seats it has on offer; the unoccupied seats in an aircraft can be used as a measure of failure. The standard of measurement used is called the Passenger Load Factor, which is defined as "the percentage relationship of passenger miles to available seat miles". The Passenger Load Factors achieved by the various airlines in 1957-58 were these:—

Swissair	S.A.S.	K.L.M.	Air France	P.A.A.	T.W.A.	Sabena	B.O.A.C.	B.E.A.
61·7	55·7	59·5	68·5	67·0	62·9	60·0	63·3	68·5

* This figure, hereafter called "c.t.m.", is a measure of transport production. The capacity ton miles produced by a flight are the capacity for payload of the aircraft, measured in short tons, multiplied by the miles flown. (This definition, and others that follow, are taken from or based on definitions given in the B.E.A. Annual Reports.)

131. All Passenger Load Factors are expected to show a decline in 1958 (Q. 1094-5), but B.E.A. expect that the year's results will continue to show them in a good light (Q. 1099, 2442). Your Committee agree that B.E.A. have achieved a satisfactory load factor on international routes (Q. 1091-2).

Aircraft Utilisation

132. Of no less importance than the proportion of seats occupied in each aircraft, is the number of revenue-hours that that aircraft can achieve in a given time ; thus a good Passenger Load Factor is of little value unless each aircraft can spend a high proportion of its time earning money. The average number of hours of revenue-earning flight performed by each aircraft on the days when it is available for revenue service, or is unavailable only by reason of routine maintenance, is called the Aircraft Utilisation ; and the Utilisation achieved by the major airlines in 1956 or 1956-57 is shown in these statistics :—

Swissair	S.A.S.	K.L.M.	Air France	P.A.A.	T.W.A.	B.O.A.C.	B.E.A.
6.77	7.88	7.50	6.77	8.59	7.70	7.62	5.11

In 1957-58, the figure for B.E.A. dropped to 4.74 (Appendix B).

133. The Ministry pointed out that B.E.A.'s Utilisation was low because of the comparatively short distance of their flights, and because so much of their traffic is seasonal ; the aircraft, which may be very full in summer, will be idle in winter (Appendix A). B.E.A. themselves stressed very strongly that their low Utilisation figure was due entirely to the fact that they were "the only purely short-haul airline of comparable size in the world" (Q. 1051). After a short flying-time, the unavoidable time spent embarking and disembarking passengers and re-fuelling is comparatively large. Furthermore, passengers on short journeys will for preference travel by daylight, so that there is little utilisation of aircraft through the hours of darkness (Q. 1052, 2431).

134. Your Committee agree that, in these circumstances, they would expect B.E.A.'s Utilisation figure to be considerably lower than that of their competitors. But while their figure for a year may not be properly comparable with that of other airlines, it should be comparable with their own performance in previous years. What disturbs Your Committee is the fact that the figure has been declining: 5.11 in 1956-57, 4.74 in 1957-58. B.E.A. ascribe this to the fact that, on the whole, they are flying faster aircraft now ; the flight time is quicker, but the time of turn-round may be the same, or longer, and accordingly the Utilisation figure drops (Q. 1053, 1057). They add that, as the number of a particular type of aircraft in service declines, the Utilisation figure of the remainder diminishes rapidly ; this has been the case with their Elizabethans (Q. 1055), and the total average consequently also dropped.

135. But, with faster aircraft, there are occasions when those aircraft can make more flights per day (Q. 1056), and this should at least balance the lower Utilisation that comes with increased speed, as a witness from B.E.A. agreed

(Q. 1057). The reliability of the type of aircraft in use is a considerable factor in Utilisation (Q. 1085) and B.E.A., with their Viscounts and Pionairs, may have the most reliable fleet in the world (Q. 1088). Over the previous few years their Utilisation had been rising despite the fact that they must have been introducing faster aircraft then. There has also recently been an increase in the number of night services at cheap fares and this should have been reflected in better Utilisation.

136. For all these reasons, Your Committee think that, while B.E.A.'s Utilisation is bound to be very much lower than a medium-haul or long-haul carrier, it should not have been declining, and they were pleased to hear that recent results have been better (Q. 2429).

C.T.M. per Employee

137. The quotient of the airline's capacity and the number of its employees acts as a rough gauge of the output being achieved by the airline's staff ; but considerable reservations must be made before comparisons are drawn. Thus the airlines differ very considerably in the amounts of work they contract out, and the amounts they undertake for other operators or for third parties ; B.E.A., for instance, must keep at London Airport enough staff to handle the aircraft of 26 other airlines (Q. 1110). Moreover, in countries such as the United States, where labour is expensive, it is more rewarding to have a higher degree of mechanisation (and in consequence less employees, and a higher resultant ratio of c.t.m. to employees) than in other countries. Long distance routes and routes of high traffic density give the highest returns per employee. The introduction of new aircraft into service has an adverse effect on output. Air lines with highly seasonal traffic will appear at a disadvantage to those which cater for a steadier demand (Appendix A). For all these reasons, the figures for c.t.m. per employee must be viewed with caution. The figures are :—

	Swissair	S.A.S.	K.L.M.	Air France	P.A.A.	T.W.A.	Sabena	B.O.A.C.	B.E.A.
1957	24,600	23,100	18,400	19,000	37,700	44,100	12,800	16,400	14,600
1956	24,200	21,200	16,900	19,500	34,200	39,300	11,500	14,800	13,200

138. It was pointed out that most of the factors, mentioned above, are at present working to B.E.A.'s disadvantage ; and consequently the Chairman of B.E.A. made a spirited attack on the worth of any conclusions that might be drawn from the figures (Q. 1107-10).

139. Your Committee do not want to make too much of this comparison, since like is not being compared altogether with like ; but B.E.A. acknowledge that the figure is significant when a comparison is made with the equivalent figure they themselves achieved in previous years (Q. 1113). Your Committee agree with them and were pleased to note that B.E.A.'s improvement in 1957-58 was in step with the improvements made by S.A.S., K.L.M., Sabena and Pan American Airways, and was much better than that made by Swissair (10.6, compared with 1.7 per cent.).

Operating Cost per c.t.m.

140. An index of an airline's efficiency can be given by the cost of its operations ; and the measure which is generally used is the amount spent in carrying one ton of payload for one mile. The amounts, in pence, spent by the various airlines are these :

	Swissair	S.A.S.	K.L.M.	Air France	P.A.A.	T.W.A.	Sabena	B.O.A.C.	B.E.A.
1957	34·5	33·2	34·0	39·5	30·9	26·7	38·4	39·1	39·6
1956	38·2	33·6	31·3	44·8	31·5	28·2	37·8	39·9	39·7

141. The first point that emerges from this is that B.E.A.'s costs are considerably higher than most of their foreign competitors ; but allowance must be made for the fact that they operate on journeys that are so much shorter and quicker than others. Each passenger on one of their very short journeys requires as much documentation, etc., as a passenger flying the Atlantic (Q. 1064) ; so administrative costs must be comparatively high. B.E.A. aircrew costs are high too, because, with short journeys, the amount of waiting at either end is comparatively great ; on the London—Paris flight, for instance, the crews will fly for less than half the time they are on duty (Q. 1079-80). Further, with landings being made so much more frequently than those of long-distance airlines, their total landing fees are greater, and the costs of handling and turn-round are proportionately more heavy (Q. 1063-4). In these circumstances, B.E.A. consider their figure to be " quite creditable " (Q. 1063), and Your Committee agree.

142. What appears to be less creditable is the second point that can be made from a study of the figures : while most of the other airlines have been cutting down the ratio of their costs to their c.t.m., B.E.A. have stood still. Indeed, they say that the figure has even been increasing slightly in recent months (Q. 1104-5). The five significant factors in their operating costs were defined by their Chief Executive as being wages, fuel, landing-fees, aircrew utilisation and aircraft utilisation (Q. 1075). Of these, landing-fees cannot be reduced in total so long as B.E.A. maintain or increase their present services. Total wages—which by reason of wage rates, should place B.E.A. at an advantage compared with the Americans, roughly on a par with Swissair, and at a disadvantage with K.L.M. (Appendices 29 and 30, Q. 1040-2)—are not likely to be reduced, especially as B.E.A. are taking on more staff (Q. 1121). Fuel costs could be lowered significantly only by a change in tax (see paragraphs 212 to 214) and B.E.A. can do nothing about this. It follows that, if B.E.A. are to improve their cost/c.t.m. ratio, it must be by improving either aircrew utilisation or aircraft utilisation or both.

143. While B.E.A. are not complacent about these matters, they believe that they are unlikely to be able to do much better in the future (Q. 1077) ; but it seems to Your Committee from the evidence of B.E.A. themselves that there is room for improvement in aircraft utilisation and in maintenance costs, and that, with improved aircraft performances, B.E.A. can and will do better.

*B.O.A.C. Operations**Passenger load factor*

144. B.O.A.C.'s Passenger Load Factor in 1957-58 was slightly above the average for the group of airlines being considered. In 1956-57, it was well above average.

	Swissair	S.A.S.	K.L.M.	Air France	P.A.A.	T.W.A.	Sabena	B.E.A.	B.O.A.C.
1957	61.7	55.7	59.5	68.5	67.0	62.9	60.0	68.5	63.3
1956	64.4	57.2	61.5	68.6	66.0	64.0	59.4	70.3	66.0

145. It will be seen that most of the Passenger Load Factors dropped in 1957, but that B.O.A.C.'s drop was slightly greater than the average. The reason for this was that world affairs prevented the growth in traffic which had been expected and for which B.O.A.C. had introduced more capacity (Q. 1460). The same disappointing results continue to come from the Eastern and African routes this year, but there has been a recent small improvement on the Atlantic route due to the new Economy Class ; over all, the load factor should remain about the same (Q. 1462). It appears that the unsatisfactory Passenger Load Factors on the Eastern route were partly due to the reputation for unpunctuality which the Britannia's record on introduction gave the Corporation (Q. 1462).

146. B.O.A.C. aim to increase their Passenger Load Factor ; but they are alive to the possibility of getting more revenue from a lower load factor combined with higher Utilisation. The two are closely related and are both important ; neither should be viewed for too long in isolation. There is some reason to believe that, as B.O.A.C. admit, they have in recent years laid too much emphasis on load factors and not enough on Utilisation (Q. 2378-9).

Aircraft Utilisation

147. It does not necessarily follow that the airline with the longest average stage-length will achieve the best Utilisation of its aircraft ; more important than the size of this average is the proportion of its operations that an airline can undertake at night. In this respect B.O.A.C. argue that they are not necessarily at any advantage over competitors who may be operating routes which are, on average, shorter (Q. 1389).

148. Utilisation figures (see paragraph 132) for 1956 or 1956-57 were these :

Swissair	S.A.S.	K.L.M.	Air France	P.A.A.	T.W.A.	B.E.A.	B.O.A.C.
6.77	7.88	7.50	6.77	8.59	7.70	5.11	7.62

In 1957-58 B.O.A.C.'s figure fell to 6.71. This fall was explained by the fact that B.O.A.C. were beginning to introduce the new Britannia aircraft at the time. There is always a drop in Utilisation when a new aircraft comes into service, and in this particular case the effect was more pronounced as a result of the Britannia's icing troubles (Q. 1370-1). A host of later troubles have continued to add to the total effect (Q. 2310), and the result has been low Utilisation over the last two years (Q. 2306-7).

149. The average number of hours in a year which an aircraft can fly is related very closely to the number of hours it must spend in workshops for maintenance or repair. Thus the problem of Utilisation is bound up with that of Aircraft Maintenance, which is discussed in paragraphs 160 to 177 of this Report. But as a result of the steps B.O.A.C. have already taken in their engineering organisation, their Utilisation figure is on the increase; it is already, they say, no worse than that of comparable airlines (Q. 2322). Furthermore, they have made plans which should lift their average Utilisation from 6.71 hours in 1957-58 to 9 or 9½ hours when the new aircraft are fully in service (Q. 1397). These plans are already bearing fruit (Q. 2308-9).

150. Your Committee believe that although Utilisation has not been good in recent years, the steps that B.O.A.C. have taken and are taking should improve results. They believe that B.O.A.C. should publish figures for Aircraft Utilisation in their Annual Reports, so that the improvement can be watched.

Operating cost per c.t.m.

151. B.O.A.C.'s costs have been high, as this Table shows (the figures are in pence):

	Swissair	S.A.S.	K.L.M.	Air France	P.A.A.	T.W.A.	Sabena	B.E.A.	B.O.A.C.
1957	34.5	33.2	34.0	39.5	30.9	26.7	38.4	39.6	39.1
1956	38.2	33.6	31.3	44.8	31.5	28.2	37.8	39.7	39.9

B.O.A.C.'s figure has been on the level of about 39 pence for four or five years now (Q. 1361). It was comparatively high in the years under examination because, as mentioned above, the Corporation were in a period of re-equipment. New aircraft were not fully in service, but were being fully amortised; so it was a period when B.O.A.C. were at a disadvantage compared with some of their competitors (Q. 1360).

152. Whilst allowing for that, Your Committee pursued a comparison between B.O.A.C.'s operating costs and those of another long-haul airline, Pan American Airways. In 1957, Pan American Airways' figure for their world-wide operations was 30.9 pence per c.t.m., while that of B.O.A.C. was 39.1 pence—more than a quarter as high again. B.O.A.C. asked that the comparison should be limited to P.A.A.'s Atlantic Division, whose operations most closely resembled those of B.O.A.C. The figure for the Atlantic Division was 33.4 pence per c.t.m. If allowance were now made for the different proportions of first-class and tourist seats that each airline offered, B.O.A.C.'s figure would be 37.5 pence, and the gap between the two would be halved. Nevertheless, the gap is still a substantial one, and B.O.A.C. recognise that their own costs are much too high (Q. 1641).

153. If the composition of these costs is studied, it is found that aircraft maintenance costs B.O.A.C. something in the nature of 10 pence per c.t.m. For P.A.A., the amount is about half that (Q. 1363-4). If B.O.A.C. could lower their maintenance costs to the level of those of P.A.A., their figure

of operating cost per c.t.m. would be the better of the two (Q. 1642); and this is what B.O.A.C. hope to effect (Q. 1598).

154. This whole subject of aircraft maintenance, and the steps being taken to reduce its cost, are examined later in this report. At this point, Your Committee merely draw attention to the fact that the cost of B.O.A.C.'s flight operations, too, is rather above average (Appendix 23).

C.t.m. per employee

155. As mentioned above (paragraph 137), the ratio of c.t.m. to the number of employees is not always a fair basis of comparison between airlines. In B.O.A.C.'s case, the comparison is, they say, particularly unjust, because they probably try to do more things for themselves than their competitors do: they run their own coaches, they overhaul all their own engines (and a great many more for the U.S. Air Force), they try to save dollars by repair work on spare parts, and they contract out only very little of their work (Q. 1428). As a result, their ratio of output (in c.t.m.) to staff is a low one, as this Table (referring to 1957, or 1957-58) shows:

Swissair	S.A.S.	K.L.M.	Air France	P.A.A.	T.W.A.	Sabena	B.E.A.	B.O.A.C.
24,600	23,100	18,400	19,000	37,700	44,100	12,800	14,600	16,400

156. Although there are so many qualifying factors in the case of B.O.A.C., their witnesses did not deny the general impression these figures give; namely, that B.O.A.C. do not get enough output in relation to the large number of people they employ (Q. 1445-8). The major reason for this is, again, the existence of maintenance engineering practices that have required the employment of more staff than are needed. This subject is discussed below, in paragraphs 160 to 170.

157. But there are other contributory reasons. One of these is the fact that aircrews have not been utilised as much as they theoretically might have been (Q. 1403). This arises from the fact that, as mentioned above, this has been a time of re-equipment for B.O.A.C.; their whole fleet is being changed, so that it will take some three years before aircrew utilisation returns to normal (Q. 1404). To begin with, the crews which had been flying Constellations had to be trained to fly Britannias, and a course of this kind would keep them off service for a period of about four months (Q. 1419). But, as a result of the early troubles of the Britannias, many of the crews had to be re-trained to fly Constellations, and then, after a period, trained once more to fly Britannias (Q. 1407); each of these re-conversion courses took at least a week (Q. 1415). Once the new types of aircraft have been fully introduced into service, aircrew utilisation should rise again to a high, steady level (Q. 1403); as it is, B.O.A.C. claim that some of their crews are already approaching the maximum possible flying time (Q. 1423).

158. Another reason why B.O.A.C.'s ratio of output to staff is lower than that of the American airlines lies in the fact that B.O.A.C. employ larger flight crews (Q. 1508, Appendix 27), partly as a result of their more wide-spread operations (Q. 1511), and partly because the British safety regulations

are more stringent in this respect than are those of the Americans (Q. 2387-8); B.O.A.C. do not dispute the need for these extra precautions, and accept them as a valuable help to safety and efficiency (Q. 2388). Generally speaking, the size of B.O.A.C. cabin-crews is the same as that of comparable airlines (Q. 1699-1700).

B.O.A.C. Operations : Conclusion

159. Whatever qualifications are made when these operating statistics are considered, it is clear that, in recent years, B.O.A.C. have been operating with less efficiency than most of the airlines to which they can be fairly compared. Account must however be taken of some special factors—the effect of the sudden removal from service of the Comet I, the considerable loss in efficiency they have sustained as a result of the defects that developed in the Britannia aircraft. Further, the years under examination have seen B.O.A.C. in the middle of an ambitious programme of re-equipment, during which their operations are bound to appear temporarily less effective than those of their competitors. But a major part of their difficulties has been caused by over-staffing, especially in their workshops. At the heart of the problem posed by B.O.A.C.'s indifferent results in the last few years lies another problem: how can B.O.A.C. improve their aircraft maintenance?

AIRCRAFT MAINTENANCE

B.O.A.C. aircraft maintenance

160. In their Annual Report for 1957-58, B.O.A.C. say that they had been concerned for some years at the apparently high level of their engineering costs. In the second half of 1956, their Chief Engineer appointed an expert team to investigate engine overhaul procedures. As a result of the changes recommended by the team, the time taken for an engine to pass through the overhaul shops was cut by approximately half during the year 1957-58.

161. In June, 1957, after bringing the matter to the notice of the local joint panels and consultative committees established under the National Joint Council procedure, the Chief Engineer instituted a further enquiry by a committee of management (Q. 1599) into comparative methods, with a view to establishing the relative efficiency of the Corporation's procedures for the overhaul and maintenance of aircraft. After a close study of the organisation of three other airlines whose aircraft operations and standards are similar to those of the Corporation—Pan American Airways (Pacific Division), K.L.M. and United Air Lines of America (Q. 1520)—it was established that the Corporation's engineering organisation and methods required fundamental revision (H.C. 239 of 1957-58, pp. 10-11).

162. The conclusions reached by the team corroborated the views which were by then held by the Board of B.O.A.C. (Q. 1520). They bore out, indeed, the opinions which had been expressed to the Board, unavailingly, by the financial side of B.O.A.C. as far back as 1952 (Q. 1581). In these circumstances, it surprised Your Committee that the major investigation by B.O.A.C. into their excessive engineering costs should not have begun until mid-1957, although the annual statistics published by I.A.T.A. and I.C.A.O.

had some while previously shown that something was wrong (Q. 1520, 2275). Their explanation was that they had decided to deal only with engine overhaul at first, as a certain amount of information had already been assembled on that point; when that preliminary inquiry was complete, it was intended that the major investigation should begin. But, at that moment, the icing troubles of the Britannia, and the consequent problem of whether or not to introduce that aircraft into service as planned, intervened, and the Chief Engineer was pre-occupied with this. When the Britannia eventually went into service in February, 1957, the illness of the Managing Director caused a further three-month delay, and the investigation did not begin until June of that year (Q. 1707). Your Committee think that neither of these reasons in any way justifies the delay in an organisation of this size.

163. The team reported in December, 1957 (Q. 1522), and its findings were unequivocal. B.O.A.C.'s aircraft maintenance costs were nearly twice as high as those of Pan American (Q. 1594-5). In their engineering workshops, B.O.A.C. were employing 3,000 more staff than they needed (Q. 2350). They employed more than twice as many staff per aircraft or per flying-hour as did the others (Q. 1520); they employed between four and six times as many inspectors and supervisors as did the other airlines investigated (Q. 1522). In all these assessments, there were no compensating factors—such as better workshop equipment—which could account in any significant way for the disparity that had been revealed (Q. 1520).

164. The roots of this problem go back many years; practices which originated in different conditions are still being maintained, despite the better results being achieved by other methods employed in the airline industry abroad (Q. 2073). Too much reliance has been placed on repeated inspection and supervision at too many levels, instead of allowing the mechanic himself more responsibility (Q. 1522). Your Committee considered whether any of the blame for this could rest on the shoulders of the Air Registration Board, which lays down the standards of airworthiness and safety to which the Corporations must conform; but they are satisfied that this is far from being the case (Q. 2073, 2075, 2080-3). The responsibility for what happened in the past must rest inside the Corporation.

165. In their Annual Report, B.O.A.C. say that they are taking the necessary measures to achieve the "fundamental revision" of their organisation and methods that is necessary (H.C. 239 of 1957-58, p. 11). Your Committee asked what these measures were, and what progress was being made in implementing them. They were told that the revision was to be made in two stages: first, a reorganisation of the structure of the engineering department, and secondly a re-allotment of the jobs which each class of technician can undertake (Q. 1522). This is a recognition of the fact that B.O.A.C. have been using a method of quality control which is now out of date; an indication of the scope of the changes they must make is given by their target of reducing their inspectorate to a third of its present size (Q. 1583). This will be done by giving the mechanic more responsibility; he will himself see that the job is completed satisfactorily, and there will not be the need for the amount of inspection and control that is at present customary. As a result of this change, there is bound to be a considerable reduction in the responsibilities of the present inspectors and supervisors

(Q. 1522); this will not in any way run counter to the requirements of the Air Registration Board (Q. 2082), but it will rightly engage the interest of the Trade Unions involved.

166. The change of structure in the engineering department has now been completed. It took six months to effect (Q. 1522). Combined with it, other improvements have been made in the last year or so: for example, the centralisation of all engineering functions in the one set of buildings, at London Airport, has allowed a more efficient system of control to be employed (Q. 1539-40). As a result of these, considerably better results have already been achieved by B.O.A.C.; the time taken for a major overhaul for a Stratocruiser, for instance, has in the last few years been reduced from three weeks to eleven days (Q. 1584). Whereas in 1957 one in three of the Corporation's aircraft was, at any given moment, in the hangars for overhaul and maintenance, the figure now is one in four and in 1960 is likely to be one in five. The overhaul time for spare engines, which was seven to eight weeks in 1955, had been reduced to four weeks in 1957; now it is down to three weeks (Appendix 37). Maintenance, which cost B.O.A.C. 8.2 pence per c.t.m. in 1957-58, is estimated to cost 6.6 pence per c.t.m. in 1959-60 (Q. 2336).

167. This estimate makes no provision for any economies in manpower that might be made by then (Q. 2334); it makes, in other words, no allowance for any improvements that may result from the second stage of B.O.A.C.'s "fundamental revision" of their organisation. This involves the Corporation in discussions with the Trade Unions in an attempt to define afresh the 'job descriptions' covering the scope of work which a particular category of workman is allowed to undertake. These discussions have already started, but it is estimated that it may be mid-1960 before the whole reorganisation is completed (Q. 1522).

168. Your Committee believe that the House wishes them to keep clear of matters normally dealt with by collective bargaining between workers and management, such as wages and conditions of employment. In order, however, to explain the present stage of the reorganisation by B.O.A.C. of their maintenance arrangements, it is necessary to understand the practice and customs which have grown up in the nationalised airlines in matters concerning relationships between management and the Trade Unions. By statute the Corporations, like other nationalised industries, are required to make agreements with the Unions concerned on (a) the settlement by negotiation of terms and conditions of employment, and (b) the discussion of matters affecting safety, health, welfare and efficiency.

169. In other industries these matters are discussed in separate committees; but in the Air Corporations, consultation and negotiation have become merged together. This is because a complex system of councils and panels has been set up at national and local level, and matters which would normally be settled at local level have sometimes become the subject for consideration at national level (where usually negotiations only on terms and conditions of employment take place) (Appendix 39). The way this system has been operated has undoubtedly involved delays when changes in methods

and job descriptions are proposed, and this is why B.O.A.C. believe that it will take them another year to negotiate the changes they now believe to be necessary (Q. 1522).

170. It is not the duty of Your Committee to comment on these arrangements, on which they took no evidence from the Trade Union side. But they must point out that a state of affairs which was believed to be unhealthy in 1952, and which was proved to be unhealthy in 1956, may not be healed until the middle of 1960. It is clear that, however rigid the negotiating procedure may have become, it is the responsibility of the management of B.O.A.C. to achieve at a very early date a drastic improvement in the productivity of their aircraft maintenance department. Until this has been done, B.O.A.C. cannot expect to compete on even terms with the other airlines of the world.

B.E.A. aircraft maintenance

171. Since B.E.A. were set up in 1946, they have not experienced the accretion of staff that had gone on in B.O.A.C. since before the war (Q. 2118). They introduced a bonus incentive scheme into their workshops in November, 1948, which has been very effective in increasing efficiency (Q. 1351).

172. Yet the system of inspection raises the same problems for each Corporation (Q. 2107); indeed, the proportion of inspectors to hourly-rated staff is considerably more for B.E.A. than it is for B.O.A.C. (Q. 2116, 2118). This stems from their bonus incentive scheme, which reduces the actual number of direct workers, but requires the inspectors to be more quickly available. A large inspectorate has to be in waiting all the time, and this, combined with the reduction in direct labour, increases the proportion of inspectors on the shop floor (Q. 2118); at B.E.A.'s main base, there is an average of one inspector to every 3·2 hourly-rated staff (Q. 2100) (which compares with B.O.A.C.'s average of one to seven—Q. 2116).

173. A measure of the extent of over-inspection that occurs in both Corporations is given by the contrast between B.E.A.'s inspection system at their main base, with that at their other bases. At these outside bases, they do not employ inspectors, but rely entirely on clearance by licensed maintenance engineers (Q. 2104). As a result, the ratio of inspectors to hourly-rated staff (1 to 3·2 at their main base at London Airport) is, over all, one in ten (Q. 2100). When asked why then they did not extend this system to their main base as well, the B.E.A. witnesses indicated that they had not so far been able to achieve an agreement with the Trade Unions on this point (Q. 2078, 2105).

174. Evidence was given by B.E.A. that the degree of mechanisation in their workshops was much less than that of the American airlines (Q. 1315). B.O.A.C. on the other hand claimed that, with the exception of those at Treforest, their workshops were as highly mechanised as any of those of their competitors (Q. 1534). The extent to which labour-saving plant and machinery should be installed is obviously a matter of commercial judgment, and there is evidence to show that neither Corporation is prevented from exercising this judgment as they think fit (Q. 1316, 2092).

175. Against this background B.E.A.'s maintenance costs, expressed as a percentage of traffic revenue in 1956 or 1956–57, have been slightly above

average. The equivalent percentages of various airlines are shown in this Table (Appendix 32) :—

Swissair	S.A.S.	K.L.M.	Air France	P.A.A.	T.W.A.	B.O.A.C.	B.E.A.
18·5	14·5	14·0	28·0	17·0	16·6	23·7	18·7

Figures for the foreign airlines in the following year were not available, but B.E.A.'s costs dropped in 1957–58 to 16·5 per cent. (Q. 1043). Bearing in mind that other airlines take on other engineering work which helps to improve this figure for them, B.E.A. argued that their figure was already very close to the lowest level of expenditure practicable (Q. 1280).

176. Their engineering costs are, moreover, still proportionately falling. Expressed this time as a percentage of their total costs, B.E.A.'s engineering costs in the last few years are shown thus (Q. 2056) :

	Per cent.
1955–56	19
1956–57	18·25
1957–58	16·55

There has in these years been a general, unspectacular improvement in maintenance efficiency (Q. 2057–8). Costs may go up temporarily as new types of aircraft are introduced into service (Q. 1305), but the general trend is for them to be reduced ; for instance, by taking over from a private company the maintenance of their Dart engines, B.E.A. expect to cut their expenditure on engine overhaul by 16 per cent. in the next few years (Q. 1286–7).

177. To sum up : B.E.A.'s maintenance costs are now approximately equal to those of their competitors, and are all the time being steadily reduced. However, as they agree, they still have a good deal to learn (Q. 1306), and they are constantly comparing their own practices with the way other airlines operate (Q. 1300). Their inspectorate is at present much too large, and it is possible that they could benefit from more mechanisation, so there is room for further improvements. When these have been made, B.E.A. should be in a strong position.

SUBSIDIARY AND ASSOCIATED COMPANIES

178. Under section 3 (4) of the Air Corporations Act, 1949, the Air Corporations are empowered to acquire possession of (or an interest in) any other company which engages in activities similar to their own. B.O.A.C.'s Annual Report for 1957–58 mentions 17 companies in which they have invested (H.C. 239 of 1957–58, p. 7) ; B.E.A. list 12 such undertakings, ranging from their Staff Housing Association to a 9 per cent. holding in Italy's national airline (H.C. 240 of 1957–58, pp. 49–56).

179. The Ministry of Transport and Civil Aviation exercise an over-riding control in respect of these investments (Q. 213), though they do so in an informal way (Q. 1953-5); their approval would be sought before a subsidiary company was sold (Q. 1956). The Ministry witnesses said that there had been no disagreements in this field between them and the Corporations (Q. 1959); all decisions have been taken in the end on the commercial judgment of the airlines, except in the one case of Kuwait (Q. 1941).

180. The Minister has no specific statutory power to compel a Corporation to invest in a subsidiary against their will (Q. 1952); yet it seems, from a study of B.O.A.C.'s investment in Kuwait Airways, that he can when he wishes prove very persuasive on the point. In the special circumstances of the time and the place, B.O.A.C. were pressed to invest capital in Kuwait Airways. It seemed, from the Ministry's point of view, to involve a comparatively small expenditure, and, with luck, it might prove remunerative in the long run (Q. 1941, 1943). B.O.A.C. agreed reluctantly. Their losses have proved bigger than they expected, and now run at a rate of £150,000 a year (Q. 2394).

181. It is not in dispute that B.O.A.C. undertook this investment at the direct request of the Government (Q. 1805), nor that they asked for, but failed to get, a subsidy to offset the probable loss (Q. 1947-8). Since the responsibility is so clear-cut in this case, Your Committee believe it wrong that B.O.A.C. should have to carry this loss unaided. If a nationalised industry, which is statutorily required to pay its way, is to be used as an instrument of foreign policy, it should not be required to bear substantial losses as a result.

B.O.A.C.'s subsidiaries

182. A measure of the importance of these subsidiary companies can be seen from two figures taken from B.O.A.C.'s accounts in 1957-58. On the Corporation's own operations, there was a profit of £129,000. On their associated and subsidiary companies there was a loss of £591,000, and in consequence B.O.A.C. were left with a sizeable deficit.

183. As part of a drive to set their subsidiaries on a better footing, B.O.A.C. set up in September, 1957, a holding company to look after them. Such a step seemed to them "absolutely essential", in view of the number of the companies and of their world-wide activities (Q. 1794); it was likely to bring special attention to the peculiar needs of the companies, a better understanding of their problems, and more efficient results (Q. 1964). The new arrangement has, however, so far not shown good results. Troubles in the Middle East, political factors in the West Indies, operational difficulties in Kuwait and the Bahamas—all have contributed to the fact that B.O.A.C. Associated Companies Limited is likely to lose about two million pounds in its first full year of existence (Q. 2394).

184. One by-product of the formation of this new holding company has been that the detailed information about the subsidiaries, which used to be given in former Annual Reports and Accounts of B.O.A.C., disappeared

from the Report and Accounts for 1957-58 (Q. 1797-8). Your Committee think this information is essential to the House, and recommend that it be included in all future Annual Reports.

185. The history of B.O.A.C.'s investment in Kuwait Airways was mentioned above. Another subsidiary which Your Committee considered was British West Indian Airways, which has been wholly owned by B.O.A.C. for many years (Q. 2412). This company flies a number of inter-island routes, some of them as a kind of social service, for which they receive a subsidy from the island governments (Q. 1808-9). (That is not a matter in which the Minister of Transport and Civil Aviation (Q. 1971) can intervene; the fact that B.O.A.C. believe the subsidy to be insufficient (Q. 1809) is something they must argue about with the Governments concerned.) Possession of this company means that passengers can be fed into the B.O.A.C. services (Q. 1800, 2394). If B.O.A.C. gave up their operations there, one of their competitors would undoubtedly take over, and would then be able not only to gain the existing traffic, but also to do serious damage to B.O.A.C.'s operations in the West Atlantic (Q. 1804, 2394, 2404-5). Furthermore, when the West Indies achieve self-government, B.O.A.C. must try to retain their goodwill in the area (Q. 1804); it is probable too that it is government policy that B.O.A.C. should continue to operate in the area (Q. 1800, 1806, 2409).

186. These are all reasons in favour of B.O.A.C. maintaining their interest in B.W.I.A. The sole reason against is the fact that there have been heavy losses on their operations, amounting, this last year, probably to £700,000 (Q. 2394). This has been caused by the general recession in the airline industry, by the difficult nature of operations in the West Indies, by re-equipment (Q. 1975), and by the fact that B.O.A.C. have themselves taken over some B.W.I.A. services (Q. 1794). In consequence, an undertaking which was believed to have offered reasonable prospects has turned out very differently (Q. 1800); and B.O.A.C. would hesitate for a long while if, today, they had to decide afresh whether or not to buy B.W.I.A. (Q. 1801). To complete the picture, it should be added that B.O.A.C. have been taking energetic steps recently in an attempt to improve the results achieved by B.W.I.A., but have come up against difficulties; for the measures they propose touch on problems, such as local management and labour redundancy, which arouse great political controversy in the area (Q. 1800, 1975, 2395).

187. B.O.A.C. have also been losing money in Bahamas Airways; this year, the loss is expected to be about £100,000 (Q. 2400). The company has in the past contributed substantially to the economy of the Bahamas, but very little to that of B.O.A.C. (Q. 2394). Accordingly, the Corporation have recently sold 80 per cent. of their holdings in the airline to a British independent firm, on terms which preclude that firm from competing with B.O.A.C. in the area (Q. 1801); the 20 per cent. which B.O.A.C. retain should, they think, be enough to safeguard their interests (Q. 2394). An aspect of this sale is commented on below (paragraph 193).

188. The loss on Middle East Airlines has been substantial recently; it is likely to amount to about £900,000 this year. The political disturbances in the Lebanon practically brought the operations of this company to a halt

for several weeks, and in these circumstances a large deficit is unavoidable (Q. 2394). However, there are good commercial prospects for this airline, as well as the intangible advantage that it possesses traffic rights which might prove hard to obtain anew; so, with £6 million invested in the company, B.O.A.C. would think very hard before withdrawing from it. They hope that, provided there are no more political disturbances in the area, the airline should not lose money in the coming year. If, however, it should lose heavily again, B.O.A.C. say they will certainly have to reconsider whether it is worth their while to continue to participate in it (Q. 2395).

B.E.A.'s subsidiaries

189. B.E.A. lost £8,000 on the operations of their subsidiary companies in 1957-58 (Q.1008); only one of them, Malta Airways, consistently pays dividends (Q.1169). However, they believe that all these companies, with two possible exceptions, can be made profitable in the long run. The exceptions are Jersey Airlines and Cambrian Airways (Q. 1009), in each of which B.E.A. have a 30 per cent. holding (Q. 1010).

190. As a general rule, they try to avoid competing with their associated and subsidiary companies. It is significant that in one case where competition exists, the associated company lost money both for themselves and for B.E.A. (Q.1009). This was on the route from Gatwick to the Channel Islands. Jersey Airlines had always operated their service from Gatwick; now B.E.A. have moved their Channel Islands service to that airport, and the two are consequently flying over an identical route (Q. 1013). Jersey Airlines, which had made a small profit in 1957, made a sizeable loss in the following year (Q. 1008). B.E.A. are doubtful if Jersey Airlines can be made profitable, but they are considering what action they can take to help (Q.1009).

191. B.E.A. are also considering what they can do to make Cambrian Airways show a profit (Q. 1009). This has been reasonably successful in the past, and was useful in feeding traffic into B.E.A. services; but it had a bad year in 1958 (Q. 1014), and B.E.A. are now taking steps which will entirely change the basis of Cambrian Airways' operations, and should result in their making a profit (Q. 1015). By investing in this company, B.E.A. wished to satisfy Welsh aspirations, and to provide something for Wales in the same way as they provided for Scotland (Q. 1014). The loss, then, was on a kind of social service; but it is a service which B.E.A. provide willingly, without any question of governmental pressure being brought to bear on them (Q. 1017), and one on which they expect to make a profit (Q. 1015).

Conclusions

192. It is wrong to view the activities of subsidiary and associated companies purely in the light of whether they make a profit or loss (although that is a good light in which to start to view their operations), because, while the losses are definite and known, the gains are in part immeasurable. Thus the Chairman of B.E.A. spoke of the "tremendous lot of indirect benefits" that sprang from a holding in a foreign airline; the value of the traffic rights that emanate from such holdings, the value of the traffic which an unprofitable airline may be feeding into the Corporation's services, the effect of running a losing service in order to keep a competitor from operating in the area

and thereby feeding traffic into his services—these are only some of the advantages that come from a judicious investment in another airline. They show how unwise it is to try to view the current results of subsidiary and associated companies purely in terms of current profit and loss.

193. But there are three points which Your Committee think it right to emphasise. First, they noted that it had been possible for B.O.A.C. to sell a majority holding in their Bahamas subsidiary to an independent company, despite the losses of that subsidiary (Q. 2401) and the conditions attached to the sale (Q. 1801). They were told that the buyers expected, by reason of local interests associated with them, to receive greater help from the Bahamas Government than that given to B.O.A.C. (Q. 2401). The Chairman of B.O.A.C. told Your Committee that he had elsewhere encountered the belief that B.O.A.C. had a bottomless purse, and said that he would welcome the participation of local interests in other B.O.A.C. subsidiaries (Q. 2403).

194. The second point concerns the relationship of the type of operations carried on by the subsidiary company to that carried on by the parent. B.O.A.C. are specialists in long-distance travel, but their subsidiaries are in the main concerned with short-stage travel. This raises problems for B.O.A.C. which are of a kind more familiar to B.E.A.

195. The third and most important point also concerns the subsidiary and associated companies of B.O.A.C., which are together involving the Corporation in a substantial loss. It is Your Committee's opinion that recent experience demands that a complete review of B.O.A.C.'s general policy towards their subsidiaries, and of the individual operations of each of them, should urgently be made.

COMPETITION WITH THE INDEPENDENT AIRLINES

196. Decisions taken by the Minister of Transport and Civil Aviation affect the operations of the independent airlines in many of the same ways as they do those of the nationalised Corporations. The fares charged on domestic and cabotage routes, for instance, come under his jurisdiction (Q. 1196, 1209); their international fares are confirmed by him after being fixed by I.A.T.A. (Q. 749). They can fly only on routes which have been approved by the Minister (Q. 1209), who considers them only when the Air Transport Advisory Council, working under his general directive, have considered the independent's application and have recommended on it to him (Q. 1205-6). Their maintenance is subject to the rules of the Air Registration Board, working under his regulations. In fact, the major respect in which they have more freedom than B.E.A. and B.O.A.C. lies in the fact that they raise finance from private sources and can buy whatever aircraft they choose, subject to import and exchange controls, without having to seek the Minister's authorisation (Q. 1215-7).

197. It follows, then, that the activities of these independent companies are, to a considerable extent, regulated and circumscribed; and, if they compete directly with the nationalised Corporations, it is on ground and at terms that have largely been approved by the Minister.

198. It is not Your Committee's role to consider the whole British airline industry, but only the activities of the nationalised Corporations; for this

reason, they did not take evidence from the independent companies, and they are not now stating their case. When they came to consider the interaction of the two sides of the industry, public and private, they were not concerned with the reciprocal effects of the competition—only with the impact that the independents were making on the Corporations, and not *vice versa*.

199. It was noticeable that B.E.A. and B.O.A.C. did not question the policy which had given birth to these companies; B.O.A.C. spoke of their efforts to “work along” with it (Q. 1664), B.E.A. referred to some operations as being “the sort of thing . . . that independent operators ought to be allowed to do” (Q. 1188). Indeed, in some respects they have found co-operation with these airlines to their advantage; B.O.A.C., for instance, have a satisfactory arrangement with one of them about a freight service to Singapore (Q. 1664), and they are considering the extent to which independent companies might take over some of their subsidiaries’ operations (Q. 2403).

200. The experience of B.E.A. was that the competition with independents, though difficult to gauge, may have been considerable (Q. 1175). It is felt chiefly in the business offered by “inclusive tours”—an arrangement by which operators can offer a return passage, and hotel accommodation, etc., for a given length of holiday, at an inclusive fee (Q. 474). Since the operator can be sure of filling his aircraft by this arrangement, he can offer attractively low rates. B.E.A. have themselves been offering tours of this kind over the last ten years (Q. 1178), but a greater proportion of this work is now done by the independents (Q. 1175). As a result, say B.E.A., their share of the total traffic from the United Kingdom to the Continent fell from 44 per cent. in 1956–57 to 42 per cent. in 1957–58 (H.C. 240 of 1957–58, p. 18).

201. The effects of this competition, say B.E.A., are much more noticeable in a bad year than in a good one, when they might be “insignificant” (Q. 1179). But they are, on average, enough to spur the Corporation into entering this market rather more energetically themselves (Q. 1179), and the extension of their activities in this field has recently been approved by I.A.T.A. (Q. 2539). They look on this kind of traffic as cheap and not very profitable, but their proposed services are already heavily booked up, and they are confident that they will result in an improvement in their financial results (Q. 2540).

202. In most other respects, B.E.A. have not been unduly affected by the activities of the independent companies. They do not believe they have lost significantly as a result of the independents’ scheduled services, domestic or continental (Q. 1181). Competition on the Gibraltar run is “a comparatively small thing” (Q. 1207–8); B.E.A. do not believe that the new services which the independents propose to run there, and to Malta, will prove profitable (Q. 2508). They have no desire to enter the cross-channel car ferry business (Q. 1188–9). It is, then, solely on inclusive tours, and in the struggle for traffic on the Cyprus route (described above in paragraph 90), that B.E.A. feel they have been placed at a disadvantage as a result of the operations of the independent airlines; and in each case they now feel that they can compete adequately (Q. 1221, 2540).

203. B.O.A.C. say in their Annual Report that their results in 1957–58 were adversely affected by the permission given to the British independent

companies to operate their colonial coach services with Viscount aircraft. Although these services were designed to cater for a new class of traffic, they have, says the Report, "in fact caused increasing inroads into the traffic carried on the tourist services of the Corporation and its partners" (H.C. 239 of 1957-58, p. 6).

204. B.O.A.C. have consistently objected to the creation and the operations of the colonial coach services. The service to which they particularly drew Your Committee's attention was that to East Africa. They had protested to the Air Transport Advisory Council about the permission given to the independents to fly Viscounts at a time when B.O.A.C. were flying Argonauts there (*ibid* ; and Q. 1670), and they protested again when they were told that they could only have 70 per cent. of the traffic once their new economy class began to operate in the area (paragraph 103 above ; Q. 1670). When their protests were rejected by the Advisory Council, they then protested to the Minister (Q. 1671-2). Though their protests were unavailing, they continue to think that these arrangements restrict their ability to develop their African operations (Q. 1677).

205. The service to West Africa raised something of the same problem, though it was modified by the fact that the independents flew along the coast to Ghana, while B.O.A.C. flew direct, across the Sahara (Q. 1678, 1684 ; paragraph 103 above). However, there was here a substantial element of competition (Q. 1679, 1685), so that B.O.A.C. found themselves competing, not only against the international airlines, but also against a British company (Q. 1680). In this case, however, after the initial protest about all the African coach services (Q. 1683), they accepted the decision reached by the Minister and the Advisory Council (Q. 1682).

206. The reasons which led the Advisory Council to propose these arrangements for the African routes, and which led the Minister to approve them, were mentioned above (paragraph 105). The fact that B.O.A.C. may have been at a disadvantage because of the aircraft they were using was, the Ministry witnesses said, only a temporary drawback ; there was the expectation that B.O.A.C. would soon be introducing new aircraft on the routes, and then they would have Britannias operating against the independents' Viscounts (Q. 2197). But the fact remains that B.O.A.C. believe that their attempts to build up revenue are being hampered by the restriction of their share of traffic to a certain fixed percentage.

207. Thus the evidence is that both Corporations have to some extent been affected in the past by competition from the British independent companies. Theoretically, the Corporations and the independents might each be expected to carry the amount of traffic that had been generated by their own efforts. But, while more and more people everywhere are accepting air travel as a matter-of-fact occurrence, it is impossible to say who or what has persuaded them to that view ; it is equally impossible to judge whether Corporations and independents alike are reaping where they have sown, or not.

208. In the circumstances Your Committee are content to pass on the views of the Corporations, and to add their own belief that an arbitrary division of traffic between B.O.A.C. and the independent companies, based

on a definite percentage of traffic, will hinder the efforts of B.O.A.C. to improve the efficiency of this service and to expand their activities. They hope that the Minister of Transport and Civil Aviation will take this into account in any review of this aspect of his policy.

THE RELATIONSHIP BETWEEN THE CORPORATIONS AND THE MINISTRY OF TRANSPORT AND CIVIL AVIATION

209. If the Corporations feel that they have been placed at some disadvantage because of the action of a Government department, they call on the Ministry of Transport and Civil Aviation to argue their case for them (Q. 2019, 2030). This the Ministry are pleased to do (Q. 2030), and they feel that, by so doing, they are improving the Corporations' chances of getting what they want (Q. 2037). Your Committee heard of two instances where the Ministry had taken up with other departments grievances that had been expressed to them by B.E.A.

210. The first was in the matter of the rates paid to B.E.A. for the carriage of mail. For carrying mails abroad, rates are fixed by international agreements; internal rates on the other hand are fixed by bargaining between the carriers and the General Post Office. B.E.A. complain that the rates they receive from the G.P.O. are considerably lower than the international rates, and are highly unsatisfactory, if not uneconomic (Q. 1145-7). The Ministry of Transport and Civil Aviation however are not convinced that, over all, the domestic rates are very much lower; they are certainly lower than the foreign rate for first-class mails, but not necessarily lower than the average for first- and second-class mails (Q. 2025). However, they have taken up the case on B.E.A.'s behalf, and negotiations are still in progress on the point (Q. 2026); it is now several years since the argument began (Q. 2021).

211. Your Committee are not concerned here with the merits of B.E.A.'s case (and in any case have not heard the G.P.O.'s side to the story), but only with the machinery by which it is presented. In this case the machinery seems to have been working sluggishly. It is possible that this may have been because the Ministry themselves have not been wholly convinced of the strength of B.E.A.'s case (Q. 2025), but a more likely reason for the delay lies in the experience that, in arguments with the G.P.O., the G.P.O. do not usually come off second-best (Q. 1148).

212. The other instance concerned the tax the airlines pay on some of the fuel they use. Tax paid on fuel used on international flights can be recovered (Q. 1129), but this is not the case for flights between two points in this country (Q. 1127). As a result, B.E.A. have to pay about £300,000 a year in fuel tax, mainly on their domestic routes within the United Kingdom (Q. 1136). On a return journey from London to Manchester the petrol used by an Elizabethan aircraft would have to carry something like £25 in tax (Q. 1132); in other words, the revenue from five week-end seats would go entirely in covering petrol tax alone, if the Elizabethan were used on that service (Q. 1135).

213. But the Elizabethans are not being used on routes such as this, though B.E.A. would much have liked to use so suitable an aircraft (Q. 1135). B.E.A. decided that as there was no tax on kerosene, it would pay them to use Viscounts instead (Q. 1136-9). In other words, they have been forced into a major change of aircraft as a result of the petrol tax (Q. 1141). It was hardly surprising that in the circumstances they consulted the Ministry (Q. 1142) and received their support (Q. 2028). But, despite the constant reiteration of arguments favouring the lowering or abolition of the tax, successive Chancellors of the Exchequer over the last eight or nine years have refused to alter it (Q. 2027).

214. It is a matter of Government policy that B.E.A. should have to carry this weight of tax, and Your Committee appreciate that, however competently the Ministry presented their case to the Treasury, the Chancellor's decision was not going to be taken specifically to please B.E.A. Yet the decision has had unexpectedly heavy repercussions on the airline. Not only has it persuaded them to withdraw the Elizabethans, but also—since they have not been able to sell many of these aircraft in the second-hand market—it has had a deleterious effect on their balance sheet.

215. The extent of the Minister's statutory powers over the Corporations was set out in a memorandum put before Your Committee (pages 9-14); but, as the memorandum explained, in practice the relationship is closer than the statutes actually require. There is a constant exchange of information, and frequent discussions between the sides. The closest co-operation is inevitable, say the Ministry, not only because the activities of the airlines may have an impact on matters of national policy, but also because the Minister has to answer for the Corporations in Parliament. The result is a relationship of "complete frankness and goodwill" (Q. 76). The Ministry stress the paternal interest they take in the airlines' troubles (Q. 2030).

216. That the relationship is both warm and mutual was shown by the tributes paid by the Corporations to the department (Q. 1204, 1220; 563-4). The atmosphere of trust is exemplified by the fact that the Ministry, in discussing with the airlines such things as their fares or their maintenance, are content to rely to a large extent on information and advice obtained from the airlines themselves (Q. 2185). But the strongest evidence of the co-operation existing between the two sides is given by the extent to which the Corporations tacitly allow powers to the Minister which the statutes do not.

217. These unofficial powers comprise a formidable collection. Thus, although the Minister has no express statutory control over the Corporations' capital expenditure, they always seek his approval (and that of the Treasury) for orders of aircraft, and these amount to 80 per cent. of their total capital expenditure. They have agreed not to open new routes without the Minister's consent. They fly on various routes, domestic and international, because he asks them to, and they lose money in the process. They seek his approval for all fares and rates on non-international routes. They refrain, at his wish, from keeping aircraft specifically available for charter work (page 11). They come to him for permission before creating or investing in a subsidiary company (Q. 213), and, in effect, get his authority before they dispose of such an investment (Q. 1956).



218. In discussing some of these points individually in this Report, Your Committee have noted the powerful arguments adduced in favour of the Minister's use of these non-statutory powers. It is significant, as noted above, that the Corporations have accepted the assumption of these powers by the Minister, generally without protest. Relations between Ministry and Corporations are clearly good, and the last thing Your Committee want to do is to disturb such a relationship. But, faced with the total extent of the Minister's non-statutory powers, they are bound to ask if these do not add up to a degree of control far in excess of that envisaged by the statutes under which B.O.A.C. and B.E.A. were created, and so lead to an undesirable diminution in the authority of the Chairmen and Boards of the Corporations, and in their feeling of responsibility. Your Committee consider it essential to the efficient running on commercial lines of the Air Corporations that there should be a clear cut division of responsibility between the Chairmen on the one hand and the Minister on the other. When the Minister wishes, on grounds of national interest, to override the commercial judgment of a Chairman, he should do so by a directive, which should be published.

CO-OPERATION BETWEEN THE CORPORATIONS

219. The Chairmen of the two Corporations, with their Deputy Chairmen and Chief Executives, have regular monthly meetings at which they discuss all problems which are common to both airlines. But, in addition to these formal meetings, discussion between the Corporations at all levels is continuous (Appendix 40). As a result, the Ministry witnesses expressed themselves as satisfied with the amount of co-operation that exists (Q. 2230, 2232).

220. Though there is this degree of consultation between the two airlines, it is only to a limited extent that they actually work with each other, or on each other's behalf. The most satisfactory example of such co-operation is the way in which they unify, so far as possible, their sales organisations in foreign countries (Q. 2228, 2234-6); where their routes overlap, one Corporation generally acts as agent for both (Appendix 40), and the result has been a considerable saving of overseas staff (Q. 2265, 2527).

221. Another case in which there might be co-operation is in the provision of common coach services in the London area. For a while, in 1949, these were co-ordinated as an economy measure; the coaches were operated for both airlines by the London Transport Executive. But B.O.A.C. found that there was not the saving in expense that had been expected, and after nine months the scheme ended; B.E.A. continue to have their coaches operated by the L.T.E. and usually make a profit thereby (Q. 905), but B.O.A.C. have preferred to run their own (Appendix 40; Q. 2528-30). The case is complicated by the fact that passengers for the two airlines are picked up at different terminals in London, and fly from different sides of London Airport (Q. 2529).

222. Although B.E.A. do the catering at London Airport for most other European airways, a merger of their catering with that of B.O.A.C. has in the past been considered impracticable. Your Committee were told that the meals required by passengers on a short air journey are very different from those that B.O.A.C. have to provide; and since, as mentioned above,

their aircraft leave from different points at London Airport, a single kitchen for both airlines would not be convenient for both (Q. 2531 : Appendix 40).

223. Other common services which have in the past been considered include joint advertising, a joint medical service, and a joint organisation for disposing of surplus aircraft. Such ideas have however always been rejected, either because they were thought not to offer any real hope of economy, or because the interests of each Corporation were found to conflict with those of the other (Appendix 40). But the major hope of substantial co-ordination between the two Corporations seemed to lie in the field of engineering maintenance and instrument overhaul, and Your Committee considered whether any considerable scheme of this kind was practicable.

224. When the Civil Aviation Act was being passed, the possibility of a central overhaul organisation, common to the nationalised airlines, was considered. It was rejected because of the need for each airline to be able to discern the particular effect caused by the particular way in which it had been using the aircraft. In any case, overhaul was one of the most vital factors in airline operation, and the responsibility for the airline therefore necessarily included responsibility for overhaul (Appendix 40). Your Committee considered whether these arguments, adduced in 1946, still held good.

225. Apart from the fact that the Corporations have developed such different organisations in their workshops (Q. 2254), there are certain difficulties. Prime among these is the fact that each Corporation operates a totally different fleet of aircraft from the other (Q. 2237).

226. It was pointed out, though, that each Corporation would soon be flying Comets. Was it not practicable to combine the maintenance of all Comets in the one organisation? B.E.A. said they had considered this possibility at the time when they ordered their Comets, but had in the end decided against it. This was to be their first jet aircraft, and they wanted to get experience of maintaining it before they took delivery of their next aircraft, the D.H. 121, which is also jet-engined, and which B.O.A.C. have not ordered. They are going to possess only six Comets—which are, in any case, of a different type to those flown by B.O.A.C. (Q. 2133–4)—and these may only be kept for five years ; so they believe that their aircraft will not require the same full maintenance facilities as the much larger fleet of B.O.A.C. need (Q. 2125). In addition, there is the important point that each airline has to conform to very different schedules and cycles of work. As a short-haul operator with a small fleet of Comets, the time available for the maintenance of each aircraft is very different from that which B.O.A.C., having a larger fleet which is away from base for longer periods, must allow (Q. 2125–6). Your Committee agree that the difficulties of fitting aircraft from two airlines, operating to such different schedules, into the one maintenance programme are extreme ; and that, since the period is short during which it is expected that they will both be operating the same aircraft, there would be little to gain from merging their separate facilities for Comet maintenance, if such a limited merger was considered by itself. Your Committee regard it as important that there should be the fullest interchange of information and experience between the Chief Engineers and staffs of the Corporations. They note that B.E.A., when they get their Comets,

intend to learn all they possibly can from B.O.A.C.'s experience of operating these aircraft (Q. 2124).

227. Although B.E.A. and B.O.A.C. have different fleets, Your Committee thought there might at least be, in the different aircraft, components and instruments that were the same. They therefore enquired if the Corporations could not work together more closely in the repair and maintenance of such parts.

228. They were told that the airlines constantly consider whether they might not be able to contract out to each other repair work on components; but with the exception of the Dakota engines, which B.O.A.C. overhaul at their Treforest workshops for B.E.A., nothing has ever come of this. It is vital to the working of an airline that its Chief Engineer should be able to keep control of the time spent on the repair of these components, and to see that the proportion of aircraft which are immobilised through such repairs is kept as low as possible. If all the work is done in the airline's own workshops, the time taken is less, and there are fewer administrative formalities (Q. 2127-9). There are not many types of instrument which are used by both airlines; most of the radio instruments used by B.O.A.C., for instance, are American, while those used by B.E.A. are not (Q. 2523). Each airline has enough instrument repair work to keep a workshop fully employed, so that it is economical for each to use its own staff (Q. 2129). Neither Corporation held out hopes that a merger of workshops would result in any saving of staff (Q. 1653-4, 2520).

229. For all these reasons, and especially because they recognise how important it is that the Chief Engineers should be able to keep control over the time spent in repair of aircraft and components, Your Committee are not satisfied that there would be, in the present circumstances, any benefit from merging the maintenance organisations, in whole or in part, of the two Corporations.

230. In other matters, though, Your Committee believe it may be possible that some economies would result from closer co-operation between B.E.A. and B.O.A.C. They were not, for instance, convinced by the arguments for breaking up the common transport service to London Airport. They would like to think that this whole problem of co-operation was being considered anew. Although there are frequent informal discussions between the Corporations and the Minister on this general matter, it has not been formally discussed since 1954 (Appendix 40). Your Committee think it could usefully be discussed again.

231. The nature of many of the operations that go to make up the business of a major airline inevitably led Your Committee to the question whether a greater degree of co-operation and, in some cases, integration of the activities of the two Corporations would be so financially beneficial that the Corporations ought to be merged. Such a question raises large issues of policy which go outside the spirit of Your Committee's terms of reference. Nevertheless, they consider that the House would wish them to draw attention to the evidence which arose on this question; all of it, they stress, came from the Corporations and the Ministry of Transport and Civil Aviation, and it does not cover the arguments in favour of merger which might have been provided from other sources. The evidence may be summarised in the following way.

232. B.O.A.C. is a long-haul operator, B.E.A. a short-haul operator. The general outlook of management and the methods employed must be different in each case. B.E.A. is the only major airline in the world that successfully confines its activities to short-haul operations (Q. 2518), and its customers gain thereby (Q. 2519). The difference between the two types of operation is such that even if they were carried out by one Corporation there would have to be two separate divisions headed by two separate managements (Q. 1653, 2516), and any saving in costs would probably only be small (Q. 1649-50, 2516). In addition, it was argued that one Corporation combining the activities of B.O.A.C. and B.E.A. might be too large; though, in terms of c.t.m., such a combination would not be so large as Pan American Airways or Trans-World Airlines (Appendix B). Nevertheless, there is a limit to size in terms of efficiency (Q. 2220), and there is an advantage in a diversity and rivalry of thought and approach (Q. 1648, 2229).

233. The Ministry last examined the proposal for a merger about five years ago (Q. 2249). They have kept the matter under fairly constant review, and will doubtless continue to do so. They can of course, by their influence and, if necessary, by the Minister's power of direction, do much to prevent overlapping and to encourage co-operation. For the time being it seems to Your Committee best for each Corporation to concentrate on improving their results, and to miss no opportunity of greater co-operation which will help to this end.

FREIGHT

234. In 1957-58, 6.4 per cent. of B.E.A.'s revenue was earned by carrying freight (Q. 866). That this should be a comparatively small proportion is due to the short-haul nature of B.E.A.'s activities. If, for instance, something is to be sent from London to Paris, it can get there almost as quickly if sent by ordinary surface transport as it would if sent by air (Q. 1114); and once the element of time-saving is removed, there is little point in paying the higher rates for carriage by air.

235. Yet B.E.A. are anxious to make more revenue from the use of aircraft space for freight, and in recent years have been improving their sales, so that it is growing now at a rate of about 20 per cent. per year (Q. 1115-6). The Viscount 802 is specially designed so that the seats fold up, and it can be turned from a passenger aircraft into a freighter in about an hour and a half. It can thus be used for carrying passengers by day and cargo by night, when there is not the same demand for passenger travel (Q. 1117).

236. This arrangement is an extremely useful one. Passenger traffic is more lucrative than freight traffic, but B.E.A. would clearly rather carry freight than carry nothing; and it seems that part of the recent increase in freight traffic has been due to the drop in their passenger load factor (Q. 1116).

237. In the case of B.O.A.C., the proportion of revenue from freight is higher than in that of B.E.A., and this is to be expected in view of their long-distance operations. In 1957-58, 9.2 per cent. of their revenue came as a result of carrying freight (H.C. 239 of 1957-58, p. 24).

238. B.O.A.C. say that it is only in specially favourable conditions that an all-freight service can be expected to be profitable (Appendix 41). A recent review of the matter indicated that, even if air-freight rates were reduced by half, it was unlikely that there would be any resultant increase in total revenue. It would be necessary to cut rates down to the level of those of sea transport before there was any considerable change in the habits of trading companies. At present, and in general, it is only when a shipment is urgently needed, or is of high value, or both, that it is sent by air (Appendix 42).

239. Freight services can, however, be operated with profit in certain cases in support of an existing passenger service. The carrier can agree to accept all loads, secure in the knowledge that if the holds of his passenger aircraft are filled, a supporting freighter service will carry the remainder of the cargo. B.O.A.C. believe that such services can be justified only on the North Atlantic route and the London—Singapore route (Appendix 41), in which case they act in association with an independent company to provide such a service (Q. 1664).

240. The reason for the association on the North Atlantic route goes back to 1952 when it was Government policy to let the independent companies have the first opportunity of inaugurating new all-freight services (Appendix 41). On the Singapore route, B.O.A.C. had been losing a good deal of money, and found it uneconomic to retain a special unit of freighters for the service; so they were pleased to negotiate an agreement by which any freight which they could not carry on their passenger aircraft was carried in aircraft chartered from an independent company (Q. 1664–8).

241. Since the war, B.O.A.C. have aimed to build up their freight traffic. They have done this by offering rates for high grade and urgent shipments at a level reasonably economic to B.O.A.C., so as to permit specially low rates for certain selected commodities; some traders in these commodities have thus been persuaded to send them by air as a matter of common practice (Appendix 41). The present indications are that this policy has proved successful, and there has been a steady growth over the last few years in the total amount of freight that B.O.A.C. have carried.

242. This increase has, however, been largely confined to abnormal shipments where some element of emergency arises; even when allowance is made for savings on insurance, cheaper packaging and the goodwill that can come from quick delivery of goods, it is still very much cheaper to send general cargoes by sea. A recent examination by a private firm of consultants has confirmed that rates would have to be cut by as much as 80 or 90 per cent. before there was a considerable diversion of traffic from sea to air; the consultants nevertheless foresee a steady growth in air freight in the years ahead (Appendix 42).

243. The introduction of the Boeing 707 aircraft shortly will give B.O.A.C. 2½ to 3 times their present volume of freight capacity on the North Atlantic route, and flexible use of the Britannia at the same time could greatly add to this capacity. The question of how this increased volume can most profitably be filled is therefore becoming urgent, and B.O.A.C. are considering whether they might not support their passenger-and-freight operations with an all-freight service there (Appendix 42).

B.E.A. HELICOPTERS

244. Helicopters are expensive, not only to buy but also to operate (Q. 954). Yet the advantages they offer are many and obvious, and B.E.A. are considering the ways in which such aircraft can usefully be operated. One attractive possibility is a service from city-centre to city-centre; from the heart of London to the heart of Birmingham, for instance. It was suggested that, by the sort of helicopter now flying, a passenger could get from London to Paris in just over an hour, compared with the three hours that the fixed-wing service now requires (Q. 909). Passengers might be willing to pay extra for a luxury service of this kind, but it seems that they would have to pay a good deal extra; B.E.A. are thinking that the costs of that particular helicopter operation may be double those of the present service (Q. 911).

245. Other possible operations for which helicopters would be particularly useful are the flights to the islands around the coast of Britain, and also flights which feed passengers into the main air trunk routes. An example of the first kind could be the ambulance flights to the Scottish Highlands and Islands, and, of the second type, a service between Gatwick and London Airports. The potentiality of all these services is being assessed by B.E.A. (Q. 907).

246. Their consideration of these matters, though, is clouded by one particular doubt. One of the advantages of helicopter flying is that it removes the need for the upkeep of aerodromes on that route. If B.E.A. operated the helicopter service from Land's End to the Scilly Isles which they are contemplating, the two aerodromes could be abandoned, and there would be a saving which B.E.A. estimate at over £30,000 a year (Q. 959, 2478).

247. But this saving, under the present conditions, would not benefit B.E.A. at all; it would all go to the Ministry, who are responsible for the upkeep of the aerodromes. B.E.A. therefore argue that, if they operated their Scilly Isles service in this way, it would benefit the Ministry to the extent of £30,000 a year; if this sum were to be passed on to B.E.A., the Ministry would be no worse off, and B.E.A. would be well on the way to running a helicopter service which was profitable (Q. 958-9). The Ministry doubt if the saving would be as large as B.E.A. expect; they are not convinced that there would in fact be any saving at all. If there were, however, there is still a possibility that such sums would be passed on to B.E.A.; no final decisions have yet been taken at the Ministry, the matter is still being considered (Q. 2049).

248. Your Committee hope the Ministry will look sympathetically on this idea. The payment to B.E.A. of any savings that may arise on aerodrome costs can hardly be looked on as a subsidy, since they stem from action taken by the Corporation. Helicopters are bound to be expensive in their early stages, but any easements of this kind which encourage their use are likely, in the end, to benefit the travelling public.

249. Another point which the Ministry might consider is the size of the landing fees which helicopters pay within the United Kingdom. At present, these are fixed for commercial flights at half the amounts paid by fixed-wing aircraft (Appendix 43). Bearing in mind that the latter need long runways which helicopters do not need, this seems to be very high.

250. All these considerations, though, are to some extent academic because, as the Ministry witness pointed out, anything larger than experimental or special helicopter operations must await the coming into service of a suitable aircraft. He knew of no helicopter service which was not making a heavy loss; it was likely to be at least three years before B.E.A. could operate a service profitably (Q. 2051-4). Accordingly Your Committee were interested to ask about the progress being made in developing the Rotodyne, which is the helicopter of which B.E.A. have the highest hopes, provided that it can be silenced satisfactorily (Q. 907).

251. Provided there are enough passengers to justify a service, the bigger the helicopter the more economic it is to fly (Q. 953). For this reason, B.E.A. prefer the later, larger design of Rotodyne to the one on which their original calculations had been based. This means that a whole set of new performance figures must be worked out before B.E.A. can decide on the full commercial potentialities of the aircraft; but they have nevertheless given a letter of intent to the manufacturers, saying they expect to buy six aircraft of the larger version (Q. 2474). The contract for an aircraft of such a revolutionary design is sure to be much more difficult to draw up than for a conventional aircraft, and it may be some while before it can be finally signed (Q. 2482).

252. The Government is offering financial help for this project, but in a way which B.E.A. believe to be unfair to them; for the Ministry of Supply's offer of £4 million for the development of the Rotodyne is wholly dependent on B.E.A. contracting to buy the aircraft (Q. 2474). B.E.A. feel that this is forcing them to commit themselves to an order before they have been able to work out fully its advantages and disadvantages. They stress that the Rotodyne is of a quite different character from other aircraft; it is, they say, not just an aeroplane, but an entirely revolutionary type of transport (Q. 2476), and they should not therefore be rushed into a decision about it (Q. 2486).

253. The outcome of the Ministry of Supply's action would probably not in this case be serious, should B.E.A. place a firm order for the aircraft (Q. 2481); but Your Committee agree with B.E.A. that it placed them in a difficult position (Q. 2483).

CIVIL AIR TRANSPORT IN THE FUTURE

254. Both Corporations told Your Committee of the plans they were making for the future, and of the aircraft they had on order. B.E.A. spoke of their hopes of the Vanguard, which should prove very economical on their shorter routes, and of the Comets, followed by the D.H. 121, which should compete satisfactorily on their longer routes with the jet aircraft of their competitors (Q. 438). B.O.A.C. will receive in 1959-60 their Boeing 707s, with Conway engines, and can thus face with confidence the competition on the Atlantic route; they will then await production of the rear-engined V.C.10, with its promise of an exceptional degree of passenger comfort (Q. 239; H.C. 239 of 1957-58, p. 9).

255. B.E.A. and B.O.A.C. must, however, plan further ahead, and it is then that they experience disquiet. There seems to be growing up within

the airline industry a feverish and unrealistic competition, which it is feared will lead them to take decisions which are not always justifiable on economic grounds. This can be shown from the experience of airlines in the recent past with regard to jet aircraft. As soon as some airlines brought these into their services, there was a rush by the others to do the same; "I think", said the Chairman of B.E.A., "that the whole of the airline industry has gone a little crazy about jets" (Q. 438). The craze is infectious, whatever doubts remain: he added, "We cannot afford to be out of the race, but I am not sure that we have not all got into the race in too big a way too quickly".

256. Advances in aircraft design, associated with defence research programmes, have led to a competitive struggle among the airlines for faster and faster aircraft; and this prompted the Chairman of B.O.A.C. to remark that, from the operators' point of view, "it is a nightmare, there is no stability" (Q. 288). Facing them are the vast problems, both technical and economic (Q. 782), of introducing jet airliners flying at speeds faster than that of sound; and, on past form, there is the danger of a panic rush by the airlines of the world to buy these supersonic aircraft before they have fully counted the probable cost.

257. A recent report from a committee set up by the Ministry of Supply has recommended that detailed design work should be started on two types of British supersonic airlines—one carrying 150 passengers at 1,300 m.p.h., the other carrying 100 passengers at 800 m.p.h. So the point at which the British airlines with British aircraft are able to enter the race may not be so remote.

258. Hitherto, in the search for ever-faster aircraft, airlines have been fortified by the basic fact that the faster the aircraft, the better its economics (Q. 292, 455, 528); provided the rate of obsolescence was not too steep, the total operating costs (as opposed to the initial capital costs) have not tended to rise with each new type of aircraft (Q. 439). But this may no longer be the case if new types are introduced too fast. As to supersonic aircraft, it is still not clear whether an economic design will be produced for a long time (Q. 782); the indications are that such aircraft may prove very expensive to operate (Q. 304, 438).

259. A second factor which has influenced airlines in the past to buy faster aircraft, has been the preferences of passengers themselves (Q. 784). This however is bound to be affected by the factor previously mentioned; the customer may be very anxious to fly the Atlantic in four hours instead of six, but his preference would be modified if he had to pay half as much again for it (Q. 305).

260. If the airlines of the world try to embark on a race to equip themselves with supersonic aircraft too early, they will almost certainly run into financial difficulties. Such a race, however attractive it may seem at first sight to take advantage of scientific and technical advances, may only end in the airlines of the world suffering severe financial losses which they will be unable to make good without help from their Governments (Q. 781-2).

APPENDIX A

COMPARISON OF AIRLINE PERFORMANCE (1956 OR 1956-57).

Memorandum by the Ministry of Transport and Civil Aviation.

In response to the Committee's request, a table is attached comparing the most important statistics of performance of B.O.A.C., B.E.A. and 7 foreign airlines during the financial year 1956-57 or the calendar year 1956.

The following notes indicate the reservations to be borne in mind in considering the factors of efficiency at items 10 to 14 of the table.

1. *Cost per Capacity ton mile*

While this is the best general medium for comparing operating costs, it needs some qualifications. Not only does it reflect the efficiency of the airline but also that of the aircraft, the nature of the routes operated, differences in wage levels and—quite important—differences in the quality of the product. The ton miles produced may contain varying proportions of capacity available for first class passengers, tourist passengers and freight, the costs of which are normally in descending order of magnitude.

2. *Utilisation of aircraft*

B.E.A. utilisation is low because of disadvantages inherent in short haul operations, such as avoidance of night arrivals and departures, longer total time on the ground between flights, and the seasonal nature of the business. B.O.A.C. utilisation may decline during the period while new types of aircraft are being introduced but should thereafter rise to more than 8 hours per day.

3. *Staff productivity*

Productivity per employee is not of itself a reliable standard of comparison between airlines, though it has more merit historically for an individual airline. It can, however, be a useful indicator provided the following factors are taken into account:—

- (1) Some airlines contract out a considerable part of the work, including engineering ;
- (2) Conversely, some airlines carry out a substantial amount of work for other operators (such as passenger handling, servicing, etc.) or for third parties ;
- (3) The introduction of mechanical aids is more rewarding in countries such as the United States where labour is expensive ;
- (4) A higher return per employee is obtained on long distance routes and routes of high traffic density ;
- (5) Some airlines experience delays in getting aircraft into service, and so suffer in output per employee through having staff held ready for the aircraft but not used, and through continuing to use older types of aircraft meanwhile ;
- (6) In the case of airlines whose traffic is highly seasonal it may be impracticable to reduce the number of staff during the winter to correspond fully with the reduced level of services.

4. *Ratio between capital employed and traffic revenue*

For this purpose the capital employed is related to current operations and excludes progress payments and investments in associated undertakings. The ratio can be affected by a number of factors, e.g.,—

- (1) the average age of the fleet at the time the ratio is calculated. This may depend on whether the routes operated are competitive and therefore demand more frequent re-equipment of the fleet.

(2) the revenue earning capacity of the aircraft in the fleet.

(3) whether the airline buys or leases equipment and buildings.

In general, a ratio of between 1:1 and 1:1·4 according to these circumstances, has been regarded as reasonable within the industry, with individual airlines varying from year to year largely because of the obsolescence element. Some new types of aircraft may be very expensive but if through their cheapness of operation they earn more profits the employment of the extra capital may be justified.

AIRLINE OPERATING STATISTICS, 1956

	Unit	B.E.A.	B.O.A.C.	Swissair	S.A.S.*	K.L.M.	Air France	P.A.A.	T.W.A.*	Sabena
1. Total capacity ton-miles ...	million	139	275	75	197	279	327*	724	738	101
2. Total revenue ...	£ million	24	49	13	28	38	66 ⁽¹⁾	103	86	16
3. Revenue ton-miles:										
Total ...	million	90	175	51	103	160	224*	460	448	75
Passenger ...	million	77	122	40	82	110	170*	332	382	52
Mail ...	million	4	20	3	15	7	15*	36	24	4
Freight ...	million	9	33	8	6	43	39*	92	42	19
4. Overall load factor ...	per cent.	64.5	63.7	66.5	52.3	60.5	68.7*	63.5	60.6	74.2
5. Available seat miles ...	million	1,151	1,817	528*	1,422	1,755	2,448*	5,128	6,153	779*
6. Passenger miles flown ...	million	809	1,200	375*	813	1,079	1,679*	3,386	3,935	463
7. Passenger load factor ...	per cent.	70.3	66.0	64.4*	57.2	61.5	68.6*	66.0	64.0	59.4*
8. Passengers carried ...	number	2,461,065	409,684	766,663*	1,212,526	822,000	2,199,138*	2,592,000	4,406,751	526,594
9. Number of employees ...	number	10,000	19,000	4,000	10,000	16,000	18,000	21,000	20,000	9,000
10. Operating cost per c.t.m. (see Note 1).	pence	39.7	39.9	38.2*	33.6	31.3*	44.8*	31.5	28.2 ⁽²⁾	37.8
11. Utilisation of aircraft (see Note 2).	hours per day	5.18	7.62	6.77*	7.88	7.50*	6.77	8.59*	7.70	..
12. C.t.m.'s per employee (see Note 3).	number	13,200	14,800	24,200*	21,200	16,900*	19,500	34,200*	39,300	11,500
13. Ratio between capital employed and traffic revenue (see Note 4).	Capital = 1.0, Revenue =	1.3	0.9	..	1.5	1.4	1.3	1.7	1.4	1.0
14. Profit or loss (excluding income tax, subsidy, interest and dividends and proceeds of retirement of operating property and equipment).	£ million	+0.91	+1.80	-0.24*	+0.78	+2.21*	-2.06*	+5.82*	-1.26	+0.47
15. Item 14 as percentage of item 2.		+ 3.8	+ 3.7	- 1.9	+ 2.8	+ 5.8	- 3.1	+ 5.7	- 1.5	+ 2.8

NOTES:

Statistics extracted from Airline Reports for 1956 (B.O.A.C. and B.E.A. for year ending March, 1957). Where marked *, the statistics are derived from I.C.A.O. Statistical Bulletins because the material was not available from Reports. In the case of S.A.S. and T.W.A. the material has been wholly extracted from I.C.A.O. sources. Aircraft utilisations in overseas airlines in 1956 are based on a weighted average of published utilisations by type of aircraft.

⁽¹⁾ 64,552 million francs converted at 980 francs = £1.

⁽²⁾ Total operations: costs per c.t.m. on international operations were 42.2 pence.

.. = Not available.

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REPORT FROM THE SELECT COMMITTEE ON

APPENDIX B**COMPARISON OF AIRLINE PERFORMANCE (1957 OR 1957-58).***Memorandum by the Ministry of Transport and Civil Aviation.*

In response to the Committee's request, a table is attached comparing the most important statistics of performance of B.O.A.C., B.E.A. and 7 foreign airlines during the financial year 1957-58 or the calendar year 1957.

2. The same reservations should be borne in mind in considering the factors of efficiency at items 10 to 15 of the table, as were noted in the Paper relating to 1956 results (*Appendix A*).

3. As in the 1956 table the figures used are those published in the Airlines' own Annual Reports. Where information has not been obtainable from Reports, recourse has been had to the Statistical Digests published by the International Civil Aviation Organisation. As not all of these Digests are available in respect of 1957 some gaps remain in this table.

AIRLINE OPERATING STATISTICS, 1957

	Unit	B.E.A.	B.O.A.C.	Swissair	S.A.S.	K.L.M.	Air France	P.A.A.	T.W.A.	Sabena
1. Total capacity ton-miles ...	million	160	329	116	254*	316	363*	826	861	131
2. Total revenue ...	£ million	28	54	17	33	46	63 ⁽¹⁾	112	94	22
3. Revenue load ton-miles:										
Total ...	million	102	190	71	127*	181	246*	524	492	94
Passengers ...	million	88	134	57	103*	127	188*	396	427	69
Mail ...	million	4	20	4	7*	7	15*	31	24	4
Freight ...	million	10	35	11	17*	47	42*	97	42	21
4. Overall load factor ...	per cent.	63·7	60·5	61·6	49·9*	59·6	67·7*	63·4	57·2	72·1
5. Available seat miles ...	million	1,365	2,095	880*	1,835*	2,084	2,718*	5,784	6,985	1,076*
6. Revenue passenger miles ...	million	936	1,418	543*	1,023*	1,240	1,862*	3,876	4,396	645
7. Passenger load factor ...	per cent.	68·5	63·3	61·7*	55·7*	59·5	68·5*	67·0	62·9	60·0*
8. Passengers carried ...	number	2,766,000	480,000	993,000	1,450,000*	913,000	2,386,000*	2,883,000	4,818,000	686,000
9. Number of employees ...	number	11,000	19,300*	4,700	10,700	17,100	19,400*	21,900	19,900*	10,200
10. Operating cost per c.t.m. (see Note 1).	pence	39·6	39·1	34·5	33·2*	34·0	39·5*	30·9	26·7	38·4
11. Utilisation of aircraft (see Note 2).	hours per day	4·74	6·71*	..	..	..	..	..	..	..
12. C.t.m.'s per employee (see Note 3).	number	14,600	16,400	24,600	23,100	18,400	19,000*	37,700	44,100*	12,800
13. Ratio between capital employed and traffic revenue (see Note 4).	Capital = 1·0, Revenue =	1·1	0·8	1·7	1·6	1·1	..	2·0	1·4	1·0
14. Profit or loss (excluding income tax, subsidy, interest and dividends, and proceeds of retirement of operating property and equipment).	£ million	+ 2·1	- 0·5	+ 0·43*	- 0·035*	+ 1·67*	- 2·64*	+ 5·79*	- 1·53*	- 0·53*
15. Item 14 as percentage of item 2.		+ 7·5	- 0·9	+ 2·5	- 0·11	+ 3·6	- 4·2	+ 5·2	- 1·6	- 2·4

NOTES:

Statistics extracted from Airline Reports for 1957 (B.O.A.C. and B.E.A. for year ended 31st March, 1958. S.A.S. for year ended 30th September, 1957). Where marked *, the statistics are derived from I.C.A.O. Statistical Digests, because the material was not available in the Airline Reports.

⁽¹⁾ 74,313 million francs converted at Fr. 1,176 = £1. 1956 revenue was 64,552 million francs converted at Fr. 980 = £1.

.. = Not available.

PROCEEDINGS OF THE COMMITTEE.

THURSDAY, 6TH NOVEMBER, 1958.

Members present:

Mr. Albu.
Sir John Barlow.
Mr. Ernest Davies.
Mr. Fort.
Mr. David Jones.
Sir Keith Joseph.

Colonel Lancaster.
Sir Toby Low.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

Sir Toby Low was called to the Chair.

The Committee deliberated.

[Adjourned till Thursday next at Four o'clock.]

THURSDAY, 13TH NOVEMBER, 1958.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Bonham Carter.
Mr. Ernest Davies.

Mr. Fort.
Sir Keith Joseph.
Colonel Lancaster.
Sir Alexander Spearman.
Dame Irene Ward.

Marshal of the Royal Air Force Lord Douglas of Kirtleside, G.C.B., M.C., D.F.C., attending by permission of the House of Lords, Chairman, Mr. A. H. Milward, O.B.E., Chief Executive, and Mr. P. C. F. Lawton, D.F.C., Commercial and Sales Director, British European Airways Corporation, examined.

[Adjourned till Thursday next at Four o'clock.]

THURSDAY, 20TH NOVEMBER, 1958.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.
Mr. David Jones.

Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

Marshal of the Royal Air Force Lord Douglas of Kirtleside, attending by permission of the House of Lords, and Mr. Milward further examined, and Mr. R. L. Weir, O.B.E., Financial Controller, British European Airways Corporation, examined.

[Adjourned till Wednesday next at Four o'clock.]

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WEDNESDAY, 26TH NOVEMBER, 1958.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Fort.
Sir Keith Joseph.

Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

Marshal of the Royal Air Force Lord Douglas of Kirtleside, attending by permission of the House of Lords, and Mr. Milward further examined, and Mr. B. S. Shenstone, Chief Engineer, British European Airways Corporation, examined.

[Adjourned till Thursday, 4th December, at Four o'clock.

THURSDAY, 4TH DECEMBER, 1958.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Fort.

Sir Keith Joseph.
Sir Alexander Spearman.
Dame Irene Ward.

Sir Gerard d'Erlanger, K.B.E., Chairman, and Mr. B. Smallpeice, Managing Director, British Overseas Airways Corporation, examined.

[Adjourned till Wednesday next at Four o'clock.

WEDNESDAY, 10TH DECEMBER, 1958.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Mr. Blyton.
Mr. Bonham Carter.
Mr. Ernest Davies.
Mr. Fort.

Sir Keith Joseph.
Colonel Lancaster.
Sir Alexander Spearman.
Dame Irene Ward.

Sir Gerard d'Erlanger and Mr. Smallpeice further examined, and Sir George Cribbitt, K.B.E., C.M.G., Deputy Chairman, British Overseas Airways Corporation, examined.

[Adjourned till Wednesday next at Four o'clock.

WEDNESDAY, 17TH DECEMBER, 1958.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.

Mr. David Jones.
Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Dame Irene Ward.

Sir Gerard d'Erlanger and Mr. Smallpeice further examined.

[Adjourned till Thursday, 22nd January, 1959, at a quarter past Four o'clock.

THURSDAY, 22ND JANUARY, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.

Mr. David Jones.
Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.

Mr. R. E. Hardingham, C.M.G., O.B.E., Chief Executive and Secretary of the Air Registration Board, examined.

[Adjourned till Thursday next, at a quarter past Four o'clock.]

THURSDAY, 29TH JANUARY, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Mr. Bonham Carter.
Mr. Ernest Davies.
Mr. David Jones.
Sir Keith Joseph.

Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

Mr. M. M. V. Custance, C.B., a Deputy Secretary, and Mr. C. W. Evans, C.B., C.B.E., Under-Secretary, the Ministry of Transport and Civil Aviation, examined.

[Adjourned till Thursday next at Four o'clock.]

THURSDAY, 5TH FEBRUARY, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.

Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

Mr. Milward, Mr. Shenstone and Mr. Smallpeice further examined, and Mr. C. Abell, Chief Engineer, British Overseas Airways Corporation, examined.

[Adjourned till Thursday next at Four o'clock.]

THURSDAY, 12TH FEBRUARY, 1959.

Members present:

Sir Toby Low, in the Chair.

Sir John Barlow.
Mr. Ernest Davies.
Mr. Fort.
Mr. David Jones.

Sir Keith Joseph.
Colonel Lancaster.
Sir Alexander Spearman.
Dame Irene Ward.

Mr. Custance and Mr. Evans further examined.

[Adjourned till Thursday next at Four o'clock.]

THURSDAY, 19TH FEBRUARY, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.

Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

The Committee deliberated.

[Adjourned till Wednesday, 11th March, at Four o'clock.

WEDNESDAY, 11TH MARCH, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.
Mr. David Jones.

Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

Sir Gerard d'Erlanger, Sir George Cribbett, and Mr. Smallpeice, further examined.

[Adjourned till Thursday, 19th March, at Four o'clock.

THURSDAY, 19TH MARCH, 1959.

Members present:

Sir Toby Low, in the Chair.

Sir John Barlow.
Mr. Ernest Davies.
Mr. Fort.
Mr. David Jones.

Sir Keith Joseph.
Colonel Lancaster.
Sir Alexander Spearman.

Marshal of the Royal Air Force Lord Douglas of Kirtleside, attending by permission of the House of Lords, and Mr. Milward, further examined.

[Adjourned till Thursday, 9th April, at Four o'clock.

THURSDAY, 9TH APRIL, 1959.

Members present:

Sir Toby Low, in the Chair.

Sir John Barlow.
Mr. Blyton.
Mr. Ernest Davies.
Mr. David Jones.

Sir Keith Joseph.
Colonel Lancaster.
Sir Alexander Spearman.
Dame Irene Ward.

The Committee deliberated.

[Adjourned till Wednesday next at Four o'clock.



WEDNESDAY, 15TH APRIL, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Bonham Carter.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.

Mr. David Jones.
Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

The Committee deliberated.

[Adjourned till Wednesday next at Four o'clock.

WEDNESDAY, 22ND APRIL, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.

Mr. David Jones.
Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

The Committee deliberated.

[Adjourned till Thursday, 30th April, at Four o'clock.

THURSDAY, 30TH APRIL, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Blyton.
Mr. Bonham Carter.
Mr. Fort.
Mr. David Jones.

Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

The Committee deliberated.

[Adjourned till Monday next at half-past Four o'clock.

MONDAY, 4TH MAY, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Bonham Carter.
Mr. Ernest Davies.

Sir Keith Joseph.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

The Committee deliberated.

[Adjourned till To-morrow at Four o'clock.

REPORT FROM THE SELECT COMMITTEE ON

TUESDAY, 5TH MAY, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Bonham Carter.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.

Mr. David Jones.
Sir Keith Joseph.
Colonel Lancaster.
Sir Alexander Spearman.
Dame Irene Ward.

The Committee deliberated.

[Adjourned till Thursday at Four o'clock.

THURSDAY, 7TH MAY, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Ernest Davies.
Mr. Fort.

Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.

The Committee deliberated.

[Adjourned till Tuesday next at Four o'clock.

TUESDAY, 12TH MAY, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Bonham Carter.
Mr. Blyton.
Mr. Ernest Davies.

Mr. David Jones.
Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.

The Committee deliberated.

Draft Report, proposed by the Chairman, brought up and read the first time.

Ordered, That the proposed Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 24 read and postponed.

Paragraphs 25 to 27 read and agreed to.

Paragraphs 28 and 29 read, amended, and agreed to.

Paragraphs 30 to 41 read and agreed to.

Paragraph 42 read, amended, and agreed to.

Paragraphs 43 and 44 read and agreed to.

Paragraphs 45 to 48 read, amended, and agreed to.

Paragraphs 49 and 50 read and agreed to.

Paragraphs 51 and 52 read, amended, and agreed to.

Paragraphs 53 to 55 read and agreed to.

Paragraphs 56 to 58 read, amended, and agreed to.

Paragraph 59 read and agreed to.

Paragraphs 60 and 61 read, amended, and agreed to.
Paragraph 62 read and agreed to.
Paragraph 63 read and postponed.
Paragraphs 64 and 65 read and agreed to.
Paragraphs 66 to 68 read, amended, and agreed to.
Paragraphs 69 to 72 read and agreed to.
Paragraph 73 read, amended, and agreed to.
Paragraphs 74 and 75 read and agreed to.
Paragraph 76 read, amended, and agreed to.
Paragraphs 77 and 78 read and agreed to.
Paragraph 79 read, amended, and agreed to.
Paragraph 80 read and agreed to.
Paragraph 81 read, amended, and agreed to.
Paragraph 82 read and agreed to.
Paragraph 83 read, amended, and agreed to.
Paragraphs 84 to 89 read and agreed to.
Paragraph 90 read, amended, and agreed to.
Paragraphs 91 to 95 read and agreed to.
Paragraphs 96 and 97 read, amended, and agreed to.
Paragraphs 98 to 100 read and agreed to.
Paragraph 101 read, amended, and agreed to.
Paragraphs 102 and 103 read and agreed to.
Paragraph 104 read, amended, and agreed to.
Paragraph 105 read and agreed to.
Paragraph 106 read, amended, and agreed to.
Paragraph 107 read and agreed to.
Paragraph 108 read, amended, and agreed to.
Paragraphs 109 and 110 read and agreed to.
Paragraph 111 read, amended, and agreed to.
Paragraph 112 read and agreed to.
Paragraph 113 read, amended, and agreed to.
Paragraphs 114 to 118 read and agreed to.
Paragraph 119 read, amended, and agreed to.
Paragraph 120 read and agreed to.
Paragraphs 121 to 124 read, amended, and agreed to.
Paragraphs 125 to 138 read and agreed to.
Paragraph 139 read, amended, and agreed to.
Paragraphs 140 to 144 read and agreed to.
Paragraph 145 read, amended, and agreed to.
Paragraphs 146 and 147 read and agreed to.
Paragraph 148 read, amended, and agreed to.
Paragraphs 149 to 159 read and agreed to.
Further consideration of Report adjourned till To-morrow.

[Adjourned till To-morrow at Four o'clock.]

WEDNESDAY, 3TH MAY, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Bonham Carter.
Mr. Blyton.
Mr. Ernest Davies.

Mr. Fort.
Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.

Draft Report, proposed by the Chairman, further considered.

Paragraphs 160 and 161 read and agreed to.

Paragraphs 162 to 164 read, amended, and agreed to.

Paragraphs 165 and 166 read and agreed to.

Paragraph 167 read, amended, and agreed to.

Paragraph 168 read and agreed to.

Paragraph 169 read, amended, and agreed to.

Paragraphs 170 and 171 read and agreed to.

Paragraphs 172 and 173 read, amended, and agreed to.

Paragraphs 174 to 176 read and agreed to.

Paragraph 177 read, amended, and agreed to.

Paragraph 178 read and agreed to.

Paragraph 179 read, amended, and agreed to.

Paragraphs 180 to 182 read and agreed to.

Paragraph 183 read, amended, and agreed to.

Paragraph 184 read and agreed to.

Paragraph 185 read, amended, and agreed to.

Paragraphs 186 to 190 read and agreed to.

Paragraphs 191 and 192 read, amended, and agreed to.

Paragraphs 193 to 195 read and agreed to.

Paragraph 196 read, amended, and agreed to.

Paragraphs 197 to 200 read and agreed to.

Paragraph 201 read, amended, and agreed to.

Paragraphs 202 to 207 read and agreed to.

Paragraph 208 read, amended, and agreed to.

Paragraphs 209 and 210 read and agreed to.

Paragraph 211 read, amended, and agreed to.

Paragraph 212 read and agreed to.

Paragraph 213 read, amended, and agreed to.

Paragraphs 214 and 215 read and agreed to.

Paragraphs 216 to 218 read, amended, and agreed to.

Paragraphs 219 to 225 read and agreed to.

Paragraph 226 read, amended, and agreed to.

Paragraphs 227 to 237 read and agreed to.

Paragraphs 238 and 239 read, amended, and agreed to.

Paragraphs 240 to 247 read and agreed to.

Paragraphs 248 read, amended, and agreed to.

Paragraph 249 read and agreed to.

Paragraph 250 read, amended, and agreed to.

Paragraphs 251 to 254 read and agreed to.

Paragraphs 255 and 256 read, amended, and agreed to.

Paragraph 257 read and agreed to.

Paragraphs 258 to 260 read, amended, and agreed to.

Postponed paragraph 63 again read and agreed to.
Postponed paragraphs 1 to 4 again read and agreed to.
Postponed paragraph 5 again read, amended, and agreed to.
Postponed paragraphs 6 and 7 again read and agreed to.
Postponed paragraph 8 again read, amended, and agreed to.
Postponed paragraphs 9 to 13 again read and agreed to.
Postponed paragraph 14 again read, amended, and agreed to.
Postponed paragraph 15 again read and agreed to.
Postponed paragraph 16 again read.
Amendment proposed, in line 12, to leave out the word "rigid", and insert the word "complex"—(*Mr. Palmer.*)
Question proposed, That the word "rigid" stand part of the paragraph.
Ordered, That further consideration of the Report be now adjourned—(*Sir Toby Low.*)
Report to be further considered To-morrow.

[Adjourned till To-morrow, at Four o'clock.

THURSDAY, 14TH MAY, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Ernest Davies.
Mr. Fort.

Sir Keith Joseph.
Colonel Lancaster.
Dame Irene Ward.

Draft Report, proposed by the Chairman, further considered.
Postponed Paragraph 16:
Amendment proposed, in line 12, to leave out the word "rigid", and insert the word "complex".
Question again proposed, That the word "rigid" stand part of the paragraph.
Question put, and agreed to.
Paragraph agreed to.
Postponed paragraphs 17 to 19 again read and agreed to.
Postponed paragraphs 20 and 21 again read, amended, and agreed to.
Postponed paragraph 22 again read and agreed to.
Postponed paragraphs 23 and 24 again read, amended, and agreed to.
Appendices A and B read and agreed to.
Resolved, That the Draft Report, as amended, be the Report of the Committee to the House.
Ordered, That the Chairman do make the Report to the House.
Ordered, That several papers be appended to the Minutes of the Evidence taken before the Committee.
Ordered, That part of the Minutes of the Evidence taken before the Committee, together with the Appendices, be reported to the House.

[Adjourned till Wednesday, 24th June, at Four o'clock.

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LXXVI. MINUTES OF EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON
NATIONALISED INDUSTRIES (REPORTS AND ACCOUNTS)

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MINUTES OF EVIDENCE
SESSION 1957-58

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WEDNESDAY, 21ST MAY, 1958.

Members present:
Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Ernest Davies.
Mr. Fort.
Mr. David Jones.

Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

Mr. A. T. K. GRANT, C.M.G., Treasury, and Mr. W. C. GAWTHORNE, an Assistant Secretary at the Ministry of Transport and Civil Aviation, called in and examined.

Chairman.

1. Mr. Grant, we welcome you as an old friend and you have with you Mr. W. C. Gawthorne, who is an Assistant Secretary in the Ministry of Transport and Civil Aviation?—(Mr. Grant.) Yes.

2. We are, as I think you know, beginning an inquiry into the two nationalised airways corporations, B.O.A.C. and B.E.A. We would like to ask you certain general questions about how the Treasury comes into their affairs, and then perhaps at the end of our questioning today we will ask you if you have got any guidance to give us in your special capacity in connection with our Committee. The first questions that I would like to put to you relate to investment. You are concerned, as I understand it, with the investment programmes of these Corporations from the point of view of the lender?—Yes.

3. You provide the money?—Yes.

4. Can you tell us roughly what proportion of the total investment of these Corporations is covered by the purchase and development of aircraft and what proportion by other things?—It is between 80 and 90 per cent. I was looking at the figures last night. At the moment with B.O.A.C. I think it is nearer 90 per cent., with B.E.A. slightly less, but the vast bulk and indeed the main interest of the Treasury is in these large contracts for aircraft and spares. That is for practical purposes the investment programme.

5. At what stage in their planning for re-equipment with new aeroplanes does the Treasury come in?—The Treasury comes in at a fairly early stage. Indeed, I think one can say that everyone comes in at an early stage in this because the new aircraft does not come along for

five, six or more years from the time when, as it were, the button is pressed. There are a number of parties concerned in this. Indeed, the Treasury is the last of them. In the first place there is the air Corporation itself. Then there is the Ministry of Transport and Civil Aviation which looks after the air Corporation. Finally, there is the Ministry of Supply, a very important party indeed, because they are responsible for the aircraft industry as such. They are watching what is happening to the aircraft industry, and indeed financially they are interested in a number of ways. They sponsor aircraft development and indeed they have paid quite considerable sums in the past, possibly rather less in the future, towards the cost of development and getting things going. The first stage would be discussions mainly between the Corporation and the Ministry of Supply and the Ministry of Transport. At some stage during these proceedings we in the Treasury would know roughly the way things seem to be shaping—that it looks as if a substantial order may have to be placed, that it is expected to come in four or five years' time, or even a bit later, that it will fit in, in such-and-such a way. We should have a certain amount of discussion with the Ministry of Transport, and finally the point would come when the order is crystallised to such an extent that we could tell Ministers about it and say "This is what is happening, and we proposed to agree in principle, and if all goes well they will be getting this new aircraft so many years hence." From the narrow point of view of the Treasury our aspect is the commercial one, to see that, broadly speaking, what is being ordered is likely on the face of it to fulfil a need and that it looks a reasonable proposition from that point of view. The main thing

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Mr. A. T. K. GRANT, C.M.G., and
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[Continued.]

which we should have regard to would be the views, I think, of the Minister of Transport and of the Corporation itself, to see that, so to speak, this was a genuine choice of civil aircraft on merits and not for the convenience of some broader manufacturing programme.

6. Taking the stages of the planning of the future aircraft, the first thing that happens is some expenditure of money on research and development. Am I right in saying that the money for that expenditure is not provided by the Corporations but is provided by the Ministry of Supply on its Vote?—Yes, and by the aircraft manufacturer himself.

7. I was talking, of course, so far as the Government or the public or a public authority provides any money. Would I also be right in saying that provision is only made through the Ministry of Supply for such expenditure if a firm order had been placed by the air Corporation?—Oh no. I think that is not so at all. There is a certain amount of research and development going on all the time. In the past, in addition to that, once a firm order was placed the basis of the placing of the firm order would mean that as well as the Corporation placing its order, the Ministry of Supply might undertake to give assistance. But we have been trying to get away from that in more recent cases. So that I think I am right in saying that only financial assistance which would come in from the Ministry of Supply would be on the preliminary stage, perhaps before any order is placed at all in the early stages of seeing what is happening.

8. So that once an order had been placed, you would expect the aircraft manufacturer to finance it?—Once an order had been placed—and this applies to the last two big orders which have been placed—it is to be financed by the aircraft manufacturer and by the progress payments made by the Corporation itself. Both the last two are private ventures.

9. On this question, broadly speaking, you apply the same principles to requests for capital from B.O.A.C. as from B.E.A.?—Yes.

10. Broadly speaking, their attitude is similar, is it?—Yes, I think that is right.

11. Perhaps other Members of the Committee would like to ask questions on investment from the Treasury point of view before we pass on to the question of fares.

Mr. Ernest Davies.

12. What standards does the Treasury apply? The witness suggested that you have the Ministry of Transport and the Ministry of Supply consulting with the Corporations concerning the capital investment. Then the Treasury comes in at a certain stage, but I do not quite see exactly what is the Treasury's role in that connection. Once the two Ministries have agreed a certain choice of aircraft is desirable, does the Treasury then concern itself with the total amount and whether it can be afforded in the capital investment programme, or what?—I think the main interest to the Treasury in the first place is to make quite sure that the two Ministries and the Corporations are agreed and that alternatives have been considered. As regards the capital investment programme, one of the main considerations in the case of the air Corporations at the backs of our minds must be that there is a problem of producing a new aircraft. Whether it was the Comet in the past, whether it is one of these new aircraft in the future, one cannot get away from that and say "Let us do it a little less," or "Let us do it a little more." Broadly speaking, the size of the problem is important, and what you are doing in effect is committing yourself to a policy which, if successful, will involve payments on a very considerable scale. I think I can give a rough example of the size involved. A contract for a large aircraft to fly in six or seven years' time would probably involve something of the order of £80 million by the time the payments had been finished and the 35 or 36 odd aircraft had been produced. The smaller B.E.A. contract would be a matter perhaps of £30 million—again in five or six years. It is not all in one lump. The size of this thing is not susceptible to minor variations. It is true it is part of the bargain, because part of the bargain is that if you give orders on this scale the aircraft manufacturers will undertake to manufacture the aircraft and will put up and arrange for extra finance, and the Corporations will have the first aircraft coming off the line, which means that in a winner they have got several years of comfortable start compared with their

21 May, 1958.]

Mr. A. T. K. GRANT, C.M.G., and
Mr. W. C. GAWTHORNE.

[Continued.]

competitors. But there is no possibility of the Treasury saying "This is all right, but do a little bit less." I think it is inherent in the aircraft manufacturing policy and in the policy that we do try and back winning aircraft.

13. May I follow that up by asking this question? Do you then take into account the earning capacity of the aeroplane in relation to its competitors—that is, the other airlines, foreign and international airlines? Is that the Treasury's concern?—Certainly. One of the first things we ask the Minister of Transport when we look at this is how will this aircraft fit in with other known aircraft types—not just our own but other people's? What advantages will it have? They will tell us that on size, running cost and speed it will be newer than anybody else's and that it seems to have a fair run. The next question we should ask would be what about the scale of operations? Is there a reasonable prospect that if they buy these aircraft they will be able to use them, and the Ministry will show us that on fair assumptions of increasing traffic and on factors like that, there is a use for the twenty or thirty aircraft, or whatever total it is, when the time comes along.

14. In other words, you look at it to see whether it appears to be an economic proposition or not from the point of view of the Corporation?—Certainly, but we do not pretend to any exact knowledge of these matters. The most we can do is to check up to see whether the picture appears to be a consistent picture.

15. In the main, you would rely on the Ministry of Transport for that information?—Certainly.

Mr. Palmer.

16. You look at the profitability of the investment?—Oh certainly.

17. And if return on the capital would be adequate?—We would tell if it looks like an adequate return on the capital on the assumption that they run at an average load of such-and-such, and that is as far as we can get. The truth is that if it is a winning aeroplane and really comes in—if, for example the Comets had really held up, they would have paid very well. The Viscounts pay well. They are a success. But if the aircraft comes in late, there is trouble.

Mr. Ernest Davies.

18. May I put a further question? Do you take into account in reaching your decision the possibilities of the aircraft having a world market? Does that influence you in authorising the capital expenditure, or not?—In the first instance, we look at how this fits in the programme of the particular airline concerned. We do not say, "This might have a world market; therefore, let the airline have it." It is the airline's choice. It follows from our point of view that if this is a success it is likely to have a world market.

19. But suppose there were two aircraft which were comparable, and one you felt had possibilities of sales overseas, for unknown reasons, and the other did not; would you favour the one against the other?—We should be bound to favour what the particular airline which had to fly it wanted. I am not sure that I would accept the extreme terms of the question. I cannot conceive of an aircraft which B.O.A.C. or B.E.A. fly with success and profit not having a quite considerable sale elsewhere.

Mr. Albu.] That is a very important answer. May I follow it up?

Chairman.

20. Before doing so, may I put in one remark? There was a case recently similar to the case which Mr. Ernest Davies had in mind?—Yes, I am aware of that.

21. So that, as I understand his question, his question was not only hypothetical; it had a real background. I was very glad to hear the answer which you gave. I think we probably all were?—I think my answer also had what I think is a real background—that I would not accept that a particular choice which was successful would fail to sell elsewhere. There may be differences. Obviously, if you focus your attention on one set of customers as opposed to another, you may do something different, but I do not think it is a case of something which is purely of local interest.

Mr. Albu.

22. I want to get clear the way in which the Ministry operates as well. The judgment of the Ministry and of the Treasury whether to authorise capital expenditure to purchase new aircraft is based entirely on the profitability of the

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Mr. A. T. K. GRANT, C.M.G., and
Mr. W. C. GAWTHORNE.

[Continued.]

airline concerned?—It is based on the profitability of the airline concerned in the sense that we feel that it should be the airline's choice and the airline should feel that it can operate it profitably. We should look, as we did in the particular case, to make sure that a project which is all right on paper could be carried through. Leaving that particular difficulty aside, assuming that the project could be carried through if an airline was satisfied, I find it impossible to feel that one could press an airline to do something against its will. There is one qualification to that. I am assuming that by and large we are concerned with airlines which were to fly British aircraft. We should not say that they could buy abroad, or something like that, just because it suited their convenience. It would have to be, as it has been in certain cases, a very strong case.

Chairman.

23. That is a slightly different question. You are concerned with the financial aspect. You are asked to approve the lending of some money?—Yes.

Dame Irene Ward.

24. You are saying that you do not give any guidance because all the technical knowledge really lies outside your Department. You are concerned purely with financial questions. If that is so, you do not really give any sort of assessment on the facts presented to you about possible prestige value?—I do not know that we can give much assessment of prestige value. Prestige value is something that you recognise when it has happened, I think.

25. Sometimes one would hope that it would be effective perhaps in selling in the world markets. It is all linked, is it not?—Yes. But the real prestige value of an aircraft, as in the case of the Viscount, is that somebody is flying it with great success and passengers like travelling in it.

26. Do you consider at the time that the requests are made for money to buy new aircraft or to order new aircraft whether something new might have a helpful effect on the export possibilities? There are all sorts of things that have to be assessed in the commercial field, are there not?—Certainly. I am not sure that I follow the question, but in the case of new aircraft the Corporations concerned look forward and they can see a

useful life for the next three or four years for existing aircraft. They can then see fairly clearly the sort of thing that has to follow it. They have to fix the timing so that it has a reasonable run and is ahead of its competitors, if possible. No doubt there are further possibilities further ahead.

27. That is all their responsibility, not yours?—Yes. They are the only people who understand it.

Chairman.

28. You are concerned with financing them, not the aircraft industry from this point of view?—Yes.

Mr. Fort.

29. May I raise a different subject from the one that we have been discussing? Do I understand from you, Mr. Grant, that in looking at the capital cost of the aeroplanes which the aircraft Corporations order those capital costs do not include any increment for research and development charges? Are research and development charges entirely borne by the Ministry of Supply, or are they borne by the aircraft manufacturing companies and charged at normal commercial rate?—That is a little bit outside my field, but I think that the answer is, both. A good deal of the Ministry of Supply's contribution towards developing aircraft is on a sort of participating basis—

30. Participating with whom?—With the aircraft manufacturer—so that if the aircraft is a winner money comes back. They can, and in one case do, get some profit on it. But by and large they are heavily committed on the ones which run successfully. The manufacturer has to make his contribution also, but I am partly speaking in terms of the past. However, it is not a subject upon which I can speak in detail. I do not deal with the aircraft industry as such.

Colonel Lancaster.

31. I would like to ask two fairly simple questions. I presume that you are enormously guided by the advice of the Ministries of Transport and Supply, but do you yourselves apply any yardstick in relation to a particular proposition in the light of outside experience—for instance, experience of a similar type of well-known aeroplane which is operated by foreign countries? Have you any Treasury yardstick of that nature?—No, nothing worthwhile on that, because

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[Continued.]

we are looking ahead in all these cases. I do not think that an immediate experience is much of a guide.

32. The other matter was: do you concern yourself with the likely running costs of the aeroplane? Some aeroplanes have much heavier maintenance charges and that will have a bearing on the subsequent running costs of the aeroplane and quite possibly on the amortization of the particular aircraft itself, or is that a matter you leave to the Ministry of Transport and take for granted that they have investigated all that?—When the case is put to us, very often that kind of argument will be put—“The great advantage of this new type will be that it will be rather easier to run, or it will take a much larger load”, and questions of that sort.

33. You have some known facts?—
—No; that will be put as a general argument.

34. Yes; but you have not any means of assessing that. You accept that?—
We would rely on the Ministry of Transport.

Mr. Ernest Davies.

35. Arising out of that, could Mr. Grant tell us this? To what extent, when you are applying this yardstick in this very general way, do you have forecasts of the likely development of civil aviation traffic over the period when this new aircraft will come into operation—the likely traffic, the balance as between competition and the charges and the fares?—Regarding balance of competition, what we look at is to see that the increase in capacity is not out of line with the increase in the traffic. Perhaps Mr. Gawthorne could help us on the other point.—(Mr. Gawthorne): The Ministry of Transport examines the economics of an order for aircraft by a Corporation. We look at the traffic assumptions they make in relation to the capacity that the aircraft they are ordering will provide, and we tell the Treasury.

36. My point is that the aircraft, first, will take a considerable time before it comes into operation. Therefore, very long term forecasts have to be made. To what extent do you engage in long-term forecasts in great detail before you authorise the purchase of aircraft?—
The Ministry of Transport certainly looks ahead right through the life of the aircraft. This kind of traffic over the last

few years has gone up about 15 per cent. per annum. We make an assumption for the future.

Mr. Palmer.

37. How is a profitable return defined in Treasury terms in a rather difficult question of this kind? It seems to me that it must be extremely complex. How do you define a profitable return? What do you regard as an adequate return on the capital?—(Mr. Grant): We have to make modest assumptions about that. At any rate, on modest assumptions, the Corporation can break even if they have a good aircraft. There may be something much larger coming in.

Chairman.

38. Could you help in this way, Mr. Grant? This, I think, is in the minds of other members of the Committee as well as myself. At our last enquiry we went closely into the considerations you and the Ministry have in mind before providing extra money. I am not suggesting that you should do this today, but I wonder whether you might give us a paper setting out what questions you ask the Corporations before you supply them with extra money? It would give us some guide as to not only the control, but on what basis public money was provided for nationalised industries. That is one of the most important things into which we have to enquire?—Yes.

39. You have some experience now of providing the finance for the air Corporations over a period of years. If you could give us on a piece of paper the questions that you ask, or a summary of the case that the Corporations have to make before they get the money from you, it would be helpful?—Yes.*

40. In collaboration with the Ministry of Transport, of course, because a great many of them are answered by the Ministry of Transport. That would help us, and would cut short our questions today.

Mr. Albu.

41. When considering the return on the capital, is any consideration given to the fact that a good part of the return is probably in hard currency and, therefore, in a sense, is more valuable? In those circumstances, you might be able to accept a lower return on the capital than you would otherwise?—No, I do not think in present circumstances that would be right. In the first place, outside the

* Appendix 1.

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[Continued.]

sterling area the discrimination between currencies is very much less. The European Payments Union involves gold to a very considerable extent. It is rather a mistake to look at different sources of revenue and discriminate between them. In the second place, there are other countries with claims which must be met. You have to keep your airlines going to the Middle East. You have to keep in touch with developing countries. You have to follow up your markets. If you concentrated purely on the dollar area you would be faced with very fierce competition and you also might have difficulties with aircraft. We have special problems with aircraft flying the North Atlantic.

Mr. David Jones.

42. I gather from what you said, Mr. Grant, that all you do is to check on the information the Ministry of Civil Aviation gives you?—Yes.

43. You have not a technical staff to check it. You do precisely what a Member of the House of Commons does—look at it as a layman on the evidence supplied by the technicians of the Ministry?—Yes.

Sir A. Spearman.

44. To what extent do you take into account the current rate of interest in determining whether an investment is worthwhile?—I should have thought the margin which you have to allow is so great that a difference between a 4 per cent. rate and a 5½ per cent. rate, as it is now, would be swallowed up in the uncertainties. You would hope if an aircraft comes in and there is a steady three-year run you would get a substantial return on it; but, of course, if the aircraft is late the return may be low. By and large, one must say that international civil aviation is a pretty hot competitive business, and I do not think one would expect to get any very substantial return except in so far as from time to time one would get in something new.

45. Surely the less substantial the return the more the rate of interest matters?—Certainly; but a difference between 4 per cent. and 5 per cent. will have very little effect. For investment to be worthwhile, if you take it from a straight commercial point of view, you would expect, after depreciation, something of the order of 15 per cent. perhaps. My impli-

cation was that in the case of the airlines you could not expect a particular aircraft to pay off in that sort of way unless you are lucky and it came in on the dot and had a good run through.

46. To what extent are you influenced in accepting the advice of the Ministry as to whether their previous advice has been good?—I think we always assume, if on any occasion, previous advice has not been quite satisfactory, that the current advice is better.

Mr. Ernest Davies.

47. Do you have a post-mortem on your investment to see whether the predictions have been fulfilled?—I am afraid here the post-mortems are only too clear. If you go back on the history of civil aviation, you have the Tudor and the Comet, which went rather wrong, the Viscount, which was a great success, the Britannia, which is a success, but unhappily late; and those aspects are fairly clear. I am talking about aircraft alone now.

Mr. Albu.

48. I was asking a question to try to get in mind the factors which enable the Treasury to sanction heavy investment. In answering my question, I think you said that one of the considerations was maintaining a service to the Far East, or something like that. There may be other things, but is that one of the considerations?—I do not recollect having used exactly those words, but I think it is a fair assumption that Government policy expects a substantial number of the world's air routes to be operated by B.O.A.C. and a route to the Far East would be one of them. There is discussion at the present time about a route to South America.

49. Irrespective of the effects of running these services on the return on the capital invested?—No; "irrespective" is much too strong. It would be on the assumption that one can or should be able to build up a service which would pay for itself in due course.

Mr. David Jones.

50. Do you accept the theory that it is the running of the service that brings the traffic? If you were to wait for the traffic to present itself, there would not be a route to anywhere in the world at the present moment. The establishment of a route must of necessity take a period

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[Continued.]

of time, but eventually it brings in a profit?—Yes. Not always would it bring in a profit. But we must assume at the start that one has to build up the traffic.

51. While you would not think of running a route to the North Pole because there would not be the traffic, it is reasonable to assume that there would be traffic to South America? The fact that the service is running will bring the traffic and make it profitable?—Yes. It depends how many other people are working on that assumption, too.—(Mr. Gawthorne.) It all depends whether you have the traffic rights.

Chairman.] That is another matter into which we shall go later.

Sir J. Barlow.

52. May I go back to the beginning? When a project arrives on your table presumably there are discussions with the Ministry of Transport first and the Ministry of Supply secondly. At any rate, you will have the combined recommendation of the Corporation which wants the money and the support of one or both of the Ministry of Supply and the Ministry of Transport. To what extent do the Ministries of Supply and Transport have technical people, and to what extent do you rely on their views as against the Corporation originally putting forward a project?—(Mr. Grant.) I do not think we would admit a difference of opinion there. We would expect the Corporation and the Ministry of Supply to have worked out their particular differences before we would look at a project.

53. The Ministry of Supply has many experts?—Indeed, yes. We should expect any differences to have been ironed out. We would not feel we could go to Ministers with a project where one lot of experts thought it was wrong and would work and others maintained a different opinion. We would expect the process to be gone through until some sort of agreed solution was arrived at.

Mr. Ernest Davies.

54. The Treasury's job is to act as an arbitrator, is it?—I think it is to make difficulties if the Treasury were to start intervening as arbitrator on matters on which the two Corporations have formed an opinion which they are prepared to stand by.

Chairman.

55. One more point on your financial role. Not only are you concerned with

the approval of future investment, because it affects future borrowings, but you also come in because you have to guarantee current borrowings from banks and elsewhere. I have seen White Papers recently presented to the House which are concerned with borrowings?—Yes, but that is a different aspect of the same thing.

56. That is why I have come on to it now. What considerations do you have in mind in deciding whether or not to guarantee a particular level of bank overdraft or loan?—Of bank loans pure and simple, or of guarantees generally?

57. First, do they borrow at all without a guarantee from the Treasury?—No, they borrow from banks on a guarantee from the Treasury, and the level of the overdraft is agreed at the beginning of the year and used to meet working needs.

58. What are the considerations which go to the making up of your minds as to what the level of overdraft should be?—It is partly historical and partly related to general Government policy, the credit squeeze, and so on. It normally would be an agreed level, in the case of the nationalised industries, of up to so much.

59. How closely are the Treasury interested in the fares structure of the airlines?—Not at all, directly.

60. Indirectly?—Indirectly, I put in the qualification that if airlines begin to get into serious trouble, we might have to ask what the position was and go into it; but we should feel it was not our business to intervene in the case of fares and charges.

61. That applies to international routes as well as national routes. As I understand it, international routes are subject to international agreements and national routes are subject to no agreements, and no governmental authority?—Yes, but of course the air corporations are subject to competition. You cannot charge too much to take people to Glasgow. The Ministry would be consulted.

62. Whilst international conferences are going on to settle the fares, do the Treasury have an influence on the line taken up by the British representatives, or not?—No, we should not ask for it.

Chairman.] That is a matter for the Ministry of Transport.

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[Continued.]

Mr. Palmer.

63. In civil aviation, unlike other nationalised industries, the Treasury is indifferent to changes. There is that difference, is there not?—There is that great difference, because these air corporations are different to other nationalised industries in that they are subject to strict competition, unlike roads displacing railways, or oil displacing coal, or electricity displacing gas, but straight competition between competitors internationally and, indeed, with outside operators in this country as well.

64. Would you also say that your fares do not enter, as yet, considerably into the general cost of living and so on, and would that be a factor?—I do not think they enter at all.

65. I was trying to get at the difference?—I do not think that arises. I think the dominating factors in fixing charges must be in estimating what your market will do. If you put fares too high, you lose traffic, as people go in other ways.

66. That is something for the judgment of the corporations?—Yes.

Mr. Ernest Davies.

67. Is it not a fact that the majority of fares are fixed by international agreement, and that is why the Treasury does not interfere, because it cannot so far as the international aspect is concerned?—That is formally true. The question I answered is when the Treasury felt called upon to start to agitate with the Ministry of Transport to approach other countries to try and get fares changed; and the answer lies, quite apart from what the Government think, in the judgment of the operators as to what they can do by increasing traffic by lowering a charge here or differentiating or taking measures of that kind.

Chairman.

68. I suppose it is possible that fares might be fixed too low internationally for economic operation of our airlines because other governments had decided they would be prepared to subsidise their airlines?—That is certainly possible.

69. And at that moment, you would wish to step in?—I think so.

70. Apart from those considerations, you feel that normal competition and normal commercial agreement is a good enough safeguard?—Yes.

Mr. Palmer.

71. I may be very simple on this, but if fares are generally agreed, the element of competition cannot be very much with regard to fares. It must be in quality of service, efficiency, speed, the type of aircraft, and so on?—Yes.

Chairman.

72. The last set of questions I wanted to put to you was this. You know what this Committee's function is, and you will no doubt have studied for several years the Reports of these two corporations into which we are looking. Have you any particular points to which you think we should direct our minds?—If I might mention one or two aspects. There is one aspect of these corporations which I think is sometimes overlooked. I mentioned just now that they were competitive and were competing against other airlines. This is really a very recent development, in the sense that it is only recently that they have been expected to stand on their own feet. I think it emerged partly indirectly from what I said earlier. But, until 1st April, 1956, there was machinery by which the Government provided straight-forward subsidies to these corporations if they needed them. In fact, they had not been needed for a long time before that; but it is only since 1956, strictly, that they have been entirely on their own feet. Further, indirectly, until even more recently, the aircraft orders which we were talking about earlier were helped to a very substantial extent by the Ministry of Supply, which had been participating in a joint venture, or doing even more. Now the last two orders are both private ventures. So the point I am coming to is that what you are looking at is a rather recent development. Indeed, I think we would find that controlled relationships from the Government as a whole were very much stricter and quite different when money was being put in in the form of subsidies and deficits made up than it is now, when we feel they ought to have a certain amount of independence. That is the first point.

73. You bring that out in your paper*?—Yes, we will try and do that. The second point, of course, is how the cor-

* Appendix 1.

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porations see the future developing from irregular movements in traffic. I think it is noticeable that we have been rather assuming that traffic grows fairly evenly—one takes 10 to 15 per cent., or whatever it is, and assumes that. That is quite true; but it may well be that a large part of the traffic involved is traffic which will be affected by economic conditions, and the rate of growth may not be continuous. That is a factor on which it might be interesting to have the air corporations' views. The third point which I think is rather for the air corporations themselves to raise is how far they feel happy with the present competitive position. We in the Treasury are quite neutral over that, and, in a sense, things have worked out since we have, on the one hand, the corporations, and, on the other hand, independent

operators; but traffic has been increasing, and the public is getting more air services, some of which are less comfortable and a good deal cheaper. I think those are the only things I would mention, apart from the fact that, as I think you know, the new Reports of the corporations are due about the middle of the year; so presumably there is a certain amount of information there on the financial results of the past year.

Chairman.] We have in mind very much the fact that the last year's Reports are not available to us and that we are working now on figures referring to a period 15 months ago; but it is inherent in the Parliamentary year that that sort of thing is likely to happen, and we do propose to base the latter part of our inquiry on the new Reports.

THURSDAY, 12TH JUNE, 1958.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.

Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

Memorandum submitted on behalf of the Minister of Transport and Civil Aviation.

THE RELATIONSHIP BETWEEN THE MINISTER OF TRANSPORT AND CIVIL AVIATION AND THE AIR CORPORATIONS.

The statutory powers and responsibilities of the Minister in relation to the Air Corporations are shown in the Appendix to this paper.

2. In practice the relationship between the Minister and the Corporations is rather closer than is required in pursuance of specific statutory powers and duties. There is a continuing exchange of information and frequent discussion of problems between officials of the Ministry and the Corporations and between the Minister and the Chairmen on the more important subjects.

3. The closest co-operation between the Corporations and the Ministry is inevitable since the Corporations recognise that the Minister is responsible for answering for them in Parliament on matters of substance and that he must therefore be well-informed on their activities and is particularly concerned with their financial results, their reputation and general efficiency. Moreover, their commercial activities may have an impact on matters of national policy or may have implications of concern to the Government in the field of international relations.

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4. Although the Minister has no express statutory control over the Corporations' capital expenditure, it is the practice for the Corporations to seek his approval and that of the Treasury for orders of aircraft which at present account for over 80 per cent. of their total capital expenditure. There are three main reasons for this :—

- (i) Treasury approval is required for the Corporations' borrowings and the Treasury guarantees the borrowings and the interest thereon (at present the Corporations raise their capital from Exchequer advances under Section 42 of the Finance Act, 1956, as extended by the Nationalised Industries Loans Act, 1958). It is obviously necessary for the Minister and the Treasury to satisfy themselves that any substantial expenditure which the Treasury is required to guarantee is justified ;
- (ii) in some cases the Corporations have had to buy American aircraft (though this applies only to B.O.A.C. in recent years). Because of the shortage of dollars and the Government's policy that the Corporations should use British aircraft when available, Government approval for such purchases has been necessary ;
- (iii) in some cases in the past it has been necessary for the development of a new type of aircraft required by the Corporations to be the subject of a Ministry of Supply development contract.

In examining the Corporations proposals for the purchase of aircraft the Minister is concerned primarily with the economic justification for the number of aircraft, i.e. the capacity involved. The choice of aircraft type is a matter for the Corporations.

5. The Corporations also obtain the approval of the Minister and the Treasury to investments in foreign airlines. This is because foreign currency is usually required and there may be wider political implications.

6. Under Section 24 of the Air Corporations Act, 1949, the Corporations, their associates and agents, have a monopoly of scheduled services, as defined in the Section, but they have agreed not to open new routes without the Minister's consent. This arrangement was made when additional opportunities were being made available to independent airlines. The independent airline companies have been permitted since 1948 to operate a limited range of scheduled services as associates of the Corporations. Applications to the Minister for services are considered initially by the Air Transport Advisory Council (A.T.A.C.) who make recommendations on them. When in 1952 these arrangements were extended to give greater opportunities to the independent companies, the Corporations voluntarily agreed that before operating any route not included in a list of routes reserved to them (broadly, the international routes they were then operating), they would apply through the A.T.A.C. for permission. Thus the Corporations are not necessarily free to operate any route they wish. The Terms of Reference of the A.T.A.C. are drawn up so as, in general, to protect the Corporations from material diversion to independent operators of traffic from their existing services.

7. The Corporations are also limited by the need for the Government to secure the necessary traffic rights from foreign governments. These rights are normally obtained by the negotiation of bilateral agreements and the Corporations are dependent upon the Ministry for advice on traffic right possibilities in planning their future operations. In recent years it has become increasingly difficult, particularly in Europe, to obtain rights from foreign governments for all the air services which British airlines wish to operate. This is usually because the other governments wish to protect the traffic of their own airlines.

8. There is no statutory requirement for the Corporations to seek the approval of the Minister as regards fares and rates. However, in the case of international routes, bilateral air service agreements normally provide that fares and rates shall be subject to the approval of governments and in practice therefore the Corporations submit fares and rates for approval. Normally, international fares and rates are settled by the International Air Transport Association (the international association of airline operators—I.A.T.A.) whose resolutions the Minister usually approves. Fares and

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rates on non-international routes are not dealt with in the same way but the Corporations make a practice of seeking the Minister's approval. In the case of internal services, B.E.A. always seek the views of the Regional Advisory Councils set up under Section 4 of the Air Corporations Act, 1949.

9. It is the Government's policy that the Corporations should not retain aircraft specifically for charter work and should only engage in ad hoc charters with aircraft capacity left available by fluctuations in their primary work of scheduled services. This restriction is accepted by the Corporations though it has no statutory basis.

10. There is close consultation and co-operation between the Ministry and the Corporations on the planning of aerodromes and technical ground services and the Corporations assist the Ministry to play its part in the work of the International Civil Aviation Organisation (I.C.A.O.) in the provision of ground facilities all over the world.

11. The Minister has certain powers of direction to the Corporations, especially under Sections 3 (5) and 5 of the Air Corporations Act, 1949, but it has never been necessary to use these powers except in one particular case where they were used for purely technical reasons (see last note in column 3 of the Appendix).

APPENDIX

STATUTORY POWERS AND RESPONSIBILITIES OF THE MINISTER OF TRANSPORT AND CIVIL AVIATION IN RELATION TO THE AIR CORPORATIONS

	Relevant Legislation	NOTES
PART I. SPECIFIC RESPONSIBILITIES		
A. Constitution of Corporations		
1. Appointment of chairmen, deputy chairmen and members and determination* of remuneration and pensions.	Air Corporations Act, 1949—Section 2.	Treasury approval required. Pensions are dealt with in Section 2 of Air Corporations Act, 1953.
B. Financial Matters		
2. To make regulations regarding issue, transfer and redemption of stock.	Air Corporations Act, 1949—Section 9 (3).	S.R. & O. 1947 No. 99. S.I. 1948 No. 2858. Treasury approval needed. Treasury consent is needed to temporary borrowings by issue of stock. (Sections 8 and 9.)
3. To approve naming of stock	Air Corporations Act, 1949—Section 9 (4).	—
4. To give directions regarding establishment, management or carrying sums to credit of Reserve Fund or application of it.	Air Corporations Act, 1949—Section 18.	Treasury approval needed.
5. To direct application of excess revenues	Air Corporations Act, 1949—Section 19.	Treasury approval needed.
6. To direct form of annual statement of accounts of Corporations and subsidiaries.	Air Corporations Act, 1949—Section 22.	Treasury approval needed.
7. To appoint auditors annually	Air Corporations Act, 1949—Section 22 (3).	—
8. To lay statement of accounts before each House of Parliament ...	Air Corporations Act, 1949—Section 22 (5).	—
C. 9. To issue Exchequer advances to the Air Corporations	Finance Act, 1956—Section 42—as extended by the Nationalised Industries Loans Act, 1958.	Since 1956 the Corporations have raised their capital from the Exchequer under these provisions and there have been no stock issues.
C. Reports, Information, etc.		
10. To lay before each House of Parliament Air Corporations' Annual Reports.	Air Corporations Act, 1949—Section 23 (2).	—
11. To direct at what time before the start of each three year planning period the Corporations shall submit a programme of air transport services and an estimate of receipts and expenditure.	Air Corporations Act, 1949—Section 23 (4).	This programme and estimate are for information only.

* Chairman is appointed by Lord Chancellor.

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C. Reports, Information, etc.—(contd.)

12. To direct at what time before the beginning of each financial year the Corporations shall submit an estimate of capital expenditure for that year.
13. To require the Corporations to provide information relating to the undertakings of the Corporations or their Associates.
14. To inspect accounts and documents for purpose of obtaining information and to require explanations.

Air Corporations Act, 1949—
Section 23 (5).

This estimate is for information only.

Air Corporations Act, 1949—
Section 23 (6).

—

Air Corporations Act, 1949—
Section 23 (7).

—

D. Air Transport Advisory Council

15. To appoint members* of A.T.A.C., to provide them with accommodation and clerical assistance, and to remunerate the members and their staff (with Treasury approval); to provide the A.T.A.C. with such information as he thinks expedient to assist them to discharge their functions; to approve the appointment of Assessors.
16. To refer to the A.T.A.C. for consideration any question which he considers desirable regarding facilities for transport or charges in any part of the world or any question which he thinks requires consideration with a view to the improvement of air transport services.
17. To lay before each House of Parliament the annual report of the A.T.A.C., together with a statement of any action taken by him on their recommendations.

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Section 12, Civil Aviation Act, 1949.
S.R. & O. 1947 No. 1224.

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E. Pensions for Employees

18. To make regulations for the establishment and maintenance of pension schemes.

Air Corporations Act, 1949—
Section 21.S.I. 1948 No. 2361.
S.I. 1950 No. 2056.
S.I. 1951 No. 527.
S.I. 1953 No. 611.
S.I. 1953 No. 1296.**F. Emergency Powers**

19. To require, by order, the Corporation to place the whole or part of their undertaking at his disposal.

Air Corporations Act, 1949—
Section 26.

—

G. Miscellaneous

20. Regulation of air navigation, investigation of accidents, lost property regulations, provision of aerodromes and navigational aids.

—

Civil Aviation Act, 1949.
These powers are exercised in relation to
civil aviation generally.

* Chairman is appointed by Lord Chancellor.

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[Continued.]

	Relevant Legislation	Notes
PART II. POWERS OF DIRECTION (unless included in Part I)		
A. <i>General Directions</i>		
21. Directions to the Corporations of a general character as to exercise and performance of their functions in relation to matters which appear to the Minister to affect the national interest.	Air Corporations Act, 1949— Section 5.	These powers of direction have only once been used. In 1947 the Minister made a direction under Section 5 in regard to the transfer of certain European routes from BOAC to BEA. The purpose of this direction was simply to facilitate the transfer of certain property in France from BOAC to BEA.
B. <i>Specific Directions</i>		
22. To define, by order, the powers conferred on either of the Corporations for the purpose of securing that the public are properly informed as to the general nature and scope of the Corporations' activities.	Air Corporations Act, 1949— Section 3 (3).	
23. To limit, by order, the powers of either Corporation to such extent as he thinks desirable in the public interest.	Air Corporations Act, 1949— Section 3 (5).	
24. Directions for securing that the aircraft used shall be registered in some part of Her Majesty's dominions.	Air Corporations Act, 1949— Section 6.	

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[Continued.]

Examination of Witnesses.

Mr. A. H. WILSON, C.B., C.B.E., Deputy Secretary in Charge of Civil Aviation, and Mr. C. W. EVANS, C.B., C.B.E., Under-Secretary in charge of the Economics, Statistics and Intelligence Group, Ministry of Transport and Civil Aviation, called in and examined.

Chairman.

74. Mr. Wilson, you are the Deputy Secretary in the Ministry of Transport and Civil Aviation in charge of the civil aviation part of the work?—(Mr. Wilson.) Yes, Sir.

75. And you have with you Mr. Evans, who is—?—He is the Under-Secretary in charge of a general Division which deals, amongst other things, with the finances of the Corporations.

76. You have been good enough to send us from the Ministry of Transport and Civil Aviation a Memorandum* on the relationship between your Minister and the Air Corporations. We shall be asking you some question on that. Is there any point you would like to make to supplement that Memorandum before we come to that?—I think I might only say that the relationships between the Corporations and the Minister are determined to some extent by the provisions in the Statutes, but those provisions are somewhat rigid and do not go very far. The actual relationship which exists is really a matter of complete frankness and goodwill between the Minister and the Chairmen of the Corporations, and also between the officials at various levels in the Ministry and their opposite numbers in the Corporations. The process of interchange of thought between the Corporations and ourselves goes on all the time at all levels, in that frank atmosphere. Indeed, one might almost say that it goes on in spite of the rules there are in the Act rather than because of them.

77. But though you are very well informed on all that is going on in the Corporations, you do, I imagine, leave to the Chairmen of the Corporations the task of making decisions about the running of the Corporations, except on certain defined topics?—Yes, indeed, because, of course, the Corporations must have their freedom of management if they are to behave like commercial organisations, which they must do.

78. But there are certain things in which you have a part to play, and one

of those relates to investment?—Yes; that is probably the most important feature in which we play a part. Since the capital of the Corporations and their borrowings are guaranteed by the Treasury, both as to capital sums and as to interest, the Government, of course, have their responsibilities for seeing that money is not put at risk but is expended wisely, and so forth. Although there is no statutory provision for some of the financial controls which we exercise, that principle does mean that finance—particularly capital finance, which is always heavy in the air line business—is one of the most important things we have to look after.

79. In your Memorandum you say that orders for aircraft at present account for over 80 per cent. of the total capital expenditure of the Corporations, and it is the practice for the Corporations to seek your Minister's approval for purchases. I will come to that in a moment. What happens to the other 20 per cent.? Do you have some control over that?—We do, but we do not exercise it in great detail. Of that other 20 per cent. some is expended on fairly large items—for instance, putting up some major building in some place or other. Some of it goes into investments overseas, and those things, of course, we are interested in. A good deal of it goes on rather minor things, which we do not examine meticulously.

80. Do you consider that you have a veto over that, if you wanted to exercise it, or do you not have a veto?—No, we do not attempt to hold a veto, because we do not attempt to probe into these smaller expenditures of capital.

81. I come now to the purchases of new aircraft. You will be aware, I think, that Mr. Grant of the Treasury has given evidence to us and provided a Memorandum in response to our request for information about matters to which the Treasury would have regard on the occasion of placing major orders for new aircraft by the Air Corporations. I think that you have probably seen that Memorandum?—Yes, we have.

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[Continued.]

82. It would seem, from a reading of your Memorandum and the Memorandum of the Treasury, that your Ministry goes into considerable detail and, indeed, exercises considerable influence over the Corporations in these questions of new aircraft?—Yes.

83. Your Memorandum indicates that the choice of aircraft type is a matter for the Corporations?—Yes, that is so.

84. But the Treasury's Memorandum indicates that, even in that matter, the Government have a good deal to say?—I think that one can put it in this way. Primarily, the Corporation must decide what aircraft type it wants when there is a choice between different aircraft. But, of course, there may be reasons why it is more desirable, from a Government point of view, that the Corporation should have one aircraft rather than another. In such a case, the arguments in favour of a particular aircraft, from the Government's point of view, would be put to the Corporation, so that there is an interchange of thought and views between us and the Corporation. In the last resort, it is the Corporation which decides that the only aircraft which will do the job it wants is an aircraft of such and such a kind. We have then to consider whether money can be made available for such an aircraft in the quantity needed, or whether there is any question of foreign currency, if it were an overseas aircraft—an American aircraft, for instance. We have also to consider the number of aircraft to be ordered, because that is a factor in the total money required. We also have to consider, again from the point of view of safeguarding the Corporation, and, therefore, ultimately, State money, whether the firm which is going to produce the aircraft can, in fact, produce it without any risk of loss of money.

85. I follow that. You said that there may be considerations from the Government's point of view which would suggest that a particular aircraft should be acquired by the Air Corporations. What are those considerations?—What I think I was saying when I used those words was that it might be thought that a particular firm was better placed to produce the aircraft than another, simply from the point of view of the amount of work they had on order, and so on.

Mr. Albu.

86. Why should you be in a better position to judge that than the Corporations?—The Corporations, of course, do not know the orders which the manufacturer has got. They would not know the military orders, for instance.

87. Do you?—We in the Ministry of Transport do not, but, of course, the Ministry of Supply know that and can advise us on it.

88. But do the Corporations buy through the Ministry of Supply?—They do not buy through the Ministry of Supply, no.

89. I still do not see why, if you have to ask the Ministry of Supply, the Corporations cannot ask the Ministry of Supply?—They can, but these things are, in fact, dealt with very largely inter-departmentally, and the Corporations come in touch with both Departments on this.

Chairman.

90. If I may just follow this up, as Ministry of Transport you have certain duties towards the Corporations under the Acts?—Yes, exactly.

91. How does this idea of imposing upon the Corporations an aircraft which they would not otherwise want accord with your duties?—We do not impose it, of course. We would merely suggest to them that there are certain reasons why it might be better to go to one place rather than another. After we have done that, if the Corporations say that the aircraft or the source which we have suggested is not going to produce the aircraft type they want, we could not press that against their view. They themselves must have the last choice, because they have to operate the aircraft, and only they know what it is which will give them the commercial benefits they are looking for. And so, in the last resort, it is they and they alone who can say, "We must have a certain aircraft".

Mr. Palmer.

92. In practice, do the Corporations ever reject the Ministry advice?—I do not think we have ever had a case of that kind. There was something coming close to it when we were discussing the B.E.A. new jet aircraft. But we accepted, in the end, the Corporations' view that they must go to a particular stable for this horse.

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[Continued.]

93. That would be the only case of which you know?—That is the only case when that sort of thing has arisen.

Chairman.

94. Which hat were you wearing when you—as you say—accepted it in the end—the Ministry of Transport hat or the Ministry of Supply hat?—We were wearing the Ministry of Transport cap, of course. We were exercising our responsibility as parents of the Corporation.

Dame Irene Ward.

95. Since there must be a number of Government Departments involved, apart from the Air Corporations, is it right to say that it is your Department which gathers up all the varying problems arising out of the over-all national policy, and that, when you have gathered together all the views and needs of the various Departments, including, no doubt, Foreign Office views as well as Supply views, the argument—if there be an argument—is left between you and the Air Corporation? Or does each Government Department, so to speak, argue its own specific point of view?—Perhaps I might just say a word or two on the way the mechanism used for dealing with these things works. It will, perhaps, make matters a little clearer. There is in existence, under Ministry of Supply chairmanship, a body known as the Transport Aircraft Requirements Committee. That body is designed, first of all, as a forum at which can be exchanged views between operators, the Ministry of Supply and ourselves on what aircraft are likely to be possible in the future and what aircraft the operators want in the future. So that that Committee serves to bring together the different points of view on what is desirable from the operators' point of view and what is practicable from the scientific and production point of view. When the Corporations are considering what sort of aircraft they want in the future, they state their requirement, in the first place, to this Interdepartmental Committee. In the process of our discussion in that Committee, a broad specification evolves as to what is wanted. At that stage, of course, the question arises as to who is to make the aircraft. In the old days, when new aircraft were developed with support from the Government, the Ministry of Supply was the agent for ordering. But that has gone now. In recent cases where

the aircraft required had been private ventures, once the specification has been settled, then the Corporation has looked around at the various things which were on offer in the shape of design studies. They have then come along and said, "This is what we want". It has been discussed in Committee. There has been interdepartmental consultation. Eventually, as between the Departments, a decision has been reached. The Transport Aircraft Requirements Committee serves also to bring the military view into this matter, because, obviously, there is great advantage if a common type can be devised which will suit both military transport needs and civil transport needs. There is a bigger market and, therefore, a cheaper product in the end. This Committee acts in that way too. So it is the focus of the points of view of all Departments. The Admiralty is represented on it. The Air Ministry is represented on it. The Treasury is represented on it. One does get all the departmental views focussed in this Committee.

96. Which Department has the chairmanship?—The Ministry of Supply. It is under the chairmanship of the Controller of Aircraft.

Mr. Albu.

97. Is this an answer to the complaint made by the manufacturers that there is no such supervising committee which can be capable of overlooking the requirements both for military transport aircraft, for home based civil aircraft and aircraft for export? That complaint has been made?—I think that the criticism of the manufacturers has not been so much that there is no committee looking after aircraft in this way. With respect, I think their criticism was rather wider. They have tended to say that there is no one person or body which looks after air transport as a whole, not only the aircraft aspects of it, but all aspects of it. That was certainly one of the points made by the Air League in its report last year.

Chairman.

98. When was this Committee set up?—I should say at least three or four years ago. Indeed, it was preceded by a rather similar body, but not quite so wide, called the Interdepartmental Civil Aircraft Requirements Committee, which was under Ministry of Civil Aviation chairmanship. That was set up way back eight or ten years ago.

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[Continued.]

Mr. Ernest Davies.

99. At what stage does the requirement emerge from the Committee and become a matter for negotiation between the Ministry of Transport and the Corporations?—It emerges really at the stage when it becomes clear what the broad specification is. At that stage, the Corporation know what they want. Inquiries can be made as to who is to produce that particular sort of aircraft. From that flows, in due time, of course, a more detailed specification and a cost figure for the aircraft. That gradually crystallises into a firm proposition that the Corporation shall buy X aircraft from a certain manufacturer at a total cost of £Y.

100. But at that stage, before you decide on the manufacturer, are not manufacturers invited to say whether they can fulfil the specifications and to make their claim—not necessarily tenders because we have not reached that stage yet—to be able to do it?—Yes. I am sorry if I did not make that clear. At the time when the specification in broad outline has been settled, there has to be an approach to manufacturers to see what they offer towards that specification.

101. It is really at that stage that the decision is reached as between the Ministry and the Corporations, and the Treasury coming in also, as to which manufacturer has the order?—Yes.

Sir Alexander Spearman.

102. I have heard it said that great economies and advantages can be achieved if there is more co-ordination between the production of military aircraft and aircraft required by the Corporations. Would Mr. Wilson say that the Committee to which he has referred does, in fact, see that there is avoidance of any possible overlapping?—This piece of machinery is designed to do just that, to try to see that in meeting a civil requirement one is also meeting the military one, or the other way round. It has not worked terribly well in the recent past because there has not been much military requirement; but it could work, and, I think, will work when there are suitable occasions, when the military want a transport aircraft which is something like the civil aircraft. The two things can be married. The eventual product may be two variants of the same

basic type, but, at least, there is the economy of a bigger order, longer production line, and so on.

103. But there must be a great deal in common between the requirements of a military aircraft and a civil aircraft, in the engine if not in the actual body of the aeroplane?—That is true enough, of course; but the actual body may vary a lot. The military may want to do things which the civil operator never wants to do. The development of the engine has to be dealt with rather separately, and I am not able to speak with the authority of a Ministry of Supply spokesman on this. But it is a fact that the cycle of engine development is longer than the cycle of airframe development, and, therefore, one does not draw the specification in terms of an entirely new airframe conception and an entirely new engine conception. The tendency always is to build the airframe around an engine which has already been conceived. And, of course, it is a fact that the great majority of engines are used both in the civil and the military application.

Sir John Barlow

104. Up to now, you have been dealing very largely with planes from British manufacturers. You did say earlier that if a Corporation wanted to purchase abroad, they might have to consider your views on whether exchange was available. You did not develop that. You said that if they wanted to buy from a British manufacturer, they usually had the last word after various conversations with you, and that sort of thing. Could you tell us a little about how far you controlled them in the past as regards availability of exchange when they wanted it?—Mercifully, this does not happen very often. The policy, of course, is that they should fly British aircraft, but there have been occasions in the past when there has not been a suitable British aircraft available. They bought Stratocruisers from America at one time. They had some Constellations. Following the Comet disasters they had some foreign aircraft. More recently, they have been approved to buy fifteen Boeing 707 aircraft to fill the gap until the Vickers VC 10 comes along. When that sort of thing happens and they have a situation like that, we must first be satisfied that there is no comparable British type, that there is no

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real alternative to buying a foreign one. We must then know what the foreign one will cost. Then—and it is a question to be looked at rather more by the Treasury than by ourselves—we must consider whether we can, in the circumstances, afford the necessary dollars for the purchase. It is always dollars, of course.

105. In a possible purchase of dollar aeroplanes, you do, in fact, exercise very much greater control than if they are buying British aircraft?—Yes; I think one would say that it is a closer control because there is another factor in it.

Sir Alexander Spearman

106. Dame Irene Ward has told me that I did not make myself clear when I put my questions—a thing which often happens, I am afraid. When I asked whether you thought there was any overlapping of effort which could be avoided, I referred to military aircraft and aircraft required by the Corporations. I did not mean by that military aircraft for the Army alone. I meant Service aircraft?—I was speaking in terms of Service aircraft.

Dame Irene Ward

107. I think you did say “military transport”, or referred to what the Army wanted, speaking, as it were, about Army transport?—I am sorry. We do not use the expression “military transport” in that sense; I meant transport for the Services as a whole.

Chairman.

108. I want to clear up one point arising out of your answers to Sir John Barlow about the purchase of American aircraft. Is it not the fact that the same rules apply to the purchase of American aircraft by a Corporation as would apply to the importing by any manufacturer or person in industry outside the aircraft industry of American machinery? The same principles apply to aircraft as to other machinery, do they not?—Yes. I wonder whether Mr. Evans might answer that. (Mr. Evans.) Yes, the same principles would apply. The Treasury, after deciding whether the money is available, would consult the Board of Trade.

109. And you, in exercising this greater control over the purchase of American aircraft by the Corporations,

are in reality only exercising the ordinary Governmental powers of control over imports of dollar machinery?—Yes. There is this difference, that, in the case of aircraft, the Government has to provide the money.

110. It is Government funds, but there is a parallel, is there not, with the Coal Board, where they import big machines?—Yes.

Colonel Lancaster.

111. We have read a good deal recently of the attitude of the Ministry of Supply in regard to placing aircraft orders—that is to say, in relation to the size, or the possibility of merges and amalgamations in aircraft manufacturers' companies. How far are you, the Ministry of Transport, actuated by that particular fact in giving your advice with regard to the purchase of aircraft?—(Mr. Wilson.) Well, I am not sure that we play any real part in this. I mean, naturally if the Minister of Supply has views on how a particular aircraft should be produced from his point of view, from the point of view of rationalising the industry or something of that sort, we would want to go along with him as far as we could. But in the last resort our duty really is to see that the Corporations get what is best for them, so that there could be a conflict between the Ministers, but in fact that does not happen.

112. Perhaps it does not happen. My mind was a little exercised as to whether in the last resort you, as the Ministry of Transport, would come down on the side of what you consider the best aeroplane, or whether you would be inclined to come down on the side of the manufacturers of that aeroplane rather than the aeroplane itself. It seemed rather an important issue?—As officials, we should come down on the side of the best aeroplane for the job. If there were differences between Ministers, they would be resolved as differences between Ministers always are resolved, by consultation.

Chairman.

113. Can I find out a little more about what you mean by “as officials we would come down on the side of what is the best aeroplane for the job”? Who

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decides what is the best aeroplane for the job, and what is the criterion?—Ultimately the Corporations.

114. And the Ministry of Supply?
—Not the Ministry of Supply.

Sir Keith Joseph.

115. You do not have your own staff to check the assumptions made or the conclusions drawn by the Corporations?—Not in detail. We have not the technical staff to do that kind of work.

116. Do you check the assumptions or conclusions about traffic prospects in so far as that will affect the economics of any different aeroplane that they desire to buy?—Yes, we do because that is part of the process on which there is justification for the money to be spent. The number of aircraft they want and the amount of investment they want depends upon the future route pattern and the future traffic on that route. We are in a position to criticise—if that is the right word—the Corporations' proposals for future route patterns because we have considerable knowledge of what traffic rights are likely to be available to them in foreign countries. We are also in the possession of statistical material which enables us to check their assumptions about the growth of traffic. We should also make enquiries as to what is the likely trend in affairs because that significantly affects the traffic.

117. This does not flow immediately from aircraft purchase—

Chairman.] We can come back to that in a moment.

Mr. Ernest Davies.] Could we return to the point raised by Colonel Lancaster, Mr. Chairman?

Chairman.] Yes.

Mr. Ernest Davies.

118. I am not quite clear about this. While the Ministry takes the point of view that the best aeroplanes from the Corporation's point of view should be the one which is ultimately ordered, what other factors come in, in their relative importance? There is the importance of the aircraft industry as such, and there is the question of exports. What I am trying to get at is this. What weight is given to those other factors in deciding on the aircraft? It surely is not only a question whether it is the best

aircraft available? Other factors enter into it to some extent?—They certainly enter into the thing and have to be weighed. As far as exports are concerned, which is a very important point, the general experience is that if the aircraft is what the Corporation wants and is the best aircraft for the job they want to do, it is almost axiomatic that it is the best aircraft from the export point of view. Conversely the general experience is that an aircraft is not regarded as suitable unless and until one or other of the Corporations has ordered it and has introduced it into service.

119. There is this question of the financial position of the manufacturer. Previously up till fairly recently the Ministry of Supply assisted to a considerable extent in the financing of new aircraft. The later policy appears to have been to encourage the manufacturers to do the financing themselves with the help of the Corporations, and not to give assistance. To what extent does that enter into the decision as to what aircraft is to be purchased?—Naturally there would be considerable pressure in favour of a private venture job as against one which requires support. That sort of thing has come up in past dealings. The general outcome is that if there is a private venture offer from one quarter, even if it is not the quarter which the Corporation would favour, the very fact that there is a private venture offer stimulates other manufacturers into private venture offers. They want to raise the finance because of the fear that the private venture chap has a lead over them.

120. You used the word "pressure". You mean pressure on the part of the Ministry of Transport and not the Corporations?—The pressure would come from the Ministry of Supply in fact.

121. If one concern was able to finance the aircraft and another was not and there was not much to choose between the aircraft, you would weigh down on the side of the firm which was able to finance it?—If that situation arose I imagine we should have to.

122. Has it arisen?—No, it has not arisen in fact.

123. It did not arise over the recent B.E.A. purchase?—No, because in the end all offers were private ventures.

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[Continued.]

Mr. Palmer.

124. Is there any genuine competitive tendering or is it an assessment of the firm and its potentialities, and the orders it has got already? Is there anything which is analogous to genuine competitive tendering outside?—No, I think one would say that genuine competitive tendering is not possible in this field. The number of firms is limited. What they would produce differs according to their own ideas as to how it should be done and how the aircraft is designed. It really comes down to selecting a design and bargaining with a firm for a price on that design.

125. Would you say that there is any prospect of getting that kind of situation for routine matters?—I would not think so. In no country, not even in America, are aircraft produced in such enormous numbers that you can do that kind of thing.

Mr. Ernest Davies.

126. Once it has been decided that the order shall be placed, does the function of the Ministry then cease, or does the Ministry then watch the cost of production of the aircraft? To what extent are you interested in the actual cost?—Once the order is placed, it is placed on a contract for a firm price, although there may be escalation clauses for certain eventualities, but apart from that it is a firm price. As far as the Ministry of Transport and Civil Aviation are concerned, the job just goes on.

127. Prior to the actual placing of the order, to what extent do you consider the cost and whether it is a fair cost or otherwise?—(Mr. Evans.) The position is that when the corporation is negotiating with the particular manufacturer from whom he has decided to buy the aircraft, at a certain point in the negotiations the price is quoted. It is at that point of time that they come to us and say "We expect to order X aircraft at this price." At that point of time we give authority for that amount of money required.

128. Have you any means of estimating whether that is a reasonable price or not?—I do not think there is. The only yard stick we have is whether it is so much per pound weight of aircraft more than earlier types.

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129. In other words, as far as you are concerned, you leave that to the Corporation?—Yes.

130. Perhaps you are not able to answer this. Does the Ministry of Supply take any interest in the cost of the aircraft?—We should certainly consult them as to whether the price given to us was a reasonable one. In the cases that I know of, it always has been that they have told us that as far as they were concerned, it was reasonable.

Mr. Albu.

131. I presume the Corporation would not consider purchasing an aircraft whose capital cost would make it uneconomic to operate?—The capital cost of the aircraft and its spares is a big factor in working out the economy of the aircraft. If the price asked was a great deal more than they had expected when they worked out their first estimates of economics, they would want to refuse the aircraft. It would alter one of the major factors which caused them to decide on that particular type.

132. This is probably the strongest control over the price of the aircraft?—Oh yes, it is.

Chairman.

133. Would you tell us this? You said there comes a time when the price is fixed, when a fixed price is quoted. It is on the basis of that price that you give loan sanction or you authorise a particular borrowing. Do I gather that the price is a fixed price, or that it has got escalation clauses?—(Mr. Wilson.) It has got escalation clauses.

134. When you give loan sanction you have expected over the past few years that you will have to agree to slightly increased borrowing?—Oh yes.—(Mr. Evans.) In giving the maximum amount of money that we approve, we include so much per cent. for escalation, depending on the number of years between the date of the order and the date of expected delivery.

135. Over and above the escalation on labour and materials, have there been, say in the case of the Britannia and the Viscount, one for each Corporation, several major increases in price since the moment at which you sanctioned the borrowing?—The only other changes in price that I know of are those caused

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by any modification of the design required by the Corporations during the process of manufacture.

136. That inevitably leads to——?——
It inevitably leads to a different—it might be a lowering of price.

137. Is that discussed with you in so far as it affects money?——Only when there is a major change would they tell us that these aircraft were going to cost say, another £50,000 each.

138. Would you be able to supply the Committee, if we asked for it, with a statement which showed, say in the case of the Britannia and the Viscount, the amount of money you approved at the date that the matter was submitted to you, the amount of money you expected in addition to that owing to escalation, and other additions or variations in the price?——Yes.*

139. You could do that?——Yes.

140. That would give us some guide as to what your effectiveness of control is.

Sir John Barlow.] And the eventual cost.

Chairman.

140A. That is what I mean—the eventual amount of money for these things. There is one other question. This Transport Aircraft Requirements Committee was introduced at a time when the Government themselves through the Ministry of Supply were playing an active part in the development of civil aircraft?——(Mr. Wilson.) Yes.

141. That has now ceased? At any rate, it is less active?——Yes.

142. Is it your opinion that the Committee as it was originally set up fulfils the proper functions now at a time when such development and future design work as is being done is being done almost entirely outside the Ministry of Supply, outside Government service, by manufacturers?——It does still perform a very important function because you must have some machinery if you are going to try to reconcile military and civil future needs. You must have a body in which all the people with necessary expert knowledge can co-operate in the production of broad specifications, particularly from the point of view of making the user aware of what is feasible and making the forward thinkers in feasibility aware of what the Corporations are going

to have to watch. He performs all those functions. He performs the function of bringing together the broad specification of future aircraft that is going to be required. The only real change is that whereas in the past once the broad specification was known the Ministry of Supply was sponsoring the production and therefore did the shopping, now with private venture it is the Corporation which does the shopping.

143. Do the Ministries have a research section?——Oh, yes, indeed. Research is one of the subjects with which the Committee is concerned.

144. What worried me was that there was not on the Committee somebody closely concerned with development and research?——I think you got that impression because I did not elaborate the thing enough. The set-up consists of the Transport Aircraft Requirements Committee on which a number of directors of the Ministry of Supply are represented, as well as these other departments and the Corporations. The Chairman of the Aeronautical Research Council sits on the Committee. There is a Transport Aircraft Technical Committee consisting of the people much more concerned with the detailed technicalities of aircraft, of research and production, and so on, and there are certain ad hoc committees dealing with special subjects. There is a committee which is looking into the question of supersonic aircraft. So you have got a family of committees headed by the Transport Aircraft Requirements Committee, all of which bring together the whole technical expertise which bears on the problem.

145. Expertise inside and outside the Government?——Inside and outside. Research and development is one of the important things which they must deal with.

146. I am sorry ; I misunderstood you. That is now cleared up. Are there any more questions on this subject?

Dame Irene Ward.

147. May I ask you this question? You are satisfied that the user-producer interests which are on the Committee are not bedevilled in the way that the tank war was bedevilled by the difficulties of the War Office requirements vis-à-vis the Ministry of Supply?——Yes.

148. That has been got over?——I do not think there is any difficulty of

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that sort nowadays. There are difficulties in consultation with the industry through this machinery, but that is bound to be because one manufacturer does not like to disclose his commercial thinking in front of another, so that one has to have devices to get round that kind of difficulty. But apart from that, the thing works very well.

149. In the old days I always understood that part of the problem of producing new aircraft was the number of alterations that had to be made from the time that the aircraft came off the drawing board into production, which used to boost up the cost of aircraft during the war to a very large extent. I learned that on the National Expenditure Committee. Have those alterations been more or less got over now? I mean, there are not so many, or there is a better expertise which deals with the matter?—It is probably true to say that there are not so many, but they still exist, and in considerable numbers, and I think they are inevitable owing to the very nature of aircraft.

150. But you have got over all the problems of production before you actually sanction the money expenditure?—Oh, there are still modifications made after the money has been sanctioned and the production of the aircraft has started because as the design has developed various snags and difficulties emerge and have to be put right by modifications, so that if you look at the list of modifications of an aircraft to the time that it first flies in service it is pretty considerable. You cannot avoid that, I am afraid.

151. But those will be shown in the figures which you are going to let us have?—I am not sure. Do you want a formidable list of modifications?

Chairman.] We do not want a list of modifications.

Dame Irene Ward.

152. But for the total sum?—Yes.

Mr. Albu.

153. Many of these modifications take place after the aircraft has been in operation?—Many do, because very often things develop in operation which have not been foreseen and have to be put right.

154. Such as the Viscount flap pin?—That kind of thing.

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Sir Keith Joseph.

155. So far we have been talking about aeroplanes of which production models actually to fly have been ordered. Have there ever been any cases where your Ministry has been concerned with a development order for a prototype or experiments in preparation for the placing of a firm order, quite apart from the firm order for production models?—Not my Ministry.

156. That is all through the Ministry of Supply?—That is all through the Ministry of Supply. There have been cases in the past where the Ministry of Supply have ordered prototypes and they have not necessarily led to production models.

157. But a decision on a civil prototype might come from the Committee of which you have told us?—It could do.

158. Then it would appear on the Ministry of Supply Vote?—Yes.

159. Whereas all the other aeroplanes that you have been talking about appear on the Ministry of Transport and Civil Aviation Vote?—Well, they do not appear on our Votes because they are bought by the Corporations out of their money.

160. What I am trying to clear up is this. None of the implications of experiment involved your Ministry? They involved the Ministry of Supply?—Yes.

161. Some are undertaken on behalf of the Ministry?—Yes.

Chairman

162. Passing to the question of fares, you have a part to play in the fixing of fares and rates?—Yes, indeed.

163. I understand from your memorandum that in the case of international routes the approval of Governments is required for the fares and rates charged by the Corporations. Has there ever been a case where you and the Corporations have differed?—No. In the last resort we do not differ from the Corporation because we discuss and agree the fares. There have been cases where we have refused to agree to a fare that has been put through the international machine—the International Air Transport Association. There are not very common cases of that kind, but there have been one or two. In fact, I suppose that from that point of view one might say that

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[Continued.]

we were turning down a fare which the Corporation wanted, because they had proposed it in the International Air Transport Association or had supported it in that Association.

Mr. Palmer

164. Was that a higher or lower fare? —One case that one could think of was where the Corporation wanted to raise the fares on a route to West Africa. We took the line there that what they were proposing to do would have the result of putting up tourist fares too much and not putting up the first-class fare enough. In other words, it would create a situation in which the tourist passengers were subsidising the first-class passengers, and so whereas we approved the increase that they wanted for the first-class passengers, we disagreed with the one they wanted for the tourist class passengers.

165. What was your general basis of thought? There was probably an argument, but was it a social argument? Is it not difficult for you to decide these things in an arbitrary way? —We have a duty to the consumer as well as to the two Corporations.

Mr. Albu

166. What happened if you had already made an international agreement on fares and you stepped in and refused to allow them? —All the international agreements on fares made through the International Air Transport Association are subject to the approval of Governments, so that there is a stage at which the Government may say that they do not approve.

167. They have to be renegotiated — They have to be renegotiated.

168. Did they succeed in doing so? —This case was called a cabotage route. It was entirely in U.K. territory, from this country to a colony. Therefore, the International Association was not involved.

169. But in a case where the International Association is involved do not you participate in the negotiations at the beginning to avoid this sort of situation? —No, the negotiations are between airlines.

170. If you are going to step in after they have negotiated and tell them that they cannot do it, it must make it difficult for them? —The alternative would be very much worse. We should have Gov-

ernments negotiating detailed fares, and it is a formidable job all over the world. They are matters in which we are not experts. Governments can have broad views on fares, but they could not negotiate the detailed fares for all the airlines of the world. It must be done by the airlines initially. By and large it works very well. It is very rarely that Governments in any countries turn down these things.

Mr. Ernest Davies

171. I am not clear what powers you have in regard to fares. Are these statutory powers that you have, that the aircraft Corporations have to obtain approval from you? —No, there are no statutory powers, but the right to carry traffic to and from a foreign country depends upon a bilateral agreement between the United Kingdom and that foreign country, so that there are in existence a very large number of these bilateral agreements between the countries. The general pattern of them is that they contain a clause which says that fares must be agreed between the airlines concerned, subject to the approval of Governments.

172. In the case of other fares where you have not got a bilateral agreement such as on the cabotage routes for one thing, and also on the internal routes as far as B.E.A. is concerned, what influence does the Ministry exercise there? —We do in practice approve them. There is no statutory authority for that, but it is an understanding of the Corporations that they come to us and we agree.

173. It is a kind of unwritten gentlemen's agreement? —Yes.

174. Apart from the case you have mentioned of the African route, have you on other occasions disapproved of the request of the Corporation? —There have been occasions, not very frequent, where we have said to the Corporation "You are putting the fare up too much. You must be more reasonable." And after a bit of argument they have said "All right, we agree."

175. Perhaps we could have a memorandum showing the requests, as in the case of the Coal Board?*

Chairman.

176. You will understand that it is rather important for us to find out how your activities impinge on the decisions

* Appendix 11.

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[Continued.]

of the Corporations that are essential decisions for the profitable management of that undertaking?—Yes.

177. That is why we would like as much detail as we can get about your interference, in the nicest meaning of that word, in their fares and rates arrangements. So if we could, as Mr. Ernest Davies has requested, have a statement showing the cases over the last five years where you have asked the Corporations to alter the fares or rates which they wished to charge, it would be very useful—not only your views, but the facts.

Dame Irene Ward.] And the reasons why.

Chairman.

178. And could you give us a short note on the reasons why? I want to follow up with the reason they gave, so that I can understand this. I want to understand this. I understand that in the West African case you asked the Corporations to alter the rates to which there was international approval because you thought that the ratio was wrong between tourist and first-class fares in that the tourist fares would in effect have been subsidising the first-class fares. Does not that alter aircraft by aircraft and seating arrangement by seating arrangement? If one Government disapproved of fares, how could you get international agreement, when different aircraft operators have different aircraft with different seating arrangements and different accommodation? I do not quite understand it?—Perhaps I ought to explain the West African case a little. That was a case in which no independent Government was involved. What we were saying was, "There is no case for putting the tourist fare up as much as you want to put it up. There is a case for putting up the higher class fare, and for putting it up more than you want to put it up. What we will do, therefore, is let you put up the first-class fare but not let you put up the tourist fare."

Mr. Albu.

179. Was this due to a request of the Commonwealth Relations Office or the Colonial Office?—(Mr. Evans.) Yes. We consulted the Colonial Office and the Governments of the Colonies concerned, and they all asked us to use such influence as we could to prevent the tourist fare from going up.

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180. This was interference with the commercial judgment of the Corporation on grounds of public policy?—Yes.

Chairman.

181. We shall be getting evidence from the Corporations on the considerations which they had in mind when they fixed fares. You feel that in certain cases you have to protect the consumer because there is no other protection for him, for example provided by competitive aircraft—which do not exist in this arrangement—or by other competitive forms of transport? That is the justification for your interference?—Yes.

Mr. Davies.

182. On the angle of competition, were there no foreign lines operating on these routes at all?—(Mr. Wilson.) No, because this was reserved to our own airlines because it was a United Kingdom Colony.

Mr. Palmer.

183. On page 6 of the Annual Report, headed "Trend of Fare Levels," we read, "The Corporation's policy towards passenger fares has been directed towards obtaining a proper economic relationship between the different classes of travel." Would you say that that is the normal basis of fare fixing—a commercial matter normally, apart from any other intervention?—It should be commercial. (Mr. Evans.) May I explain that point? I do not recollect all the details of the West African problem, but I think the matter was considered by IATA because the fares on the cabotage sector also affected rates to points other than in British Territories. The recommendation of IATA to Governments was that fares on these routes generally should be increased by, I think, 10 per cent. for first-class passengers. In any case, the recommendation was that both first-class and tourist fares should be increased by a percentage. We discussed the matter with the Corporation and said, "We are prepared to approve the first-class increase, but we are reluctant to do so for tourist class. We have consulted the Colonies and they have asked us to try to keep the tourist fares as they are. We should therefore propose to approve your proposed increase in first-class fares but to disapprove the proposed increase in tourist fares." They said,

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[Continued.]

“This is what was agreed, but if that is the position which you adopt, we will not oppose it.” By agreement with them, they accepted what we proposed.

184. Suppose that had meant running the line at a loss. Would you have persisted? Are you asking them to do something commercially unsuitable?—I do not think we should have done.

Mr. Davies.

185. Have you figures to show whether they were able to operate profitably at the fares which you approved and which were lower than they wished?—If I recollect rightly, we said, “If you put a still further increase on first-class fares you will have the same revenue.” The proposed increase in tourist fares was small and made no appreciable difference to the economics of the operation of the route.

186. Were there any independent operators on the same route at that time?—On part of it, Colonial Coach operators.

Dame Irene Ward.

187. The Commonwealth Relations Office and the Colonial Office came to you asking you to use your influence? They did not go direct to the air Corporation?—They always come direct to us in anything they wish to get across to the Corporation.

188. That is the procedure which has been laid down?—Yes. There are a number of IATA traffic conferences each year but they have a large annual conference, usually in the autumn, and from it come a large number of resolutions on changes of fares, conditions of service and a number of other things which are then sent to us.

189. Not to the Commonwealth Relations Office and the Colonial Office?—(Mr. Wilson.) Copies of these resolutions are sent to my Ministry for our approval.

190. Which was the annual conference to which you refer?—The Annual Conference of IATA—the International Air Transport Association, which is the association of world international operators who get together and thrash out the various fares problems and make recommendations as to the changes in fares which they wish to introduce for

the following April. The Annual Conference is held in the autumn. All these proposals and recommendations, which are in the form of resolutions, are sent to all the Governments concerned, including ourselves. On behalf of the U.K. Government we receive and consider these resolutions which contain the various changes in fares which the IATA wishes to introduce in the following April. We deal with this volume of resolutions, many of which are small. We look into them. We always pick out those which affect the Colonies and send cables straight away telling each governor the proposals which affect him and his Territory and asking whether he has any comment on them or whether he approves them. In so far as they conflict, we have to use our own judgment, but normally they do not conflict and normally the Governors accept them. The Governors of two or three of the Colonies in the West African case objected to the increase in tourist fares. As a result, and partly because we supported them, we consulted B.O.A.C. on the matter. They said, “We are reluctant to do this, but if you disapprove of that increase in tourist fares, we will accept it.”

191. You do it direct with the Colonial Governors and not through the Colonial Office?—When we send the cables to them, of course all the cables go through the Colonial Office.

192. But it is your approach and not a Colonial Office approach to you, having received representations?—Our approach.

Chairman.

193. When you are confronted with requests by other Government Departments, or anybody for resisting a proposed fare increase, presumably you have some principles which you apply in deciding whether to press the Corporations to alter their decisions. Would one of those principles be that on no account should you ask either of the Corporations to alter fares in such a way that one particular route was being subsidised, as it were, by other routes? Take the West Africa case. In making up your mind about what you should do with B.O.A.C., did you make quite certain that as a result of your proposals B.O.A.C. would not be in a position where the West African route would

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[Continued.]

make a loss, which loss was being made up by additional profit by, say, the Middle Eastern or North American routes?—(Mr. Evans.) We should go into the economics of any proposed change in the fares, and if it affected the route seriously we naturally should not try to impose a change.

Mr. Albu.

194. Would it not be fair to say that if the Chairman's principle were applied there would be no airline in Scotland?—(Mr. Wilson.) That is rather a special case.

Chairman.

195. I accept the rebuke from Mr. Albu. This is the point I want to get clear: As a result of your proposals, particular aeroplanes which had both tourist and first-class passengers were able to earn as much as before the proposals had been made? Some fares went down and some went up?—That is the sort of thing we should look at. We should not try to enforce a fare reduction or even a fare standstill if it would be bad for the economics of the route.

Mr. Albu.

196. Your reply to the Chairman does not imply, surely, that every route operated by B.O.A.C. is profitable?—No. It is not so, of course.

Chairman.

197. I did not mean to imply that. I was trying to find out whether it was B.O.A.C. who decided whether they wished to make a route profitable or whether you could interfere and say, "We say that the route which you are making profitable should not be a profitable route"?—We should not do that.

Mr. Albu.

198. May I follow that up? Is it the case that no policy considerations are brought to bear on the corporations to operate airlines which they would not otherwise be ready to operate?—Broadly that is true. There have been one or two exceptions. Normally the Corporation is free to decide which routes it wants to operate. We have no statutory powers to require the Corporation to operate any particular route. There have been one or two cases where, for very good reasons, we have felt that it was desirable that the Corporation should operate a route, and it is probably fair to say that some pressure has been

put upon the Corporation to do it. Probably as a result of that kind of situation there are one or two odd cases where the Corporation do something which is a good thing from the national point of view but which, if they looked at it from the purely commercial point of view, they might be not be doing. Such a case is quite rare and the most notable one is that mentioned—the social services in Scotland.

199. Would it not be fair to say that pretty well every airline of any other country is required to operate services on political or strategic rather than commercial considerations?—It is difficult to generalise, but there are a large number of airlines in various countries which are operating routes which are not commercially justified. Some airlines are heavily supported by Government subsidies and are simply run for prestige.

200. I was not thinking so much of the airlines of smaller countries run for prestige reasons. I was thinking more of airlines of countries with large strategic and political interests throughout the world, such as our own, where obviously major policy considerations would come into play if the airlines wished to stop operating in a particular direction?—I think there must be cases of that kind, although we should not necessarily know of them in detail.

201. But they would have to come through you. If the Foreign Office or the Minister of Defence or any other Department—perhaps the Board of Trade—felt that principles of public policy were involved in operating in certain areas, surely they would not go direct to the Corporation but would come to you?—They would come to us.

202. Has there not been an actual case of that sort?—I am trying to think whether there is an actual case. I cannot think of one on a route operated directly by the Corporation, but there has been a recent case of an investment by the Corporation in a subsidiary company which was justifiable on the national interest rather than by pure commerce. In fact, on the hard commercial facts it was probably not justifiable at all.

203. A recent case?—Yes.

Chairman.

204. Is it within the Corporation's statutory powers to undertake such a thing?—That is a very difficult ques-

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[Continued.]

tion to answer. Their statutory powers are to provide air services to the best advantage of the public, or words of that kind.

Mr. Blyton.

205. To what extent does the Department investigate the losses on the subsidiaries of B.O.A.C.?—Of course, we watch their losses and ask for their explanations, but it is very difficult to consider the loss on the subsidiaries in isolation. It may well pay the Corporation to have a subsidiary company making an appreciable loss because they carry on that company a great deal of traffic which is fed into their own trunk services. If they did not have this subsidiary company and did not incur the loss that it involves, somebody else would be operating that subsidiary company and that long-haul traffic, instead of being fed into the Corporation, would be fed into somebody else's aircraft — Pan-American, or the Scandinavian Airline System, for example.

206. Is that your view of British West Indian Airways Limited?—They certainly do that, but British West Indian Airways Limited is also subsidised to some extent by the local Governments.

207. We were told in the West Indies of the names used for the British West Indian Airways Limited. They were "Britain's Worst Investment Abroad", or, "Book, Wait Indefinitely Afterwards" or "Book, Will It arrive?" There is much more I should like to say about that.

Chairman.] I wonder whether the Committee will agree that there are a number of subjects upon which we may want to question the witnesses from the Ministry of Transport and Civil Aviation. The point which Mr. Blyton raised is one which I think the Committee will be able better to deal with on the B.O.A.C. Report for 1957-58, which is not likely to be received by us until the end of July or the beginning of August. I should like to get the agreement of the Committee and of the Department's witnesses to postpone that kind of question until later in the year when we have the latest information before us. Mr. Blyton may have the latest information from his visit to these pleasant climes.

Mr. Palmer.] He is right up to date.

Chairman.] But it would be wise if we waited until all Members could be equally informed, later in the year.

Mr. Blyton.] I raised the point because in the Memorandum on the relationship with the Ministry of Transport and Civil Aviation I read, "The closest co-operation between the Corporations and the Ministry is inevitable since the Corporations recognise that the Minister is responsible for answering for them in Parliament on matters of substance and that he must therefore be well-informed in their activities and is particularly concerned with their financial results, their reputation and general efficiency." I have raised this question because the British West Indian Airways Limited is absolutely hopeless.

Chairman.] I see the point and I was not suggesting that it was out of order. I asked for approval of a suggestion that we should deal with it later when we have the relevant Report before us. We have an out-of-date report before us, in general, and therefore any matter that has value only in the context of the up-to-date report could perhaps be left.

Mr. Fort

208. When you insist upon either an investment in a subsidiary company or a route being taken up which is uneconomical, has either of the Corporations the right to say, "We will do this provided that you arrange for us to get a subsidy to cover the additional cost"? Or do you authorise them to charge special fares to cover the extra cost of what you decide is the national interest?—There is no power of subsidising them. They cannot come to us and ask for a subsidy. It is a question of balancing how much of the cost of the route is attributable to national interest considerations and how much to their own commercial considerations, and we have generally reached an agreement.

Chairman

209. Mr. Wilson, you were just in the process of answering Mr. Fort's question?—(Mr. Wilson.) Yes.

Mr. Fort

210. I will repeat it, if I may. I asked whether, when you insisted upon investment in a service for national purposes, or on a special service being laid on, the Corporations could get a subsidy to pay for it, or whether they had

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[Continued.]

to charge some special fares in order to cover the investment?—I think that I ought, first, to make it clear that there is no question of our insisting upon their doing one of these things, because we have no power to insist—and would not want to. We would not want the Corporations to be instruments of deliberate Government policy. I referred a little while ago to one case of investment in an overseas airline which we did want to see the Corporations take up. There could not be any question of subsidy there, because there are not powers to give them a subsidy, but what they would probably do in that case if they make a loss through the investment is that they will probably mention it in their annual report at the time, and say “We did this because we were strongly asked by the Government to do it.” That is all they can do. The sum involved in that case cannot be assessed at present, but it certainly will not be large—quite small. I know of no case where a route is actually being operated directly by the Corporations because the Government have asked them to do it. There has been Parliamentary pressure, as you will no doubt know, on B.O.A.C. to re-open the South American route, and at one time there was Parliamentary pressure on the Corporation to resume a service that had been abandoned between the U.K. and Israel, but in those cases the Corporation said: “No, this is not commercial; we will not do it,” and that was the end of the matter. The only case, I think—in fact, I am sure—where there are services operated that are in the national interest and which the Corporations would not operate if they were completely free agents, I imagine, are those social services in Scotland to which we referred before. There, B.E.A. is bearing a considerable loss, but there are historical as well as social reasons why that should go on.

Dame Irene Ward.

211. You would not consider dropping in at our airport at Newcastle, on the same grounds?—It is one of those cases.

Mr. Fort.

212. In the social service, or one to Newcastle, there should be special provision for subsidy—do you think that the Act should be amended so as to make it possible to pay the Corporation a special subsidy to cover the cost?—

That is very much a question of policy, of course, and as it so happens at the moment B.E.A. are able to bear the loss. They are still making an overall profit, and in those circumstances, I should imagine that the suggestion that there should be a subsidy would not be awfully popular.

Chairman. We should put this, first, to the B.E.A., and find out how it affects their working, and if something arises out of that we can ask more from Mr. Wilson.

Mr. Fort. I was laying the groundwork.—(*Mr. Wilson.*) I know what the B.E.A. attitude is.

Chairman.

213. We must take evidence from the B.E.A. We have had reference to the subsidiaries and we shall probably want to go back to them later. When B.O.A.C., for example, wishes to create a subsidiary, or invest in a subsidiary, does it have to come to you for permission?—It comes to us for permission to make the investment.

214. The only other point I wanted to put concerns the form of the reports?—Before you do that, could I make a general remark on subsidiaries? B.O.A.C. are as conscious as we are of the losses on the subsidiary companies, and since the new management was installed—the new chairman and the general re-arrangement of two years ago—they have been giving a lot of thought to it, and have set up, within themselves, a subsidiary holding company to look after their interests in these subsidiaries, and are making a drive to get the subsidiaries on to a better footing. That is something that, I am sure, wants to be pursued.

215. Thank you very much. On the form of the reports, we have in front of us, as you know, the reports for the year ending 31st March, 1957, and we shall certainly have the reports for the year ending 31st March, 1958, but it rather struck me that the reports are rather different in the amount of information they give, and even slightly different in the detailed information. Is that so?—Oh, that is so, yes.

216. That is a correct impression?—That is a correct impression, yes.

217. Why do you allow that?—We have no hold, of course, over the form of the report.

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Mr. C. W. EVANS, C.B., C.B.E.

[Continued.]

Mr. Albu.

218. Is it not a statutory matter?—
No, it is not a statutory matter.

Mr. Palmer.

219. But the obligation to report is?—The obligation to report, yes. There is no obligation about the form of the report as long as it is a report. The policy of the two Corporations is this. B.E.A. have followed a policy of what they call complete frankness and fullness, and altogether to make their report very full, containing a whole lot of figures. On the other hand, B.O.A.C. have given what they consider to be a reasonable account of their activities and have left it at that. In other words, the B.E.A. report has tended to have rather more of the publicity flourish than has the B.O.A.C. one.

Chairman.

220. I imagine that, from time to time, you consult with the Corporations to see that their reports contain at least a minimum of information which you yourselves require to be placed before Parliament?—Yes. We have never had occasion to raise that, but we should raise it if we thought the information was inadequate—that a report was inadequate.

221. Bearing in mind that there is some difference even in the presentation of the detailed statistical figures, I wonder if you could help us in this way. One of the points that, I am sure, members of the Committee will want to be informed about as our inquiry goes on is how the performance of these Corporations compares with the performances of similar airlines in other countries?—Yes.

222. For example, the K.L.M., S.A.S., Pan-American. Your Department kindly sent to the clerk of the Committee one or two copies of reports from the leading airlines that you had available. I wonder whether you could compile for us, and submit to us a table comparing the essential performance factors as set out in these two reports with the essential performance factors of four or five leading world airlines?—I will certainly have a look at that.

223. If you find that it is not possible, let us know, but I have had a look at these reports and I find that they give similar information, even though it might not be exactly comparable, and it would be helpful if you could compare

the thing right for us, so that we, in our amateur way, do not fall into a trap?—We do draw comparisons for our own information, as a yardstick as to what the Corporations are doing, but there are difficulties, in the sense that figures which look the same are not always comparable when you come to probe them.

224. That is why we want your advice?—All we could do would be to comment and say “These are not strictly comparable.”

225. Thank you so much. I am afraid that we shall have to ask you to come back again when we take further evidence?—(Mr. Evans.) It is only a comparison of performance figures that you would like?

Mr. Albu.

226. Figures have been published from time to time, have they not—utilisation figures, maintenance figures and things of that sort?—Statistics?

227. Yes?—Yes.

Chairman.

228. In pages 6 and 7 of their 1956-57 B.E.A. report give some essential statistics, which B.O.A.C. give somewhere else later on in their report. But you probably know better than we do what are the essential statistics by which one can judge comparative performances?—(Mr. Wilson.) If you take pence per capacity ton-mile and operating costs, one can compare B.O.A.C. with others. Actually, I have some figures here now.

Dame Irene Ward.

229. Would I be in order in saying that what I would like to see would be what are considered to be the values of the amenities offered by the various companies—the champagnes and the sandwiches—over the whole range?—We could not get those figures for other companies. We do not know at all.

Chairman.] Dame Irene, what I am doing is trying to use the Ministry of Transport as a statistical Post Office, for our benefit

Dame Irene Ward.] That is a statistic.

Chairman.

230. I think if they give us what they can—?—We will give you what we can.*

* Appendix 24.

THURSDAY, 19TH JUNE, 1958.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.

Colonel Lancaster.
Sir Alexander Spearman.
Dame Irene Ward.

Sir GERARD D'ERLANGER, K.B.E., Chairman, Sir GEORGE CRIBBETT, K.B.E., C.M.G., Deputy Chairman, and Mr. BASIL SMALLPEICE, Managing Director, British Overseas Airways Corporation, called in and examined.

Chairman.

231. I should like to welcome you, Sir Gerard, and your colleagues. I think you have with you your Deputy Chairman, Sir George Cribbitt, and your Managing Director, Mr. Smallpeice?—(Sir Gerard d'Erlanger.) Yes.

232. I should like to say at the outset of this inquiry that we are in some difficulty, as no doubt you are, in that we are beginning the inquiry on a manifestly out of date report, that is to say, the report for the year which ended on the 31st March, 1957. We are aware that your report if things go as expected will be published about the end of July. We therefore will not have a chance of examining witnesses on that report until either the very end of this Session or our successor Committee of next Session when the next Session starts. We will, therefore, base our questions to you on the report that has been published, that is to say, the 1956-57 report, but I think it would be in our joint interests if we tried to confine our inquiry in these two months, June and July, to those subjects which are of general basic interest and that, as far as possible, we should postpone asking you questions, and you raising matters, which can best be dealt with by reference to current reports. I hope you will agree with that?—Certainly.

233. Now there is one other matter, Sir Gerard, to which I can assure you all members of the Committee will very much have regard, and that is that you are a trading competitive concern. We shall, of necessity, be asking questions the full answers to which will disclose facts that you might not wish to be disclosed in public on grounds of commercial secrecy. There is a procedure whereby the evidence is taken down and before the evidence is printed you are given a chance of side-lining

evidence which you wish not to be published. That is then referred to us, who have the final decision as to whether it shall be published or not. But we shall of course, as I say, have regard to the national interest and to your interest as a commercial competitive concern, and so I hope you will feel uninhibited in answering our questions fully and will not feel that you will be giving away matters that ought not to be given away?—I am very grateful for that, Sir.

234. Today, I thought we would have a general discussion to begin with, that is, questions that I or members of the Committee will put to you, and then perhaps we might come on to one or two basic matters and begin discussing those. At subsequent meetings it will of course be for you to decide who will represent B.O.A.C. We are always delighted to see you or your Deputy Chairman or your Managing Director. But we are perfectly well aware that you are all busy men, and that when we give you notice of particular subjects that we wish to raise you might like to appoint particular people to represent the Corporation for that meeting, and we shall of course not expect you to attend or your Deputy Chairman on every occasion?—Thank you very much.

235. Now we have already taken evidence about both aircraft corporations from both the Treasury and the Ministry on certain general points. The first general point on which I would like to put some questions to you is on investment. When you want to raise more money, you have to get it from the Ministry of Transport?—Yes, that is the position, under Exchequer advances.

236. We understand that at present about 80 per cent. of your investment goes on new aircraft and the remaining

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[Continued.]

20 per cent. is spent on ancillary matters. I want to come on to the whole question of the purchase of new aircraft later on, but I should like you just to tell us about the figure we were given, the 20 per cent. of your investment, what sort of things that covers, how you see that developing in the future, and what charge that is going to be upon your investment of funds?—I have got some fairly up to date figures, if it is any help, Sir, on the breakdown. These are really the same figures but they are produced in a slightly different way. As at March, 1957, out of £82 million, we had £23 million laid out in progress payments, £6 million laid out for associated and subsidiary companies, £37 million in flight equipment, £9 million in ground property and equipment, £1·4 million in working capital and a temporary sum of £4 million duly paid up immediately after the turn of the year to aircraft manufacturers, and, lastly, £2 million set aside for future amortization. That was the picture then, and of course you will get a more up to date picture with the next set of accounts. As far as the future is concerned, our capital has been increased recently to £160 million, but the various headings under which that money is required I am afraid I do not carry in my head.

237. No, but you could let have a note?—We could, certainly, let you have an analysis of how it has been budgeted for.* But, as I say, I do not carry those in my head.

238. That would help us very much. It is not the point I am on at the moment, but we should be grateful if we could have a note on that subject. The point I want to come to really is this. As it has been explained to us, in the case of aircraft to which we are going to refer later, the Ministry go into fairly close detail with you about your proposals and about the use to which new money is going to be put. But I understand in the cases of the other things such as ground equipment and even your subsidiaries, there is not so close a control exercised by the Ministry over your position. Is that so?—That is correct.

239. Perhaps it would be convenient to come to the case of aircraft. Would you describe to us in general, without going into too much detail, the procedure

from your point of view when you wish to buy a number of completely new aircraft?—I can only really answer that question in respect to the past two years since I have been in office, but I think that will probably give you a fairly good insight into the position. That really applies to all three of us, I think, because we all came in at the same time, though Mr. Smallpeice had been there in another capacity before, but he was appointed Managing Director at the same time as I came in. Now, Sir, it was quite evident at that time that, in view of the orders being placed by our competitors for aircraft of the sort which we had not ordered, namely, the big jets which were being manufactured by the Douglas Aircraft Company and the Boeing Aircraft Company, we had got to do something about getting similar sort of equipment to enable us to be competitive particularly on the North Atlantic. Domestically, within B.O.A.C., we set up a new piece of machinery, the Aircraft Requirements Committee, on which we had as broad a representation as possible, including air-crew because we wanted to bring them into this picture. We then had a talk with the aircraft industry here to find out whether there was any possibility that by late 1959 or early 1960 they could produce something comparable to enable us to compete with the Boeing 707 or the D.C.8, and it became quite clear that in the time available nothing of the sort could be done. Meantime, we had sent a party over to America to check up in considerable detail on these two projects, the Douglas and the Boeing, and to assess the one versus the other. I may say that that assessment was very difficult indeed because they are as alike as two peas in a pod. But at Boeings we were able to see something tangible, an aircraft actually flying, whereas at Douglas's one could only see drawings and a certain amount of, as they call it in America, hardware, certain amounts of bits and pieces that were ready for assembly. We finally came to the conclusion that Boeings were likely to be building aircraft ahead of Douglas and that certainly they would have far more flying experience behind their particular model than Douglas's, and that has been borne out ever since. They have only just flown, whereas Boeings have been flying now for 3½ to 4 years. We therefore came back having made up our

* Not printed.

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mind that the Boeing aircraft was the one that suited our Atlantic needs. The point was that the Boeing aircraft was the one we needed, but that the Rolls-Royce Conway engine looked like the most promising engine to put in it. So we made out a report to the Minister of Transport advocating the placing of an early order for fifteen of these Boeings 707s. That, of course, immediately raised the problem of dollars; but whether it was the force of our arguments or whether it was the plain fact that unless we had these aircraft we were going to be left standing in the race, the Government did agree to our placing an order with Boeings for fifteen of these aircraft, with Rolls-Royce Conway engines, for delivery commencing December, 1959. That, as it were, protected our flanks on the Atlantic. But it also became evident that our competitors were going to use that sort of aeroplane, not just on the Atlantic run, but elsewhere in the world, but as we had already got the Comet on order and the Britannias coming in, it was quite clear that our urgency was not quite of the same order. So we then went round the aircraft industry, having by that time much more closely made up our mind on what it was we were looking for. After having looked at these American projects, we went round the industry again, being then able to tell them the sort of performances we were after—particularly related to airports in the more underdeveloped parts of the world such as India, Africa, Ceylon and the Far East—and, after a series of discussions, which I think must have extended for well over a year, with various firms, the project known as the V.C.-10 by Vickers emerged. I think it was in about May of last year that we were able to sign with Vickers a provisional contract, which was converted into a proper contract on the 14th January, 1958, for 35 of these Vickers V.C.-10s, also with four Rolls-Royce Conway engines. We have an option to buy up to another 20 of these, provided we exercise that option by I think it is 1960. Now, throughout that story, we, of course, kept in touch with our Minister and told him how things were going. We had finally to come to him not only for the dollar permission for Boeings, but also for the pounds as well. As I say, I am not sure about that, but being such a large sum, we went anyway. As well as that, we did keep in touch with

a department of the Ministry of Supply because, although under present procedure we do not order aircraft through the Ministry of Supply, it is useful to pick their brains from time to time, and particularly the brains of the Royal Aircraft Establishment at Farnborough, to evaluate the dynamic performances of aircraft which is something we were unable to do ourselves. We cannot do that sort of evaluation; we have got no aerodynamicists; and they were extremely helpful both in evaluating the Boeing and also the performance of the V.C.-10.

240. We were told that they have got at the Ministry of Supply a committee called the Transport Aircraft Requirements Committee. Is that so?—Yes. Sir George is a member of it.

241. Yes; that is what we wanted to know from you. You have a member on it, and that member is Sir George?—Yes.

242. So that you are in day-to-day touch with their thoughts?—Yes.

243. And you are able to consult them as well as the R.A.E.?—Yes. Perhaps you would like Sir George to tell you about that?

244. Yes, if he would kindly do so?—(Sir George Cribbett.) I think it would be of interest to say that the machinery of the Transport Aircraft Requirements Committee has been under review in recent months in the light, of course, of the recent Defence Paper. In the past, most of the research work has been done for the benefit of the Royal Air Force and the military side generally, and the civil side has had very little objective research of its own. On the other hand, there has been considerable applied research and development in the civil field. Military research has taken place in the Ministry of Supply establishments and in various units of the aircraft industry. But the practical effect of all that work had its manifestation in some advanced military project. That was the basis on which all this work was co-ordinated, brought together, and eventually found practical expression. In the light of the changed situation, we have been considering what should take the place of that procedure; and the Ministry of Supply, as the general overseer of the aircraft industry and the general repository of knowledge of what

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is going on in the industry, have undertaken a co-ordinating function, and they will feed that information into the Transport Aircraft Requirements Committee for the benefit of its members, including users such as ourselves. That is at the present time being very actively considered by the Ministry of Supply and other organs of government and, indeed, by the Transport Aircraft Requirements Committee itself.

245. Are you also in touch with the Royal Air Force Transport Command, who have in some ways at any rate a need for similar types of aircraft to your own?—Transport Command is in fact represented on this committee, but up to about 1952 it was purely a civil aircraft requirements committee, and then its basis was broadened to include the Service Departments, the Navy, Army and Royal Air Force, so that all of us, so to speak, know what is going on over the whole field in relation to aircraft requirement orders. I would have said, myself, that as a consequence of the broadening of the basis of that committee, I think it is probable that the Royal Air Force today find themselves users of the Britannia and the Comet which were really started basically for civil operators.

246. Just to get the other side of that, does the V.C.-10 bear any relation to the transport aircraft that was at one time planned for Vickers, the Vickers 1,000?—No.

247. That is a completely separate contract, is it?—That is correct, Sir. (Sir Gerard d'Erlanger.) I have talked to the Air Force about the V.C.-10 in the hope that it might be of interest to them, because if only we could get the Air Force in this country to do what the Air Force does for the industry in America, and not just the aircraft industry but for the airlines industry as well, then it would be of tremendous help. They take a number of these aircraft under some financial arrangement or other; they probably buy them and "flog" them; so that by the time they get into the hands of the civil operators there is a great deal of experience behind them. They really fly them hard as, in fact, they have done virtually here with the Comet; the Air Force have done a lot of flying with that.

248. From which the Comet has gained, or you believe it will have gained,

considerably?—Yes, there is no doubt about it.

249. You are speaking in particular of the United States?—Yes.

250. Does that apply to France, for example to the Caravelle: has that been developed in that way?—I understand that for the development of the Caravelle Air France were given a contract by the French Government to develop it, although I believe that it has been in military hands, but I am not certain about that.

Dame Irene Ward.

251. How was your conversation received? Was any progress made as a result of it?—Not yet; it is quite recent.

Chairman.

252. The main thing for this Committee is to find out whether you are satisfied that the procedure exists whereby you shall have a chance of being successful in impressing upon the Air Force and Government Departments that your views about this are right. I gather through your direct approach to the Air Force and through Sir George Cribbett on the Transport Aircraft Requirements Committee, there are adequate channels to get your views across?—I think so, Sir. (Sir George Cribbett.) At a much higher level, through the machinery of an interdepartmental committee which is considering these general questions.

253. Perhaps you could tell us this. Recently the Minister of Supply announced some alteration in the governmental attitude towards civil aircraft research development. Are you satisfied with the way in which research and development are being carried out governmentally and in the aircraft industry and are you further satisfied that it meets your requirements?—(Sir Gerard d'Erlanger.) I am afraid it is early days for us to try to answer that one. Our outstanding requirements at the moment relate really to two things. One is the V.C.-10 which Vickers have taken on entirely as a private venture, so presumably they make their own arrangements about any research that they think needs doing; and the other one is what comes next after the V.C.-10. That has been referred to a committee of the industry, the Ministry of Supply, the Ministry of Transport, B.E.A. and ourselves, to try to see what this thing is going to be. It

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is a very difficult one because there is a possibility that in the next generation there will be supersonic aircraft and nobody seems quite to know yet whether it will have a speed of 1·2, 1·8 or 2 mach., or what the various economic curves are of those sorts of aeroplanes, but all that is being worked out at present by this committee.

254. At this stage there is no question of shortage of funds or of resources? It is a question of working things out?—That is what I would say at this stage so far as we are concerned—B.O.A.C.—that there is no apparent shortage of funds holding up anything in particular. (Sir George Cribbett.) I think I would say that it is too early to judge.

Mr. Ernest Davies.

255. On the question of purchase of aircraft, in the first place, to what extent is your choice influenced by the respective Government Departments, the Ministry of Supply and the Ministry of Transport? That is to say, when your final decision is made, as it was in the case between the Boeing and Douglas, to what extent are your views accepted, or is there a considerable vetting of them?—(Sir Gerard d'Erlanger.) There was quite a period in the case of the Boeing to make certain that Boeing's claims were likely to be fulfilled. There were certain doubts in this country which I think perhaps were partly engendered by other manufacturers. That is all very carefully sifted by R.A.E. very largely, and in this case I think they were dispelled. There was a great deal of sifting before the doubts were dispelled.

256. When it came to the purchase of other aircraft, including Comets, to what extent had you freedom of choice in deciding to go ahead with purchasing more Comets?—I was not there at the time the Comet story started. I may have been there in the first place when the original Comet 1's were ordered, but I cannot quite remember if I was on the board at that time. But that was a straightforward order placed by B.O.A.C. off the drawing board after study had been made with de Havillands. Then came the Comet 1 disaster, the inquiry, and the final decision that the Comet 4 should be ordered—19 Comet 4's—and that is as

far as I know. I certainly was not there at the time, but it was an entirely free act on the part of B.O.A.C.

257. So that as far as B.O.A.C. is concerned, on the whole your freedom of choice has been preserved; you have no reason to believe that pressure has been exerted upon you against your wishes to influence your choice?—No, I think that is correct. Earlier than that there were certain aircraft imposed on the Corporation arising from the findings of the Brabazon Committee, like the Tudors.

258. But we are thinking of the more immediate past?—Yes.

259. Then the fact whether the firm is able to finance an aircraft as it was in the case of the V.C.-10 has not, as in the case of the Comet,* influenced the purchase of those aircraft or indeed the placing of the order?—To be quite candid, all things being equal, I think we would rather go to the firm that are going to back it with its own money than one that is going to lean on the Ministry of Supply.

260. Why?—First of all, they have got more at stake and, secondly, if this goes through the Ministry of Supply—in other words, if it must go back through the old procedure of ordering through the Ministry of Supply—then it is very very complicated and—

261. I appreciate that, but before an order is actually placed to what extent do the Ministry of Supply or the Ministry of Transport check the cost of the plane to see whether it is a fair and reasonable one?—I think the answer to that is this, that to our knowledge they do not, but they may do it within their own department.

262. In other words, you have never been challenged as to the capital outlay on the cost of a particular plane?—Not that I am aware of. (Sir George Cribbett.) No. I think that both the Ministry of Supply and the Ministry of Transport attempt to apply their own economic evaluation to our proposals. Going back to a much earlier stage, before our time in B.O.A.C., I do remember certain studies being produced

* See Q. 343-5.

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by the Ministry of Supply which led to considerable controversy about the economic merits of different types.

263. When you talk about economic merits, was that whether the investment was worth while?—Yes.

264. That is a slightly different point?—Yes.

265. Then to come back to the question of where the plane is being financed by an aircraft company, how are the development costs apportioned? I mean, if the plane comes to you in its early stages, and you have to take all the snags out, does that burden fall upon B.O.A.C.?—Very largely.

266. So that when you have a case like the Britannia where there were quite a number of snags to be ironed out, that falls on you?—Yes. (Sir Gerard d'Erlanger.) That is a case in point where I would have liked to see the Air Force come in and do the flogging before we have to.

Mr. Ernest Davies.] Yes, I appreciate that. Thank you.

Sir Alexander Spearman.

267. Could we take it from what you said earlier that you think there are advantages to be gained in a greater degree of co-ordination in the production of military aircraft and aircraft required by the Corporation, and the trying out and experimenting with those aircraft?—Yes—really following the American pattern, this Boeing 707 that we have ordered. That was another reason why we opted for the Boeing and not the Douglas. The American Air Force had ordered 250 of them and they have already got about 100 flying eighteen months before we get delivery of our first one, so that they will get a lot of experience with them and, so far as there are snags in them, they will be ironed out before we get delivery, which is a tremendous asset.

268. But then I think a witness we have had before suggested that the Aircraft Transport Requirements Committee did effectively do that, and I rather gathered from what you have both said that it has not been quite so effective as it was designed to be?—The Transport Aircraft Requirements Committee does not actually buy aircraft. With

Treasury knowledge and consent the R.A.F. place orders. They did not order Britannias so far as I know, until long after B.O.A.C. did, and the same with Comets.

Chairman.

269. In fact, it is rather the other way round?—Yes; we have been developing aircraft to some extent for the Air Force, whereas in America it is exactly the reverse.

Dame Irene Ward.

270. Could I make a point upon that, because it does link up with that? If your procedure was put into operation would your assessment be that it would be a great asset to you on your commercial side?—I think it would be a great asset on our commercial side because we should take delivery of an aircraft which was well proven, and we could then put it into service and, by and large, expect it to operate regularly and satisfactorily.

* * * *

Mr. Albu.

271. Would you not agree that, whereas the American Service requirements enable them to do what they want without any element of subsidy, this would not apply in the case of the Royal Air Force? What I mean by that is that the R.A.F. requirements being so much smaller that is something which the Service Departments would not in fact carry on their Votes for defence purposes?—It could be.

272. You are asking for a subsidy for the development of civil aviation?—Yes, I suppose that is what it comes to.

273. How far do you think that in the case of the American Air Force procedure, there is an element of subsidy, and how far do you think it is entirely Service needs? Have you any idea?—The Boeing 707 certainly was a Service need. It was what they call a freighter-tanker; that was its original concept, being devoted to carrying fuel for re-fuelling in the air their big bomber force. That is clearly a Service need. I would have said that in the Douglas ranges they would probably have

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ordered those aircraft for the sake of Douglas's more than for the sake of the Air Force. But it is a very difficult one to answer. They have got a very big transport requirement.

274. They can swallow an item of this sort much more easily than our Air Force can?—Yes; the American Air Force M.A.T.S. runs the biggest airline in the world.

275. Following that up, I think at the beginning of your remarks, when you were talking about the generations of aircraft at present being developed, you said that when you came into your present office you came to the conclusion that owing to the competition which was being developed by new aircraft it was essential for B.O.A.C. to go into the next generation, as it were, and the question I would like to ask is: How far (it is not an easy question, because you cannot separate competition from economic operation) is this competition economic and how far would you consider that without an element of subsidy—whether conscious or unconscious—that is implied in the development of aircraft in the United States, this need would have arisen?—I do not know whether Boeings would have embarked on the 707 without this Government contract. If they had not, and Douglas had got the same sort of arrangement and the same sort of time, they might have chased each other into producing it.

276. On the whole, you think it was the Service requirement which stimulated and really caused that position?—Yes. I am hesitating over the answer for this reason, that when Douglas's discovered what Boeings were up to they quickly leapt into the same market without a Government contract.

277. But they hoped to get one?—Yes; and in fact they may have one for all I know by now.

278. This is not a new situation, and perhaps it is not an entirely fair question to ask, but I will put it nevertheless, and if you cannot answer you will just say you cannot, but why was this need not previously recognised? I mean, this is not a sudden change in the development position stimulated by American Service needs. Or was it that it was thought by the Corporation that we could get by with just one

generation, or something of that sort? —All I can say of the situation as I found it when I was appointed is that no requirement for this type of aircraft had been placed at all or even notified.

279. You have said that the American Air Force had been flying Boeings for four or five years?—No, the Boeing Company itself.

280. But that was known?—Yes. Well, when I say it was known, I do not know how long it was known because they would have kept it pretty quiet for the first year or two; but it was certainly known in B.O.A.C. (Mr. *Smallpeice*.) I think it would not be untrue to say that this knowledge of what the Boeing 707 aircraft could do was only really becoming available at the end of 1955, shortly before Sir Gerard assumed the Chairmanship. Up to that stage, I think a lot of airlines were just wondering which way they would go; but about the end of 1955 or early 1956 we began to have much more certain knowledge of what the aircraft could do and what the economics were.

281. Has there been a change either in the rate of ordering or the procedure of the American air force? Is this a new feature which has stimulated the rate of development in a more economic way than in the past?—(Sir *Gerard d'Erlanger*.) I do not think it is a new feature.

Mr. Ernest Davies.

282. What planes were B.O.A.C. relying upon for their future development before it was decided to place an order for the Boeing?—The Comet 4 and Britannia.

283. You thought they would meet requirements?—(Mr. *Smallpeice*.) Britannias and developments of Britannias were also being considered.

284. And it was because of the fact that you could not get delivery of those in sufficient time to meet future needs that you went in for an American plane? —(Sir *Gerard d'Erlanger*.) Not so much that, but that neither the Britannia nor the Comet 4 matched the performance of the big American jets in particular on the N. Atlantic and the Western routes.

Colonel Lancaster.

285. You mentioned a little while ago the matter of the economic principles you apply. I wonder if you would in

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very general terms, quite shortly, mention those particular factors, that is to say, what period of amortisation you look to in the life of a plane, and roughly how do your principles correspond or otherwise with those of your competitors; that is to say, have you a separate list from that of the American lines, or do you find that in fact you have much the same principles in matters of this sort?—There are a number of formulæ which are employed for evaluating aircraft which are all much of a muchness. There is a common one which I think, by and large, all airlines use basically and then they add their own variants. But basically the fundamental things are the same including the rate of amortisation. We amortise now over seven years with a residual value of 25 per cent. at the end of that period. It is something that may have to be extended because these aircraft are getting so expensive that to write them off over ten years is a bit quick. But we have these formulæ which we use for evaluating an aircraft and they are highly complex and complicated because of the many variants, and therefore the number of cases which you get—the temperature at the airport of departure and at the airport of arrival, humidity, length of runway, altitude, and 101 other factors, the likely height, force of tail wind on a given run—are all put into this computation and they give you a whole series of answers according to where you want to fly to, what the aerodrome is like at the points of departure and arrival, the intervening distance and so on. So that we use all those and try to assess an aircraft on that. But I think that, by and large, all the airlines use much the same formulæ.

286. Would you care to give any information on the advantage to any particular aircraft in world markets of B.O.A.C. having decided to select a particular machine; that is to say, how would that compare with, say, the experience of Air France or Pan-American or the like? But with B.O.A.C. operating on the scale they do, does that mean in fact if you do decide on a particular aircraft, well, that has given it a very fair and reasonable chance in world markets, or are you only of such a size that that would not influence outside buyers as against, say, the experience of Air France or Pan-American?—I do not know whether the fact that we had got a particular

aircraft would necessarily influence a foreign operator to buy that aircraft. But the fact that we have not ordered it has often been given to us as a reason by the aircraft industry here why we should order one of everything. They say, "Look, in the absence of your having bought it, I have not got such a good chance of selling it elsewhere." You might say, "Well, why has not B.O.A.C. bought it?" But we cannot multiply our types unreasonably just to please the aircraft industry.

Mr. Blyton.

287. Has the Ministry ever refused a particular aircraft to B.O.A.C. which you thought essential for your competitive position in the world?—I am not aware of the Ministry having refused to let us buy the aircraft we needed—not in my time. (Sir George Cribbett.) I think the answer to that is no.

Dame Irene Ward.

288. Could I ask this question—it is probably rather a foolish question—but in view of the really tremendous sums involved which seem to get greater and greater every few years, are we ever going to get to the point where we are going sort of to say, "Well, we have arrived at the best possible plane we can have, and therefore we must cease," or are we going on indefinitely trying to get faster and faster and perhaps larger and larger planes? If that is so, then it seems to me that we are never going to come to the end, because I personally rather dislike flying in a new plane once I have got used to one type that I like flying in. I may not have an adventurous spirit, but are we ever going to come to the end, or from the point of view of maintaining production, maintaining trade and maintaining research have we really got to go on with this tremendous development?—(Sir Gerard d'Erlanger.) That is an extremely shrewd question and one which is worrying all of us a very great deal. Technically it does not look as though there is any end to the story, and the only thing that will bring sense to it is an economic appreciation by all the countries of the world that this just cannot go on indefinitely, but whether it is possible to get all the countries of the world to come to their senses, particularly those that have got perhaps a surplus of productive capacity which they want to employ, I just do not know. From the

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airline operators' point of view it is a nightmare, there is no stability. We talk about a subsonic plateau which is the era we are entering now, and for quite a time they have been saying that it was going to last a good ten years, but there are signs now that perhaps it will not last a good ten years.

Mr. Ernest Davies.

289. Is there any attempt at international agreements?—So far, none at all. But I was going to try to sound out the views of some of our opposite numbers at the October conference in Delhi, where they will all be assembling, because I think every operator must be getting very worried as to how he is going to get the capital required within such a short time after he has bought these subsonic jets.

Mr. Albu.

290. If an arrangement for fixing fares and freight charges were come to would not that stop it?—It might. But then we have got the Russians coming into the picture now.

291. The only reason you can go on with this increasing capital expenditure is if you maintain freights and fares?—Yes.

292. And if you were able to charge economic fares for slower aircraft the whole thing would stop?—Yes, but unfortunately, or fortunately from the passengers' point of view, up to now the faster aircraft has got better economics.

Chairman.

293. That is based on what period of depreciation, because that must come into it; if you are constantly turning them over and turning them over very quickly, then you ought to be?—Taking the standard formula of seven years, plus 25 per cent.

294. But do the planes that you have got at present and the plans and thoughts you now have about moving from the subsonic plateau to the supersonic summit involve shorter periods of depreciation?—We have not the measure of it yet.

Mr. Albu.

295. I think that this is very important. Do I understand Sir Gerard to say that so far, on a strictly commercial basis, the advance in cost of the aircraft concerned, the capital cost that is, has been

economic from the passenger's point of view and also B.O.A.C.'s point of view?—Yes, that is correct.

296. But that we are now probably entering a field when from B.O.A.C.'s point of view they can only be economic if the fares are maintained at a level at which they would otherwise not have to be maintained?—Correct. We are possibly entering a supersonic field where price has got to go up and it may then become uneconomic, and that might bring sanity into it.

Mr. Ernest Davies.

297. What is the cause of their becoming more economic, because the planes are there and running costs are lower the higher the speed?—Yes, they are, and largely because of their speed they do more work in a given year for the same number of hours utilization. A 500 mile an hour aeroplane does twice as much work as a 250 mile an hour aeroplane of the same size.

298. So far the position has not arisen where you have had redundant planes; that is to say, that the speed of development has been so great and the rate of construction is so great, that the planes you have been operating have pretty well reached their maximum use by the time a new plane should come in. Is that so or not?—It is and it is not. They have reached their maximum use in the sense of not being so competitive, but they have probably not reached their maximum life in terms of ability to go on flying.

299. In that case, what happens to a plane?—In that case we try to sell them in the second-hand market, but at the moment that is very poor indeed.

300. Have you got surplus planes on your hands?—We have at the moment some Constellations and some Argonauts, and we shall have some more, because they are both due to be taken out—the Constellation by September.

Chairman.

301. To what have they been written down, to get the picture right, because this arises in connection with the economics of the thing? When you talk about these surplus aeroplanes, at what level do they stand in your books?—Mr. Smallpeice.) The Argonauts which we had in service from the start we have written down, virtually, to nought, to



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£1,000 or £2,000, and the Constellations were aircraft which we had to buy second-hand as an emergency measure at very high prices in 1954 when the Comets fell out of the air, and they are standing on our books at a substantial figure like 900,000 dollars.

Dame Irene Ward.

302. I suppose that an international agreement on fares and other things prevents you from flying the planes that have done their economic number of hours at a slightly lower fare?—(Sir Gerard d'Erlanger.) That is the trouble. The more modern aircraft is the one that can stand the lower fare.

Chairman.

303. That is what we wanted to know from you. The Argonaut has been written down to nought. Are you saying that that aeroplane is going to earn you less, after providing all proper costs, than a modern machine?—Yes.

Mr. Fort.

304. Have you not been describing what happens with all large investments in these days, that, in order to earn a return on the capital invested in them, you have got to get the maximum usage possible from them, and that so far, as capital cost has increased per aeroplane, you have, as you have described it, got larger and larger use out of them because of the increased speed? Why should not that continue to be true, even though capital costs continue to rise?—I cannot give you a categorical answer to this question and I do not think anybody else could in this country at the moment, and that is what they are working on. But it looks as though the next step is the supersonic step and the cost of getting through the sound barrier is going to introduce a new element which has not been present heretofore, the actual cost of getting through the sound barrier and keeping your speeds above it may be, for the first time, quite a big element in increased costs. They will probably add more than you can gain by increased utilization of a machine. But that is the way it looks at the moment.

Chairman.

305. But will you use them? If it is more costly to fly at 1.5 mach. than it

is on the subsonic plateau, what is the reason for flying with a 1.5 mach. plane?

—That is a point on which we shall have to exercise our commercial judgment. Take our own case. I would have assumed we would exercise commercial judgment, but it is really all guesswork, and my own guess is that very few members of the public will pay 50 per cent. more to fly London to New York in, say, four hours as opposed to six hours, and I personally would not be tempted to buy many (if any) of these aircraft if their operating cost was going to be 50 per cent. more. But if the Americans and the Russians do buy these things and put them on the same fares as our planes, then we shall be in a mess.

Mr. Albu.

306. You cannot reduce fares?—I cannot.

307. There are two uneconomic factors now developing: the first is that the next generation, or the next generation but one of aircraft, is likely to be uneconomic *per se* unless fares are raised; and the second is that the pace of development is so fast that the generally agreed time of writing off depreciation is now in fact too long, and therefore the conditions under which plane fares are fixed no longer operate?—I think that by and large is correct, but you will probably hear a completely different opinion from B.E.A., who are now pleading for an extension of the depreciation rate and that it should be spread over a longer period.

Chairman.

308. Let us take the Britannia. If that is being depreciated on a seven-year period basis?—Plus 25 per cent. residual value.

309. That is being put down to 25 per cent., in seven years it becomes 25 per cent. of what it was before, but are you certain that is right and are you certain the value of a Britannia ought not to be 50 per cent.?—I just do not know.

310. If it were 50 per cent., then there would be a case for depreciating slower?—Yes.

311. In the case of the Constellations, there is a world market for second-hand Constellations, or there has been?—There has been.

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[Continued.]

312. What has been your experience there? Has the seven-year rate proved to be about right or quite wrong?—I would have said it proved to be right until about eighteen months ago.

313. Then the bottom fell out of the market?—Yes, when everybody started saying, "Look, there is no future for piston-engined aircraft; the only future lies with jets or turbo-props," then the bottom of the market virtually dropped out.

Mr. Ernest Davies.

314. Might I ask this, because the Chairman stated that when it came to supersonic planes that was going to be uneconomic according to present indications?—Yes.

315. Is that an actual fact, or is it what you consider at the present time, because by the time that develops things might have changed?—No, it is not a fact, but it is the most up to date information I have from this committee on this side of the Atlantic, in this country, consisting of the industry, ourselves, B.E.A. and Farnborough: the whole lot are working on this. But the difficulty is that there are so many variants to be studied from Mach. 1 up to Mach 3, each one involving a precise calculation, and I am informed that it will be at least another twelve months before we get the answers.

Mr. Albu.

316. If you were allowed to operate aircraft which have been largely written off as economic planes, would that increase your turnover or profits faster than re-equipping with bigger, better and faster aircraft?—No. I would have said the state of development and growth of air transport is this, that up to now it has been produced by the policy of airlines to keep their fares down, providing the public have better facilities for travelling.

317. No, I am not suggesting you should not do that; I am suggesting in addition that if you were allowed also to fly aircraft which have been largely written down and which were slower or much slower, and at much lower fares, would you not increase your passenger traffic and therefore your turnover? In other words, how far is continual development and the necessity to maintain fares at present levels holding back

all fares?—If I may say so, Sir, is not the answer to that question predicated on the fact as to whether or not you can operate with old aeroplanes cheaper than with new ones?

318. We have not got to that point yet?—Yes.

* * * *

Mr. Ernest Davies.

322. But even if one talks about economic fares, would not it be the case that the advantages of fare-fixing outweigh any possibility of freedom in fare charges?—(Sir Gerard d'Erlanger.) We think that if there were complete freedom there would be complete anarchy and we should probably all go bankrupt much quicker than we are. It is one of the things that are worrying us about the Russians; they are not members of our club and they are charging any fares they like. They are free to charge what they like.

Sir Alexander Spearman.

323. May I make myself clear on this question of bankruptcy? If the aeroplane that crosses the Atlantic in four hours will not bring in any more custom, then clearly you cannot afford to pay a very big price for it without making a loss. If existing aeroplanes cannot bear any lower fares, and other people do offer facilities of a four-hour passage, you are obviously going to lose custom and therefore you are bound to lose on them. Therefore, why are you not moving towards bankruptcy at a quicker rate? That is my first question?—I think at the moment all the airlines are moving toward bankruptcy because there has been this policy ever since the war of chasing a broader market and of lowering fares; a lot of companies are encouraged to do that by their own Governments, people who do not generate much traffic, like the Scandinavians. * * * * We have all been playing the same game, saying, "Let us broaden the market and get as many passengers from each other as we can." But I think that has gone too far and I think there is an awareness at the moment that it has gone too far, and I think there will be demands at the next traffic conference to settle these affairs to redress that situation. That will probably be the first time, except for

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our one attempt last year when we wanted to put fares up on the Atlantic, all airlines to put up the first class fares by 5 per cent. It was agreed and it was recommended by them all to their Governments, but the American Government would not agree—the civil aeronautics board did not approve the increase—and so, because they did not approve, nobody could do anything about it. Then twelve months later they did approve it.

Mr. Fort.

324. How much is the increase in the future due not only to the increasing costs of machines but of the ancillary equipment, in the runways to deal with the problem of jet planes, better means of getting passengers out to the planes, and are any of those likely to add very appreciably to the capital cost of running a fleet like yours?—Undoubtedly. Then you get this question of low tariffs. The air transport industry today is one of the biggest industries in the world, taken as a whole industry. In America today, for instance, the United States civil air transport industry is the second or third largest I believe, but I could check that point, in terms of turnover. It is colossal, world-wide. It is an enormous industry and is increasing.

325. Are you implying by that that you think these ancillary and other services are a small part compared with the turnover of the industry, or are they really now an appreciable part of the capital cost of the industry?—Well, Sir, not being an airport owner, I cannot answer from the airport point of view, though Sir George might be able to. But from the aircraft point of view, broadly we aim to turn an aircraft over once a year.

326. Presumably you have to pay airport charges?—Yes.

327. Those are constantly rising all the time and are an important part of your costs are they not?—Yes.

Sir Alexander Spearman.

328. If other countries can afford—or perhaps cannot afford but do it—in fact to buy faster aeroplanes than you are planning to do, or that you think you can afford to do, are you very sure that that is entirely because they are being subsidised, or is it because they have been able to cut their costs more, either because they can buy more cheaply or by paying lower wages, or

for some other reason?—First of all, perhaps I have not made it quite clear that this next plane, this supersonic plane, so far as we know, is not on offer yet by anybody, and therefore one cannot evaluate it. All we can do in this country is to do our own guesswork as to what is possible technically and try to evaluate that, but I am told—and I cannot confirm it—that both Douglas's and Lockheed's have got supersonic aircraft, as it were, behind a secret enclave which may be flying shortly. I have seen reports in the paper that it has good economics, but I have not, as I say, been able to confirm any of this yet. I do not know whether that answers your question.

Mr. Blyton.

329. Is there any hope that this competition for air passenger traffic throughout the world is likely to end?—There is no end of it, though there has been a temporary falling off in the rate of increase, which I think you can attribute to particular things—the recession in America, the fact that countries producing raw materials like Rhodesian copper and Malayan tin have come into it. We are as I say, at the moment, going through a temporary phase where the rate of increase is either nil or very little above what it was last year. But in answer to your question, looked at long-term, Sir, I do not see any likelihood of a falling off in the rate of increase.

Mr. Ernest Davies.

330. To what extent is it economic to reduce your fares as you have done with the tourist class and by increasing the number of passengers you can carry? Is that economic, or does it pay you more to maintain the high first class fares?—In the past, Sir, the first class passenger, by and large, has been subsidised by the tourist. (Mr. Smallpeice.) Still is.

331. So that your experience is that the more passengers you carry per plane, even at lower fares, the more economic it is?—Up to a point, I think. We are now finding that the recent economy class which started on the 1st April this year on the Atlantic is not as profitable as the tourist class in the middle; that is the mainstay of the economics of air transport at the moment.

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332. On this question of competition for traffic, to what extent do you enter into pooling arrangements with other airlines, because in that way you can control the capacity which is available? (Sir Gerard d'Erlanger.) * * * *

333. But with your main competitors on the North Atlantic?—We have got no pool on the North Atlantic, but we have one with Qantas. (Mr. Smallpeice.) But we do not regard that as competitive because those in the pool are partners, because there are advantages in two airlines selling their combined output together; they can economize in the process of doing so not only through selling and handling costs, but also through the amount of services that they together put on. They put on a number of services that are better adjusted to the expected volume of traffic than they would do otherwise.

Mr. Blyton.

334. Have you lost much of the British West Indies trade to Pan-American?—(Sir Gerard d'Erlanger.) Sir George can answer that.

Chairman.

335. Mr. Blyton has just been to the West Indies?—(Sir George Cribbett.) There has been a falling off in the rate of expansion of traffic between the United States and the West Indies, probably due to the recession in the United States, but the rate of increase in recent years has been very high. In these last six to eight months the rate of increase has declined.

336. We will deal with the West Indies later?—(Sir Gerard d'Erlanger.) Could I just round off that answer in relation to the pooling? Pooling or, as we understand it, sharing revenue, has been confined solely and exclusively to British flag carriers. In other words, all our pools have been entered into with a Commonwealth or Dominion country.*

Mr. Ernest Davies.

337. Have you made any attempt to enter into a pooling agreement with anybody outside?—No; that is our policy or our philosophy as it were, that we have tried so far to confine it to British flag carriers to try to beat the

others. (Sir George Cribbett.) B.E.A. do have pooling arrangements with foreigners.

Chairman.

338. Sir Gerard, you have given us a great deal to think about today. Whereas at the beginning I had thought that we might go on to some general questions on fares and other parts of your problem, I think it would be wiser not to do that. I think we shall probably want you to come back to us when we have considered what you have told us, and also to have some extra information that I am going to ask you for now. There are one or two points that have occurred to me on the questions that have been put to you that I think it would be a good thing to clear up. You mention other airlines and subsidies. That is a charge or a statement that has been made on a number of occasions in newspapers and elsewhere, and presumably you have close knowledge of what does happen. I wonder whether it would be too much trouble to ask you to give us a note on which of your competitors are subsidized and how, so far as you are aware of it?—(Sir Gerard d'Erlanger.) Certainly.

Mr. Ernest Davies.] Both direct and indirect.

Chairman.

339. Yes—subsidies in the widest sense?—Yes. The latter of course is the more difficult one.

Mr. Ernest Davies.] Yes.

Chairman.

340. Yes, but if you could give us what information you have it would help us very much?—Yes.*

341. Now, when we were talking about research, Sir Gerard, you told us of research development and you told us of how soon after you had taken up your office you sent a team round the United States to find out what was going on there. You told us, too, of reports that had recently come to your notice that in the United States there are two big manufacturers who are getting quite far ahead with supersonic aircraft. How much do you know of what is going on in the United States aircraft industry and

* But see Q. 497-500.

* Not printed.

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the French aircraft industry?—Practically nothing at this stage.

342. * * * *

343. Then, in the course of your earlier remarks about the importance to the American airlines, as well as to the American aircraft industry of government orders, and the air transport commands running in of the planes that you spoke about, there were several points on that, and I wonder whether you have got any facts you could put to us which would show the amount of flying hours carried out by, say, a Boeing 707 before it comes into civil aircraft use on the one hand and the amount of flying hours carried out by the Comet 4, which you will be able to estimate, and by the Britannia on the other hand, before it came into civil use.* I think all those facts would help the Committee. In the course of our discussion today we have, I think wisely, been looking ahead to the future, and a great deal of what we have been saying has been about new aircraft or anticipations for the future. We shall also be concerned with the effect on your current operations of the aircraft ordering procedure in the past and how the aircraft manufacturers have fulfilled their delivery dates and fulfilled their initial estimates of cost. I wonder if, instead of drawing it out by question and answer at this meeting, you might give us a paper with regard to the cost of—let us take the Britannia and any other one type of aircraft you choose—the estimated cost when you have placed an order, when the approval of the Ministry of Transport was given to you and the final cost when you came to pay; the estimated date of delivery and the actual date of delivery; so that we could see how that worked, and in addition to that, any note you might like to give us in that memorandum on how that affects your operating costs during that period. It may be a bit of crystal-gazing by you, but if you could help us that way by a memorandum we can then have a useful discussion by way of question and answer very much like we have had today. At the same time you might like to give us a guide as to how you estimate, at the time when you decide to

place an order, whether the price quoted to you by the manufacturer is the right price or not. It may of course be a matter of bargaining.* Then you were asked questions whether the Ministry of Supply advise you at all and you said no. But we would like to have some guidance as to how you estimate whether the cost is too high, too low, or what it is. I think if the Committee agree, that would help. Then I have got two more questions, and only two. You mentioned dollars, ordering aircraft for dollars. It would interest the Committee to know whether you are a net dollar-earner or a net dollar-spender.† You may not be able to tell me just at the moment. Then, finally, just for the record, I want to take up one question of Mr. Ernest Davies—because these things get on the record. He was talking about financing an aeroplane and, in order to make his point, I think he indicated in his question that the Comet was not financed by de Havilland, whereas the New V.C.-10 is going to be financed by Vickers. He did not put it to you in the form quite of a question, and you did not reply whether you agreed with the statement about the Comet or not, but I rather felt that was not a full statement. If we are going to have that on the record, if we could have from you a note as to how the Comet was financed, I think that would keep the record right?—Yes.

Mr. Ernest Davies.] I did not want to mislead.

Chairman.] I am sure you did not.

Mr. Albu.] The story will be taken right down to the present time?

Chairman.

344. Yes, I think it would be a good thing?—(Sir George Cribbett.) The air-frame development of the Comet 1 was financed by de Havillands, but the engine was financed by the Ministry of Supply.

345. But there has been a considerable air-frame development since then?—Yes. (Sir Gerard d'Erlanger.) If I have misled the Committee, Sir, I would like to make it clear that even though in the case of both the Comet and the V.C.-10

* Appendix 7.

* Appendix 3.
† Not published.

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we have used the expression "financed" either by the Ministry of Supply or the manufacturers, in both cases we make progress payments.

Chairman.

346. Yes. I ought to have made that point, but I think we were all aware of that. What we are talking about is

the time before progress payments are made?—Yes.

347. Or the gap between progress payments and actual expenditure—however you like to put it—but we were aware of that. Then, at a later stage, we will probably ask you to tell us how the payments were made and we will leave that for the moment.

WEDNESDAY, 25TH JUNE, 1958.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.

Mr. David Jones.
Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Mr. Wade.

Marshal of the Royal Air Force, Lord DOUGLAS OF KIRTLESIDE, G.C.B., M.C., D.F.C. (attending by permission of the House of Lords), Chairman, British European Airways, examined, Mr. A. H. MILWARD, O.B.E., Chief Executive, and Mr. R. L. WEIR, O.B.E., Financial Controller, British European Airways, called in and examined.

Chairman.] We should like, Lord Douglas, to welcome you and your colleagues, and to apologise for the slight delay caused by a Division of the House. At the outset, I should like to say to you that both you and we, in these early weeks of our inquiry, are in some difficulty because we have chosen to start the inquiry just before you are submitting your Report, which means that the Report at present in front of us is, so to speak, an out-of-date one. You can understand why, despite that, we have chosen to start the inquiry. Had we done otherwise we should have had two or three months, valuable from the point of view of the Committee, with nothing being done, because the nationalised industries generally produce their Reports in July or August—with the one exception of the Coal Board, with which we have just finished.

It therefore seemed to us right on this occasion, and on other occasions when we meet before August, to concentrate rather on general background subjects as opposed to matters which can best be dealt with by reference to an up-to-date Report. That is the first thing I

would like to say to you. I hope, therefore, that you would agree—and I think that my colleagues on the Committee agree, too—that if we should suddenly find ourselves involved in a subject to which you will be referring in detail in your Report, we should drop it, and come back to it, if we want to, when we have the Report in front of us.

The second point is this. You are, we are aware, a commercial and competitive concern. There may be questions which we put to you, the answers to which, if they were published, you would consider embarrassing and against your interest. We have a procedure in these Committees in the House of Commons under which the shorthand writer takes down everything that is said. That is transcribed into a proper, printed record of the meeting and it is then circulated. Witnesses are invited to sideline any particular remarks that they think should not be published. That is then referred to us, who have the final say as to what should be published, but we shall, of course, take into account your commercial interest, and the national interest. I hope that that will suit you, and I

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hope that it will enable you to give your answers without fear that you may be embarrassed later.

Lord Douglas.] Yes, certainly.

Chairman.

348. With those two points in mind, I think that it would help us if we could start by some general questions on investment, and then come, in particular, to the purchase of aircraft. You are financed by and through the Ministry of Transport? When you want extra money, that comes from the Minister?—Yes.

349. Can you tell us, generally, what the principle of your investment is, in aircraft on the one hand, and in other services and matters on the other hand?—You can actually get those figures from the Annual Report. We have our Balance Sheet out for this year and could give you the up-to-date figures. Our capital investment is, at the moment, £32 million, and of that just over £24 million is in aircraft or aircraft spares.

350. The rest is taken up with—what?—The rest is taken up with operating ground equipment, office and commercial equipment, current assets, general stores, debtors and claims, short-term deposits, bank balances and cash.

351. When you seek to raise more money through the Ministry of Transport, do you find that there is a difference in the degree of control exercised over that part of the borrowing; that is, for aircraft on the one hand, and that part which is for the other things?—There is no hard-and-fast rule but, naturally, the Minister expects us to put to him any items of large amount—and that is usually aircraft. We are also spending a good deal of money on enlarging our maintenance base, and we put that to the Minister, as we thought that he was entitled to express a view on it. We put in, of course, estimates for expenditure to the Ministry, which they can criticise or not as they wish.

352. Do you put in estimates annually, or at a time when raising new money?—Both.

353. Now perhaps, we may pass to the procedure for the purchase of new aircraft. Would it be convenient for you to outline, in summary form, perhaps, the procedure through which you go inside B.E.A., and through which you go with

the Ministry of Transport and Civil Aviation when you wish to purchase a new aircraft?—Well, the concept, or the need for a new aircraft normally starts in our Commercial Department. We have a Commercial Research Department which looks ahead, and they estimate that in 'so many years' time we shall need additional aircraft of such-and-such type. We have, in B.E.A., a Policy Committee, which is a sort of top-level Committee in the Corporation, under the Board. Normally, a paper would be put in by our Commercial Director to the Policy Committee on the question of new-type aircraft. This would be discussed in the Policy Committee, on which, of course, sits our Chief Engineer. After discussion he would be told to go away and draw up a requirement—a broad specification of the aircraft, which would again be discussed in the Policy Committee. When we had agreed the broad specification, we would then normally put that to the various aircraft firms—the ones that we think would be most capable of producing such an aircraft. For instance, with the DH.121—the new one we have just ordered—we put it to de Havilland, Vickers, Bristol, Hawker-Siddeley and Handley-Page, and asked them to submit sketch designs and performance figures of the aircraft they would produce according to our specification. That is done, and we then, of course, have to select which of the broad designs submitted is the most suitable for our purpose. When that is done, we then have to put the thing to the Minister, to get his agreement to ordering so many of this type of aircraft at such-and-such a cost. He would then consult the Treasury and, we hope, would give us the necessary approval. We would then place the contract with the selected firm.

354. Whilst you are considering amongst yourselves the design or type of aircraft you might want to order, do you consult the Ministry of Supply? I believe there is a Committee called the Transport Aircraft Requirements Committee?—Yes, I am a member of it, and B.O.A.C. have a representative on it, too. We do discuss the design requirements of the Corporations in that Committee. It is rather patchy in its activities. Sometimes it is quite active; at other times, like last year, we have a period when it hardly meets at all. But, on the whole, I think it is a useful Committee.

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With the Ministry of Supply officials round the table one can get useful advice and information which, I think, helps us in our cogitations.

Mr. Albu.

355. May I ask on whose initiative the Committee meets?—On the initiative of Claude Pelley, the Controller Air, I think he is called. He is the chairman.

Chairman.

356. You would also be in touch with the Transport Command of the Royal Air Force, if they have any views?—Well, they are represented on the Committee, too.

357. And it would be through the Committee that you are in touch with them?—Well, we do have direct, personal contacts with the Command, but the Transport Aircraft Requirements Committee is supposed to overlook the transport aircraft of the Royal Air Force as well as civil, of course.

358. And they are looking well ahead?—Yes—oh, yes, that is their job.

359. At this stage, they would be looking beyond the de Havilland 121?—Yes, very much so. I mean, things like the supersonic aircraft come within that.

Sir John Barlow.

360. You say that when you want new 'planes you send specifications to four or five manufacturers. Do you, rather, set out your own specifications of what you require, or do you look round the various manufacturers and see what they are likely to be producing at the time when you will want new planes?—Oh, no—the former. We have never yet bought an aircraft "off the peg." In some ways I wish we could—it is a much cheaper way of getting them.

361. But you could not get what you require at the present time?—No, because no manufacturer—no British manufacturer, at any rate—sets out to produce an aircraft unless he has a requirement from either a British Corporation or a foreign company—preferably the former.

362. Do you find that foreign manufacturers do that—sell off the peg, so to speak?—Oh, yes. A lot of airlines do buy off the peg. K.L.M., for example, buys off the peg from America.

Chairman.

363. But other airlines have been buying Viscounts off the peg?—Oh, yes, that is a case in point. The Viscount was developed at the instigation of B.E.A. We drew up a 52-page specification and gave it to Vickers.

Mr. Albu.

364. So the foreign airlines get the advantage?—Yes, the foreign airlines get the advantage.

365. How far do the American aircraft manufacturers benefit from Service requirements in the United States—from the purchase of Service aircraft in relation to the civil aircraft they use?—A great deal. Most of the American civil aircraft start as a military requirement.

366. Even for the short or medium hauls such as you operate?—(Mr. Milward.) I think the Convair was based on a military requirement, and, of course, in an extreme case, the Boeing 707 was based on a Service order for flying tankers.

367. But that is not an aircraft you would purchase?—No—that is long range.

Chairman.

368. I think that what Mr. Albu was thinking of was evidence we had from Sir Gerald D'Erlanger on the effect on B.O.A.C. and their foreign competitors—what he called the "flogging" of American aircraft. He wanted, I think, to know if the same happened to you, bearing in mind that you are more interested in the short- and medium-haul aircraft?—(Lord Douglas.) Yes, it would apply to us, but not to the same extent.

Mr. Fort.

369. You said that the activities of the Transport Aircraft Requirements Committee were patchy, and that it had not met at all last year. Does the patchiness of its work really hold up rational consideration of your requirements and, therefore, your ordering procedure?—I do not think that it has actually held us up, because we have fairly definite ideas of what we want, but, naturally, when one does not get the advice of the Committee, one may not, perhaps, get one's requirements in the best possible shape. I certainly think it ought to have met more regularly than it has. It has

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taken on a new lease of life now, particularly because the whole of the aircraft industry, of course, and particularly on the civil side, is so worried about the effects of the White Paper. I think everyone sees that if development of civil aircraft is to go ahead in a proper and orderly way, and particularly on the research and development side, there must be some Committee where everything comes in and is co-ordinated and advice is given out.

Mr. Albu.

370. Would you say that this is as important to you as it is to B.O.A.C., bearing in mind the fact that the aircraft that you require are not likely to have military requirements as well and that there is practically no other purchaser, therefore, in this country for the aircraft that you require? Is the Transport Aircraft Requirements Committee really as important for you as, say, for B.O.A.C.?—Well, I think it is, really, because our aircraft are, of course, based on research and development carried out in many cases by Government Departments, the Ministry of Supply in particular and Farnborough, and so on; and unless there is some reciprocal for the information of these various aspects of development and research we may not be aware of what we could possibly get, if you see what I mean.

Chairman.

371. You use this Committee, then, to assist you in knowing what it is that you might be able to get from British aircraft firms and, indeed, from aircraft manufacturers anywhere in the world?—Yes.

372. So as to keep you up to date in research and development?—Yes.

373. The knowledge that this Committee has is mainly knowledge culled from the R.A.E. and from Bedford?—Yes.

374. Will it also include knowledge of what is going on in manufacturing firms in the United Kingdom?—Yes, and universities. You see, the heads of the various sections or Departments of the Ministry of Supply sit on this Committee and they can inject any information that is required.

375. So you, as Chairman of the B.E.A., are able through this Committee

to keep in touch with the progress and, indeed, the degree of effort, in research and development on aircraft in this country?—Yes.

376. Would it be a fair question to ask you if you are satisfied with that progress?—I was rather dissatisfied, as I said, last year because we had not met nearly often enough and the Committee seemed rather moribund, but it really has taken on a new lease of life now and I am satisfied with the present arrangements for the meetings of the Committee and for the Agenda.

377. And are you satisfied with what they tell you of the research and development effort going on, because that matters very much to you as Chairman of the B.E.A.?—Yes, I can say I am satisfied.

Mr. Ernest Davies.

378. I was going to follow up, if I might, this question of the ordering of the planes themselves. The Chairman of B.E.A. referred to the stages which were gone through before the Minister of Transport and Civil Aviation authorised the placing of the order. Now, I want to get back a little further than that, if I might. After you have made your application to the Minister for the planes which you desire to purchase, having chosen the manufacturer, presumably, what then transpires? What happens as between you and the Minister?—Well, we have to put in a very full memorandum to the Minister justifying the ordering of so many aircraft for which we have to produce figures of the future traffic expansion, and this memorandum goes to the Minister and from that point he consults the Minister of Supply on the technical side as to whether our ideas on the aircraft are technically sound, and then he has to go to the Treasury to get their approval for the expenditure of the money.

379. Following on that, to what extent does the question of financing the purchase of the plane arise? Is it a fact that in the early days of the purchase of the Viscount, for instance, some of that was financed by the Ministry of Supply, or was it entirely financed by Vickers and your progress payments?—I think I am right in saying that the Ministry of Supply did provide some money. Yes, they did put some money

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into the Viscount originally and, in fact, that was their justification for charging us a royalty which averaged £8,200 for each of our Viscount 701's.

380. Charging you ; charging Vickers, presumably?—No, we had to pay it. (Mr. Milward.) That went on the price. (Lord Douglas of Kirtleside.) That went on the price, in that Vickers recovered from B.E.A. the amount of the Ministry of Supply levy. I think the Ministry must have made a profit by now from the levies on each Viscount sold.

381. But the present policy, as far as I understand it, of the Ministry of Supply and the Treasury is to forgo financing if it is possible to do so?—Yes.

382. Now, to what extent does that enter into the decision as to which manufacturer you place your order with?—It would only enter into it to the extent that we would have to produce evidence to the Minister that the firm that we have selected was capable of doing the job. We had to do that in the case of the 121, to convince him and the Minister of Supply that this consortium of de Havillands, Faireys and Hunting's were financially capable and technically capable of producing this particular aircraft.

383. Yes, but in that case there was a certain amount of delay, was there not?—Yes.

384. And that was due to the fact that at one stage de Havillands had not presumably made it clear that they were able to finance the plane themselves?—Yes, I think you can put it that way, certainly.

385. To what extent has the delay affected your future deliveries?—I should say that it has delayed the deliveries by upwards of six months. I think it was last August, was it not, that we put in our memorandum to the Minister and I think we got permission to order the aircraft, when?—(Mr. Milward.) Three or four months ago. de Havillands stated that they had ordered because they were in fact going on with the planning all the time. I am sure, as my Chairman says, there has been a six months' delay at least. (Lord Douglas of Kirtleside.) But, of course, in that case both de Havilland's and Bristols were proposing that the Ministry of Supply should put up some development money and, of course, that was the first move on their part, and then the

Ministry of Supply said: "No, we are not going to, you have got to do it as a private venture", and then the next stage was to convince the Ministers concerned that this consortium was able to do it as a private venture.

386. If they had not been able to do it as a private venture you would be in a position of either purchasing a plane from the other consortium or of not being able to purchase the planes you require?—Yes.

387. But were you satisfied that the plane of the other consortium was as satisfactory as the D.H.121?—No, we thought that the D.H.121 was the best design submitted, and what is more important, that de Havillands were the best firm to do the job with the best experience in the manufacture of jet aircraft.

388. I am sorry to press this, but there was, as you recall, quite a number of questions in the House, and so on, at that time, and the impression was given that there was rather considerable pressure on the part of the Ministry to get B.E.A. to purchase the plane other than the de Havilland for the reason we have stated, and that at one time it was considered that there might be a danger of your being pressed to purchase a plane other than the one which you yourselves desired?—I think it is fair to say that there was a certain amount of pressure in that direction.

389. And you resisted it successfully?—Yes, because our view is that we are a commercial concern. We are responsible for making a profit and if we do not make a profit we get kicked in the pants by you and the Press and everyone else ; and one of the big factors in whether you make a profit or not is the type of aircraft you are operating. If someone else is going to choose that type of aircraft for you, then they must take the responsibility for your commercial success or otherwise.

390. And your preference was entirely a commercial preference in this case?—Oh, entirely, yes.

Mr. Palmer.

391. Perhaps Lord Douglas will tell us, does this mean that if he likes to press it, the ultimate decision in the purchase of aircraft is with the Minister?—Yes, that is so, because we cannot purchase aircraft unless we get the money to do it and the Minister can either not

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recommend our request to the Treasury, so that we do not get the money, or turn it down for some other reason.

392. Would it be fair to ask you, Lord Douglas, if you think there is too high a degree of Ministerial—I do not want to use the word “interference”—influence, perhaps?—No, I do not think so, really, because we are playing with the taxpayer’s money in that the taxpayer supplies us with our capital and if we want more capital for some particular purpose I think the Minister is perfectly justified in asking to be consulted and to have the chance to say Yes or No.

393. Yet, at the same time, you are supposed to be a commercial concern?—Yes.

Mr. *Albu*.

394. Is the point to some extent that the Ministry of Supply has a greater experience in the manufacturing and financial strength of firms than you can be expected to have?—Yes, I should think that is so. I think the Ministry of Supply is entitled to a view and to express that view, of course, but I think the final decision on what type of aircraft we order must rest with the B.E.A. Board.

Mr. *Wade*.

395. On this same point of placing orders, in sending out specifications and eventually placing an order, are you under any obligation to spread your orders amongst a number of firms or are you free to decide in accordance with the commercial test?—No, we are quite free to decide.

Mr. *Fort*.

396. Could I ask just one more question on this point, whether the interference of the Ministry of Transport with the de Havilland aircraft was the only occasion on which the Ministries interfered in a matter of major policy of aeroplane buying?—We have never had trouble before in getting approval to order the aircraft that we want. As I say, we have to put up very full information as to why we want the aircraft and why we want so many and with full facts and figures; but in the event in this last case that we are talking about, this D.H.121, the Minister did not interfere, eventually we did get the necessary approval, but we had certain discussions about it.

Chairman.

397. During that discussion were you asked to accept an aircraft that might be less profitable because that aircraft looked as if it might be easier to export? That was one of the points that was mentioned in the newspapers and, I think, in the House of Commons?—No, I do not think, Sir, that that was quite the point. It was not so much that the aircraft was easier to export, but that the policy of the Minister of Supply, as you know, is to amalgamate the aircraft manufacturing firms to some extent, and he thought that a consortium of Bristols and Hawker-Siddeleys was a more satisfactory one from his point of view than the consortium of de Havillands, Faireys and Hunting. He thought that technically they were stronger and financially that they were stronger.

398. In the last resort, as you have indicated, it was left to you to decide on your own factors?—In the last resort he gracefully gave way and let B.E.A. order the aircraft that they wanted.

399. Because, in the last resort, you are responsible for the profitable running of your airline?—Yes, and we did, I think, convince him that these firms that are doing this job are capable of doing it.

Mr. *Albu*.

400. Did those discussions have some effect on the organisation and strength of the group which is now going to make the aircraft?—Yes, I think so. I do not think there would have been a consortium but for the Minister of Supply’s views on this question of amalgamating aircraft manufacturing firms.

Chairman.

401. In the final stages did you think of placing the order with de Havillands alone, then?—Yes.

402. And at that time it was your view that de Havillands could have produced the aircraft?—Yes, we thought that they could have done it on their own but I think in the upshot it is better that there is this consortium.

403. Because it is stronger?—I think it will be stronger financially and I think technically the other firms will be able to help.

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Mr. Ernest Davies.

404. But if de Havillands had done it on their own they would have had to have Government finance, would they?—No, they said in the end that they would do it as a private venture themselves. They asked for Government finance to start with but in the end they agreed to do it as a private venture.

405. Even without the consortium?—Even without the consortium.

406. Has there been any change in the speed with which you make your progress payments in order to assist de Havillands to finance the aircraft?—No, I do not think so. You might like to speak on that, Mr. Weir? (Mr. Weir.) The answer is, no, there has been no material change. We have altered the incidence of the stage payments slightly after discussion with de Havillands, but we have not departed substantially from the first schedule of stage payments which we were given by de Havillands.

Chairman.

407. Could you let us know what these are? I think the honourable Member may know it, but I do not think anybody else does. Could you state to the Committee what the ordinary schedule of progress payments is?—Yes. The stage payments are, perhaps, a dozen to 15, and the money is paid by the customer to the manufacturer according to the stage at which the aircraft work has progressed. The money is paid against certificates of completion.

Mr. Ernest Davies.

408. Would the agreement you now have with de Havillands be comparable to the one that you had, say, with Vickers over the Viscounts?—It is comparable but not the same. There are minor changes between the two.

409. Are the minor changes more costly to the B.E.A., taking interest into account?—On balance, yes, but not materially so.

Chairman.

410. I think it is going to be much easier to understand if we can know, in fact, what happens. It may be easier to do it in the form of a memorandum after the meeting, but when is the first payment and what percentage of the total cost is it?—I have not the schedule before me so I am speaking from memory on this.

411. Perhaps you would like to let us have a statement?—Yes, we can quite easily submit a statement showing at which stages the money is paid.

412. For this and the Viscount?—It ranges from the placing of the order until after delivery. (Mr. Milward.) On completion of certain components, wings, main planes, spars, and so on, a percentage of the money is paid over.

Chairman.] What matters financially is how big the first payment is.

Mr. Ernest Davies.

413. It would not be fair to say, then, that in order to give the order to de Havillands you made some financial sacrifice; in other words, you helped them financially to a certain extent through the changing of progress payments?—(Mr. Weir.) No, I would not say that is so, Sir. In fact, we were able to postpone some of the stage payments in order to fit our capital commitments into the requirements of the Minister for capital expenditure. We were given certain target figures for the two years, 1958-59 and 1959-60, and we had to arrange with de Havillands to have a certain part of the stage payments postponed so as to bring our total commitments within the figures prescribed by the Minister.

Chairman.

414. I wonder if you can tell us this, or you may like to put in a memorandum about it; I think it puzzled some of us as to how it is in a venture like this that you satisfy yourselves that the price quoted to you for the aeroplane that you have ordered is the right price, and that it ought not to be lower?—(Lord Douglas of Kirtleside.) I think you can say, ordinary commercial bargaining goes on on that. The manufacturer submits a price and then in the normal way we haggle about it.

415. In the ordinary course there is not any competition in price; there may have been competition in design, but there is not any competition in price?—Well, undoubtedly we shall have got different prices from the three manufacturers who are finally in the battle for this particular aircraft.

416. You did have that before you on this occasion?—We had that before us. (Mr. Milward.) Each manufacturer

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quoted a price when they sent in their specification. (Lord *Douglas of Kirtleside*.) There was not much difference between them.

417. You do not wish us to understand from that that you would normally take the lowest price? You have to bear in mind the design as well as the price?—Yes, very much so. You would not necessarily in a case like that take the aircraft that cost the least, if we thought that we should have to suffer some penalty in the future years commercially.

418. We should like to have from you, I think, a statement illustrating for us what happens when you have fixed the price. When you place an order you agree a price. Take the Viscount, for example. That price is fixed. Then, there are some adjustments and in the end the final price you pay is usually rather different from the price agreed?—Yes.

419. Perhaps you could give us a statement—I think the Viscount would be a good example—of how things turn out?—Yes, we can do that quite easily. In fact, I have the figures in front of me now.

420. Unless there is anything you would like to supplement, I think it is probably easier for the Committee to understand if we see it in front of us, and we can always ask questions later?—The contract price is apt to be affected by two factors: the first is the escalator clause which always goes into the contract, by which if wages go up above a certain percentage the price of the aircraft goes up proportionately. The second item which may add to the cost of the aircraft is if we ourselves want modifications while the aircraft is being developed and constructed. It is quite true that the price does go up. For instance, in the Viscount 802 the basic contract price was £320,000 and the price we actually pay now is £344,000. The 806 at £350,000 for the basic price, and it is actually costing us now £381,000. (Mr. *Milward*.) That varies considerably. You remember, our requirements for radio equipment and that type of thing are apt to vary very much while the aircraft is being made. (Lord *Douglas of Kirtleside*.) But we can let you have those figures, certainly.*

421. I think that will help us. It is my impression from what I have seen

reported publicly that you have not suffered from delays in delivery by aircraft manufacturers?—Not recently, no. We suffered very much from delays in deliveries of the Elizabethan aircraft, but it is rather *vieux jeu* now. The early Viscount deliveries were a few months late but recently Vickers have been pretty well up to time.

422. In this new contract for the D.H. 121 I assume you have taken steps to satisfy yourselves that you will get the aircraft on the agreed date of delivery?—We always have a penalty clause in the contract. The penalty starts to run three months after the delivery date in the contract and that, I think, is the best way we have got of ensuring the thing is not too bad.

423. That is an effective penalty, is it?—Oh, yes, we got quite a lot out of de Havillands over the Elizabethan, did we not? (Mr. *Weir*.) Yes, we got a penalty on two headings: one was late delivery and the other was short performance until the two were combined in a compromise settlement. (Mr. *Milward*.) It is effective from the manufacturer's point of view but it is very seldom enough to compensate the Corporation for the loss of the aircraft. In the case of the manufacturer it is effective and it is noteworthy that in the case of Vickers it is some two or three years since they incurred a penalty at all. They are well within their dates usually.

Mr. *Blyton*.

424. What is meant by "short performance"?—Shortfall in performance. The performance was not up to the specified performance in the case of the Elizabethan. (Mr. *Weir*.) In this case I think it was that the speed was below. (Lord *Douglas of Kirtleside*.) Yes, it is set out in the contract.

425. They have to put it right, I suppose?—It is set out in the contract and there is a penalty for not fulfilling the guaranteed speed.

Sir *Alexander Spearman*.

426. Is the escalator clause to which you referred invariable in all contracts where, presumably, delivery takes a very long time, because it does, of course, mean that the manufacturer is rather indifferent as to how much wage increases he gives?—It is the usual practice in

* Appendices 4 to 6.

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the aircraft industry, is it not? (Mr. Weir.) This clause to which you are referring, Sir, is tied to the National Wage Awards annually and has no bearing on any increases which any individual manufacturer might give to his people. It has to be a national country-wide award before it has any effectiveness in the contract. (Mr. Milward.) It would not have the effect you suggest, in fact, of course, because it would put the manufacturer out of the running for selling the aircraft for export, which is now vital to him.

Sir John Barlow.

427. May I go back to your earlier question? You said that when you wanted a new plane you sent general specifications to a number of manufacturers and they produced something to those specifications and sometimes they produced a real winner like the Viscount, and you attach great prestige value to that and it was value to you. Would you say that the risk of having a good or bad plane and the extra time involved is really worth the prestige value, or not?—(Lord Douglas of Kirtleside.) I think it is more than prestige, it is practical commercial value; both, really. If you have got a fine new aircraft passengers tend to want to travel on that aircraft, so that we certainly get an advantage in that way from buying new aircraft and not buying off the peg an aircraft that other people have got.

428. And worth the delay and risk involved?—Yes, I think so.

Mr. Davies.

429. I should like Lord Douglas to tell us something about the burden of development costs on the Corporation, when they purchase a new plane like the Viscount, which is developed by Vickers and not by Ministry of Supply assistance. Presumably the Corporation is itself involved in a certain amount of development cost. Is there any arrangement whereby this is shared with the manufacturers?—Not really. We get the manufacturers' guarantee, which expires after six months. They will replace defective parts up to a certain time, as with a motor car. It is a serious matter which hits us in various ways. When you get a new aircraft with a new engine, the time between overhauls of the engine is very short and it is expensive to have

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to overhaul an engine every 400 hours, as we did when we first got the Viscount. Now we have to overhaul it only every 1,700 hours. Any new aircraft is bound to suffer from teething troubles, as the Viscount did and is still doing. The first Viscounts we bought are being modified; we had to put new spars into the main planes. That applies only to early Viscounts—the first twenty or thirty. It applies to ourselves and Air France and Aer Lingus, who bought them just after us, whereas people who buy Viscounts now miss all that.

430. When that arises, planes are grounded and you make a commercial loss as a consequence, does the manufacturer compensate you in any way?—No.

431. Except for defective materials?—(Mr. Weir.) We try to get him to provide the replacement material and we provide the labour for fitting it, but we are not always successful. (Lord Douglas of Kirtleside.) That does not compensate us for loss of revenue which occurs owing to having twelve Viscounts grounded at this moment.

432. Is it possible to have a memorandum showing the estimated development costs which have been borne by B.E.A. in a typical case such as the early or later Viscount?—(Mr. Weir.) It is difficult to quantify expenditure of that nature. (Mr. Milward.) The costs of an airline for being part producer of a new type are enormous. Our own development people have to work very closely with the manufacturers in producing the final design. After you have the aircraft in service you have all the work involved in keeping it flying.

Mr. Albu.

433. How far would you buy or place orders for aircraft like the Viscount from your own willingness, and is pressure brought on you to help to develop the British aircraft industry?—(Lord Douglas of Kirtleside.) I have no ambition at all to buy American aircraft. I think that the British aircraft industry can produce just as good aircraft as, if not better than, the American industry. Apart from it being a nationalised airline, we owe it to the country to buy British. That has been our policy all along and I think it is the right policy. Do you not agree?

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434. I was neither agreeing nor disagreeing but simply trying to get the cost to B.E.A. of doing it. You have said that it is much cheaper to buy off the peg. There may not always be what you want on the peg. In the Viscount you had a world beater, but I suppose that if there had been something on the peg at the time you might have been tempted to buy it?—(Mr. Milward.) There was an American aircraft, D.C.6, on the peg at the time, and there are a large number of this aircraft in Europe against us.

Mr. Davies.

435. Are they comparable with the Viscount; the Viscount was the first turbo-prop, whereas these were piston engined?—(Lord Douglas of Kirtleside.) There are advantages and disadvantages in buying off the peg or going for a new type. The disadvantages about the latter are that it is expensive and you are faced with more cost than if you bought off the peg. On the other hand, being the first in the field with a new aircraft you tend to attract more passengers to you; that is, more than your competitors who have not such good aircraft. To evaluate which is the more profitable is rather difficult. From the prestige point of view and the general reputation of the airline, providing you specify the aircraft right and get a winner, that is of very great value to the airline. (Mr. Milward.) Perhaps you are tending to be misled by the case of the Viscount. It was a revolutionary aircraft, and that was where the prestige question arose. It was something quite new and far better than anything anyone else had. If you are buying ordinary piston-engined aircraft, which do not vary very much, there is something to be said for buying off the peg. You can never buy a revolutionary aircraft off the peg. With a new aircraft you sometimes take a large risk and you put it on the peg for your competitors, as we have done with the Viscount, but you have a start of two years in the field and you always remain a little ahead of your competitors while that aircraft is in service.

Chairman.

436. We talk of the Viscount as a completely new type of aircraft, but you have bought many Viscounts since the original order was placed and some of

the latest are of the new type, the 800. When you buy and introduce an aircraft which is a development of a previous model, do you have the same teething troubles or is it, in general, the same as buying an aircraft off the peg?—(Lord Douglas of Kirtleside.) We have teething troubles but they are not as great. We have had teething troubles with the 800 series which we did not have with the 700's, but as it is a development of the 700 we get fewer teething troubles than if it had been a brand new type.

437. You have the advantage of being first in the field?—Yes. (Mr. Milward.) Introducing a second version of an original aircraft is child's play compared with introducing the original. We had different troubles with the 800, but they were very minor. Immediately the 800 series came in we put them in full utilisation last summer. They went straight up to about 2,400 hours a year from the moment they came into service.

438. Can we pass a little into the stratosphere? Can you tell us how you see things developing for the future? Would you expect your next aircraft, for example, after the 121, to be a supersonic aircraft, or what are your general ideas about future development? Would you like to speak for a little on how you, as Chairman of an operating company, view the general progress of aircraft development?—(Lord Douglas of Kirtleside.) The next new aircraft we shall get is the Vanguard, a large, 100-seater turbo-prop of about 425 m.p.h. We think that that will be very economical on our short routes. One of our big problems in B.E.A. is that we fly a number of short routes, on which it is much more difficult to make a profit than on longer routes. We have bought half-a-dozen Comets because we think that on our longer routes we shall meet competition from the jets—American, British and French—which all the airlines are buying now. On the 200-mile London-Paris run, the time differential between a fastish turbo-prop and the straight jet is very small, but on the longer sectors, such as London-Rome, there is an appreciable time differential of which our competitors would take advantage. They would be able to advertise 40 minutes less to Rome, for example. We therefore feel that we must also progress with the jet for our longer routes, and that is why

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we bought six Comets to tide us over to 1963-4, to be followed by the DH 121 about which we have been speaking. Our plans would be also to use the Vanguards and Viscounts on the short routes and to use these jets on our longer routes. I think that the whole of the airline industry has gone a little crazy about jets. We cannot afford to be out of the race, but I am not sure that we have not all got into the race in too big a way too quickly. All airlines are now buying jets, which are very expensive, and they will be having difficulty in raising the finance. There are also all sorts of technical problems involved in this jet era. But there it is; our competitors are buying straight jets and we must have them too, otherwise we shall be seen off. But once we get to these 550-600 m.p.h. jets we are getting up against the sound barrier, and I think we shall have to make these new jets last a long time. We shall meet a sort of plateau in performance, I think, where it simply will not pay to buy a faster aircraft because you will not be able to go much faster without bumping into the sound barrier. Then you come to the question of the supersonic jet, which I think is bound to come one of these days although I do not think it will come half as quickly as a good many experts say. Under the aegis of the Aircraft Requirements Committee a study is going on of supersonic jet transport. It is perfectly possible to make such a thing, but the economics of it are not at all promising. It is between $1\frac{1}{2}$ times and twice as expensive to operate. The fares which you would have to charge would be very much greater than the first-class fares on our present aircraft. I think that the supersonic experts will meet the barrier of getting down the costs of the operations to a more reasonable level at which you could charge a reasonable fare. I think that that problem will be overcome eventually, but that is why I think it will be a good deal further away than some people suggest. I would say that it will be in the 1970's before the supersonic transport come along, but prophecy is always dangerous and I may be proved quite wrong.

439. In the early stages of the jets, will your costs go up? Will the cost of the Comet be much greater than the Viscount on London-Rome?—No. The cost per seat per mile of the 121

is about the same as the Viscount and not as good as the Vanguard. The cost per seat per mile of the Vanguard is lower than that of the Viscount or 121, but of the same order. The additional financial burden will be in finding the capital and paying interest on the capital to buy these very expensive aircraft. The 24 121's will cost £30 million.

440. In the cost per seat mile you have taken account of amortisation and interest?—Yes.

Sir A. Spearman.

441. Do you think you will get more custom? If you do not, it will be heads you lose and tails you don't win. Will the number of people you carry increase? If not, you may have to do it, but it will be heads you lose and tails you don't win?—I think that with the advantages of speed you are bound to attract more passengers. When B.O.A.C. were running Comets they were doing so.

Mr. Albu.

442. Only if you are faster than other people?—Yes, but I think you will also attract people away from surface transport. People will tend to fly. When there were no aeroplanes the American tourist had to go by sea. The average American tourist has three weeks' or even a month's holiday, and he has not time to go by ship. He has time to fly, hence the great increase in the number of American tourists coming to this country.

443. If the difference is three or four hours, will there be any difference in traffic?—It is surprising how passengers look at these things. If they see that they can get to Rome in either three hours or four hours, they will be much more inclined to go on the three-hour service. (Mr. Milward.) It is much more marked than that. The history of the London—Paris route and its finances is a history of the chap operating the fastest equipment. There has never been much more than ten minutes in it. Air France and ourselves both started with Dakotas. We put the Viking on and went ahead and they put the DC 4 on and they went ahead. It has run like that all the way—the Elizabethan, the Viscount, the 800 Viscount compared with their 700 series, until we are carrying a much larger percentage than they are. It is fascinating to see the curve of traffic carried, times and types of aircraft.

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25 June, 1958.] Lord DOUGLAS OF KIRTLESIDE, G.C.B., M.C., D.F.C., [Continued
Mr. A. H. MILWARD, O.B.E., and Mr. R. L. WEIR, O.B.E.]

444. If competition were less severe and aircraft did not become obsolete so quickly, would the cost of flying be less even though flying were slower?—(Lord Douglas of Kirtleside.) That is true, which rather points to what I said—that people are tending to change their equipment too quickly. That is why I think these big new expensive aircraft will have to be used longer before we replace them. One advantage is that you are then justified in amortising them at a slower rate, which helps your finances.

Chairman.

445. What is your present rate?—Broadly, we write them off in seven years, with 25 per cent. residual value.

Mr. Albu.

446. The capital cost of aircraft per ton-mile is rising accumulatively, is it?—(Mr. Milward.) We should need notice of that. The work performed by these aircraft is rising substantially, although the cost per ton may be rising.

447. But the purely capital cost is presumably rising?—(Mr. Weir.) The proportion of our revenue which goes in standing charges—obsolescence and all the rest—has been rising over the last few years. It is one of the danger lights of which we are very conscious.

448. And rising at an increasing rate?—Yes. (Mr. Milward.) Standing charges are becoming an even more important part of our general costs and therefore having a determining effect on our fares. The Viscount standing charges today are roughly £60,000 per aircraft per year. That is before they perform any work at all.

449. The supersonic aircraft would go through the sound barrier of standing charges?—(Mr. Weir.) When we started our Viking operations we were buying aircraft at £50,000 each. Now we pay over £1 million.

Sir K. Joseph.

450. Bearing in mind the possibility of the Free Trade Area and the enormous internal travel in America, do you hope, Lord Douglas, to break into the mass market? If so—I know this has been discussed—do you think that cheapness is even more important than speed, and what aircraft do you imagine will do this?—(Lord Douglas of Kirtleside.) I agree with your view. I think that our object

is to break into the mass market. We are doing it already.

451. Normally, or just at holiday times?—Holiday times in particular. I certainly think that the object must be to try to get fares down. The fares depend on the cost per seat mile, not the cost of the aeroplane you buy. It is what it costs you, including all amortisation, to fly a passenger one mile. With these new jets the cost per seat-mile has not gone up. In fact, in the case of the Caravelle it has definitely gone down.

452. Is this because more people are being carried in the aeroplane or because of the quicker turn-round?—More being carried in it and increased speed.

453. Quicker turn-round. Will that suffice? Is it merely habit that is needed to establish a mass market now?—I think fares are very important. I am sure that if we can get the fares down we shall get an accumulative increase in the number of passengers we carry.

454. You do not think you will have to have much longer amortisation, and cheaper, slower aircraft?—No, I do not think that is on. Not cheaper, slower aircraft. I think the public will see others going in fast aircraft and they will want to go in fast aircraft.

Mr. Palmer.

455. Would there not be a good market, even if the performance were rather inferior, if fares were considerably lower? Is there not a tendency at the moment to rest perhaps content with what we would call the luxury trade and the commercial traffic rather than try to make flying a popular method of travel?—It is a moot point whether a slower aircraft would be cheaper. I have been doing some thinking on this lately. (Mr. Milward.) It is hardly a moot point. In the aircraft world it is the aircraft which does the most work. Let us assume that you can amortise your heavy cost over a proper period—and I do not think seven years is a proper period for the aircraft in service now. If the aircraft can do its work very much quicker and make the round trip to Rome and back with the same crew, and then after turning round do a cheap night flight as well, you are getting more work out of the aircraft and your costs go down enormously because you can spread the standing charges over a bigger aircraft load. That is what we hope to do. I do

25 June, 1958.] Lord DOUGLAS OF KIRTLESIDE, G.C.B., M.C., D.F.C., [Continued
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not think the Committee should feel that because aircraft are getting faster, more complicated and more expensive to buy, we have in any way lost sight of the fact that we want to go into the mass market.

456. Is there not a mid-point?—Yes, there is probably a mid-point. The significant way in which we can cater for the mass market—we are doing it already, and I am afraid that in some people's opinion it is a pity—is to introduce the economy class for people who wish to travel to Rome in 2½ hours and do not mind whether they have a sandwich on the way or not. This is done by cutting out the frills, and it is being accelerated. I think that in the short haul we must go into the mass market by carrying these people cheaply and also, in a way, less comfortably by squeezing more in.

Dame Irene Ward.

457. Without sort of limiting the amount of work that can be done by a plane—I see the advantage of that in the economics of the operation, so to speak—if you were not bound by international agreements on fares and could use as an inducement a lower fare than your competitors, would not that be of some advantage?—No, because you would then start a most terrible competitive war, the result of which would depend on which Government would give its airlines the biggest subsidy. I am certain, for instance, that the Dutch Government in regard to K.L.M., if we had a free-for-all on fares would willingly give a tremendous subsidy so that they might put down their fares lower than anyone else and thereby scoop the traffic. I think that you would get tremendous chaos if you had a free-for-all on fares. Large numbers of Governments do subsidise their airlines already, and this would simply invite subsidisation.

458. I can, of course, see that, but the tendency is all the time for fares to go up?—No.

459. They do really?—Not at all. The tendency is for fares to go down. I think that there is a graph in our last year's report which illustrates that, one of the appendices.—(Mr. Milward.) Our average fare since B.E.A. began has gone down consistently year by year, both in terms of real money and in relation to the pound as it stands. It is cheaper today per mile to buy a ticket B.E.A. than ten years ago.

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460. Do you mean to tell me that it is cheaper for me to fly to Paris than when I started flying?—Yes, if you go by the night service. You have got to take an average. You must do that. We can only give cheap night fares, which is the way the mass of the people are travelling, by getting the money from the people who can afford to pay it. That is how we carry 350,000 people a year to Jersey, by a system of cross-subsidisation, you might say.

Chairman.

461. Have you got the answer to the last question, Lord Douglas, if we want to clear up the matter of fares?—(Lord Douglas of Kirtleside.) It was in this report. It may have been the year before, but I can easily produce for the Committee a graph which illustrates this thing graphically*.

462. It would be as well to have it. I think that we were aware that the charge implicit in Dame Irene's question was probably not justified?—The actual fares have gone down, and the fares in relation to the value of money have gone down by about 40 per cent.

Dame Irene Ward.

463. I am right in saying, am I, that, taking the same time of flight, it now costs me more to fly to Paris than originally?—(Mr. Milward.) To Paris, yes, certainly. The day fare has gone up, comparing like with like, but at that time there was no night fare.

464. I know all about the economy fares, but I am commenting that I do pay more if I fly on a day flight?—If you take individual routes, that will be so sometimes.

Mr. Albu.

465. May I put this hypothetical question arising out of the point about the international control of fares and the relationship to the speed of the development of aircraft? If there were no international control of fares, and assuming that there were no subsidies and that competition operated, would it not pay an operator like B.E.A. to amortise over a longer period—in other words, not develop its new aircraft so quickly—and to sell cheaper transport?—(Lord Douglas of Kirtleside.) This

* Appendix 15.

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25 June, 1958.] Lord DOUGLAS OF KIRTLESIDE, G.C.B., M.C., D.F.C., [Continued
Mr. A. H. MILWARD, O.B.E., and Mr. R. L. WEIR, O.B.E.]

is a terribly competitive business, and if Dame Irene was going to fly to Paris on a superior aircraft, she would tend to go even if the cost was a little more.

466. If you did not have to replace the aircraft so fast because of the competition, would there not be the possibility of a substantial reduction in fares aimed at a mass market?—No; I do not think a substantial one. (Mr. Milward.) They are running on a very fine margin now.

Chairman.

467. When you have finished with an aircraft on the present fares basis, you sell it second-hand. Presumably the Elizabethan at this moment is one you are selling second-hand. Are you finding that the market for second-hand aircraft is holding up, or is it falling off?—(Lord Douglas of Kirtleside.) It has held until recently, but there are definite signs now that the bottom is beginning to fall out of the second-hand market, and the prices of second-hand aircraft are coming down as new aircraft are coming in.

468. These aircraft are bought second-hand by independent operators?—Yes.

469. Who presumably operate them on special routes at special fare rates?—They are mostly used on this inclusive tour business.

470. These aircraft will stand in your books at probably 25 per cent. of their original cost, if not lower?—Rather more.

471. Even if they have lasted seven years already?—Yes, if it is seven years.

472. Suppose you were to keep that type of plane and use it to run a third class service, and suppose there was an agreement for a special third class fare so that, although you had got the cheaper fare that Dame Irene was suggesting to you, you also safeguarded yourself against cut-throat competition by similar agreements to that which you have made. Would not you expect to get more traffic in that way and to provide for the man Sir Keith was thinking of, the man who really looked first at the price of the journey and only second at the speed and comfort of the journey?—We have considered this carefully in the case of the Elizabethan, which

you mentioned. But I think that the better answer is that provided by Mr. Milward, that a better way of getting fares down is to get more people into your aeroplane and give them less luxury. That is what is happening with regard to the economy class on the Atlantic. That will undoubtedly spread into Europe. We shall be faced with that, and we think it is a right thing to do. The problem of keeping on old aircraft and running them is not straightforward. To keep on our Elizabethan is an expensive thing for us, and we want to try to cut down the number of types. We want to keep our engineering costs down. So that I do not think it would be a particularly cheap operation.

473. It would appear from some of the remarks you have made and from what Sir Gerard d'Erlanger told us last week, even when these older type aircraft have been written down and therefore you are not providing so much capital charges in your cost, that the cost per seat mile is not lower, or that much lower, than the cost per seat mile of a new type aeroplane. That is taking into account all the factors, such as amortisation and the extra types of which you have spoken. That is the impression I have got?—(Mr. Milward.) Yes, that is right. That is why we buy new aircraft and went on the Viscount. We knew that as the Viscount developed it would become a much cheaper aircraft to operate than the Elizabethan, which it is. So you only partially offset that by the lower standing charges. We have been into this particular problem very closely recently, about whether to keep the Elizabethan. We may not be able to sell them. We have to consider whether it would pay to keep them on to do this type of service. We need not over-estimate the price fixing costs of the I.A.T.A. in this respect, because they do not fix prices for inclusive tours, which we can and do. Our income this coming year is estimated at nearly £2 million alone from inclusive tours.

Mr. Albu.

474. Would you describe an inclusive tour?—You go into your agent, for instance, Cook's, and say, "I want a fortnight inclusive at Palma by B.E.A. both ways", and you are told that the price is £35, including hotel, excursions, and everything else. I.A.T.A. does not fix the

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prices which we can quote to Cook's—well it does fix them, but to a limited extent. This is a very seasonal business, and we have to keep this aircraft for probably a four-month period of use and an eight-month period being laid up. And you have to keep your crews in the same way. They are a very expensive part of the operation.

Dame Irene Ward.

475. Does that produce chaos, as I think you said, if you did not have the international agreements on fares? When you have the inclusive tours, does that produce chaos because other countries must have inclusive tours, or do they not have inclusive tours?—They do, but not as much as us. It does not produce chaos, because there is a limit to what you may quote to I.A.T.A., but it is not a serious one. Furthermore, it is not everybody's cup of tea, although lots of people do like to have their prices fixed.

Mr. Jones.

476. May I ask a question about what the Chairman suggested? Could you not run the older and slower aircraft, the aircraft which you use for the inclusive tours, in order to encourage more traffic? Could not you use those aircraft for the other eight months to do a slower journey to Rome, because you have to keep the aircraft in any case for the four months on the inclusive tours?—(Lord Douglas of Kirtleside.) I should like you to have a look at the charts which show how our traffic goes up and down. Just after page 46 of this report, you see how every year traffic shoots up for two or three months a year and then goes right down. That is the point that Mr. Milward made. We simply do not need the aircraft in the winter to carry the traffic offered. There are not enough people to carry. The biggest business to B.E.A. is the tourist business to the Continent, the people going on holiday to the Continent. Not many people go to the Continent in the winter, except the few madmen who elope to the winter sports.

Sir Keith Joseph.

477. That is only because the price of travel is so high. After all, the sunshine is there for those who can afford it, and the pattern of holidays is not for ever

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frozen in this country?—We try to encourage winter holidays, but we do not have an awful lot of success. The people of this country do not go on holiday in the winter. Their holiday arrangements are tied up with school terms, and so on.

Mr. Jones.

478. There must be a large number of people who go to the Continent by other forms of transport who would travel by air if the costs were cheaper. You have the aircraft which you use in the summer for inclusive tours. What I am thinking of particularly is a user for the aircraft you are keeping for your inclusive tours for the other eight months?—The fallacy is that a lot of people seem to think that these old type aircraft are very much cheaper to operate than the new type. There is the point the Chairman made about when they are written down the standing charge is lower, when they are practically written off. But apart from that, the other costs are apt to be higher per seat mile in the old aircraft. On that principle, we should still be flying all over Europe in D.C.3s. If we did that we should get few passengers indeed, because other operators have better type aircraft and would scoop all our traffic, quite apart from any question of prestige of the airlines of this country.

Sir Alexander Spearman.

479. If the time factor is so important in getting customers, is it certain that you can do nothing to cut down the time which has to be spent at the aerodromes?—That is a good point. It is one which we are always hammering at. It is almost absurd to have fast aircraft, but yet take so long to get out of the airport and through the Customs and all the other formalities. We try to cut that down. We try not only as an airline and individually, but internationally. I.A.T.A. takes great interest in all this. Of course, on many points the initiative does not rest with us at all; it rests with the Ministry of Transport and Civil Aviation, with the Customs people and immigration people. But I do not say that we cannot speed it up, and we are trying to do that. (Mr. Milward.) We have done a great deal. We have not done anything about the road service. That is getting worse because of the road

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25 June, 1958.] Lord DOUGLAS OF KIRTLESIDE, G.C.B., M.C., D.F.C., [Continued
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congestion. But we now load and unload, cater for and get 58 passengers on to a Viscount in the same time that we used seven years ago to get 24 passengers on to a Viking. The passenger, of course, does not see that, but it is an enormous effort which has been made in order to load an aircraft double the size, double the catering, freight and everything else, in the same time as we did for a 24-seater five years ago.

Mr. Wade.

480. I should like to clear up a point about the planes that can only be used for four months. Do I understand that there are a considerable number not in use for eight months of the year? Does that affect their life, or do they become out of date just as quickly even though they are used for only four months in the year?—(Lord Douglas of Kirtleside.) We try to postpone as much of our modification and maintenance work to the winter months. They are not doing nothing at all. In most cases they are in the shops being overhauled and modified. Also in the winter months we have pilot training and pilot checks, which are quite big jobs. So that the

aircraft are not entirely doing nothing. I do not think that it affects the life of the aircraft. (Mr. Milward.) They obsolesce at the same rate, whether in use or out of use.

Chairman.

481. Mr. Jones said that I suggested the last point which we have gone into in some detail. It was not my idea. I merely wanted to find out the arguments in your mind against this cheaper third class taxi service, as it were. I had in mind that in your 1956-57 report, on page 24 you say, under "Future Fares Policy": "We believe that the nature of European operations, in the foreseeable future, makes it desirable to offer two classes of service—not necessarily at the same standards as present first and tourist class—but not to introduce a new 'third' class service". That was the point that I had very much in mind. You have explained to us that it is partly customers' choice and partly sound economic reasons that make you decide upon this policy and not choose to go for an old obsolescent aircraft which might appear to be cheaper. That has been an invaluable explanation to us.

THURSDAY, 3RD JULY, 1958.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Ernest Davies.
Mr. Fort.
Mr. David Jones.

Sir Keith Joseph.
Colonel Lancaster.
Sir Alexander Spearman.
Dame Irene Ward.

Memoranda submitted by the British Overseas Airways Corporation

CLASSES OF SERVICE AND PRICE RATIO

NORTH ATLANTIC ROUTE

<i>Col. A</i>			<i>Col. B</i>	<i>Col. C</i>	<i>Col. D*</i>
Class			Type of seating and space occupied—length in inches	Price ratio as percentage of Tourist Class—present fare levels	Economic Fare Levels
<i>De Luxe</i>	...	...	Sleeper seats—54"	154	170
<i>First</i>	...	...	"Sit-up" seats—42"	138	130
<i>Tourist</i>	...	...	5 or 6 abreast seats—39"	100	100
<i>Economy</i>	...	...	5 or 6 abreast seats—34"	80	90

Note: The Mid-Atlantic Route—Iberian Peninsular/Caribbean area has only De Luxe /First/Tourist Class.

EUROPE—AFRICA, INDIA, FAR EAST ROUTES

<i>First</i>	...	...	No Conference rule on seating—carriers generally use sleeper seats similar to de luxe on Atlantic—54"	146/147	170
<i>Tourist</i>	...	...	5 or 6 abreast seats—36" to 40"	100	—

EUROPE—AUSTRALIA

<i>First</i>	...	...	As for Africa, India, etc.	133	170
<i>Tourist</i>	...	...	ditto	100	—

* These figures, based on a 65% seat occupancy (see Q. 559–62), are taken from Q. 542–4.

3 July, 1958.]

[Continued.]

SUMMARY OF IATA TRAFFIC CONFERENCE CURRENT REGULATIONS ON CONDITIONS OF SERVICE
PERMITTED IN THE EXISTING CLASSES

NORTH ATLANTIC			<i>De Luxe</i>	<i>First</i>	<i>Tourist</i>	<i>Economy</i>
<i>Seating</i>	...	...	Sleeper seats 54" length	"Sit-up" seats up to 42" pitch	5/6 abreast seating 36/39" average pitch—minimum number of seats fixed by Conference Agreement	5/6 abreast—maximum pitch 34"
<i>Catering</i>	...	...	Unrestricted	Unrestricted	Limited by agreement	Only "sandwich type" catering, tea, coffee, milk
<i>Drinks</i>	...	...	Free	Free	On sale at agreed prices	No alcoholic drinks available
<i>Baggage Allowance</i>	...	...	30 kgs.	30 kgs.	20 kgs.	20 kgs.
<i>Sleeping Berths</i>	...	...	Permitted*	Permitted*	Not permitted	Not permitted
<i>Lounge</i>	...	...	Permitted	Permitted	Not permitted	Not permitted

* \$75 or £26.16.0 extra charge.

3 July, 1958.]

[Continued.]

Examination of witnesses

Sir GERARD D'ERLANGER, K.B.E., Chairman, Sir GEORGE CRIBBETT, K.B.E., C.M.G., Deputy Chairman, and Mr. BASIL SMALLPEICE, Managing Director, British Overseas Airways Corporation, called in and further examined; Mr. K. W. BEVAN, Financial Comptroller, British Overseas Airways Corporation, called in and examined.

Mr. Ernest Davies.

482. What I rather wanted to ask the witnesses was something which we did not have time to get on to last time, and that is the section on capital expenditure, which is on the ground property and equipment, most of which, I presume is out at London Airport?—(Sir Gerard d'Erlanger.) And in South Wales.

483. Treforest, yes. The reason is that I understand a very considerable amount of that has been expended in recent years, is that so?—I would have said that all of it had been expended, certainly since the war; and as far as London Airport is concerned, within the last five years. Some at Treforest goes back a bit longer than that. It goes back to the war years.

484. What is the main purpose of the structures? One would be the engineering side, maintenance, and the other administrative offices, is that correct?—That is correct.

485. Have you any idea of the cost as between the two?—(Mr. Bevan.) I do not think we can supply that because so many of the buildings are both administrative and engineering.

486. The buildings are essentially permanent structures. What I have in mind in particular are the engineering maintenance shops, the hangars, and so forth. I was wondering to what extent with the changes in aircraft development, and so on, the original expenditure has been fully justified or whether at any point you found that less permanent structures, or something, might have been more beneficial?—(Sir Gerard d'Erlanger.) I find that awfully difficult to answer. One can always have after-thoughts and say: "Well, if I could only turn this back to front".

487. Perhaps I can make this a little clearer?—Generally speaking, I think I would like Mr. Smallpeice to answer on this one, but I think it is right to say that the building functions satisfactorily. (Mr. Smallpeice.) Yes, I think so. As far as our second thoughts are concerned, we have evidence on that in the fact that we have now just completed building a

wing hangar as opposed to the original concept of overall hangars, and the construction of the wing hangars is much cheaper than the construction of the original hangars, and they do serve complementary but different purposes. Taken together, I think they work satisfactorily.

488. What I would like to know is this: the hangars which you have constructed were constructed when planes were conceived of a smaller size than they are at the present time?—Yes.

489. Are they proving adequate? Were you able to look sufficiently far ahead to have them of adequate size and practicability for planes which you now have in contemplation or have already received?—Yes. The present hangars will hold all the aircraft we at present have on order except that the wing hangars will not quite suit the V.C.10.s which have the engines mounted in the tail, and the object of the wing hangar is to get the engine underneath a low roof, and with the engine mounted at the tail that was an impossibility. But, apart from that, the main hangar block is of sufficient dimensions to take the V.C.10.s.

490. Following a slightly different point, could you tell me on what basis is this property? Is it leased from the Ministry of Transport and Civil Aviation, or what?—It is leasehold. We own the buildings, but it is on land leased from the Ministry.

491. And you pay them a ground rent?—We pay them a ground rent.

492. I do think it would be helpful if we could have a breakdown as to the actual cost of the hangars, if that is possible?—We could easily put in a paper. I just have not got the figures in my head.

Chairman.

493. If you could do that, that would help us. We may want to come at a later date to the cost, and so on, of your engineering operations, but I thought we would postpone a close enquiry into that until after we had seen your Report. It would help us, I think,

3 July, 1958.]

Sir GERARD d'ERLANGER, K.B.E.,
Sir GEORGE CRIBBETT, K.B.E., C.M.G., Mr. BASIL SMALLPEICE,
and Mr. K. W. BEVAN.

[Continued.]

to have the answer to that question?—(Sir Gerard d'Erlanger.) Certainly, Sir. Any attempt we make to try to apportion costs as between the engineering buildings and the administrative buildings is bound to be arbitrary, of course, because they are all housed within the same building. The offices are really superimposed and strung along the hangars.

Mr. Albu.

494. Do you not in fact have to do it in order to cost the maintenance?—(Mr. Bevan.) Yes. We can do it, approximately.

495. It is to some extent a notional figure?—But it is arbitrary all the same.

Chairman.

496. The point is, that it is done on an arbitrary basis, but it can be done?—Yes.*

497. We rely on you to show it to us on the same basis as you do it for your own purposes. We appreciate, of course, that it is done on an arbitrary basis?—(Sir Gerard d'Erlanger.) Might I be permitted, just before we go any further, to refer to a question put at the last meeting, to which I gave a reply which I could not correct because the reply is misleading, and I would only wish to correct it by saying so in front of the Committee. It is question and answer 336, on the question of pooling.

498. Yes?—I replied: "Pooling or, as we understand it, sharing revenue, has been confined solely and exclusively to British flag carriers. In other words, all our pools have been entered into with a Commonwealth or Dominion country". Well, that was accurate at the time I gave the reply but we are in the course of negotiation—the negotiation may in fact now be completed—for a pooling arrangement with one of our associated companies, Middle East Airlines, which is not a Commonwealth operator but is one of our associated companies.

499. Thank you very much?—That one is situated in the Lebanon.

500. We will note that?—I apologise for that.

501. Just before we leave this subject of capital—we may be only leaving it temporarily—I want to refer you for one

moment to the memorandum by the Ministry of Transport and Civil Aviation which I think you will have seen, or your people will have seen, on the comparison of airline performance†. There are a number of useful figures which we will want to put to you from time to time and which other Members of the Committee may wish to put to you even today relating to other questions we may ask. Have you not seen it?—(Mr. Bevan.) I have had sight of it, Sir. I have not a copy.

502. If you have not seen it, it is probably unfair to ask the questions, but I shall nevertheless ask you because I think it is relevant?—We will do our best.

Chairman.] And you might by your answer today be able to give us a background, which is what we want to get. They give us there the ratio between capital employed and traffic revenue. That is the figure I am on at the minute.

Mr. Albu.] No. 13, is it?

Chairman.

503. Yes, item 13 in the Table. Taking capital as one, they then give revenue figures, B.O.A.C., 0.9, and everybody else has over 1, and Pan-American has 1.7, T.W.A. has 1.4, S.A.S., 1.5 and K.L.M., 1.4. Now, I repeat that, of course, without any notice and without you having seen the Memorandum, the question may appear to be unfair, but if you can guide us as to why there is this obviously very large difference and a disadvantageous difference in your case, I think it would help us to understand, perhaps, the background to other answers that you may be giving us. If you would like to leave it to a later date, Sir Gerard, I am quite prepared to wait?—(Sir Gerard d'Erlanger.) I would prefer to, Sir, because there is an awful lot of factors which come into this.

504. You do agree that the answer you give might be helpful to us to understand it?—Yes.

505. It seems to me a very important figure?—It is a very important question. It is a very important situation, if I may say so, and one which is giving us concern. I would rather not try and give you part of the answer now, if you do not mind.

* Appendix 34.

† Appendix A.

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Sir GERARD D'ERLANGER, K.B.E.,
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[Continued.]

Chairman.] That is perfectly understandable. I think we will leave it there.

Mr. Albu.

506. There are various obvious questions on which we should like to ask questions, I think?—There is a fairly obvious one in column 10.

Colonel Lancaster.

507. May I say one thing about this? When we come to these figures, including paragraph 10, to which Sir Gerard referred himself, it might be helpful if we had some information as to the comparative wage structure of B.O.A.C. as against, for instance, Pan-American, because this has all been reduced to a common factor of 39s. 9d. in one direction and 31s. 6d. in another but, of course, we are operating on, presumably, a very different level of wages and that disparity may be even more intense if we realise that, perhaps, K.L.M. may be as well, and Pan-American and T.W.A. are, in fact, not only operating at a lower cost than ourselves, but are meanwhile paying a higher wage level. I think when we come to consider that, if we could see that in relation to the wage level of the various countries, it would give us a fairer basis of analysis when we come to discuss it?—I would not wish to leave the Committee under any impression that we are not equally concerned about these figures. We are very concerned about them.

Chairman.

508. Perhaps we can turn now to the second main matter we want to talk about with you today, and that is on your revenue side. Your Reports indicate, do they not, the split-up of your revenue as from passengers and from freight, and you will be giving us that in the July Report?—Yes.

509. What I would like to ask you first about is, within the passenger field, the relationship between the various fare classes and to what extent one class of passengers subsidises another class of passengers?—We have got some papers on that, Sir.

Chairman.

510. You have kindly put in to us two papers. The first is "Classes of Service and Price Ratio" and the second is

"Summary of I.A.T.A. Traffic Conference Current Regulations on Conditions of Service Permitted in the Existing Classes"—Would you like me to comment on these?

511. Yes, I wonder if you would?—The first paper to which you referred headed "Classes of Service and Price Ratio" sets out the various sorts of classes which are used in various parts of the world. The first part relates to the North Atlantic. There are at present four different classes offered to the public, varying from the Economy class with five or six abreast seats with 34 inch pitch between the seats, from the back of one seat to the back of the next seat. Expressed as a percentage ratio of the Tourist, which is put in for the sake of convenience at 100, the Economy class seats sells at 80 per cent. of the Tourist fare. The Tourist fare, which is also five or six abreast seats, but with a 39 inch pitch, sells at 100, but that is not £100, that is a unit.

512. An index?—An index. The First, you have a 42 inch seat, which sells at Index 138 compared with the Tourist, and then the De Luxe and Sleeper seats, 154. On Europe-African, India and the Far Eastern routes we have at present only the First and Tourist. Again, using the Tourist as 100, the First sell at 146 to 147. On the Australian route the configuration is the same, but the fare for the First is 133 against 100 for Tourist.

513. The first thing that strikes one, about which I would like to ask you is the difference in ratio between the First and Tourist seats in each of these three areas. Is that due to a proper costing of the journey or is it due simply to what the traffic will bear?—(Mr. Smallpeice.) It cannot be said to be the result of a proper costing, although the airlines are meeting together ahead of the Traffic Conference on which the fares are negotiated and do go through a process of getting costs from all the carriers interested in the particular route and arriving at average costings. When it comes to agreeing a fare, it is a question of just getting the agreement of all the carriers concerned. It is not even a question of what the traffic will bear, the traffic might well bear different fares,

* Pages 61–2.

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[Continued.]

but it is a question of getting unanimous agreement.

514. So, a factor of which we are aware, the fares you charge, of course, have to be agreed with I.A.T.A.?—Yes.

515. You are saying that whether the fare you charge happens to pay for the full cost, more than the cost or less than the cost of that seat, is a matter of mere chance?—Yes, I am afraid it is. Another thing, if I might add, is that to a great extent these fare levels are the result of evolution. For example, when the airlines generally decided to put sleeper seats into service on the Atlantic it was clear that, on a costing basis, that would require an increase in fare levels of approximately 30 per cent. to be fully compensatory, but in point of fact all that could be negotiated with the other airlines, Sir, at the time was an increase of about 10 per cent., so the sleeper seat fares, for example, on the Atlantic are not fully compensatory or fully economic.

516. As a result of that it would seem that the Tourist fare is higher than it otherwise would be or should be?—Well, I do not think so. I think the fact of the matter is that the First Class De Luxe fare is lower than it should be because I do not think there is any evidence that airlines are at the present time making too much money.

Dame Irene Ward.

517. Do we generally emerge from these Conferences as losers or winners in relation to our own charges?—I think the general effect, because we have to get complete unanimity before a fare is agreed, is that it is generally lower than the majority of people would like it to be.

Mr. Albu.

518. Why is it that other airlines wish to keep the De Luxe charges down? What is the argument for doing so?—The main argument of those airlines is that they are interested in getting the maximum revenue out of an aircraft and they are not so immediately concerned with the problem of getting fully compensatory fares for each class. Now, in a number of cases the airlines are not big providers of De Luxe travel. We are the

largest single provider of De Luxe travel on the Atlantic.

519. Why do you provide so much if, in fact, it is not compensatory?—Because we believe that this is a transitional phase and in the process of another two years or so we shall get the fares up to a fully compensatory level and we shall still hold at that stage, we hope, the major share of De Luxe traffic on the Atlantic.

520. Then, it will become a really profitable proposition?—Yes. I think with a change of this sort which required a price adjustment of 30 per cent. we should not, at any rate, however much we tried, persuade other operators to go in steps greater than about 10 per cent. at a time.

521. What you are saying is that you hope in a few years' time to get the most profitable mix of seats on your aircraft?—Yes.

Mr. Albu.] These figures are interesting, if not really very helpful. I wonder if it is possible you you to give us figures for the four classes showing the proportion of aircraft space—forgetting the other frills—the floor space occupied by a seat in each class so that we can compare it with the price ratio.

Sir Keith Joseph.

522. Could I follow that by asking whether we could have an analysis of revenue showing how much flows from the various classes, and if it is practical without too much work, for other competitive fleets. Supposing our proportion is, for argument's sake, 50 per cent. De Luxe and First, your revenue comes from that whereas other comparable fleets have only 10 per cent. De Luxe and First?—(*Mr. Bevan.*) I cannot obtain figures to give you the revenue of other operators split up in those classes. I can give you, if necessary, the actual capacities they offer and possibly the load factors, but I cannot give you the revenue.

Sir Keith Joseph.] On the question whether what I am asking for would require too much work for too little return, I only want an impression, not a lot of figures. Are we providing a much different product mix, to borrow *Mr. Albu's* expression, than other providers of air transport?

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Chairman.] I think that would be interesting to know, if it could be done without too much work, and it sounds as if it could be.*

Dame Irene Ward.

523. Could I ask whether, in your international field of negotiation, there is a great variation in the sort of basic policies from which all these lines approach that problem, or do you almost always arrive at a sort of common basis?

—(Mr. Smallpeice.) There is a considerable variation in the basis of approach. It manifests itself at different times. For example, last year or 18 months ago, when we were approaching negotiations for the introduction of a new Economy class on the Atlantic, it became quite evident that Pan-American and ourselves were the only two airlines which were really in favour of getting this new class into operation, and we had gradually to try to persuade all the other airlines to come into line with us, which in the end they did. But there are considerable differences of view between one airline and another.

524. Is it, taking it by and large, when there is agreement, rather stultifying that you have had to approach it from a variety of basic policies or do we emerge roughly getting our own way?—We try to get as near to getting our own way as we can, but I am afraid it is always a question of compromise.

Mr. Ernest Davies.

525. May I ask on this division between the different classes, what is the basic policy which determines the division as between De Luxe, First Class, Tourist and Economy? What has made you decide, for instance, on the North Atlantic that there should be this particular proportion?—(Sir Gerard d'Erlanger.) There are two factors which give rise to the answer to that. The first one is conditioned by the equipment, to some considerable extent, the equipment which any particular operator is operating. We until recently were operating exclusively Stratocruisers across the Atlantic, and then they were supplemented by 10 D.C.7c.s, so we still have 16 Stratocruisers, some of which go to West Africa now, against 10 D.C.7c.s.

* Appendix 12.

A Stratocruiser does not lend itself to a high density mix; it does not lend itself to that because you cannot, weightwise carry enough people. So, it tends to drive one to carry a First and a De Luxe on the Stratocruisers. The other thing which conditions it, assuming one has complete flexibility of equipment, which we are now getting with Britannias and the 7c.s, assuming one has complete flexibility on the equipment side, there is a growing appreciation, of which we are very conscious, that the main market lies, of course, with the cheaper fares. We are also aware that the First Class market year by year remains pretty nearly static; it shows a small increase, but the big increase lies in the Tourist and Economy classes. So, more and more our policy, subject to having the right equipment and I think we have the right equipment now, will be to provide more and more Tourist and Economy classes and probably a static number, by and large, of First and De Luxe.

526. What determines you in taking a decision such as that? That is to say, do you look upon it as your public responsibility to provide the maximum amount of seating capacity at reasonable prices or to get the largest amount of revenue, irrespective of the seating capacity you provide?—Well, I think the answer to both those questions is the same, that we are trying to get the biggest share of the world's revenue and world's traffic that we can, and in regard to the fact that First Class travel and De Luxe travel is by and large fixed, it is only by going after the mass travel market that we will get B.O.A.C. out in the forefront in competition with the other airlines. It is the only way in which we will get the revenue and the only way in which we will get the passengers.

527. That policy is already working, as far as the Economy class is concerned?—It is beginning to work. We only introduced the Economy class in April of this year.

Sir Keith Joseph.

528. In your pursuit of the mass market what are the comparative influences to you mind, of cost and time? Would you say that the increase in the luxury market will be more affected by shorter time, quicker travel, and that the economy market is more dependent on

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[Continued.]

price than time, or does it equally depend on time as well as price?—This is where we come up against that extraordinary situation which we have touched on a little bit at our last meeting, that so far speed has not cost any money; if anything, speed has brought economy with it. The bigger and faster aircraft operate more cheaply than the slower aircraft. What you do inside either of them is another matter, but if you want to fly cheaply you fly fast, or have done up to now.

529. And the more you can pack in, the cheaper still?—The more you can get in the cheaper it is.

530. And the quicker turnaround of the aircraft?—Well, yes.

531. So virtually, in a sense, the mass market and profit go together?—Yes.

Mr. Ernest Davies.

532. Might I just supplement that? Does it pay you better to operate the maximum Economy classes or the Tourist; in other words, to increase from Tourist to Economy, despite the lower fares, does that still bring you in the same revenue or greater revenue?—(Mr. Smallpeice.) At the moment it is more profitable to operate more Tourist class seats than Economy class seats because through the process of negotiation the Economy class fare is pitched too low to be economic. It is still too low to be economic.

533. That is what I wanted to know?—These situations change from year to year, of course.

534. Is there pressure to increase the Economy price? Is it appreciated by other airlines that they have fixed the Economy price too low, or is that only your particular view in B.O.A.C.?—That fact has emerged from the recent meeting of the cost experts of the different air lines, and that information will be getting home to the commercial managements of those airlines during the next few months.

Sir Alexander Spearman.

535. Is another reason for the greater cost to you of the First Class, the greater amount of room it takes?—(Sir Gerard d'Erlanger.) It is the greater amount of room it takes, plus the extra cabin service which we give him. We give the Economy class people, I will not

say very meagre service, but very simple service, sandwiches and soft drinks only.

536. Have you any idea of the proportion of the cost of those two other services on the one hand and the amount of people you can carry on the other? In other words, if you gave exactly the same service to the First Class but gave them the sleeping accommodation or greater room, would that make any very big difference to the profitability?—I am not quite certain that I have got the question.

537. You said there were two reasons why it was so much more profitable to take Tourist than First Class, and the two reasons were, one, that the First Class took up more room, therefore you carry fewer people; and the other was the service you gave them. I am asking whether, if you eliminate the service you gave the First Class, that would make a very big difference to the profitability?—Not a lot. It is the amount of space which they occupy, really, which is the controlling factor, or major controlling factor, in conditioning the price.

Chairman.] More than the amount of drink that is supplied?

Mr. Albu.

538. Cocktails on the Corporation does not make all that difference?—It is an item, but in a ticket worth £200 or £300 it is not much.

Sir Keith Joseph.

539. To follow up this, there was a time when the cinema industry was criticised as depending for profit or loss on ice cream sales?—Yes.

540. Although ice cream sales bore a negligible relationship to box office takings. Could you give us an idea of the relationship between your total catering costs and total costs, or is that in your Report?—We can certainly give it to you. I do not think it is set out. (Mr. Bevan.) I do not think I can give it exactly off the cuff, but I will certainly get the figures. (Mr. Smallpeice.) It is at the moment about 30s. per thousand passenger miles, which does not, perhaps, help you very much.

541. As a proportion of total passenger cost, one can get that now you have given it?—Yes, we could certainly

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table the information.* Would it help this discussion if we did, I think, give you approximate figures now in answer to Mr. Albu's question?

Chairman.

542. Please do?—There may be an impression, perhaps, that our fares are very much out of line with the costings; in point of fact, they are not. The margins are within 10 per cent. one way or the other. On this paper headed "Classes of Service and Price Ratio" the De Luxe figure against 154 would be 170, we think would be an economic fare.

543. These figures are again index figures, are they?—Index figures, yes. First, 130 against 138, so it is slightly lower. Tourist, 100, and Economy, 90, all taken with the index of Tourist at 100.

544. Have you got the corresponding figures for the other two routes?—The First is 170 in both cases.

Dame Irene Ward.

545. From the point of view of prestige if you have more luxury seats you do not use that as saying that you have got an even finer service in the way that all the lines seem to say how much champagne they serve, and so on. Why is it that people are more susceptible to propaganda on what you drink or smoke or eat than they are on which I call the luxury of the actual seating, and everything?—(Sir Gerard d'Erlanger.) I would have thought that they reacted to all those, to the standard of seating, the general impression of the interior of the aircraft, whether the toilets are clean, whether the staff is a good staff, whether the food is good, whether the drinks are good; I think that all builds up to a picture. It is rather difficult to separate any one and say that is a particular item which attracts the traffic.

546. Excepting that you do lay stress on the fact that your Tourist passengers are more profitable than, really, in a way, the luxury passengers?—If I have overstressed the apparent profitability of the Tourist, I would like to try and correct that. What I was trying to say is that a big volume of revenue lies in the Tourist in the future, in the Tourist

and Economy class fare. The profitability or otherwise really depends on whether we can establish the right fares in the Traffic Conferences, but that is where the big turnover is coming from in the future, the Tourist and the Economy class traveller.

Sir Keith Joseph.

547. I realise this might be a question you would want to answer privately, and it may not be answerable at all. You have given us some idea of comparisons on catering and on speed and on space. Is there a comparison in the provision of safety, which seems to me the vital thing, as between you and your competitors? Can we compare safety standards?—There are statistics, but I would say by and large that most airlines compare very well with each other. The standard is high.

548. So, the costs would not be out of line between one and the other for safety? One can assume that costs for the provision of safety to meet the international standard are about the same?—I would say the standard of safety achieved internally is about the same, but the costs of achieving it may vary.

Mr. Albu.

549. That would depend to some extent on maintenance costs?—On maintenance costs, which is one of our big problems. If I might say something in confidence now, having regard to the fact that we so often operate a new type of aircraft, which is again something we touched on last time and as it therefore falls to our lot to put that aircraft safely into service, probably more is expected of us than of other airlines. I did happen today to lunch next to the Director-General of the Air Registration Board, and he was saying to me that our safety standards, having regard to the special problems with which we are faced, he considered as outstandingly high, and the Air Registration Board, of course, do see the operations of all airlines.

Mr. Ernest Davies.

550. On the figures you have just given us, on the other routes than the North Atlantic, it is clear that the First Class fares are even less in relation to costs than they are on the North Atlantic. They are 170 to 100 in the case of the Europe—Africa, India and the Far East.

* Appendix 24.



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Now, as a result of that, as through the Conference arrangements you cannot charge the prices commensurate with cost, does it mean that you provide more of the Tourist class and, therefore, try to cut down your First Class provision as much as possible?—That is what is happening more and more as we get the flying equipment that can take the weight of the Tourist class crammed up a bit, so we tend more and more to put in more Tourist seats.

551. So, the type of accommodation that is provided, that is, the amount of seats between the different classes, will in part be governed by the Conference prices?—It will. I believe there is a graph in last year's accounts showing the growth of the Tourist class.* Could I draw your attention to page 19?

Chairman.

552. Yes?—There is a straightforward graph, passengers carried in thousands. You will see the black has come down, if anything, since 1952-53 and has now settled down, whereas the white, which is the Tourist—

Mr. Ernest Davies.

553. Yes, I fully appreciate that. It is certainly in the right direction, as far as the encouragement of mass travel is concerned, but the point of my question was, is that influenced by the decisions which are taken by I.A.T.A. as regards price, and I think your answer to that is, really, Yes?—It is, because all the carriers believe that there is a limit to the number of people who travel First, conditioned by how much they can afford, whereas we believe there is probably no limit to the lower classes.

554. On these routes, and some of these routes would be those where there is competition not only from international airlines but competition from the independents, which are charging the lower prices in some cases on the routes on which there are the Colonial Coach Services, does that influence you to provide more of the cheaper seats or do you continue to provide the First Class as a contrast?—No, we are aiming to increase our cheaper class of seats on those routes.

555. And that is influenced by the fact that the Colonial Coach Service is

* H.C. 252 of 1956-7.

operating?—It is partly influenced by that, but it is also again conditioned by this aircraft problem. Until the Britannias came along we had not got anything in which you could conveniently squeeze in a lot of low fare passengers.

556. But the Britannia is completely flexible?—Yes.

557. That is a great advantage?—It is going to be a great advantage. With the Britannia we will be able to devote more and more of it to the lower class.

Dame Irene Ward.

558. How often do you have these revision meetings for the revision of fares?—(Mr. Smallpeice.) Once a year. (Sir Gerard d'Erlanger.) But in between times in exceptional cases you can get a variation, not to a whole group of fares, but to a particular fare.

Chairman.

559. Before we leave these papers and the figures which Mr. Smallpeice kindly gave us, could he perhaps tell us this: on what basis of seat occupancy has he given us figures of the economic indices?—(Mr. Smallpeice.) 65 per cent.

560. That is the same for each class of seat?—Yes.

561. Now, in practice do you find that it is above 65 per cent. in the case of Tourist or above 65 per cent. in the case of First Class, or does it work out equally between the two?—It works out, on average, about the same for each class, although this year with the introduction of the Economy class there is an unbalance while you are building up a new class; but by and large they tend to work out at about the same figure of seat occupancy for each class if we have guessed right as to the proportions of traffic which will be coming along.

562. But to the extent that you get a higher percentage of seat occupancy, to that extent these figures would be too high?—Certainly.

563. Now, perhaps you could tell us this: you know we have taken evidence already from the Ministry of Transport and Civil Aviation on one or two aspects of their relationship with you.

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[Continued.]

Have you found in your relationship with your Ministry over fares policy that, in general, you agree with them?—(Sir Gerard d'Erlanger.) The answer to that is, emphatically, yes.

564. They gave us one example where you had had a disagreement on a route over which the fares were under your control and not under the effective control of I.A.T.A. That was on a route to West Africa. In that case they took the line that your proposals would result in Tourist passengers subsidising First Class passengers, and they therefore asked you to alter the increase that you proposed to the Tourist class passenger while retaining the increase to the First Class passenger?—(Mr. Smallpeice.) That is quite true, Sir, there was this instance, but I do not think it will be—at least, I hope it will not be—regarded as an example of difference of opinion or conflict between us and the Ministry. In point of fact, we always discuss fare proposals in advance with the Ministry. We find it extremely useful to do so, and there is a good deal of give and take in opinion about this which, again, we feel contributes to the working out of what is a good policy for us to put to the other airlines or, in this case, to apply for a particular cabotage route. We did not agree over this, and perhaps it would be a pity if we always did agree about everything. We bowed to their views and do not bear any grudge about it.

565. Though you do not bear a grudge, are you losing money as a result of it, that is the point?—This is a case, I think, where we are losing money at the moment on the West African route because we are employing on it Stratocruisers because we have not got other aircraft to put on that route. This was an attempt by us to try to reduce that loss, and we knew that we were asking for a higher fare in respect of Tourist passengers than would strictly be justified on a proper cost basis. But, as part of an attempt to get the maximum revenue from the aircraft flying, we thought that this was a means of trying to reduce our deficit on this route. But the point was made that it was not the proper thing to do and we accepted it.

566. You are not statutorily bound, are you, to get the Ministry's agree-

ment?—There is no statutory requirement, Sir, but, of course, there is a requirement under the bilateral agreements where they apply that the Minister's agreement is required.

567. Will you tell us a little more about these bilateral agreements?—Perhaps Sir George Cribbett, who is an expert on the matter, would take this up?

568. In what capacity is he an expert?—Past and present, Sir. (Sir George Cribbett.) I would like to suggest, Sir, that I am not an expert in that capacity but I will do my best to tell you about them. They are agreements under which we exchange traffic rights with foreign countries. All the traffic rights we enjoy in foreign countries have to be negotiated bilaterally with the individual countries and we try to do the best we can on a horse trade; it is no more than that. We have from time to time, and first an attempt was made at Chicago. (Sir Gerard d'Erlanger.) May I interrupt for one second? Sir George is using the word "we". He is wearing his old hat when he says "we". It is the old hat talking. (Sir George Cribbett.) I am sorry, the United Kingdom has tried to place this on a multilateral basis, starting with Chicago in 1944, and another attempt was made in 1947 and both attempts were abortive. In the result we have to go through this very laborious process of negotiating individual agreements with each foreign country. Now, we have made it a point in negotiating these agreements to insert a provision that all fares will be subject, after being fixed between the airlines, to the ultimate agreement of the Governments, and that is how the Minister derives his power to approve the fares which I.A.T.A. propose and which we agree inside I.A.T.A. would be appropriate to the different services and routes.

569. But that does not apply to non-international routes?—No.

570. To cabotage routes?—No, it does not strictly apply to cabotage, but we have had a working arrangement and understanding for many years because of the very close connection between some of these cabotage routes—after all, they are an integral part, very often, of a longer international route—that these fares likewise will be subject to Ministerial approval. More recently with

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[Continued.]

the introduction of the Colonial coach that became more important to the Government and we did in fact agree that all changes in the cabotage route fares would be submitted to the Minister for his approval.

571. But ultimately, of course, you are responsible for the revenue that you make?—Oh, unquestionably, yes.

572. You have told us that in the normal case you value the discussions which you have and agreement is full and complete, but was this one case of the West African route the only exception, or just one of the rare exceptions?—(Mr. *Smallpeice*.) I think there have been others; there may be three. (Sir *Gerard d'Erlanger*.) Three cases in twelve years is the note I have.

573. The West African disagreement was recently?—(Mr. *Smallpeice*.) 1957.

574. When were the other ones?—(Sir *George Cribbett*.) Oh, much older.

575. I do not think we need ask questions on that. Arising out of the West African case, do I understand that, in fact, that route was uneconomic?—(Sir *Gerard d'Erlanger*.) It is at present uneconomic with the type of aircraft we are using on it, that is, the Strato-cruisers, which we hope to retire as soon as we have got enough Britannias to take over.

576. When you know that that is so, because of the type of aircraft that you have got available, on what basis can you properly fix your fare?—To have some regard to the sorts of fares in the area.

577. And you have to take a long term view as well as a short term view?—In that regard we have to take a long term view.

Mr. *Ernest Davies*.

578. On this particular route are there Colonial coach services? There are, are there not?—Yes.

579. That would prevent you from freedom of operation as far as your fares are concerned?—There is that and there are also other international carriers who you can use to get the area. It might mean going to Amsterdam to take a K.L.M. plane.

580. On these routes where you have cabotage rights, there is no competition

with the foreign operator, but you are talking about outside the cabotage routes?—If we pushed them too high and got above the international rate, cabotage or no cabotage, people might go from London to Amsterdam, from Amsterdam to Nigeria, or anything. (Sir *George Cribbett*.) Could I say a word on that? One of the great difficulties we have always had in maintaining our cabotage rights has been poaching by the foreign carrier. Some airlines offer a very simple device of a ticket to an intermediate point and they re-ticket to the further cabotage point. I think that is the point you are trying to make in explanation of this relationship of cabotage fares to fares which might otherwise be quoted by international operators. We have managed to maintain our hold on the bulk of this cabotage traffic but there has been very considerable leakage down the years.

Mr. *Ernest Davies*.

581. Who is responsible for that, I.A.T.A.?—I am afraid it is a breach of the bilateral agreement under which the foreign operator functions, and it is extremely difficult to be able to prove that a passenger has, for example, had the ultimate object of travelling to the cabotage point. There have been very long discussions and arguments between Governments on these points, but our Government has never really succeeded in establishing beyond peradventure the ultimate right to this traffic.

582. Just on the question of fares, on these cabotage routes how close are they to what would correspond to international fares?—(Sir *Gerard d'Erlanger*.) There is no absolute answer to that one, I am afraid. If I can give you an extreme illustration why there is no absolute answer, and it is not in B.O.A.C.'s territory, it is in B.E.A.'s territory, the fare between London and Malta is lower than the fare between London and Rome, although Malta is considerably further; but by and large the cabotage fares match up with the international fares.

Dame *Irene Ward*.

583. Why does that occur actually, what is the reason?—There are two reasons, I think. One is the cost reason, it does not cost any more to operate to Ceylon, assuming Ceylon is the same

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* [Continued.]

distance away, than it does to Singapore, which is a cabotage route. The actual cost of the operation is similar so that has a bearing on the fare and, of course, the other one is that if we were to try and pitch the fare too high on a cabotage route—take Singapore, for instance—people will fly by K.L.M. via Amsterdam to Singapore via Air India, and various other people, at the lower fare.

Mr. Ernest Davies.

584. Apart from that possibility of evasion, which you have just referred to, would not the conclusion to be drawn be that by and large it indicates that I.A.T.A. fares are not too much out of line if you fix yours very similarly to I.A.T.A. fares on those routes where you have freedom?—I think, by and large, the I.A.T.A. fares are not out of line, except that they are generally too low, all of them, just a bit too low. (Mr. Smallpeice.) May I say something further about this question of uneconomicness, if that is a permissible word, of the West African route, and emphasise a little what my Chairman has said. This is a temporary phase. You were asking how we fixed the fare in those circumstances; well, before we put the Stratocruisers on we had an economic aircraft in the Argonaut at that stage and there was at that time, anyway, a perfectly good way of getting at an economic fare; and the fare level we have now got will be profitable next year as soon as we put the Britannias into service, and this was a transitional phase while we were short of aircraft and just had to use the Stratocruisers to cover that route.

Chairman.

585. I wonder if you could tell us this on the point of the difference you had with the Ministry of Transport and Civil Aviation: you have given us in the case of Europe-Africa, India and Far East routes the relationship between the First and Tourist fares. What is the relationship between the First fares and Tourist fares in the West African route?—I have not got that here, I am afraid.

586. Perhaps you could send us a note?—I will certainly do so, Sir.*

Sir Alexander Spearman.

587. I think this may be a very silly question, but it obviously is very important to get the aeroplane as full as

possible. It is quite impossible to vary the amount of First and Tourist in each aeroplane on each trip?—(Sir Gerard d'Erlanger.) It is not impossible, and we do in fact do a certain amount of it but there is a limit, of course, to what you can do, otherwise you end up with a huge pile of chairs at one end and no chairs at the other, but we do try and do as much as we can. (Sir George Cribbett.) In fact we had to do that adjustment quite recently on the routes to the Far East. The configuration has had to be changed slightly so as to permit of more First Class passengers. There is a bigger demand at the moment for First Class passengers than the existing configuration would allow us to satisfy, but as the Chairman says, it is only possible within certain limits. (Mr. Smallpeice.) You may like to know, Sir, that because of this fluctuating situation we do have different fare levels established each year on this and therefore you get changes from one year to another of profitability of one class as against another. We have designed into future aircraft, starting with the Britannia, that they shall be completely flexible inside so that we have got the maximum commercial possibility of getting the best revenue out of the aircraft.

Mr. Ernest Davies.

588. And for each trip?—No, not for each trip because of the fact that you have got to put seats on sale and, as my Chairman has said, if there is too much flexibility you may have seats filled nicely one way and go the other way with them half empty.

Sir Alexander Spearman.

589. Are you quite sure that there is no chance of getting more custom from other air services by doing anything more to cut down the time that is spent on the aerodrome?—(Sir Gerard d'Erlanger.) If we could have an exclusivity of hurrying our passengers through Customs and all the other formalities, I think we should gain a very great deal; but I think we should find retaliation at the other end.

590. Because it might almost pay the Government to give greater facilities at the Customs, might it not?—I think it would help to make, shall we say, London Airport a popular place, but I do not

* Appendix 13.



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[Continued.]

think it would necessarily put more passengers on B.O.A.C. as opposed to Pan-American if all carriers enjoyed the same privilege.

Chairman.

591. Can we pass now to one or two questions on routes?—Yes.

592. Would it be right to say that over the routes you cover there is quite a wide range of profitability and, perhaps, loss?—That is correct.

593. I am sorry to keep on asking for information, but I wonder whether we could have a statement which shows the difference of profit and even loss on the main routes? If you feel for commercial reasons that you do not wish to say which is which route, will you number them, A, B, C, D, E and F, or something like that, but we would like to see, I think, the range of difference between your earning power on each*?—Would it not be better if we put them in with the names and asked, if they are published, for the names to be omitted?

594. Very well, I am giving you a chance of saying which you would like best?—For the Committee's point of view I think that would make it easier.

595. That certainly would suit us best. Now, have you been recently asked, or felt yourselves bound in any way, to open up services on an uneconomic route, and if so, why?—I think it is absolutely right to say that all the routes which we operate are operated of our own free will; but having said that, we do recognise, and it is part of our function as a national corporation whose capital is provided by the State, that it is our duty to provide services spread as far and as wide as we possibly can to carry the British flag to enable people to fly British, particularly people in the sterling areas who, if they do not fly British, might be incurring hard currency expenditure by flying American. Every British passenger that we carry is a potential saving of hard currency because if we were not flying at all he might go by Swiss or American airlines, and it is all part of our philosophy—I do not know whether this is economically excusable—to show the flag wherever we can and as far as we can afford to do so.

* Not printed.

596. That is your philosophy on commercial grounds as well as on national interest grounds?—On commercial grounds we try to do what we can afford. I was recently asked by the Minister of Transport: "Well, what about opening up South America again". I replied to that that we should not be in a position, as far as equipment is concerned, to open up until 1960, but we very much hoped to open up again if we could afford it at the time. I had to qualify my answer—our aspiration is to open up there again—but the point is whether we can afford it or not at the time.

597. What do you mean by, if you can afford it?—Our survey of the South American route indicates that for the first four and possibly five years we might lose £½ million a year on that operation, getting it going. If we have got surpluses from other operations and a net surplus, a sum which we can devote to opening up the South American route, we shall be only too pleased to do so, but if we are by any chance in the red on other routes we might have to postpone it for a year or two until we are in the black throughout.

Dame Irene Ward.

598. Why 1960? Why have you fixed on that year?—1960 is largely controlled by the availability of aircraft and we shall not have enough modern aircraft capable of competing on that route, because it is a pretty competitive route, before 1960, when we hope to have enough Comets to put on to that route.

599. By that time you will have modern aircraft on all routes you are flying at the present moment and these will be surplus?—We have not unfortunately yet reached the position where we have completed our re-equipment. We still have obsolete aircraft operating in certain spheres, the West African sphere I have just mentioned, where we have Stratocruisers; they have got to come off. East Africa, we still have Argonauts. In the Persian Gulf we have Constellations and in the North Atlantic we still have Stratocruisers.

600. You have to shed all those first of all?—We have to shed all those and we shall have a surplus of aircraft by 1960 with which to tackle South America, we hope.

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Chairman.

601. Would it be your general view that, in judging your operations, you ought to take the profitability of all your routes as a whole and that it is misleading on commercial grounds to take separately the profitability of a particular route because of the reasons that you have indicated and, in particular, because of the general commercial prestige and goodwill that comes from operating over a wide area?—That is the way we look at it, Sir. We try and look at the thing overall. We do not regard it necessarily as a commercial crime or a moral crime that one route should subsidise another. I do not say in perpetuity, because in the long run we would try and see all routes self-sufficient, but at the moment we have got an unbalance in various places. One route makes enough to enable us to lose money on another. We do not, frankly, regard that at this stage as a commercial crime.

602. When you decide whether or not to open up alongside or coming off from an existing route to open a service to an additional place, what are the criteria which you have in mind in deciding that? Let me put as an example Teheran. I do not know whether you go to Teheran now?—We have just started again.

603. That will be a very good example. Two years ago you were not flying to Teheran. What were the criteria which made you re-open that service?—May I ask Mr. Smallpeice to answer that?

604. Yes? — (Mr. *Smallpeice.*) Mainly, if not entirely, the fact that traffic was beginning to move again. When we operated the service before, up to 1954 when we took it off, at that stage we operated a terminating service to Teheran through Israel. We did consider when we started up operations to Teheran again at the end of last year whether we would put on a terminating service again, but the traffic was not sufficient to justify it, so we put Teheran in as a port of call on one or two of our Far Eastern services. But, broadly speaking, simply on the grounds that on representations made to us and as a result of our own market research surveys, there is traffic moving again to justify it.

605. And that decision has been justified?—Oh, yes, it has.

Dame Irene Ward.

606. Are you ever pressed by, say, the Board of Trade or the Commonwealth Relations Department to open up routes in advance of your own organisation for assessing the position?—(Sir *Gerard d'Erlanger.*) I think the strict answer to that is, yes, we are constantly having our attention drawn to places, why do we not serve here, there and everywhere. Nine times out of ten or 99 times out of 100 we had thought of it first, we had examined it and cast it aside, but there are always these pressures. They build up usually with the local British Chamber of Commerce out in the place first of all. They say: "Why do we not get a British service coming here?". That goes up to the Ambassador, it then goes up to the Foreign Office, may be to our Minister, who says: "Have you thought of this one". It may be that it comes from the local Chamber of Commerce to our own men somewhere in the area. We may have a representative in the particular spot.

607. Whether it is market research or movement of traffic, to which you refer, are our advisers on that side of it technically more competent to advise than, perhaps, the Board of Trade or the Foreign Office, or whoever they may be to whom the Ambassadors report?—If I might give an actual specific example, the President of the Board of Trade recently went to Mexico, and he came back full of the virtues of our operating a service to Mexico. I hope I am not talking out of school; perhaps I am, but it is an interesting illustration, the kind of traffic which flows between this country and Mexico each year is microscopic, about of the order of 800 people. The great bulk of the flow is between Mexico and New York, where, by a great freak, for many years Air France enjoyed the monopoly of the service between New York and Mexico. The domestic carriers in the U.S.A. protested this situation and got it opened up, so they now carry the great bulk of the people between Mexico and New York and not Air France. But the kind of people going from this country to Mexico we do not consider would justify us operating that service unless we can get the rights between Mexico

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[Continued.]

and New York, or between New York and Mexico, and we are very doubtful now whether it is possible to get these rights, having regard to the fact that the whole thing has been opened up to domestic carriers in the United States. That is an illustration of the kind of thing.

Sir John Barlow.

608. When you open up a new service such as the one contemplated to South America, what is the minimum service you think it worthwhile opening up with, two or three planes a week, something like that?—We have opened with one a week.

609. That is probably not worth doing?—It is not worth it because the overheads are too big to justify one service. We generally like to feel that we are likely in the course of time to build up to a daily frequency. It may take a long time to do it.

610. Following on what you were saying about this South American position, I was out there on a Parliamentary Commission last year and we found people pressing us very strongly to do what we could to open up, and we made suitable representations when we came back. No doubt they came round to you?—They came round.

Sir Alexander Spearman.

611. I can well imagine that there may be some unprofitable services which it is good business to continue because they might become profitable or they bring other business or you would lose other business if you did not do them, but I thought you went further and said you did consider it your duty to provide services wherever possible. If you did not do that but you were motivated exclusively by the profit motive, how much difference would that make? I am only asking for a very approximate idea. Would that make a substantial difference to your profits? Have I made myself clear?—Yes, you have made your point very clear. In other words, what routes would we now eliminate from our present plan if we were wholly motivated by commercial reasons?

612. Would that make a very substantial difference to your profits?—I do not think it would.—(Mr. Smallpeice.) I agree entirely. As a matter of fact, we

did make a very comprehensive study of this earlier this year, in March, as a result of which we did decide to take one service out, Nassau to Miami, but all the other services we operate we thought that we ought to keep on commercial grounds.

Mr. Ernest Davies.

613. Is it not very difficult to judge a situation like that because, surely, one route must feed another? If B.O.A.C. is available everywhere and people know about it, and so on, you will get people travelling by it?—(Sir Gerard d'Erlanger.) Yes, there is no doubt about that.

614. That is why I was going to ask you, in connection with the South American route, when you assume there may be a loss of £½ million for a few years, are you taking into account the intangible traffic which you would gain from it? Once people are travelling from South America on B.O.A.C., they must feed into other British lines, and so on?—In the £½ million we take no account of that which, as you say, may mitigate very considerably that £½ million.

615. Is it not the fact that most of the routes which are started up would in their initial stages show a loss and that they only gradually build up?—That is correct.

616. In the case of Mexico you would not expect it to build up adequately for the reasons you have given. In the case of South America, would it not be likely to build up fairly rapidly in view of the very large traffic there is between South America and Europe?—I will try and answer that in two halves. The building-up of the traffic between South America and Europe is, of course, largely dependent on the economic development of the South American countries, and as you will probably be much better aware that I am, the economic situation of some of the South American countries is pretty tricky. I ought not to talk about countries, but the future of the Argentine economy is anybody's guess, but I do not like the look of it at all. So, the building-up does depend to some extent on the economy of the countries at the other end. But, when you say, between Europe and South America, that is one of our difficulties. There is a lot

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[Continued.]

of traffic, there is no doubt about it, between Latin Europe and German Europe and Latin South America and the German section of Brazil. But we have only got very inconsiderable rights of picking up on our way through Europe to South America. We have got no rights in Spain whatsoever and very limited rights in Lisbon. (Mr. Smallpeice.) Lisbon is the only place. (Sir Gerard d'Erlanger.) And nothing in France. Ideally, we ought somehow to get rights from the Latin European countries to pick up in their territories on the way to South America, but I do not believe that is going to be at all easy because they are all competing for this traffic.

Sir John Barlow.

617. How do you suggest that that kind of approach could be made? How could this be done?—Sir George can talk about this better than I. It can only be done between Government and Government. (Sir George Cribbitt.) We have on various occasions in recent years tried to get the Spaniards to be more liberal to British airlines, to grant rights to pass through their territory, but they are highly protectionist. They have ambitions to operate themselves, both Iberia and the Portuguese airlines, and we have never succeeded in obtaining further concessions. I think I am right in saying we have tried this on four or five occasions, as the Chairman has just said. The bulk of the traffic does move between Italy, Iberia and Southern Germany and South America. As far as both shipping and ourselves are concerned, it is a route which is notoriously unremunerative. There is very little traffic which passes directly between South America and the United Kingdom, and unless we can have access to this intermediate traffic it would be extremely difficult to bring that route on to a paying basis, even with the passage of time. We have operated the route before and never at any stage during that operation was it possible to make a profit out of it.

Mr. Ernest Davies.

618. One of the factors which led to its unprofitability was difficulties you had with aircraft, and so on. This is past history, but do you not feel it is not really fair to test the profitability of that route

by the past experience of B.O.A.C.?—Well, Sir, the proof of the pudding will be in the eating. (Sir Gerard d'Erlanger.) Might I try and set another test which does weigh considerably with me, at any rate? That route has been virtually open to anybody who wanted to operate it since we pulled out—any British operator—and nobody has even mentioned it.

Mr. David Jones.

619. Are there any services now between South America and the United Kingdom operated by anybody?—No British operator.

620. Does not Air Brazil come here?—(Mr. Smallpeice.) Panair do Brazil and Aerolineas Argentinas.

621. Panair do Brazil come in twice a week?—Yes.

622. So there is a service between London and Brazil twice a week?—Yes.

Chairman.

623. In connection with your rights of picking up in Western Europe, and I am not thinking of Spain or Portugal here, has anybody suggested in the course of the Free Trade Area agreements that the restrictive arrangements now in operation should be abandoned?—(Sir Gerard d'Erlanger.) I have not heard that suggested. Of course, that could be a two-edged sword.

624. I quite see that. No suggestion has been made?—I have not heard it suggested.

Chairman.] I was asking for information.

Mr. Ernest Davies.

625. Following up Mr. Jones's questions, although it may be true that there is only this one route between London and Latin America, the fact remains, does it not, that B.O.A.C. is the only major world airline which is not operating services to Latin America?—I think that is a correct statement.

626. And that is rather regrettable?—Yes.

Mr. Albu.

627. Why is it regrettable?—Well, here we fall back on our philosophy of flying the flag.

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[Continued.]

Dame Irene Ward.

628. Could I ask whether your operations come into invisible exports in the same way as shipping does?—Oh, surely, yes.

629. Is it shown as a sort of separate calculation?—I have never seen it shown separately (Sir George Cribbitt.) No.

Dame Irene Ward.] Do you know what it is regarded as?

Chairman.

630. It will be included, surely, in invisible earnings, will it not, in the balance of payments?—Yes, it would be.

631. It is a fact, of course, that shipping is shown separately, but that is largely freight, is it not?—Shipping makes a very big contribution, but I do not think we would claim that we are anything like comparable.

Dame Irene Ward.

632. You might build up in the years to come, might you not?—We certainly expect to do so. (Sir Gerard d'Erlanger.) That is part of the object of the exercise.

Chairman.

633. Perhaps Dame Irene is suggesting that we might have from you some further figures which show not only your dollar earnings, which you have kindly informed us about, but your earnings in overseas currencies?—Foreign currency earnings, yes, Sir.*

Chairman.

634. Perhaps, for the last five years. There is one other aspect of routes on which I would like to hear you. We have been talking mainly so far about cases in which you might be pressed or urged by other people, authorities and private individuals, to open up new routes. Are there cases where you would like to open up new services but are prevented by Governmental agreements?—I would say that there are cases where we are prevented by the absence of Governmental agreements. A very good case in point is where they are anxious to go to Toronto. There is no agreement between the United Kingdom Government and the Government of Canada by which we are permitted to go to Toronto. Our Minister and the President of the

Board of Trade and others have been pressing the Canadian Government very hard to give us the right to go into Toronto, but we have not yet succeeded.

635. Is the same true about Vancouver?—We have not yet asked for Vancouver.

Mr. Albu.

636. Does any airline, other than T.C.A., fly between London and Toronto?—T.C.A. do.

637. Other than T.C.A.?—(Sir George Cribbitt.) There is one other airline authorised to operate, but it does not in fact exercise its rights, and that is Alitalia, the Italian airline. The Canadians have refused the right at the Montreal end, but they have the right from the United Kingdom Government. (Sir Gerard d'Erlanger.) If I may say so, you have hit on our argument, why should T.C.A. be allowed to fly London to Toronto if we are not allowed to fly Toronto to London.

Mr. Ernest Davies.

638. What is the explanation, do you know?—There was an agreement negotiated under, no doubt, very reasonable circumstances, that is to say, when it was negotiated the circumstances appeared reasonable, but the past events have shown its unbalance and we are trying to get the balance redressed.

Mr. Albu.

639. Do you fly anywhere in Canada?—Yes, we fly to Montreal and we have also rights to some obscure place nobody knows anything about. (Mr. Smallpeice.) Gander?—(Sir Gerard d'Erlanger.) No, apart from Gander, one other place.

* * * *

Mr. Albu.

641. Why do we not fly routes over the Pole?—(Sir Gerard d'Erlanger.) Up to now we have not really thought it worth while. The only route which it would theoretically help us on is the San Francisco service. We are just as fast, if not faster, than those who go over the Pole.

642. And you are not allowed to fly to Vancouver?—We are not at the moment to fly to Vancouver, nor have we asked for it.

* * * *

* Not printed.

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Chairman.

644. May I return for a moment to Vancouver, because I was once in a position where I did press your predecessor to open a route to Vancouver. Is it not a fact that nobody can fly from London to Vancouver for two reasons, one is because they are not allowed to land in Vancouver and the other is that the people who come from Vancouver are not allowed to land in London?—(Sir Gerard d'Erlanger.) Yes.

645. My question is this: once they were allowed to land in London, would you not want to go to Vancouver?—I expect we should.

Mr. Ernest Davies.

646. Who is responsible for their landing in London? Who would negotiate that?—It would be the Ministry of Transport.

Dame Irene Ward.

647. But then it must be advantageous to keep them out, I suppose?—Well, to keep them out until we are ready to go to Vancouver. I am afraid that is the truthful answer.

648. That is interesting to us?—(Mr. Smallpeice.) May I continue on Vancouver for one moment? It is not that we do not want ever to go to Van-

couver but that we are not asking for it at the present time because the one place in Canada we do want to go to and which is worth a tremendous amount to us is Toronto and, therefore, we do not want any red herrings of any kind, without disrespect to Vancouver, to be drawn across the trail.

649. You are being subtle, in other words?—Well, I do not think so, we are just being commercial, probably.

Chairman.

650. I think, Sir Gerard, that we should end our questions there, because the other matters on which we want to question you would be much better dealt with after we have seen your Report. The next time we meet, I think, is going to be on the I.A.T.A., to which we shall confine our questions. I do not know what you will say in your Report about air freight when it comes out, but I am sure that that will be a matter on which the Committee will want to talk to you at some time. We have postponed any questions on it for the time being, but if after you have published your Report you think it would be advisable to send us a Memorandum on that subject, it might shorten our enquiries with you at a later date?—(Sir Gerard d'Erlanger.) Thank you, Sir.

* Appendix 41.

THURSDAY, 10TH JULY, 1958.

Members present:

Sir Toby Low, in the Chair.

Sir John Barlow.
 Mr. Blyton.
 Sir Keith Joseph.

Mr. Palmer.
 Sir Alexander Spearman.
 Dame Irene Ward.

Mr. D. W. G. L. HAVILAND, C.B., Under Secretary (Air A), Ministry of Supply, called in and examined.

Chairman.

651. Mr. Haviland, you are an Under Secretary (Air) at the Ministry of Supply?—Yes, Sir.

652. We, as I think you know, are engaged in examining the Reports and Accounts of the aircraft corporations, and in the course of our inquiries so far

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[Continued.]

we have been dealing with the problem of the supply of the aircraft that they need. We have had it brought to our notice that your Ministry does play a part in the research and development of civil aircraft, of which we are of course aware as members of Parliament, and we have also had brought to our notice the existence of the Transport Aircraft Requirements Committee, on which as I understand it each of the aircraft corporations has a representative?—Yes, Sir.

653. I wonder whether you could explain to us, first, the role that your Ministry plays in the civil aircraft field; but before you answer that question, I think I should remind you, and the Committee, that your Minister made a statement to the House on the 13th May which he supplemented in a debate on the 22nd May, of which we are of course aware?—Yes. The function of the Ministry of Supply in matters of civil aircraft, Sir, may be put broadly as follows. The Ministry of Supply sponsors the aircraft industry in the sense that it is the Department which is supposed to know about and be able to express a view on all matters of concern to the Government that arise out of the aircraft industry. Secondly, the Ministry of Supply is the Government Department mainly responsible for research related to aircraft. Then it is the Department concerned with the development of civil aircraft in so far as the Government decides to take a financial part in the development. Finally, it is required to have a technical view on all matters of civil aircraft development or production, even though those activities may be going on at private expense.

654. When you say you “take a technical view,” with whom do you take that view—with the Ministry of Transport or the Treasury?—With all the Government Departments concerned, Sir.

655. You have kindly given us the general position. Perhaps we could best understand how it works out by taking you through the process of, say, B.O.A.C. deciding upon a new aeroplane?—Yes.

656. As I understand it, from what you have said, you are at the moment responsible for the financing of all basic research right at the back and improvements in aircraft design, including the design of civil aircraft?—Broadly, yes,

Sir, though some basic research may be undertaken by companies at their own expense in addition; but the bulk of such research is undertaken by the Ministry.

657. As I understand it from the Minister's recent statement, though in some years to come it may be possible to put more of that responsibility for expenditure on basic research out into the hands of private industry, for the time being you accept that responsibility and provide the right amount of money for it?—Yes.

658. Is it the fact at the moment that the right amount or an adequate amount of effort is being expended on that very important matter of basic research?—Broadly, yes.

659. And that is done in Government establishments and in industry under contract?—Yes.

660. And in universities?—Yes.

661. Then the Transport Aircraft Requirements Committee I think comes in, at this stage, does it not, in that it is keeping itself generally in touch with the thought that is going on in all these places, and is also keeping in touch with amounts. Will you say how that would fit into the problem, for example, as I have said, where you have B.O.A.C. wanting a new aeroplane?—Yes. The view that the Transport Aircraft Requirements Committee takes of this field is a very extensive one indeed. It obtains knowledge about research programmes in so far as they have any bearing upon the development or production of civil aircraft, upon potential military requirements for transport aircraft, upon the future aircraft requirements of the nationalized corporations and of the independent operators, taking account of the various developments in Government policy as expressed by the Departments concerned. In the light of all that, to exchange information and gradually to formulate a requirement by either a military or a civil interest; to do what it can to reconcile any conflicting aspects of requirements; and, finally, to formulate a requirement which meets as broadly as possible the interests of the different parties. It then embarks upon the process of getting competing offers from industry as to the terms on which they would produce an aircraft to meet the requirement. Finally, it advises the Ministers concerned upon all the

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relevant factors upon which they can base any decisions on policy which arise from that range of matters.

662. Supposing it is a case of B.O.A.C. wanting a new aircraft, is not it B.O.A.C. who in the end formulate the requirement, rather than the T.A.R.C.? —B.O.A.C. are responsible, naturally, for formulating their own requirements; but requirements are things which are products of a great deal of consultation, consideration and exchange of views. I am not in a position, naturally, to speak for the nationalized corporations, but I would think that it would be fair to put it like this: neither the nationalized corporations in the civil field nor the Air Ministry in the military field would sit down in a vacuum and write out a requirement and then present it and say, "Please meet this." What they do is to get advice from all the quarters that they can, which would include the Ministry of Supply, from the research people at one end and the companies at the other, as to the latest and best ideas for meeting possibly different requirements. Then, by a process of research, analysis and debate, to formulate the requirement which best meets the needs they first thought of and the possibilities that they subsequently discovered.

663. In this way you try, I assume, to ensure that the requirement finally put forward for a civil aircraft and the requirement finally put forward for a similar activity in the military or air force field are as close together as possible?—Yes. I think, if I might add to that, we have probably reached the stage at which it is expected that Royal Air Force Transport Command will not have passenger transport requirements which are not also the requirements, with relatively minor alterations and modifications, of a civil or a potential civil operator. In the field of freight transport it is possible that divergences may be greater because the requirements themselves tend to diverge in nature.

Chairman.] We have so far covered the research field and the requirements field. I think we will stop there for the moment and ask if other Members of the Committee wish to put questions.

Sir Keith Joseph.

664. One point on independent air-line operators. You say that you consult them about their view of future

demands. Do you find any great difference between their view of future demand and that of the nationalized industries as reflected in their requirements?—In nature, no, Sir, but in scale, yes. The nationalized corporations are relatively big buyers of new aircraft which they like to see tailored to meet, as far as possible, their requirements. The independent operators so far take the view that the outlet that they have and the demands for aircraft that they have do not justify them in stating a new requirement and then taking part in an initial order for an aircraft to meet it on any scale.

665. At the moment, therefore, the nationalized industries do, as it were, proving of new planes which independent operators may use later. What I am going to ask you here is whether it is conceivable that as the market increases there may be a common demand with one day a common order, thus increasing the number of orders that might be placed?—That is our hope.

Chairman.

666. You regard the Transport Aircraft Requirements Committee as an important instrument in all this getting together and co-ordinating of thought and getting the best out of it all?—Yes.

667. We have had evidence from one of the corporations that in their view the work of this committee in the past has been rather patchy. Is it a fact that some steps have been taken recently to smarten it up, at it were?—I do not know that I would necessarily accept the implication of the accusation of being patchy. I think perhaps I would explain it in this way. Looked at from the point of view of a particular member of the Committee having at a given period in time a limited interest in matters in this field, it may well be that the committee has seemed patchy in the sense that it has not met very often to consider matters of concern to it. However, the machinery of the committee—and this we have regarded as one of its advantages—is very flexible. It does not always meet in full committee with everybody present to consider a question which may be of concern only to a couple of members, particularly where questions of commercial security (if I may put it like that) arise. There have been quite a long series of *ad hoc* sub-committee

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[Continued.]

meetings to deal with particular problems of this sort without bothering those who were not, and did not want to be, concerned. If I could add one small point, I would say that any patchiness of the committee could have been remedied at any moment by the request of any member of the committee that it should meet. That it has not met more often can only be because nobody at the time wanted it to. Then in answer to your final question, as to the extent to which it has brightened up its ideas, the answer is that it certainly has brightened its ideas in the sense that, since certain changes in the military programme flowing from the Defence White Paper of 1957, the committee's interest in research questions has become very much keener. It is at present embarking upon an elaborate review of research programmes as a whole in relation to future possible transport requirements. Secondly, it is engaged on a review of the possible future transport requirements which might themselves call for the research programme. It has been meeting about monthly for quite some time, and its sub-committee is doing a great deal of work, so by comparison with the past it is certainly working very much harder.

Chairman.] That confirms the impression we had formed.

Dame Irene Ward.

668. I was really only going to ask a question on the point you made about any member of the committee could ask for a meeting of the committee. Would there never come a moment when, perhaps, the Ministry of Supply would have information which might interest a member of the committee and that member of the committee not necessarily know that the committee had asked for it?—Most certainly: then it is the duty of the Ministry of Supply, which not only provides the Chairman but the secretariat, to arrange a meeting and to arrange the dissemination of all necessary information before hand. I think we would claim, though it might not be universally agreed, that we have so acted.

669. Yes, I am quite sure that would be so; but sometimes Government Departments take quite a long time to make up their minds that something might well be discussed, do they not?

—Yes.

670. But you are never guilty of that?—Personally, I am frequently guilty of it, but I believe this committee has not been very guilty of it.

Mr. Palmer.

671. Has this committee complete access to all up-to-date foreign developments?—To a considerable extent, yes, Sir; but by no means to the extent that we would like; that is to say, it would help us in our deliberations, naturally, if we had complete information about not only the policies of foreign governments but also those of the main companies with which ours compete. This is a highly commercial business, and that information is not readily come by.

672. When you say that information is not readily come by, is that because it is impossible to get it, or is it because you lack the means of getting it?—Very largely the former, Sir, but I would think it might well be that the second plays a part in it.

* * * *

674. Subject to the limitations and the difficulties, would you agree that there is perhaps a gap in your work here, but that your answer is that you are doing your best to fill it?—Yes.

Dame Irene Ward.

675. Do our commercial attachés hand on any information direct to you, or does it have to come through the Foreign Office or the Board of Trade, or whatever Department it is supposed to come through?—It comes through the normal channels by which the Department receives reports in most instances, but that does not provide any measure of delay: the information provided is readily available.

676. Yes, but what you are really saying is that commercial attachés do not get as much information as they might, for a variety of reasons, or as quickly as they might, perhaps?—Partly because of the nature of the work, partly because of their natural lack of technical knowledge in this field, partly, therefore, because of a lack of technical contacts in the countries concerned, added to which there are limitations of staff in the posts concerned and great pressure of other business.

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[Continued.]

Mr. Blyton.

677. Do the air attachés help you at our Embassies?—Yes.

Sir Alexander Spearman.

678. How do you ensure that there is no overlapping between research which you do and the research that is done by the aviation companies?—There is no direct way of ensuring that there is no overlapping, but there is a very strong commercial incentive against it in that what the companies do themselves outside our programme, they do entirely at their own cost. If it is already being done within our programme, unless there is something very peculiar about the work which makes it desirable for them to do it also, they would be wasting their money.

Sir John Barlow.

679. May I put a supplementary on the lines of Sir Keith Joseph's questions, on the purchasers or potential purchasers of new and unproven planes? There are presumably three purchasers: the nationalized corporations, the independent operators and possibly those overseas. Could you give us any indication as to the likely percentage of demand from those three sources for new and relatively unproven planes?—I am afraid, Sir, whatever I say here would have to be subject to confirmation; but taking them in types of aeroplanes, since the end of the war I would say that the R.A.F. Transport Command has been the main purchaser of new types, that the nationalized corporations have been a good second; and that the independents have been far behind—indeed, virtually nowhere, so far as running-in a particular new type of aeroplane is concerned.

680. Would you care to put any very rough percentage on those demands?—I am afraid that I could not from memory, but I would of course be glad to provide that information.*

* *Note by witness:* The initial orders since the war for new types of transport aircraft developed in the United Kingdom have been placed by the following in the percentages given:—

Nationalised Corporations ...	45%
R.A.F. Transport Command	35%
Independent U.K. Operators	10%
Overseas Operators ...	10%
(small types of aeroplanes)	

Sir Keith Joseph.

681. Do you foresee that happening if, for instance, the helicopter develops very far—in other words if, short-distance flying becomes even more popular?—For any given type of aeroplane it may well be that that would be so. But I would think that the present tendency is probably towards the corporations' becoming the main purchasers of new types of aeroplanes, partly because of some decrease in military programmes and partly because of the natural increase in the volume of air travel for civil purposes.

Chairman.

682. I want to take you back now to the Transport Aircraft Requirements Committee. The last question I put to you was about the patchiness of its work. I had in mind to follow that up by reminding you of what happened to B.O.A.C. as we have been given to understand. There was a stage when they relied for their future developments on the Comet 4 and the Britannia, and then they found, when the Boeing came along, that they had got nothing to match the Boeing, and therefore they had to buy Boeings. That may be over-simplifying the case, but that is the point I want to put to you. What was the Transport Aircraft Requirements Committee doing all that time?—Working very hard, but evidently in the circumstances not reaching the right conclusions.

683. Is it the aim of the Transport Aircraft Requirements Committee to try to ensure that the right requirements from the aircraft operators' point of view should be met by the British aircraft industry, or do they take the other quite understandable view that British aircraft research, development and production cannot do everything, and that therefore the Transport Aircraft Requirements Committee deliberately tries to leapfrog? That is what I want to find out?—We have not reached a stage, Sir, at which we have had to say that the things that people wanted to be done were beyond us to do, and therefore we should buy foreign aircraft instead—except the re-equipment programme after the war, when it was not physically possible for us to do certain things in time; in other words, Sir, the answer to your question is that the T.A.R.C. sets out to meet requirements from British sources. As far as this particular

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Boeing purchase is concerned, a requirement of just that type was considered at the material time in the Transport Aircraft Requirements Committee. There was a transport aircraft being developed to meet a military requirement at the time; the military requirement itself was cancelled for various reasons, and the Transport Aircraft Requirements Committee gave both in committee and out of committee a great deal of consideration to the desirability of going on with that development to meet a possible B.O.A.C. requirement in just this field, and there was consultation at the same time with, for example, a Canadian airline which had some interest in this field. The conclusion reached by the corporation at the time was that it did not have a requirement for that type of aircraft at that stage in the proceedings. It later became necessary because of foreign competition that such an aircraft should be produced. At that stage it was not physically possible for it to be produced in this country in time, and the interim purchase was therefore authorized.

684. What you are really saying is that if there had been a military requirement for the equivalent of the Boeing, which I think was called the V.1000, under the system then operating there would probably have been the aircraft available for the corporations that would have been approximately similar to the Boeing?—If the military requirement had then continued a civil version might have been chosen instead of the Boeing.

685. To your knowledge, was the Boeing a military requirement in origin?—According to my information it was, in origin, a private venture up to a certain stage; it then became a military tanker; and then it was converted into a passenger aeroplane.

686. That is, then, quite a good example of the advantage that pertains to the United States operator from having what really are larger military requirements than we have here?—Yes, it is very much of an advantage.

687. Now since then things have slightly changed, as we understand it, in that the aircraft manufacturer himself would now be prepared to finance more of the development of a particular type of aircraft than he was then prepared to finance; that is an impression I have

got from what I have read outside the Committee and also from has been said here. Is that right, or has there been in reality no change?—That impression is right, Sir; there has been a tendency for several years towards manufacturers' taking a greater share in the cost and the risks of all these new ventures, leading to the recent series of private-venture developments.

688. Now perhaps we could go on from the general work of the T.A.R.C. to recent examples of what happens when new aeroplanes are ordered. After the requirement has been discussed and agreed amongst the members of the T.A.R.C., what is the next part that the Ministry has to play? Would B.O.A.C. put out to contract a design for it?—They state a requirement. If it is to be undertaken by the company as a private venture, then it is a question of direct negotiations between the corporation and the company as to the terms on which the company will in fact enter into a contract with the corporation. The Ministry takes a very keen interest in those negotiations and in the offer which is made by the company.

689. Why?—For a variety of reasons, Sir; but perhaps the main reason is that, as sponsors of the aircraft industry and as the Department responsible for Government expenditure in this field, we are the Department which is liable to become the residuary legatee of any failure in the initial contract or development. If there is subsequently some programme of research or testing which has to be undertaken by the Government of the day, it is upon the Ministry of Supply Vote that the cost of that will fall. As such, we have to safeguard ourselves against that possibility by satisfying ourselves as to the terms on which the contract will be entered into. The subsidiary reasons would be that the Ministry of Transport and Civil Aviation expects advice from the Ministry of Supply on a number of matters in so far as it has to exercise responsibilities for the corporations' investment programmes, on the cost of an aeroplane, its suitability for the purpose and such like.

690. That is really the next stage in which you come in formally, and you are advising the Minister of Transport from the technical aspect from the moment he has approved an investment project?—Yes.

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691. So that in the interim period between the stating of the requirement and the actual decision to order, you try to keep closely in touch with what is happening?—Yes.

692. Then we come to the moment when you are advising the Minister on the order that a corporation wishes to place, and there has been an example recently of some controversy, at least as we understood it from the newspapers, between two possible projects for B.E.A., and it was understood that you had a point of view there. I do not necessarily want you to give us the details of that particular transaction unless any Member of the Committee wants it, but I would like you to explain to us your point of view, and how it is right that you should have a point of view which might interfere with the efficient operating of the airline or the corporation which is statutorily responsible for the running of it?—I think I would say that we would not wish to include in our function the possession of a point of view which would prevent a corporation from exercising its statutory function or, indeed, prevent another Government Department from exercising its responsibilities. Our function, in so far as the Government is concerned, is to possess knowledge in this field; if we do not possess that knowledge personally, at least we have access to it. As to the suitability of a design, the corporations themselves do not have the facilities of the research establishment of the Ministry of Supply. As to suitability of manufacturer, the corporations do not have the knowledge of the programmes of manufacturers that we have, because in bulk these programmes are military ones. As I said a short while ago, the corporations do not have responsibility for the whole financial cost of a failure to get some aspect of a programme right at the outset.

693. When you are discussing these things with the Ministry of Transport and the corporations, there is, of course, a danger of substantial delay. I think we were told in the case of the DH.121 project, the final go-ahead order for that project was in fact delayed for more than six months because of the various discussions that had to go on and because—I must put the whole story to you as we have heard it—of the need

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felt by the Government, the Ministry of Transport and Civil Aviation, as well as the Ministry of Supply as I understand it to make certain that the project could be financed by the consortium responsible for it. But that delay I think struck some Members of the Committee as rather a long delay and of course would have commercial repercussions in the running of the airline. What is your comment on that?—I think I would question the use of the word “delay.” It depends somewhat of course on the point of view. When somebody with limited responsibility has made up his mind, and it takes time thereafter to complete the matter, it is I suppose fair to describe this as a delay. However, looked at from the point of view of Government interest and Government finance, “delay” would be quite a wrong word.

694. But the Government finances out of public money. I mean in the case of B.E.A. there was no other Government finance?—There was a possibility of Government finance arising in two ways: one that the manufacturers selected by the corporation—in fact, both of them—wanted Government money in order to undertake the contract in the first instance; there was, therefore, a direct question of Ministry of Supply investment in both aircraft and engines. Secondly, there was the question which I have already referred to of the residual liability of the Ministry of Supply in the event of the manufacturer taking it on without the resources to see it through; and that is theoretically the greatest element of financial risk. There was, I think, from the moment that manufacturers offered private ventures to the moment of authority to the corporation by the Minister of Transport and Civil Aviation to negotiate, a very short period.

695. From the moment when—From the moment that manufacturers were offering private ventures.

696. No Government money?—Yes.

697. And that you would say was a month or two?—I think it was less than a month or two from the offer of a private venture to the authority to negotiate.

698. Therefore, I think you are saying to me that if there was a period of six months that elapsed between two

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certain things it was not your fault?—The bulk of it was well spent, Sir, from the point of view of Government finances.

699. Because the Government did not have to finance the project?—Yes, and now there are safeguards for the future.

700. So that in future cases like this, even, if you did at the outset have a point of view that was contrary to the corporations' point of view, you would not see anything like a period of six months elapsing?—No.

701. That is the important thing from our point of view?—Yes.

Dame Irene Ward.] That is the brightening up, is it?

Chairman.

702. No, I think that is a different Department.—The brightening up in that respect might be said to be on the side of industry.

Dame Irene Ward.] Fair enough!

Chairman.

703. There is another point that has worried some of us in connection with the ordering of these new aircraft, and that is how the corporations or the Ministry of Transport, when looking at the financial side of it, are to make up their minds whether the proposed price of an aircraft is the right price or the wrong price. Have you got any part to play in advising anybody about that?—Yes, Sir. We would regard it as part of our function of advising the Ministry of Transport and Civil Aviation on the suitability of competing offers by manufacturers to have a view on price too. The price of something which is still a rough sketch on a piece of paper is not a subject upon which anybody can be precise and accurate, but we do have considerable knowledge of, and have given considerable thought to, the cost of making aeroplanes of different kinds. There are various tests of a very broad kind that can be applied as to cost: what an aeroplane has to do in this particular field, the kind of technical step forward that the new design may provide for, its probable weight, and certain statistics about cost per pound of an aeroplane generally, all of which add up to a technical view of some value. In addition, of course there is often in this field a measure of competition and

the prices themselves are to some extent therefore competitive and can be measured one against the other. There is, I suppose, looking at it from the M.T.C.A.'s or the corporations' point of view, the final safeguard that manufacturers who put their own money into these ventures will not get their money back unless they sell the aircraft to other airlines, and the prices at which aeroplanes are offered have therefore to be competitive in a world market.

704. That assumes that the price which is paid for an aircraft is widely known at the time, but that is not always the case?—It might not be widely known at the time, but it is price which is the basis of subsequent negotiations. I do not remember many cases offhand, but in more than one case within my knowledge the initial price to a corporation has been lower than the price to the subsequent purchaser—a reflection of the manufacturer's enthusiasm for his first customer.

Sir Keith Joseph.

705. Is this something we could ask to have put down in figures or would that embarrass the Ministry?—I think it would embarrass the Ministry, but I have no doubt that it could be obtained from other sources, Sir.

Chairman.

706. If we wanted that, you would be saying to us we ought to get that from the aircraft industry itself?—Or from the purchaser.

Chairman.] Yes.

Sir John Barlow.

707. Do you find, since the industry are taking much greater responsibility, that they have to ask relatively more in order to cover their costs for experimentation and development?—It does not automatically follow, though it may, depending on the view that the manufacturer takes of his market. The reason why it does not automatically follow is that when the Ministry takes a share in the cost of development we also demand what is called a research and development levy to be included in the price; and the broad approach is that we and the manufacturer will agree to include in the sale price of an aeroplane an element based on our investment spread over an agreed number of aircraft.

708. I gather the number of foreigners who would take a new and untried plane

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is negligible?—That is a generally held view, Sir.

Sir Keith Joseph.

709. Do you charge developing companies for the use of Government research facilities or is that part of the credit which you hope to obtain back from their sales?—Sometimes a charge is made, depending on circumstances; but for the most part Government facilities are provided as a part of the Government service in this field.

710. Is this charged to them for recovery against their early sales in the way you were describing, or are those facilities never charged for?—Where the charge is not raised in the first instance against a company, it is never raised as such; but we do charge what is called a research and development levy which is related broadly to our direct investment and that is spread over a certain number of aeroplanes, and if that number is sold then we get back our money—the money we invested—and thereafter we would be making a profit.

711. I had thought this levy covered among other things research facilities made available, but that is not so?—Notionally it does, but in practice the sum tends to be related to the development investment so far as recovery over the first batch of aeroplanes is concerned.

712. I am sorry. Perhaps I have not made this plain. If research and development facilities are not charged for in this levy, what are the expenses that are charged for in the levy?—The actual cost of developing an aeroplane to an agreed programme, but the cost would not include the estimated value of general research which had been carried out by one of our establishments or a particular sum for some experimental work done in one of our establishments in order to provide the necessary knowledge during the course of development.

713. Are the general public aware of the development costs to which you refer in a number of cases?—Yes.

714. Would they be in the nature of development contracts?—Yes.

Chairman.

715. Just so that we get it quite clear about this: when you order a prototype

of a particular kind of aeroplane like the Viscount, you order it and pay for it and its development generally. As I understand from what you have said, that is charged back to the company by way of a royalty to be paid on subsequent planes produced?—Yes.

716. That royalty is fixed and you may, and indeed have in the case of the Viscounts made a surplus over the amount of money first placed on that aeroplane?—Yes.

717. That is a specific project. Coming to the other extreme, where you have got basic research financed out of Government funds, work done at the R.A.E., or work done by individual aircraft manufacturers, are you saying that you try to recover the cost of that by a general levy, or is that paid for completely and finally out of the general exchequer by the taxpayer?—That is paid for by the taxpayer.

718. What is the manufacturer's expense?—There may be a particular case where some company wants some work done which is not of general benefit to our programme, and in those circumstances we would consider doing it if we had spare capacity at his expense.

719. It would be true to say, would it not, that the case of the Viscount is not likely, under the present policy (we are not going into whether it is right or wrong), to be repeated? The policy of the Ministry of Supply is to try to get aircraft manufacturers to produce their first aeroplane and to pay for their development and so on. Would it be right to say in your view that change in financing policy is not going to upset the speed of development in the aircraft industry because it is merely a change in the person who provides the finance, and that ultimately the aircraft manufacturer is no better and no worse off than he was before?—I think that is broadly so, though there is perhaps one qualification to the way you have described the policy as announced by my Minister in the House recently. Proposals to develop new aeroplanes in certain circumstances will be considered on their merits. It is therefore conceivable that we may have some successor to the Viscount, though it would be a very different shape, at some future date, such as perhaps a supersonic transport.

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720. In which case you would go through the same procedure: you would order it, pay for it, and then try to recover it?—I think it would probably be very rarely indeed that we would pay for the whole of it; but it may well be that the Government would take a material share.

Sir Keith Joseph.

721. To add to what the Chairman asked you, surely it is true that if a manufacturer puts his own money into aircraft development, which would up to now have attracted financial support from your Ministry, and that proves to be a failure, the manufacturer concerned will suffer in future, whereas in the past you would not have been able to get a levy back from the manufacturer and therefore the taxpayer would have suffered. So that there is that change?—Yes.

Chairman.

722. If there is a loss?—Yes.

Sir Keith Joseph.

723. The facilities that your Ministry make available generally free to manufacturers would have existed anyway and be paid for by the Government for Service research requirements?—Broadly, yes.

724. Does this same advisory committee assess the need for new research facilities, or is there another committee that does that?—The Transport Aircraft Requirements Committee merely takes note of the programme as a whole in so far as it has already been constituted for military purposes. It then considers the suitability of that for its own civil purposes. The military programme itself and military priorities are dealt with right outside that.

725. I am asking about research. We are hearing the whole time that the country suffers because there is no demand or capital in the industry to sustain these huge research requirements, and therefore your Ministry supplies such research facilities both for the Services and for Civil Transport?—Yes.

726. Does this committee receive suggestions or approaches from industry or different Government Departments or from their own experts about new facilities for research?—No.

727. Who does that?—That is dealt with by the Ministry of Supply direct in consultation with the Departments concerned.

728. When facilities for new research are asked for, does the Ministry of Supply discuss with the industry whether those can be provided by the industry or whether they have got to be provided by the Government?—That is a factor which is taken into account.

729. Is the industry asked to get together to provide communal research?—Yes.

730. Has it ever done so?—Yes.

731. Does the result of the researches of one company outside the field of patents (if that is imaginable) get passed to other companies?—It is possible, yes.

Sir Keith Joseph.] One is such a layman that one cannot even ask the right questions!

Sir John Barlow.

732. You have certain revenue coming in and a great deal of expenditure going out on research. Do you have any kind of research profit and loss over the whole?—I think over the whole, Sir, it would be virtually impossible to draw up such an account. The main object of the research programme hitherto has been to make it possible to equip the Royal Air Force with the aeroplanes they require, and having equipped them with the planes they wanted one then achieved the purpose of that programme as a whole.

733. But in some cases you are getting revenue in?—It is an almost uncovenanted by-product of the main purpose of the programme.

734. As a whole it is not very substantial?—It has been quite substantial Sir, running into a figure of millions as a levy on sales or the Ministry's share of the licensing agreement to manufacture British aeronautical equipment. That is quite apart from the advantage, so the economy of having all these things exported.

Chairman.

735. I think we must be careful not to take it too widely because we are concerned with the aircraft corporations. As you have understood, the whole basis of the research and development in the

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[Continued.]

aircraft industry and their whole range of operations do matter very much to an understanding of the problem that faces the air corporations in ordering new aircraft. I would like to pick up all that we have been told and just put this point to you. It would seem from what you have told us that it is terribly important to try and equate the requirements for military transport with those for civil transport, and also to try to keep the thoughts of all the people engaged in research and development and finally ordering policy in the Air Force and in the civil airline operators—to try to keep all those thoughts going along the same line. It would seem, when you look across the Atlantic, that the Americans do have a tremendous advantage, mainly perhaps for the reason that they need more military aircraft than we do. But can you tell us what part you are able to play, and how successfully you think you are playing that part, in trying to get that equation of thought and of requirements?—The part we play, Sir, is the greatest part we can play, and one of the main objects both of the Ministry and of the Transport Aircraft Requirements Committee is to administer what is now a generally agreed policy, that the requirements of Transport Command and of Civil operators for similar types of aircraft should be reconciled and met with one basic aeroplane. A measure of the success which has been achieved is that two of the main aeroplanes with which Transport Command is already equipped, or is about to be equipped, are the Comet, the Mark II version, and the Britannia. A great deal of work has been going on as I think both my Minister and the Secretary of State for Air have announced in the House, on future freighter requirements. One of the important aspects of the freighter requirements which have been considered is the potential civil market. Certain companies have made proposals, taking their own commercial view of what that civil market is. The corporations have also had their future freighter requirements very much in mind in those discussions. How successful we shall prove to be in reconciling those requirements remains to be seen. The matters have not yet been decided.

736. I quite see what has happened, but there is one great difference, as I understand it, between what has hap-

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pened here over the Comet and the Britannia. Briefly, that is that the Air Force use aircraft proved satisfactory by the airline operators?—Yes.

737. And what happens in America is that the airline operators use aircraft which have been proved satisfactory by the military or by Transport Command; that is the big difference from the point of view of the airline operator. Do you take that difference?—Yes; but perhaps I could question the difference in part and give an illustration of the way of proceeding on our part. I think it would perhaps be wrong to say that the American way of proceeding is invariably from the military to the civil because there are reverse cases. To some extent it is an accident as to who has the first requirement in this field. That, Sir, with respect, is the qualification I would put to the way that you expressed the point. So far as our way of proceeding is concerned, I would instance the Rotodyne helicopter which has been a research machine in our programme for a considerable period. It started as a military research project carried on the Defence Budget but it was also shaped to meet a B.E.A. requirement, or potential requirement, for an aircraft in this field. So that its early history was that of an aeroplane in the research programme designed to meet a dual requirement. It is perhaps an accident of history that the military requirement for it disappeared some time ago. There is another example of the same thing in the A.W.A.650 freighter which was designed to meet a military operational requirement and a B.E.A. requirement for a freighter, and those requirements were reconciled at a point at which the design was very broadly similar to that of the aeroplane that is now being made. The purchase of military aeroplanes was not at the time authorized, and the B.E.A. requirement, though the Corporation as we understand it is still very interested, has not yet materialized. The aeroplane is being made by the manufacturers as a speculation in anticipation that those who thought of this requirement will in fact end by wanting it. If they do, it will be a very good example of what you had in mind.

Dame Irene Ward.

738. I just wanted to go back to what you were saying before about the alteration in policy. You do not feel that

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it would in any way complicate the matter by the corporations putting a new burden on to the industry itself rather than on the taxpayer? In other words, it would not make their position more difficult in the line of competitive flying and as regards what they have to offer on the basis of a particular machine's economical performance?—I would not have thought that it would make their position more difficult in nature, though there may be cases, particularly during the period of transition, when it might make a particular case more difficult.

739. But do you think the balance of advantage to the taxpayer or financing by the Government is the overriding consideration and not the satisfaction, so to speak, of the air corporations themselves?—I do not think the policy is that one is an overriding consideration. I think these are questions which have to be looked at as a whole from the point of view of the balance of advantage. But where the industry is in a position to provide the finance, or where it would be merely a question of the Government removing from the shareholders some part of the risk that they were otherwise willing to take, there does not seem on the face of it to be any advantage in the Government's putting money in.

740. You think really that the industry would perhaps be more or less as likely to take the risk as the Government?—Yes.

Sir Alexander Spearman.

741. How do the costs compare of American aircraft and similar ones in this country?—They have varied fairly considerably, Sir. I think at certain stages of time American prices have been substantially higher. At the moment, I think—and I speak without the book—there is not a very marked difference in prices, and that some of our manufacturers would be rather apprehensive of their ability to compete in price. The Americans have had certain other advantages, and one which our manufacturers would hope to have would be that of lower prices. But that hope will not always be realized. It is partly our lower labour costs which give our manufacturers a start there but that has to be balanced against the larger American production programme which

may give them a lower unit cost of production.

Chairman.

742. Is it in the engine or the air-frame and the equipment that the Americans may have the advantage?—I think both.

743. There is one last question and I will put it like this. We have your view on what other Governments do in the field for which you are responsible, responsibility for the aircraft industry, which in effect helps the civil airline operators. I am not thinking of subsidies to airline operators, I am thinking of governmental policy towards the aircraft industry, and I have given you one example of what I understand to be American practice, which is to order a great many transport aircraft and which, as a result, must help the production at lower cost of suitable passenger aircraft, and which also helps the airline operator because the aircraft has been, as it has been described to us, "flogged" or put through its paces by the Service Department. How much knowledge have you of what other governments connected with competitive airlines do in this field?—I think we would say that we have a good general knowledge of what other governments do deliberately to help their aircraft industries to make transport aircraft, and a fairly good knowledge of, as it were, the advantages which foreign aircraft industries get from the existence of their own government programmes which are designed really for some different purpose but which do have these incidental advantages. I think we would find it a trifle embarrassing to list them all in public, and we certainly would not regard all our information as being 100 per cent. accurate. But of the broad policy and the broad effects of that policy we think we have a good knowledge.

744. I think the Committee would like to know as much as they could about what other governments do in this field both on purpose and, as it were, not by mistake but for other reasons, which have the effect of helping the aircraft industry in this way, and I really wanted to know from you how much trouble it would put you to to give us a short paper on this. We could then discuss how, when and indeed whether that paper ought to see the light of day. We have

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[Continued.]

a procedure whereby we can take evidence but which we might decide not to publish?—Yes.

745. So that if you could do that for us, I think it would be helpful, because

we would like to be able to get the full picture of all the factors affecting the competitiveness of our two aircraft corporations?—Yes, with pleasure.

THURSDAY, 24TH JULY, 1958.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Ernest Davies.
Sir Keith Joseph.

Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

Marshal of the Royal Air Force, Lord DOUGLAS OF KIRTLESIDE, G.C.B., M.C., D.F.C. (attending by permission of the House of Lords), Chairman, British European Airways, further examined, Mr. A. H. MILWARD, O.B.E., Chief Executive, and Mr. P. C. F. LAWTON, D.F.C., Commercial and Sales Director, British European Airways, called in and further examined; Sir GEORGE CRIBBETT, K.B.E., C.M.G., Deputy Chairman, and Mr. BASIL SMALLPEICE, Managing Director, British Overseas Airways Corporation, called in and further examined.

Chairman.

746. Today we are going to ask you questions on I.A.T.A. and I.C.A.O. If I might, just for the purposes of the record and for the purposes of clarification, get a certain number of things clear, first I think it would help us if you, Lord Douglas or Sir George, could tell us what the Terms of Reference are of I.A.T.A.?—(Lord Douglas of Kirtleside.) Sir George and I have agreed that I will lead on the questions about I.A.T.A., and he on the subject of I.C.A.O. The Terms of Reference of I.A.T.A. are set out in the Articles of Association, and are as follows: "The aims and objects of this organisation shall be: (1) to promote safe, regular and economical air transport for the benefit of the people of the world, to foster air commerce and to study the problems connected therewith. (2) To provide means for collaboration among the air transport enterprises engaged directly or indirectly in international transport services. (3) To co-operate with the International Civil Aviation

Organisation and other international organisation".

747. I.A.T.A. was set up in what year?—1944.

748. By agreement between Governments?—Yes.

749. Now, broadly speaking, the major world airlines are members of this organisation, or is it the Governments who are members?—No, it is confined to airlines. There are 80 airlines who are members and they include B.E.A., B.O.A.C., Airwork, Eagle, Hunting Clan and Skyways, so we have four independents, as well as the two corporations.

750. Are your competitors in Europe, and Sir George's competitors throughout the world, members, or are there some notable exceptions?—All the major airlines are members. The exceptions are small airlines in various parts of the world, but all our main competitors are in I.A.T.A.

751. In so far as you may compete with air lines in Eastern Europe, would

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that be true of them also—are they not members?—Aeroflot, the Russian airline, is not a member, the Polish airline is a member, the Czech one is and so is the Yugo-Slavian airline—but the Russian one is not.

752. I suppose the Chinese have their airline—are they members?—No, the Chinese are not members; the Japanese are.

753. What is the main impact of this organisation on your operations?—Well, the Association has, of course, numerous functions, perhaps the most important from your point of view is the Commercial Committee, but we also have a Traffic Committee, a Technical Committee, a Legal Committee, and a Financial Committee, and these Committees study the various aspects of air operations. Above them is an Executive Committee, which is composed of the Presidents of 18 of the world's leading airlines. I am a member and Sir Gerard d'Erlanger is a member of the Executive Committee. We meet three times a year in various parts of the world, and within limits lay down the policy for the Association; then once a year we have the Annual General Meeting of the Association. Last year it was in Madrid, the year before that in Edinburgh; this year it is in New Delhi, where all the members send their delegations. We discuss the reports of the various Committees, and any other important topics that are remitted to the Annual General Meeting for discussion.

754. The Commercial Committee is the Committee that deals with fares?—Yes. It has under it what is called the Traffic Conference, which runs the work of the Commercial Committee for which it is responsible, and the question of fares and rates are discussed in the Traffic Conference.

755. Is every member of the Association a member of the Commercial Committee?—Not of the Commercial Committee, but of the Traffic Conference. The Commercial Committee has 18 members who are elected from various airlines, but to the Traffic Conference all the airlines send representatives.

756. It is the Traffic Conference that is executive in the fixing of fares?—It is executive except for the fact that all fares have to be approved by the

Government, so they do not have the final say, and there are, of course, cases where Governments do not approve of the resolutions of that body.

757. I am still trying to get clear how the Association works. The recommendations on the actual fares are fixed by the Traffic Conference?—Yes, they pass resolutions which are binding upon members, providing that their Governments agree.

758. In order that a resolution may be passed, does it have to be unanimous, or by a large majority, or can it be by a simple majority?—In the Traffic Conference it has to be unanimous. In the other Committees there is no unanimous rule. For instance, in the Executive Committee we sometimes take a vote.

759. What does the Commercial Committee do that the Traffic Conference does not do?—I will ask Mr. Lawton to answer that. (Mr. Lawton.) The Committee that the Chairman has spoken about is a steering Committee to organise and arrange the Agenda for the Traffic Conference, broadly speaking.

760. So no effective decision, as it were, is taken in the Commercial Committee. It is taken in a body where everybody is present?—No binding resolution is passed in the Committee. The only binding resolutions are passed in the Traffic Conference.

761. When the Traffic Conference is meeting to consider fares, what principles do they work on; how does a Meeting of the Traffic Conference go, as it were?—(Lord Douglas of Kirtleside.) I will again ask Mr. Lawton to speak on that; he is the Chairman of the Traffic Conference this year. (Mr. Lawton.) The Traffic Conference has a considerable Agenda, but, dealing only with the question of fares, already there are on the records the fares which have been agreed at the previous Traffic Conference. The normal procedure is this. These fares expire on the 31st March every year, and at each Traffic Conference in turn the question is whether these fares which will expire on the forthcoming 31st March shall be revalidated or changed upwards or downwards, and, for convenience sake, the Traffic Conference is divided into three—three Traffic Conferences, if you like, 1, 2 and 3. No. 1 Traffic Conference deals with the whole of the

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Americas, Canada, United States and South America; Traffic Conference No. 2 with Europe and Africa; and Traffic Conference No. 3 with the remainder of the world. Normally, the fares are put before the Traffic Conference meeting altogether that is, the members of 1, 2 and 3—in a room, and the question is put to each company in turn what changes they wish to make in the fares. If they wish to make changes in the fares, they are asked to say why—it may be increases in costs, or possibly a reduction in the standards of service to be offered, or some justification for the recommendation they wish to make

Mr. *Albu*.

762. I did not quite understand the three Traffic Conferences. Are these geographical areas based on the destination or the origin of the flight, or what?—They are based in this way. Each of these three Traffic Conferences has its own list of members. If a carrier only operates an air service inside a Traffic Conference, it is only a voting member within that Traffic Conference. For example, B.E.A. only operate international transport within Traffic Conference 2, and therefore it is only a voting member within Traffic Conference 2. Fares applied to services between two Traffic Conferences are voted upon by the members of both Traffic Conferences.

Dame *Irene Ward*.

763. They are really members of two Traffic Conferences?—Or three. (Lord Douglas of Kirtleside.) B.O.A.C. would be members of all three; B.E.A. would be a member of only one because we only operate Europe and Africa.

Chairman.

764. When one member has put forward a good reason in its own opinion for a fare increase, the other members, presumably, have to decide whether to accept it or not. Is there any general principle which appears to apply throughout the Association as to why a proposal to increase or to reduce a fare should or should not be accepted?—(Mr. Lawton.) The Traffic Conferences have access to a report made by the I.A.T.A. Cost Committee. This gives the background of the cost position against which airlines are likely to work

in the forthcoming traffic period. A good deal of judgment has to be exercised in addition to the cost angle. If a carrier puts forward recommendations for a change in fares, they are usually supported and argued on the basis of commercial judgment, but the Cost Committee's report is normally referred to, to show whether what is being suggested is reasonable and properly related to cost.

765. Would you say that the Association generally has a sort of view as to the sort of profit an airline ought to make on a specified operation or on a specified route, or is it left to an *ad hoc* decision?—No, Sir, I do not think the Association could be said to have any such view. Each member has his own view on that point.

766. Each member will have his own view of what sort of profit he will make. Does any member have any view as to the sort of profit to be made generally?—There has never been a unanimous view given on that point.

767. You understand I am not criticising, but trying to find out what is at the back of this, because I think it must interest us to see what sort of principles, if there are any, govern fares to which you then become subject. How often is it that you find that your proposal—say it is a proposal to increase fares—is resisted by other people, or do you find that as a rule when you go forward with a proposal to the Conference that it is accepted?—Speaking for B.E.A., Sir, I would say that on the great majority of occasions our proposals have been accepted by the Conference.

768. And before the Conference actually discusses the proposal, presumably you have had some discussions outside the Conference to see what sort of proposal is likely to go?—Almost always, Sir, we have had previous discussions with the other European carriers. When I made my remark just now I must make it clear I made it for B.E.A., because I believe B.O.A.C. might not have the same experience.

Colonel *Lancaster*.

769. I was not quite clear as to whether it was recommendations in regard to increases or decreases which were generally accepted. Were you referring to B.E.A. recommendations in regard to

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increases or generally?—I answer by saying that the greatest struggle we had in I.A.T.A. over the fares problem was when we wanted to introduce substantial reductions in fares, but we were nevertheless successful in that after a very extended Conference. (Mr. Smallpeice.) I think generally we have succeeded in the main with our objectives. Necessarily there is a great deal of opinion and debate, and, as Mr. Lawton has said, before Traffic Conferences ever meet there are lengthy discussions with other operators just to feel the way in order to see how far other people are prepared to go. We are at this moment having discussions with other operators on the Eastern and African routes to see whether we can get support for the introduction of lower fares next year, the economy class fares, and during the next two months we shall see the result and then we shall make our own view as to what we think we can put forward. So that it is difficult to say that one always gets what one wants, but, by finding out what one can get, we adjust our ideas to fit in with what we think we can get.

Chairman.

770. As I understand it, from what you have said today and from previous evidence we have had about this matter, you would be saying, would you not, that though you may not get out of I.A.T.A. exactly what you want, it is so generally to your advantage to have an agreement about fares that you are prepared to accept the necessity of it, and the effect on your profits and operations of that is a necessary concomitant of the international arrangement?—Speaking for B.O.A.C., that is certainly so. The only reservation we have is that fares are not high enough to enable the industry to get a reasonable return on capital, but subject to that my answer is yes.

771. That is a very interesting comment immediately after you and Mr. Lawton have said that the main difficulties were when you wanted to reduce the fares. Let us take those separately. I can see the need to reduce the fares is produced by your feeling that you will get more traffic if you reduce fares?—Yes.

772. That is a separate question from the one you have raised with us just now, namely that on the whole you do not

get a big enough fare to make a big enough profit to plough back, so to speak, more money to buy more aeroplanes by borrowing less?—Yes.

773. Will you expand it?—The reason we go for lower fares is, as you say, to widen the market of air travel generally and to make it available to more people, and the way we are able to do so is not because we can cut profit margins, but because we can put more people into a given space. I think that the reductions have come so far, certainly in the case of tourist services several years ago and with the introduction of economy services this year, by reducing the amount of space available to passengers in airliners.

774. Is it there that you got into difficulties with the I.A.T.A., or by doing that did you get their agreement?—We had difficulty in getting their acceptance of the introduction of economy class fares last year. There was a time when Pan American and ourselves were the only two operators in favour of it, but we eventually carried it through No. 1 and No. 2 Traffic Conference areas.

775. You have to get agreement in I.A.T.A. not only if you want to alter fares of existing classes, but if you want to introduce a new class?—Yes, certainly.

776. When you say you are not making a big enough profit, that the fares generally fixed by I.A.T.A. do not give you a big enough profit, it means that they are not high enough, does it not?—Yes.

777. How often have you been proposing to I.A.T.A. that they should increase the fares?—We approach every Traffic Conference in succession with an idea of trying to remedy the situation, but it soon becomes obvious that it is not possible to get agreement to do so in many cases. But I think the proof of my general statement is that the airline industry as a whole is, or was recently, only making about 1 per cent. net profit, and this year it is probably making no profit at all. (Lord Douglas of Kirtleside.) Might I intervene; I do not entirely agree with the way in which Mr. Smallpeice has put that, nor the way you put the proposition to him. I do not think that it necessarily follows you are going to make more profit if you raise the fares; it is a question of

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nice commercial judgment. You may reduce the fares and carry more passengers by doing it and thereby make a bigger profit than by raising the fares and carrying fewer passengers.

Chairman.] I do see that. I was trying to separate the two points. As a Committee we have it in mind, I think, that what was said to us earlier by Mr. Lawton and Mr. Smallpeice was the difficulty of getting fares reduced, and then we have the proposition put to us that because of the various fares that are fixed you are not making enough profit, and I was trying to test it out. I do understand, of course, that sometimes you may make more profit if you have lower fares.

Dame Irene Ward.

778. When you are trying to get your balance, if it is a point of perhaps making greater profit by increasing your fares that, I suppose, does depend on the assessment of the number of passengers available in a certain country who would be in a position to pay the higher fares, whereas in some countries your assessment has got to be based on the fact there are probably fewer passengers in the section who pay the higher fare, but you attract a greater number of passengers in the economy class, so to speak. Does that sort of consideration come in all the time?—Certainly that is what I meant when I said that it was largely a question of commercial judgment: the study of the traffic and income pyramid of the countries concerned. (Mr. Milward.) That is why you can get two answers on two different routes.

779. It must be difficult to assess in every country the volume of traffic you can get. It must mean that you have got to have a very acute knowledge of the kind of people who are likely to travel by air?—(Lord Douglas of Kirtleside.) We all have our commercial research departments whose job it is to study just those problems, and that is what they do.

Mr. Albu.

780. I would like to ask Lord Douglas and Sir George about this difficulty in making profit. You have given us evidence in recent meetings about the cost of the increase in technical advance and the speed at which you are able to

depreciate aircraft, and, on the whole, you have both said to us that the technical advances have been economic, that is to say, they have reduced the cost of flying. I would like you to comment on a letter in today's "Times" from an independent operator complaining bitterly about the cost of depreciation at the rate of technical advance, and I wondered whether this was a similar problem for the independent air company as for you, or whether there is not rather more in the fact that you are having to depreciate so very rapidly now that it is becoming extremely difficult to keep fares economic?—The first point is that these new aircraft do show, although they are more expensive to buy initially, a lower cost per seat mile, taking everything into account including amortisation of the aircraft, but to find the capital to buy these expensive new aircraft is not easy, and it does mean that the percentage of standing charges, that is the portion of your expenditure related to amortisation of aircraft, does tend to increase. One proposal which we have for easing that problem is to extend the period of amortisation because we believe that these new aircraft are going to last us for a longer period than the aircraft we have had up till now, which would justify a longer depreciation period.

781. But, of course, there are two factors in depreciation or amortisation. One is the physical life and the other is obsolescence, and you are now saying that aircraft have a longer physical life than has been taken into account in the present rates of depreciation, but are you not likely to be overtaken by obsolescence which will reduce the life of the aircraft beyond its physical life?—(Sir George Cribbitt.) I think we in B.O.A.C. have a different experience from B.E.A. If I may give a practical illustration, last year we introduced the Britannia 102 into service and adopted the normal basis of depreciation, which is equivalent, shall we say, to about a ten year spread. We introduce the Comet IV into service next year and that will be followed by the Boeing 707 in 1959-60, and that indeed will lead to the replacement of some of our Britannias after they have had only three or four years in service. If that kind of advancement goes on in aerodynamic development, and if some

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operators seek to take the competitive advantage which it offers, namely of giving greater volumetric capacity at less cost, then the whole of the airline operating industry will become bankrupt if they try to purchase new aircraft as they come along.

782. You are saying that it is going to occur with the generations of aircraft you have on order?—That is the position. (Lord Douglas of Kirtleside.) I agree with that. I would add that I do think that with the new generation of aircraft coming along we shall reach a plateau of performance. We are getting up towards the sound barrier so that the next step has got to be the supersonic airliner, but I do not believe myself that will come along before quite a considerable time, partly owing to technical difficulties, and partly because nobody yet has succeeded in producing a formula for a supersonic airliner which shows an economic advantage. All the supersonic airliners that have been studied so far seem to come out as very expensive things to run, which means that you would have to raise the fares to a higher level in order to cope with the economics of it. As there is this plateau I think that the airlines should take advantage of this plateau with this new generation of aircraft—I am not talking about Britannias or our Viscounts, but with the new types coming along there is a case for extending amortisation and thereby easing your annual profit and loss account. (Sir George Cribbett.) I hope that Lord Douglas is right, but we have heard of one aircraft which has promising possibilities in a radical new design giving us a speed of Mach 2, and also showing substantial economies in operation, and that could be developed by 1968, which is within five years of our taking the first delivery of the Vickers V.C.10 at an initial cost of £2 million.

Chairman.

783. Sir George, these things are very interesting and stimulating and exciting, but they do not arise out of the Inquiry today. I should like to bring it back to I.A.T.A.: do you have to persuade other members of the I.A.T.A. to base their plans on longer amortisation (because I think you said earlier that in general throughout the aircraft operating industry they adopted the same basis, seven years down to 25 per cent. of capital cost, and that was regularly accepted throughout the world)? Do you

hope that if after further examination you decide to embark on a longer period of amortisation, you will be able to persuade your competitors to do the same?—(Lord Douglas of Kirtleside.) I think there is some hope of doing that because I think most airlines are rather nervous about the situation now. I did raise that very point on the Executive Committee of I.A.T.A. which I attended about a month ago, and it met with quite a favourable reception. No decision was taken. We had a discussion and most airline Presidents on the Executive Council supported that line of thinking. We are going to raise it again at the Annual General Meeting in New Delhi in October. Whether we shall be able to come to any hard and fast agreement I would rather doubt, but if we can get all the airlines thinking on the same lines we may get somewhere.

Mr. Palmer.

784. Where does the drive come from in the development at such a speed of these new aircraft? If you find from your experience that by adopting them you are likely to be driven almost into bankruptcy, and if this is the common experience of aircraft operators, who is demanding them all the time if it is not a customer?—I think it is the customer. It is the principle which certainly the Party to which the Chairman belongs is very much attached to, the principle of competition, and I do not want to dissociate myself from that either. It is on the question of competition. If your competitor is flying a faster and more comfortable aircraft than you are, he will take your passengers away from you. That has been proved time after time. Therefore it is a question of mutual competition—keeping up with the airline Joneses.

785. They must be having the same difficulties in matters of depreciation and all the rest of it that you are having?—Yes.

786. They must also be running the risk of being pushed into bankruptcy?—It is a choice. You will be pushed into bankruptcy if you do not make yourself competitive; if you have got inferior aeroplanes and you do not get the passengers, you go into bankruptcy in another way. (Mr. Milward.) If you could see the graph in our head office it would show you that the fortunes on

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[Continued.]

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the Paris route have swayed between B.E.A. and Air France over the years in exact parallel with the aircraft employed on the route. There has never been more than ten minutes difference on the route between the two, but each company as it has brought in Vikings, D.C.4's, Elizabethans and Viscounts, and then B.E.A. Viscounts, the company with the better equipment and five or ten minutes difference in time has always won the traffic. The traffic has varied between 40 per cent. to one and 60 per cent. the other.

Mr. Ernest Davies.

787. I would like to get back to the question of fare fixing. I am still rather confused as to the basis on which the fares are determined by each Conference. It seems that it is a combination partly of what the traffic will have been, as fares do vary between the Traffic Conferences by mileage, and it is also the question of give and take. When it comes right down to it, what relation is there between fares and cost. It must enter into it to some extent?—(Lord Douglas of Kirtleside.) Of course it comes into it. I do not think any company would deliberately put in a fare on a particular route which they thought would show them a loss. These very elaborate calculations are made before we go to these Traffic Conferences as to the fare we want on each one of our routes, and that fare is worked out, the pros and cons of decreasing or increasing it, very carefully in Mr. Lawton's department.

788. Yes, but then it has been stated very often that the fare you have worked out is not agreed to and you compromise on another fare. Do you therefore pitch your fare higher to allow bargaining play?—(Mr. Lawton.) I would say no to that question. I.A.T.A. does not control capacity at all. It is left to individual airlines to decide how many seats they are going to fly on a route and the number of seats offered on a route has some bearing on fares also. We estimate what the traffic potential is, what share of that traffic we might be permitted to carry under the bilateral agreement between our country and country of destination and attempt to match our share of the traffic to a sufficient capacity. We then turn to the cost

side and, based on that information together with what the traffic will bear, we set the fare we would like to charge which shows a measure of profit. In subsequent conversations with another carrier who has done the same sum, perhaps, and arrived at a different answer, we might have to modify our result.

789. You would have fixed in your mind a minimum below which you cannot go because it would operate at a loss?—It is impossible to fix a minimum below which we could go unless we are prepared to leave the route, because the fare resolutions require unanimous agreement in I.A.T.A. Therefore the circumstances slightly favour the carrier who wants the lowest fares, that is to say, if there is no agreement on fares arrived at and air services still operate, it is likely that the man who wanted the lower fare would have what he wished and the other carriers would have to come down to meet that competition. That is recognised in the discussion, so in the argument I myself feel that the odds are slightly in favour of the carrier who wants the lower fare.

790. Have cases arisen where you have been compelled to accept a lower fare which you knew resulted in your operating route at a loss, or was likely to operate at a loss?—Not for many years. More recently our costs in B.E.A. have compared favourably with the costs of other carriers. Therefore we have been able to get fares which have been economic to us internationally. (Mr. Smallpeice.) In our case there have been a number of cases—I cannot quote details—in which we have not got fares at the level we thought was necessary for the fully economic operation of the route. I think that this point Mr. Lawton has brought out, that unanimity is essential, is almost the overriding consideration in having produced the situation that the fares do not provide the industry with a level of income that is sufficient to earn a satisfactory profit. The situation does favour always the operator who is hanging out for a low fare.

791. On the other hand, you have stated that you have endeavoured to get lower fares by introducing the economy class, and so on?—Yes, by reducing the facilities given to the passenger—it

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is really by introducing a new class. It is not by getting a lower fare for an existing class, but introducing a new class below that.

Sir Keith Joseph.

792. This may be a question which the witnesses will not like to answer other than confidentially. You make this sound as if it is a very gentlemanly thing, nothing cut-throat about it. Have you any operators who put forward purely bargaining proposals which they may withdraw once they have exacted some concession from you—proposals that would wreck any remaining profitability?—(Mr. Lawton.) In my opinion the answer to that is yes. In the Traffic Conferences one must realise that this is, as you say, a commercial bargaining ground. From time to time carriers have presented the Traffic Conference with what is called behind the scenes a “package deal”. This is a type of bargain which is laid upon the table on a take-it-or-leave-it basis to secure an alternative advantage. I would like to say that B.O.A.C. is much more susceptible to this type of practice than B.E.A., and this is a purely personal opinion of mine, for this reason, that B.O.A.C. sustain much more intensive American competition than B.E.A. does, and I believe the American competition is perhaps more difficult to meet on the cost basis than the competition offered by some of the parallel route carriers we have in B.E.A. Therefore this type of package deal has been more frequently a problem for B.O.A.C. than for B.E.A. (Mr. Smallpeice.) I have nothing to add to that. Mr. Lawton attends the Traffic Conferences, and as far as I am concerned that is a very fair statement.

793. Is this a serious worry? Is there anything that can be done about it?—I do not think it is a worry. It is part of the process of negotiating a fare. As you have said, it is not always a very friendly arrangement. There is a good deal of very hard bargaining that goes to bring about a result. (Mr. Milward.) Which we very often indulge in ourselves anyway.

Mr. Ernest Davies.

794. By and large, it would be the passenger who would benefit?—Yes.

Sir Keith Joseph.

795. On the question of your wanting to increase fares in order to obtain more revenue and to reduce fares by introducing economy classes, is it correct that you considered that if you put your first class fares up more the traffic would bear that and you would increase revenue by introducing the economy class at the lower level; is that the plan?—(Mr. Smallpeice.) That applies to us, and not to B.E.A. In our operations at the present time we would like to increase the first class and de luxe fares substantially, because we think not only would they bear it but it would be justified by the cost of providing those services. The tourist services are reasonably economic and we would seek no material alteration in them, but the economy class services which are now being introduced at lower fares may need some slight upward revision.

Sir John Barlow.

796. I should like to ask whether either Board has found that the Foreign Office and/or the Colonial Office are apt to bring pressure to keep fares down, largely for political reasons?—(Lord Douglas of Kirtleside.) No. (Sir George Cribbitt.) No, there is no evidence of that.

797. You are free to deal in a commercial way with these things?—Yes. (Lord Douglas of Kirtleside.) The War Office and the Air Ministry to some extent bring pressure to bear in cases of Forces fares—they have tried to press us to bring them down lower or to extend their scope. That is the only pressure. Certainly not from the Foreign Office or the Colonial Office.

Chairman.

798. Those fares are not I.A.T.A. fares?—No.

Sir Keith Joseph.

799. Does I.A.T.A. police international safety standards?—No; they police Traffic Conference resolutions, but when I say it does not police them, we have a Technical Committee which concerns itself very much with the safety standards, but it does not go beyond recommended practices.

800. In fact each country has its own institution for this purpose?—Yes.

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[Continued.]

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801. Would you say that the standards of each country abroad were similar—I do not mean aeroplanes flying, but traffic control, landing arrangements, and all the other things?—No, there is a considerable variation between countries.

802. Is that taken into account in any way in the Traffic Conference in the cost research that the I.A.T.A. body provide?—I do not think you can say that it was taken into account in the Traffic Conference; that is taken into account in the Technical Committee which would very often bring pressure to bear in countries where navigational aids and so on are not up to scratch. (Sir George Cribbett.) This is the concern of the International Civil Aviation Organisation, the other international body.

Sir Alexander Spearman.

803. If the first class fares are so much less profitable at current prices, why do not you have less first class places?—(Mr. Smallpeice.) We do adjust the number of first class seats we sell currently to the expected volume of traffic. Over the longer view, there is a substantial first class market in the world which we are anxious to maintain, and, as I said at an earlier meeting, the problem of the first class fare is capable of adjustment within a matter of another year or two, and I believe that within that period it will be brought up to an economic fare which will make it profitable in the long run.

804. Would the cutting down of the number of classes available affect your future market?—Yes.

805. I would have thought that it would make people all the keener to go?—We think it would affect the possibility of maintaining the long-term market. In addition to that, we are also governed by the desire of earning revenue from the aircraft even if particular seats do not yield as much as the others. It is the combination of those classes that produces revenue from a whole aircraft.

Chairman.

806. Mr. Lawton said that in a system like this the odds were in the favour of the man who wanted the lowest fares. I must bring you back again to the fact that at the beginning you said you found

most difficulty in persuading I.A.T.A. to agree to reduce fares. Can you reconcile those two statements?—It is not that we have had difficulty in getting I.A.T.A. to reduce fares, but we have had difficulty in getting I.A.T.A. to agree to the introduction of new classes at lower fares. It is the problem of the impact of the new class on the whole industry that has been resisted by a number of members in the industry.

807. I see the distinction which you have made, but, with great respect, I do not think that it is a very big difference, because if the reasons are valid which make it likely in a system like this that the man wanting the lowest fare should win in the end, I should have thought that the man who wanted the cheapest class would also win. Why is that?—We did in the last year, Pan-American and ourselves, succeed against the other operators in introducing these economy class fares. (Sir George Cribbett.) The question is whether the operators happen to have suitable equipment for the lower class; it is a question of volumetric capacity. Therefore even though you may have someone like B.E.A. or B.O.A.C. pressing for lower fares because they are suitably equipped to cater for that class, you may have other airlines who are not so suitably equipped and therefore they resist.

808. The reason why the lowest fare man may win is because if there is no unanimity there is no agreement and therefore there is a cut price?—That is so.

809. Therefore you agree upon the lowest fare. Why does the same thing not apply to classes. In the absence of agreement, why should there not be a free-for-all on classes?—(Mr. Smallpeice.) For the reasons that Sir George has mentioned, that operators may not have an aircraft suitable for putting a new class into operation. Therefore they hold out against it until they are ready.

810. They can hold out against the introduction of new classes?—Yes, because the unanimity rule still applies.

Mr. Albu.

811. Does the unanimity rule apply to the whole Traffic Conference, or does it apply to every individual set of fares; that is to say, if there is no unanimity over fares, does that mean that that route

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can be cut?—(Lord Douglas of Kirtleside.) It applies to individual resolutions.

812. The point I am making is that if there is in a particular resolution on a particular fare on a particular route—for instance the introduction of the economy class—a failure to agree and there is not unanimity, does that mean that the airlines can go ahead individually and fix their own rates?—No; it means that the resolution is lost and the *status quo* applies.

Chairman.

813. I think I must have misunderstood you. I understood that we got into an area of no agreed price at all?—Free-for-all, no.

Mr. Albu.

814. I understood that it was the pressure of the lowest price operator: that it would break up the whole arrangement if something was not done?—It is a rather indirect pressure.

Mr. Albu.] Otherwise I do not see the point why the lowest price operator must always win.

Chairman.

815. I think you have put us on to a red herring by the remark you have made, by the look of it. Lord Douglas has made it clear now that if there is not a unanimous agreement to alter the *status quo*, the *status quo* remains?—Yes.

816. That is to say with prices and with classes?—Yes.

Mr. Albu.

817. Does that not strengthen the defence of the *status quo*?—(Sir George Cribbett.) I would prefer Mr. Lawton to speak on this; he has had direct experience of the Conferences and the things that happen.

Chairman.

818. Mr. Lawton, perhaps I can get at the point by putting questions to you. If you go to a meeting of the Conference and it is proposed to increase the price of the fare or to reduce it and there is no unanimity on that proposal, what is the I.A.T.A. fare at the end of that?—(Mr. Lawton.) I think the answer to your question is this. The I.A.T.A. fixes the fares by periods of a year and the I.A.T.A. year ends at the 31st March

normally each year. The question before the Traffic Conference which meets in the preceding September normally is: what are the fares to be from the 1st April next onwards? If there is no agreement on what the fares are to be, there is an open fares situation. This is not in fact a free-for-all; it is a free-for-all as far as I.A.T.A. is concerned, but it is not a free-for-all under the agreements made between Governments, which require that their nominated air carriers shall reach agreement on fares, and if agreement is not reached the question of fares will be referred to the Governments concerned. It would follow that if I.A.T.A. fails to make an agreement as to what fares should be between any two points, after the 31st March there would be no I.A.T.A. recommended fare and the carriers would be free to charge any fare they could get away with in terms of the international agreements under which they fly.

819. Taking the classes on the other hand, what are the agreements about classes? Do I understand it aright that when B.O.A.C. go along and say that they want a new kind of economy class on a particular route, if their proposal is not unanimously agreed to that means that the existing classes remain *sine die*, or is there any consideration coming into it by date?—I think the answer to that is that the fares which are agreed on in the I.A.T.A. Traffic Conference are related in the same resolution to a certain number of conditions of carriage, not legal conditions of carriage, but physical conditions of carriage which determine the class of service, that is to say, the first class fares are related to a certain standard of catering, a certain standard of bar service, cabin service, and a certain standard of seating and a certain standard of cabin attendance, and other related things including baggage allowances. This is all related together in a single resolution. The same applies to tourist fares which are all related to a series of physical conditions which determine the class of travel. If there is no agreement on the class, there is no agreement on the fare.

820. In effect, you cannot introduce a new class unless you get unanimity on it?—(Sir George Cribbett.) That is so.

Chairman.] That is why you explained that it is so difficult to get an effective reduction in fares.

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Mr. *Albu*.

821. I must get this absolutely clear because I think that this is important to the customer. It is a fact, then, that if at the end of the contract year no agreement has been made on fares on a particular route, that particular route is open to free competition unless there is agreement between Governments?—(Lord Douglas of Kirtleside.) Yes, but that happens very, very rarely indeed—in fact I have never known it in B.E.A. (Sir George Cribb.) It is only open to agreement between Governments who have concluded a certain type of bilateral agreement. We in the United Kingdom always concluded bilateral agreements on the basis that, in the event of failure in I.A.T.A., agreement will be reached by Governments, but that does not apply to all the agreements between countries throughout the world.

822. I was thinking of the effect of this failure to agree which Mr. Lawton referred to?—(Mr. Smallpeice.) It was only by using the threat of failure to agree that we succeeded in getting the economy class fares into being because we did at that time threaten not to agree other classes or fares unless we got it.

Sir Keith Joseph.

823. I am mystified by the complexity of what you refer to as volumetric capacity, and I am thinking of this as between Pan American, say, and some small carrier. The unanimity rule protects the small carrier in this case?—(Lord Douglas of Kirtleside.) Yes.

824. And we are small relative to the American one?—(Sir George Cribb.) My reference was to the volumetric capacity of individual aircraft.

825. Yes, I realise that?—(Lord Douglas of Kirtleside.) I do not think you can call B.E.A. or B.O.A.C. small. We are both large carriers.

826. But you are not large relative to the American one?—Even relative to the American ones.

827. Perhaps I am confusing you with the internal airlines, and the internal capacity is not relevant?—No.

Mr. *Albu*.

828. Have there been cases in which the Cost Committee has reported very substantial differences in cost between

operators in the same Traffic Conference. If so, how is this matter resolved in the fares?—(Mr. Smallpeice.) Of necessity, if there are differences in the cost level between operators they appear in the report of the Cost Committee, and the Cost Committee aims at getting a representative level of cost which is slightly below average, and that is the cost level that goes to the Traffic Conference.

829. You really have not answered my question. The question was: have there in fact been very substantial differences in cost reported by the Cost Committee on particular routes?—Yes, there have been differences of the order of 15 per cent.

Mr. Ernest Davies.

830. That often would be due to the type of aircraft used?—Yes.

Mr. *Albu*.

831. This is one of the forces that pressed for the continual substitution of new aircraft?—Yes.

Mr. Ernest Davies.

832. Might we have something on how these fares are enforced as between different airlines by I.A.T.A.?—(Lord Douglas of Kirtleside.) We have a Chief Enforcement Officer with a staff of inspectors, about eight or nine, who go round the world. Some are stationed in different parts of the world and they examine the books and records of the various airlines, and if they find some offence has been committed against one of these resolutions, a complaint is made against the airline and it has to defend itself. It will put up paper defence, and, in some cases the explanation would be accepted by the Director General, or he might think that was not a sufficiently important discrepancy to justify a hearing before a Commission. That is the next stage. Commissions are held three or four times a year at which these complaints against airlines breaking the rules are brought up and ventilated, and the airline can, and is, fined—sometimes quite considerable amounts.

833. Then there is quite a considerable amount of infringement?—Yes. (Mr. Milward.) In relation to the enormous volume of transactions, I would say that the infringement is a very

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small one, but there are, nevertheless, quite a few.

Chairman.

834. You say that there is considerable infringement. Is that infringement by the large number of lines, or is there considerable infringement by a small number of air operators?—(Lord Douglas of Kirtleside.) There are some bad offenders—I will not name them—but it occurs fairly often. Even B.E.A. has once or twice infringed the rules quite accidentally. (Sir George Cribbett.) So have we.

Mr. Palmer.

835. What is the final sanction?—(Lord Douglas of Kirtleside.) He is fined so much and if he does not pay the fine he can be thrown out of the Association.

Mr. Ernest Davies.

836. Could he be thrown out if he were a consistent offender and if he paid his fines?—I do not think the Articles of Association allow for that. There is a definite procedure by which a member who fails or refuses to pay a fine can be thrown out of the Association.

Mr. Palmer.

837. Has it happened?—It has never quite happened. It nearly happened last year over one airline who consistently refused, and we were actually going to put the resolution to the Annual General Meeting to throw out this airline but they gave up at the last minute.

838. And what difference would it make if they were thrown out?—It is a very big question which I thought would interest you a lot. I think that there are enormous advantages belonging to I.A.T.A. and very few disadvantages. Apart from the question of fares and rates, there are other things as well which you get from I.A.T.A. Those are common standards of tickets and documentation and all that sort of thing. We have a system of licensing agents, and we would be badly affected in that way if we left I.A.T.A. because I.A.T.A. agents would not be able to deal with us, but, apart from that, on the fares and rates question the last time I gave evidence before you I

said we should have chaos if we had no I.A.T.A., and I think that is true. Our operations depend in the first instance on traffic rights agreements between governments, and most of these agreements, as Sir George says, require that fares and rates should be agreed between the two parties. If there were no I.A.T.A. we should be in the position of having to go to each country in turn and negotiate a fares agreement, and if you negotiate a fare between London and a place a long way off that affects the fares over a considerable area of the world. Take a route from New York to New Delhi. The fares between ourselves and Alitalia London and Rome would be affected. So you find yourself negotiating not with your opposite numbers, but in a multi-lateral negotiation. You would find yourself in a sort of I.A.T.A. before you knew where you were. You would be bound to get together in some sort of body to negotiate these fares. The idea of having a free for all and charging what fares you like is not really practical because if you started doing that the governments which were concerned in these bilateral agreements would not allow you to start. They would say "We are not going to let you fly between London and Rome at half the fare Alitalia charges." They would withdraw your traffic rights and indeed would have every right to do so. If you had no I.A.T.A., you could not charge what you like. You would be coming up against foreign governments who would protect their own airlines against unfair competition, and I think we would too.

Chairman.

839. Two separate questions. Firstly, whether it is advantageous to have an I.A.T.A., and I think you have made your case on that. The second question is whether if there is an I.A.T.A. with others in it it might be advantageous to be outside it. To that your answer is that it is an unreal question because you have got to negotiate traffic rights with governments, and if you began undercutting the I.A.T.A. you would have your traffic rights withdrawn. So therefore the traffic rights is the control?—That is right; that is government control. (Mr. Milward.) Another point is this. If you were outside I.A.T.A., outside the European Traffic Conference, you would not get the bookings of the

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other carriers. B.E.A. depend for a large proportion of their revenue on other I.A.T.A. airline bookings.

840. I see that point, but there are exceptions, or there may be in future. Suppose Aerflot began flying all over the world, would you say it would be at a disadvantage to have to accord to I.A.T.A. rules?—(Lord Douglas of Kirtleside.) I think it is tending towards the latter already. We had a conference in Paris the other day with Aerflot to settle the fares to Moscow between America and points in Europe. How many airlines were there? (Mr. Milward.) About 24. (Lord Douglas of Kirtleside.) We did that in Paris to agree fares, and that would be the sort of thing happening all over the world if we did not have I.A.T.A.

Mr. Palmer.

841. Are there any lone wolves?—There are small airlines which are not in I.A.T.A.

Chairman.

842. Do they charge fares out of line with I.A.T.A.?—Some do.

843. And still they are given traffic rights by governments?—(Sir George Cribbitt.) They are local airlines in the Far East which, owing to local conditions, and the type of traffic they carry, say they cannot develop their services at normal I.A.T.A. fares, and they are not in membership, but they do not cause any serious embarrassment on the short-haul local services.

844. The trouble starts when you cross frontiers?—Yes.

Mr. Ernest Davies.

845. What effect do the cabotage fares have on international fares? Take the new services introduced by Colonial Coach Services where fares are down on I.A.T.A. fares, does that have any effect on I.A.T.A. arrangements?—The position there is that every country does reserve its freedom to charge what fare it likes in its own domestic sphere, and any cabotage fare in this instance does fall within its own sphere. There are certain rigid conditions laid down which Colonial Coach operators have to

observe. There must be no question of inter-lining with other airline operators, no question of accepting traffic carried over sectors of other territory by surface transport, and there are a number of limiting conditions of that kind which are intended to ensure the journey is confined to the cabotage area.

* * * * *

846. There must be routes where international routes are running parallel with cabotage and where they do overlap. In these cases the mere fact that the cheap fares are operating does not influence I.A.T.A. to bring their fares down?—Not at all.

Sir Alexander Spearman.

847. The world-wide business would depend on speed and service, would it?—Speed and standard of service in that class of service, yes.

Chairman.

848. On the fixing of fares, from what you said earlier, as I understand it, the agreement is or is not reached on fares proposals mainly after a matter of bargaining rather than after a close consideration of cost and profit factors. To explain what I mean, I think we are all aware of various common price agreements that may be subject to tribunals, and so on, or even government price-fixing arrangements, the basis of which are certain rules on cost depreciation and profit, and the same sort of rules have been applied by common price association, so we are told by reports, in various parts of industry, and that is the basis on which those common prices are fixed. But in your industry in the I.A.T.A., as I understand it, it is much more a matter of competitive cut and thrust and bargaining, judging from the way you have described what goes on. Would that be right?—(Lord Douglas of Kirtleside.) I think that is right.

849. Though you have this Cost Committee and you do consider cost factors, they are not in the end the final arbiter?—Each individual airline calculates its own costs.

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850. In effect, there is not a cost officer in the I.A.T.A. who arbitrates in the end?—No.

851. You mentioned, Lord Douglas, the Traffic Committee, amongst other departments of I.A.T.A.?—(Lord Douglas of Kirtleside.) That is actually called the Traffic Advisory Committee, and that is the Committee which arranges the agenda and makes arrangements for these Traffic Conferences.

852. Traffic rights are a question of who goes to which place, not a matter for the I.A.T.A.—it is a matter for governments?—It is not a matter for I.A.T.A. at all.

853. Has the I.A.T.A. as a body any influence on landing fees and aerodrome costs?—Only indirect pressure. We have passed resolutions from time to time against these airport charges, which have been transmitted by ourselves to our respective governments, but we have only indirect influence of that sort. We have no say in the matter. It is a matter rather for I.C.A.O. than for I.A.T.A.

854. Perhaps we may now pass on to I.C.A.O. When was the Convention that established I.C.A.O. agreed, and by whom?—(Sir George Cribbitt.) It flowed from the Chicago International Civil Aviation Conference of 1944. The Convention was opened for signature at that Conference.

855. Governments are members of this?—Yes, governments are members, and I think I ought to say at once that I must not be assumed to answer for the field which belongs to the Ministry of Transport and Civil Aviation because I may be able to answer some of these questions.

856. What is your interest as Deputy Chairman of B.O.A.C., and what is Lord Douglas's interest as Chairman of B.E.A. in I.C.A.O.?—I would say those interests fall mainly in two fields. First of all, in the field of the technical work of I.C.A.O. There, of course, they study, with the object of producing international standards and recommended practices, many aspects of the operations of transport aircraft. There are something like 14 annexes—I have a list here—which give you an idea of the subjects which they are engaged upon. There is

personnel licensing, rules of the air, meteorology, aeronautical charts, airworthiness or aircraft, facilitation, aeronautical telecommunications, air traffic services, research and rescue, aircraft accident inquiry, aerodromes and aeronautical information services. It is of course most desirable in a wide part of that field that an international standard or uniformity of practice is developed. One cannot visualise aeroplanes which traverse many frontiers finding themselves subject to the different regulations of lots of individual sovereign states, and that is one of the primary functions of I.C.A.O., to devote itself to the formulation of uniform standards and recommended practices. That is done throughout a series of technical divisions, which meet quite regularly, and these divisions are composed of the experts of the various member states of I.C.A.O., which now total 83. They bring forward recommendations which are in turn considered by the Council, which is the executive body of the organisation, and when they are passed by the Council they are either definite standards for adoption or practices recommended for adoption by the individual countries. That particular field is one of very great importance because it does bear directly on the regulatory functions of the Ministry of Transport and Civil Aviation. There is another field of great importance and this is the legal work of I.C.A.O. This organisation took over when it was formed a large body of work which was previously described as private air law, but this covered a series of conventions, such as the Warsaw Convention which limits the liability of carriers in the event of accidents to persons carried in the aircraft, and the Rome Convention which limits their liability to third parties on the ground. There are other Conventions of a similar character, but the work of this particular Committee does, of course, very much affect the operators. Those are the two main Committees. There is an Air Transport Committee which does considerable work in studying air transport development and the impact of air transport development. Of course, as is fairly generally known, the Chicago Conference failed to reach agreement on the economics of air transport, chiefly because of the divergence of views between the Americans and ourselves at

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that time on the philosophical approach to the problem, so what has happened in practice is that I.C.A.O. has been charged with the duty of studying certain specific problems which do arise in the economic field. From time to time meetings have been held with the idea of eliminating these bilateral agreements, which are, after all, very tiresome and which differ very considerably in their form and substance, and replacing them by a universal multilateral convention which would eliminate the need for these individual agreements, but none of those conferences has ever succeeded. Broadly speaking, the world, I suppose, is divisible into three schools of thought. Those who have highly protective instincts; those who believe in complete freedom of the air, with no holds barred; and those in the middle of the road—and I would say that broadly speaking we identify ourselves with that group. But it has never been possible to reconcile the differences between these three groups and achieve a single multilateral convention.

857. It is the governments which are the members of this organisation, but do they make use of your offices to help them?—Yes, in almost all the departments of I.C.A.O. quite naturally the Ministry depends on the advice that the operators tender, more especially in the technical field.

858. Would you say that this organisation is helpful to all of you?—I do not think one could dispense with it. We would have to have some similar organisation to deal with the vast technical field and get uniformity in the rules of the air and the other matters with which they are concerned.

859. Supposing you and the British Government wanted to try and persuade the other countries to give you pick-up rights—I do not know whether that is the right expression—or supposing you wanted to persuade other governments to stop their airlines poaching on cabotage rights, do you discuss this in this organisation or is it discussed bilaterally?—It is discussed bilaterally. I.C.A.O. has endeavoured to assist up to a point. Article 7, I think it is, of the Chicago Convention defines what is cabotage: it defines the area within which cabotage rights would operate. There have been doubts about the precise meaning of that

Article and the problem of interpretation was remitted to I.C.A.O. a few years ago, but they were not able to take any active part in the problem of stopping other people from poaching our cabotage. They merely helped us to establish our rights to cabotage by giving us their views on a clear definition of the interpretation behind Article 7.

Mr. Palmer.

860. Sir George spoke of differences in philosophy between ourselves and the Americans. Would he enlarge on that?

—Yes; I am now going back to 1944 and much water has passed under the bridges since then, but at that time our views were almost diametrically opposed. The United States believed in complete freedom of the air with no holds barred. They simply thought it was necessary to designate an airline and to have complete freedom of passage to pick up traffic wherever the airline thought fit. At this Conference they expressed no views at all on the question of fixing fares, and this is an integral part of this competitive problem, but later, as you know, they were persuaded to take part in the deliberations of I.A.T.A. We, the United Kingdom, on the other hand, largely in the light of pre-war experience of competition in Europe, went forward with a proposal which we felt would produce some sort of order in the development of competitive air transport. It was against that background that the U.K. developed the policy of defining the freedoms of the air—that is the only way I think I can describe it. It is rather difficult to explain but broadly it is this. You start off with the yard stick of what each country should contribute to air transport and that is measured by the capacity necessary for a country to carry its own exports and imports of traffic—known as the third and fourth freedoms. Our policy was that given this measured contribution fifth freedom rights, that is rights to pick up traffic in third countries, should be unrestricted. That was the policy of regulation we went forward with at Chicago. But there was complete disagreement, in fact violent disagreement in the Conference between the two leaders of the delegations and we emerged with the anodyne proposal that the International Civil Aviation Organisation should be charged with the

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Lord DOUGLAS OF KIRTLESIDE,

[Continued.

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duty of studying this problem in the future. Nothing has yet emerged from these studies.

Chairman.

861. Has the I.C.A.O. ever discussed the proposition that no government should subsidise its airline?—No, it has never discussed it as a policy in itself. It may have discussed the effect of it, but that is quite different.

Mr. Albu.

862. If the Americans so completely disagreed then, why is it that they have changed since?—To complete the story, within a year of the failure of the Chicago Conference, the Americans and ourselves met at Bermuda and we reached the compromise in the famous Bermuda Bilateral Agreement. I would say they met us to the extent of accepting the theory of the freedom of the air; we met them to the extent of agreeing on a set of principles which would govern our participation in the air transport development, and left the whole

thing to be finally determined on the basis of an *ex post facto* review of our respective operations, the acid and final test being that if the operations of the airlines of one country unduly affected the operations of the other, then there was some case for a revision of the position.

863. Why did not they go for all-out competition if that is what they wanted?—The reason they could not do it was because of the doctrine of the sovereignty of the air, which reserves the air space over every country to its nationals, which means they could not exercise traffic rights in this country without our permission. (Lord Douglas of Kirtleside.) In any case, the Americans have been notably restrictive themselves, in spite of what they said in Chicago in 1944.

Mr. Ernest Davies.

864. Am I right in thinking that I.C.A.O. is a specialised agency of the United Nations?—Yes; it was a forerunner of U.N.O., and is now a specialised agency of U.N.O.

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SESSION 1958-59

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THURSDAY, 13TH NOVEMBER, 1958.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Bonham Carter.
Mr. Blyton.
Mr. Ernest Davies.

Mr. Fort.
Sir Keith Joseph.
Colonel Lancaster.
Sir Alexander Spearman.
Dame Irene Ward.

Marshal of the Royal Air Force, LORD DOUGLAS OF KIRTLESIDE, G.C.B., M.C., D.F.C. (attending by permission of the House of Lords) Chairman, British European Airways, examined; Mr. A. H. MILWARD, O.B.E., Chief Executive, and Mr. P. C. F. LAWTON, D.F.C., Commercial and Sales Director, British European Airways, called in and examined.

Chairman.

865. The purpose of this meeting is to clear up, so far as we can, what I might call the background information which we want to have on the record for the Committee, and in particular about your revenues, your routes, and one or two other associated questions. I think we can deal with those matters quite quickly today. There may also be other points which arise on your new Report, which we have had an opportunity of reading now, which was not available to us at the time when we last met. We are, of course, all of us aware that some of these points relating to revenues, fares and so on were touched on lightly when you were good enough to come before us in company with the B.O.A.C. representative to discuss I.A.T.A. and I.C.A.O. towards the end of July. The first set of questions I would like to ask you are about revenues and fares, and the first one is this. Can you say how much of your revenue comes from passengers and how much from freight? I think that is broadly covered in your Report, but we would like to have it on the record?—(Lord Douglas). Taking it overall—and this is the year 1957/58 I am talking about, and you have now got our latest Report—the revenue from passengers and excess baggage, which goes with it, was £29·9 millions; that is overall, international and domestic; and our freight was £1·96 millions.

866. Thank you?—That is, 87 per cent. of our revenue comes from passengers and 6·4 per cent. from freight and 5·6 per cent. from mail.

867. In your opinion is that sort of proportion likely to continue or is it likely to alter, do you think?—No, I think it will alter in favour of freight. Our freight traffic has been going steadily for the last two or three years and I think the proportion of freight will definitely increase.

868. Is that spares and small items of equipment connected with trading?—No, it is mostly commercial trading.

869. I meant commercial?—It is all sorts of things, like textiles, wireless sets, even refrigerators, and general freight.

870. Your fares, as you have explained before, come from two main classes and a new economy class. When we were considering the I.A.T.A. we discussed the bounds within which you have to work. Can you give us some guide as to the approximate proportions of seats provided and revenue obtained from these classes?—Yes, I have the figures here. This is again for the year 1957-58, and again I would say that these figures are liable to change in the current year 1958-59. On our international routes 62·8 per cent. of our total revenue comes from tourist (day) traffic on the international routes. Only 1 per cent.—this was last year—came on the international routes from first-class services. 12·7 per cent. of our revenue came from tourist (night) traffic—the cheap fares at night. I will deal with the domestic side in a minute, but these first-class proportions will alter radically this year, because we have put the Viscount 806 on the international routes

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as a mixed-class aeroplane, with 12 first-class passenger seats and 47 tourist class seats, and that is going to alter that figure appreciably. In fact the first-class services have been so successful that we are now considering putting in 16 of our seats (another row of seats) as first-class, because they are full to bursting at the moment. Now, on the domestic services, 5.2 per cent. of our revenue altogether comes from tourist services on our domestic trunk routes—that is to say Glasgow, Belfast and Edinburgh; 4 per cent. comes from the first-class on those same routes; and 14.3 per cent. of our revenue comes from the tourist class in the subsidiary domestic routes—Channel Islands, Highlands and Islands, and the Isle of Man. That adds up to 100 per cent. altogether. But certainly last year two-thirds of our business came from tourist (day) services on the Continent.

871. And that approximately represents the number of seats you have provided?—Yes. (Mr. Milward.) In that proportion, not up to 100 per cent. load factor, but the proportion is about the same.

872. To what extent does any one class subsidise the other; to what extent are the classes self-financing?—(Lord Douglas.) I think we can say that no class subsidises any other, but, of course, as we told you before, our international routes do subsidise our domestic routes by quite a considerable proportion. Last year we made £2,500,000 of profit overall on our international routes and we lost £1,500,000 on our domestic routes and ended up with £1 million profit, roughly.

873. On the domestic routes, of course, you are free from I.A.T.A. control or interference in any way as to the fares you charge. Are you subject to control by the Ministry or any other outside control?—Yes, the Minister does in fact control the fares on the domestic routes, and he is under a considerable amount of pressure from the Advisory Councils who, of course, if we want to raise our rates, raise Cain with him; but on the whole he has been very reasonable with us. We put up the domestic fares last year with his approval, in spite of protests from these Advisory Councils, and I think this year we shall do rather better proportionately on the domestic routes.

874. If you were free from the advice or interference of the Minister, do you think that these domestic routes would stand commercially higher fares, and that you would be right in increasing the fares?—No, I do not think so. I think we have got them about as high as we can at the moment. Indeed, I look forward eventually to getting these fares down, even though they are now lower than the international routes. You may have seen in the Press that we have put a cheap week-end fare on our domestic trunk routes—Belfast, Glasgow and Edinburgh—and although it has only been running a week or two we are already sold out. It has increased the traffic on these routes enormously at the week-ends, at an £8 return fare.

875. And by increasing the traffic you bring these routes into an economic proposition?—I think that is true overall. I believe in getting the fares down to encourage more traffic, and I think in the long run that will definitely pay us.

876. Your position on the domestic routes is that, if you can encourage more traffic, you are more likely to bring the profit and loss account into balance?—That is true of the trunk routes, but it is not true of some of the other sectors of the domestic routes—for example, the Highlands and Islands: the traffic just is not there; there are not enough people going there to be attracted by lower fares. Then on the Isle of Man and the Channel Islands we have this peak traffic problem very much accentuated. We are carrying 20 times as many people in August as we do in February, so that any adjustment must be carried out in accordance with that pattern. We would tend to put the fares up in the summer months, particularly at the week-ends.

877. If you took your domestic services separately, and inside those domestic services if you, for the sake of argument, hived off the trunk routes, do you think you could make those an economic proposition?—Yes, we think that we could make the trunk routes and the Channel Islands into profitable routes. We very much doubt if we shall ever make the Highlands and Islands and the Isle of Man into profitable services; I think we shall have to continue to bear a deficit on those routes more or less for all time.

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Mr. *Albu*.

878. Does that include the Channel Islands?—No, I think the Channel Islands are pretty near to “breaking even”; I think we can look upon those as potentially profitable routes.

879. With regard to the introduction of these cheap fares for week-ends on the trunk routes, is that for the filling up of places which would otherwise be empty?—Yes.

880. And therefore increasing the profitability by lowering the overheads?—Yes. Our trunk routes—only in the winter this is happening—are mostly used by businessmen, and they do not use those routes on Saturdays and Sundays and so we have a lot of empty seats; and this is a method of filling those seats with traffic which will show a marginal profit.

Chairman.

881. At the moment your published Accounts of course do not show the split up of your trading profits as between the various routes?—No.

882. You have made the point that your international routes are profitable and your domestic routes are unprofitable. You have then gone on to make the point to us that your domestic routes really fall into two or three categories: the unprofitable—the Highlands and Islands; and the profitable—first the trunk routes, and secondly the Channel Islands and the Isle of Man?—No. The Isle of Man is the most unprofitable of the lot.

883. The Highlands and the Islands, including the Isle of Man, are unprofitable, and the potentially profitable ones are the trunk routes on the one hand and the Channel Islands on the other hand?—Yes.

884. I think the Committee would be grateful if you could let us have perhaps accounts for the last two years showing the trading profit or loss on those three separate routes*?—On the two most unprofitable ones, that is to say the Highlands and Islands and the Isle of Man, we do not publish them any longer because it created such a lot of trouble and argument.

885. But you will appreciate that we have to find out the facts?—Yes.

* Appendix 17.

886. We would not willingly create any unnecessary trouble and argument for you, but I think the Committee ought to know the facts, and we would like to consider whether Parliament should not know these facts, and perhaps we shall have to decide amongst ourselves what conclusions we draw from them. I think we ought to be given the facts, however?—We have not got the figures here. (Mr. *Milward*.) May we make a point here? The profitability of any particular group of routes depends obviously on an arbitrary allocation of overheads. We do that in the best way we can. That is the point on which the Advisory Councils argue with us interminably, because they say we should not allocate so much to overheads, but it is a matter of continuous argument.

887. Perhaps you could show us the way in which you do it?—(Lord *Douglas*.) Yes.

888. And perhaps you could add a note on any criticism in that way?—Yes. There is one other point which is very difficult to evaluate, and that is the amount of traffic which is fed into our main trunk routes and our international routes by these subsidiary routes.

Mr. *Ernest Davies*.

889. That was the question I was going to ask—what Lord Douglas has just stated. What I was wondering was this: where there are through-bookings from the provinces to the Continent, do you break down and consider, say, the fares from Manchester to London as a domestic route, or do you consider that as a continental route?—No, we consider it as a domestic route, but we take that factor into account. There is quite a lot of traffic coming from Manchester to London that links up with our Continental routes.

890. There must be through-bookings from Manchester to Brussels, say, and do you break that down and consider the proportion of the fare for the journey from Manchester to London to be part of the domestic?—Yes, if it comes over London. There is, of course, separately a Manchester—Paris service.

891. And you have no estimate as to the percentage which would be fed into your international services?—(Mr. *Lawton*.) We have one in the research section.

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892. To what extent do you consider that these very large peak services to the Isle of Man and the Channel Islands could in any circumstances be made to pay—or are they bound to be unprofitable because of the peak load factor?—(Lord Douglas.) No. We have rather a high fare for the Channel Islands, and we very nearly get to “breaking even” in most years on the Channel Islands. We have never actually made a profit on the Channel Islands, but I think it is near enough to “breaking even”.—(Mr. Milward.) I think we might make the point that the Channel Islands is a seasonal route and will probably be made to pay by a different means from the trunk routes. The big trunk routes will be made to pay by greater traffic, lower fares, and so on. I do not think the same thing follows with the Channel Islands. I do not think the solution there is cheaper fares, but more traffic at the present fares, because if you start cheapening the summer fares then you build up the peak even more.

893. To what extent do you encourage off-peak traffic in order to try to draw the traffic away from the peak load?—We do have especially high fares for the week-ends, particularly the Saturday traffic; and we have mid-week fares which are considerably lower. We do not have cheap night fares for the Channel Islands, because the Channel Islands people will go at any time in the summer at the standard fares.

894. So it would not relieve you of the peak if you changed your fares basis?—You cannot do it very much. And the other thing you cannot do in the Channel Islands is, you cannot build up a winter traffic because it is not there. The ratio now is running at about 20 to 1—20 passengers in August to 1 passenger in February—and that presents us with an almost insuperable difficulty.

Mr. Blyton.

895. Lord Douglas said that the profitability of the international routes helped to subsidise the domestic routes. Could he give me what the percentage increase in the domestic fares would be if they paid economic fares?—(Lord Douglas.) Whether you are going to make a higher revenue on the domestic routes by raising the fares or by lowering them? If you raised them to the point where many people will not pay the fares,

you would actually lose traffic and lose revenue.—(Mr. Milward.) I think possibly Mr. Blyton means it rather differently. Supposing we did not lose a passenger, supposing all the passengers still travelled who travel now, what percentage fare increase would be needed to make the domestic pay? I think that figure would be in the order of 18 to 20 per cent.

Chairman.

896. That is with the same number of passengers as you have now?—Yes.

897. The difficulty about this question—because I was considering putting that question myself—is that if you talk in terms of increasing fares you are making a speculation about the effect on demand, and that is why I put the question a little differently to Lord Douglas in connection with the Minister's control?—My reply was hypothetical.

Sir Alexander Spearman.

898. In the case of the Highlands and Islands and the Isle of Man routes, I think you said that no practical reduction of the fares would be likely to expand the volume of the traffic enough to make it more profitable. Is it quite certain that a sharp rise in the fares would contract the existing traffic very considerably?—(Lord Douglas.) I think it might. They have got their alternative means of transport—by rail and steamer—and I think it might well have that effect.—(Mr. Milward.) And that has already, I think, happened because in the case of the Isle of Man we did, with the permission of the Ministry, put the fares up last summer, in April, 17½ per cent., and there has been a considerable contraction in the traffic. Unfortunately we cannot prove anything, because this coincided with the very bad summer in the Isle of Man and the trade recession in Lancashire, but I think we are satisfied that some of that fall-off was due to the rise in the fares.

Mr. Albu.

899. I am not sure whether it was in this year's Report or in the previous one, but I think you had some figures showing that the domestic fares in fact made a profit if you excluded the fixed overheads, and they covered all the overheads which might be considered directly due to the operation of the domestic services?—(Lord Douglas.) Yes.

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900. If the domestic services were increased substantially, there would be no very great increase, I take it, in the fixed overheads, and that therefore a substantial increase in the domestic services which continued to cover the overheads directly attributable to those services would be profitable?—If you can fill the additional services, yes.

901. Is that the basis for your view regarding a reduction in fares? There seems to be some scope, on the basis purely of the overheads directly attributable to the service, for in fact making the service profitable, because you might then increase the total available for covering fixed overheads?—Yes. Obviously the more services we run the lower the incidence of the overheads of those services.

902. You would not be involved in a very great increase in fixed overheads?—No.—(Mr. Milward.) Unless you got to the stage of running more aircraft. We are running a fairly high load factor already in the summer months. I am sure that is true but I do not think it applies to the highly seasonal routes where you have to hold equipment for the winter months.

Chairman.

903. You have such a high load factor during the summer months. In your previous Report you said that your average load factor was 74 per cent. on all domestic passenger services. Has that held up last year, too?—No, it has dropped. (Lord Douglas.) It is about 64 per cent. now.

904. And that largely offset the rise in fares?—Yes.

Sir Keith Joseph.

905. Are the means of access from terminals to airports in all cases self-financing?—I think that is true; in fact we even make a profit on our bus service between London Airport and the London Air Terminal—or we were until the bus strike. Bus traffic has dropped away since then, and the fares we charge roughly cover the cost of the service.

Chairman.

906. That is domestic and international?—Yes. (Mr. Milward.) There is one exception. In general we

get somebody else to contract the coach operation.

Sir Keith Joseph.

907. On the question of helicopters, the Report on page 35 speaks of more development work. Could Lord Douglas tell us whether regular helicopter city-centre to city-centre flying is going to occur within the foreseeable future?—(Lord Douglas.) It depends how long ahead you can foresee. We think that eventually that will happen, and we pin our faith at the moment on the Rotodyne, but the development of the Rotodyne is rather slow. They are suffering from a shortage of money for development purposes, and they are trying to persuade the Ministry of Supply to come to their assistance. But the Rotodyne, if you could silence it sufficiently, I think, would be a good vehicle for city-centre to city-centre travel, say between London and Paris and between London and Birmingham, on routes of that sort, although I think we would have to charge higher fares because the operating costs are higher than those for the fixed-wing aircraft. We are also looking at the problem of the Scilly Isles at the moment and the possibility of getting helicopters of the rather smaller type on to the Scilly Isles route, thereby saving the cost of the aerodrome there, and we would hope that that would be recognised by the Ministry of Transport and Civil Aviation. We are looking at helicopters as a possible means of carrying inter-line passengers between Gatwick and London Airport, and we have also been looking at the possibility of helicopters doing the ambulance services up in the Highlands and Islands. All those things are possibilities. It is largely a question of £ s. d. For example, the ambulance service is paid for by the Scottish Department of Health. Whether they would stand the cost of getting the extra service I do not know. We are discussing that with them now.

908. From the point of view of public demand, you foresee higher fares. Do you foresee a shorter actual travelling time between city centre and city centre?—Yes, of course.

909. With the lower speed of the helicopter?—That is the object of the

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exercise, to shorten the time between city centres. After all, the Rotordyne does about 170 knots, so that you can do Paris in just over an hour as compared with somewhere nearer 3 hours by the fixed-wing aircraft.

910. So that do you think that, despite the higher fares, there will be a much bigger market because of the convenience?—I think it would be more a luxury service. The ordinary common or garden tourist will not normally pay the extra money to travel on that.

911. And will it carry freight as well?—I should doubt if it would pay us to carry freight; it would be a very high cost. (Mr. Milward.) We are thinking in terms of double the cost as between the helicopter and the fixed-wing aircraft. As the fixed-wing aircraft get faster, the position is widening all the time.

Mr. Ernest Davies.

912. Since the services in the Scottish Highlands and Islands can never pay, even with the modern developments, you look upon them as a social service and you maintain them as a social service, do you?—(Lord Douglas.) Yes.

913. And have you ever applied for, or considered applying for, a subsidy to compensate you for that?—I think we have applied more than six times—and in most eloquent language. That is a grievance of ours—and I think you must know this already—that Mr. McBrayne, who runs the steamer service round the Islands, gets a subsidy of £300,000 a year, and if we got the same subsidy it would just about meet the loss which we incur on these services.

914. And what has been the answer you have received when the request for a subsidy has been made?—It has been the sort of usual Treasury answer, that they see no reason—bad precedent, you know—they do not believe in subsidising; we have to take the rough with the smooth, take the losses with the profits and even them out.

915. Do you recall when the last application was made?—I should think about two years ago. I am bound to say that I got a bit discouraged because Minister after Minister in former Governments has given the same answer,

and I got a little discouraged and felt it was hardly worth while going on.

Chairman.

916. That was a point which was in my mind. If there is anything that you would like to put in front of this Committee for their consideration, such as this matter of subsidies, we would welcome a paper on that, even if it was no more than a re-hash of the paper you last put to the Minister of Transport?—Yes, certainly; I would like to do that.*

Mr. Albu.

917. Are you in competition with any private airlines on the domestic routes?—No. (Mr. Milward.) That is one of the arguments used, but it is a very serious thing because it means that basically this is a very great drag on us and we cannot reduce the international fares, which would be encouraging the domestic.

918. As far as you are aware, are there any other of your European competitors who are in the same position?—(Lord Douglas.) I am sure there must be. (Mr. Milward.) Very few. (Lord Douglas.) S.A.S. have some domestic routes which do not pay. Air France, on the other hand, do get a subsidy from their Government for running on unprofitable routes.

Chairman.] This is a special point, and if you could perhaps consider following my suggestion and putting all these points in a paper, I think it would help to clarify the position—including the competitive position.

Mr. Blyton.

919. Are you compelled by statute to run a service to the Highlands and Islands?—No, only by direction from the Minister.

Mr. Ernest Davies.

920. Lord Douglas stated, on the other hand, that the fares had to be approved by the Minister. Is that a statutory requirement?—I do not think it is statutory, but it is the case that he does exercise that right.

921. Would that be a sort of gentlemen's agreement between the Corporation and the Ministry?—We have disputed it in the past, but we have always been told by the Minister that

* Appendix 18.

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he does retain the right of approving our domestic fares and we have to submit them to him. So, naturally being a well-disciplined person, I do what I am instructed to do by my Minister.

922. I think it would be interesting to know on what basis the fares are controlled. There must be some ground on which this is made necessary?—Under the Civil Aviation Act he has the power of direction—he has the power to give us a direction—and I imagine it is under that particular clause.

Mr. *Albu.*] So he can always twist your arms if he wants to.

Mr. *Ernest Davies.*

923. I wondered whether he had statutory powers or not?—On the whole, the Ministry and the Minister have been very reasonable with us over our domestic fares policy.

924. Have there been any serious disagreements with the Ministry over fares on the domestic routes?—No. We have had some disagreement over fares on the international routes.

925. I was thinking of the domestic routes for the moment?—On the domestic routes, no.

Colonel *Lancaster.*

926. Is there any intention of extending this trunk route system which, on the whole, would appear to be not the most costly aspect of your domestic traffic? For example, touching the north-west parts of Lancashire or touching the northern parts of Yorkshire rather than limiting it to Glasgow as the next stop?—We have given thought to it, and we have always come to the conclusion that it would not pay. These other routes are too short. Even the Manchester-London routes does not really pay. There is no route in our network of less than 260 miles which is a paying route.

Mr. *Blyton.*

927. Would Newcastle to London pay?—No.

Colonel *Lancaster.*

928. There is no benefit by way of flying to Manchester and then going on to Preston, because the time taken between London and Preston by train is almost exactly similar. On the other hand, I do think that there is in that part of the country a big demand

for these services, both touching north-west and east Lancashire. I wondered whether consideration had been given to the extension of this trunk route system to some such centre as Preston?—I do not think we have looked at Preston, but we have looked at Newcastle and we have looked at Hull. But the classic case is really Liverpool, which we do not serve from London. One of the independents does—Starways—and Liverpool are always disgruntled about this matter. They are always pressing for a Liverpool-Paris service. We already run a Manchester-Paris service—and the two airports are about 30 miles apart. In fact we do not even make money on the Manchester-Paris service; the traffic density is not sufficient; and to put in a similar one between Liverpool and Paris would be extremely expensive.

929. I am talking purely about London-Preston as an extension to London-Manchester?—Of course we do get requests from other worthy communities, all demanding very much what you are suggesting—other towns of similar size, such as Leeds, Hull, Newcastle and Dundee. They all come forward and send deputations to see me and the Minister; but every time we look into them we find it merely means that we should lose more money, that the domestic services would go further into the red.

Chairman.

930. When you are faced with these requests for new services to important towns in Britain, the criterion you apply to the thing is whether the route is going in the end to be profitable to you, is it?—Yes, entirely.

931. It is only in the case of the Highlands and Islands, including the Isle of Man, that that criterion does not apply?—Yes.

Mr. *Bonham Carter.*

932. When you were talking about the Highlands and Islands route, did I understand you to say that, owing to the losses you got on that route, it prevented you from lowering the fares on the other routes?—Yes, because last year we lost £1,500,000 on domestic and made a profit of round about £2,500,000 on our international routes. If you did not have that big loss you would have that same amount to plough back in lower fares and so on.

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933. In a negative way, then, it can be said that some routes subsidise other routes?—Yes, overall the international routes subsidise the domestic routes.

934. What is the rate of profit between freight services and passenger services on the domestic routes?—The rate of profit?

935. The relative rate of profit in carrying freight vis-a-vis carrying passengers. In other words, would you prefer to carry more freight and less passengers or more passengers and less freight?—On that last point I think we would rather carry more passengers and less freight; and the ratio is . . . can you say what it is, Mr. Lawton?—(Mr. Lawton.) No, I think I would prefer not to make a guess at that, because the passenger fares vary very much as between the different routes and so do the cargo rates.—(Mr. Milward.) It would also be extremely difficult to say, because 70 per cent. of our freight is carried in our passenger services, and I do not know just how you would split up the cost.

936. But 30 per cent. is freight?—Yes, 30 per cent. is cargo.

Dame Irene Ward.

937. On the ambulance services, how do the Swiss deal with the helicopter services in their ski resorts? Who pays for the running of that service? Is it directly paid by the Swiss Government?—(Lord Douglas.) No, I do not think so. I think it is done on a self-supporting basis, and I should think the fares are very high.

938. They do not get any subsidy for doing that?—I do not think so. I would not be absolutely certain, but I do not think there is any subsidy there.

939. It is a tourist service, really?—It is a tourist service run by private operators.

940. I think you said that your traffic had dropped from 74 per cent. to 64 per cent.?—The load factor.

941. On the domestic routes. What is the objection, when you go from the south of Scotland, to just dropping in at Newcastle? If you took on a few more passengers there would that not increase your traffic?—Well, there is the expense of dropping in at Newcastle. You have to pay a landing fee, and landing and taking off again does cost

money from the point of view of the operating of the aircraft. The other point is that we are competing with some good train services on this route, and you very much reduce the attraction to passengers from Edinburgh if you stop at Newcastle, which would take about three-quarters of an hour; you reduce the attraction of air as compared with rail travel if you do that.

942. I had a sort of idea that when you gave evidence last time the suggestion was made that Scotland do get a bit of a subsidy somewhere or other?—Indirectly they get a subsidy from B.E.A. in that we lose money on them.

943. Why should we on our side of the border not have a subsidy?—It reminds me of Sir John Primrose who, in the days when we were losing money, got up and said in a most indignant voice: "I demand a larger share of your deficit"!

Chairman

944. To get the record clear, the argument, as I understand it, that Lord Douglas was putting was that Scotland as a whole is not being subsidised; it is the Highlands and Islands routes?—Yes.

945. And the London—Edinburgh route and the London—Glasgow route are amongst those routes that you expect to be profitable?—Yes, and I think they will be profitable in their own right, including overheads, within the next year or two.

Dame Irene Ward.

946. That is a little bit of compromise. He said he hoped that in two years it would be?—Ah, but we naturally cultivate gardens which we think are going to sprout.

Mr. Fort.

947. May I go back to a remark you made, Lord Douglas, that no route of under 260 miles paid in this country. Is that distance and the traffic density needed to make the break-even routes of the same order in other countries as it is here?—I think so, yes. It is very difficult to make short routes pay.

948. By "short routes", you mean under 260 miles?—Yes. You see, on the London—Paris route, only once in one year since I have been with B.E.A.

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have we made a profit on that route of 210 miles. We did make a profit last year on that route, a small profit, that I hope we shall continue to make ; so to that extent you must discount my figure of 260 miles.

949. But, for example, the Americans fly from New York to Washington, which is about 210 miles ; are those run at a loss?—I do not know, but it is part of the wide network of other profitable routes, in the same way as Paris is part of our international network. (Mr. Milward.) I think we may say that it is very unlikely that a route like New York—Washington would do any better than break even.

Sir John Barlow.

950. Is there any intention, in the course of time, of having a feeder service to your various points by helicopter, as I believe they are doing on quite a big scale in Belgium?—(Lord Douglas.) Yes, when we get our helicopter services. We are at present running a fixed wing shuttle service between London and Birmingham at a loss, and it may be that helicopters might be the service for that. But owing to the expense of operating helicopters I cannot say with confidence that I look forward to a big wide network of helicopter services flying over the British Isles. With the fares that we would have to charge, I do not think it would be a paying proposition. (Mr. Milward.) I think that Sabena openly admit to losing very heavily on their helicopter services ; the way they make them pay is by picking up people in their neighbouring countries and flying them into Brussels and putting them on the route to the Congo, thereby pinching that traffic.

Sir Alexander Spearman.

951. Is it the competition which prevents you putting up the prices for the London to Paris route, to make it profitable?—(Lord Douglas.) It would be very doubtful whether you would actually make it profitable. I would rather be in favour of putting down the fares and increasing the frequency of that traffic. The service between London and Paris ought to be every hour, like New York to Washington, and the only way to do that is by getting the fares down so that the ordinary man travelling to Paris will go by that route.

Colonel Lancaster.

952. Are there any aircraft developments coming along which may make these short routes rather more attractive economically than they are at present?—No, I cannot see any coming along. (Mr. Milward.) The Viscount is the best thing we have up to date. When we have been able to put 73 seats in the old Viscount, that will then be quite the best aircraft.

Sir Keith Joseph.

953. In the long-term will not helicopters be able to carry many more passengers and therefore the passenger fares will come down?—(Lord Douglas.) The Rotodyne will carry about 50 passengers, and, of course, it is almost axiomatic that the bigger the aircraft the lower the cost per seat-mile, provided you can fill it at a reasonable load factor.

954. But what is the main extra expense of helicopters?—Technically it is more expensive to buy and more expensive to operate.

955. Is there not a lowering of the capital cost of the actual ground facilities?—We do not benefit by that. (Mr. Milward.) If there were no landing fees it would be different altogether with helicopter costs.

956. But is the same charge made for landing a helicopter which involves the strengthening of a large roof, as the fixed-wing aircraft with all its landing apparatus?—(Lord Douglas.) The landing fees are worked out on a weight basis.

957. Is it sufficient, the landing fee, to be a factor in the make-up of cost?—It is a factor, certainly.

Chairman.

958. Perhaps we could have a note on that, if you are in doubt about the landing charge.* The landing fees for helicopters and fixed-wing aircraft may be an important matter for us to know about, because we are looking into the future?—(Mr. Milward.) It is not quite that. It is not only a matter of landing fees, and we do not know the landing fees for these big helicopters now ; they are now flying ; but we were talking about the Land's End to Scillies route. If the Ministry said, "We are

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saving £X00,000 by not operating any airport in Land's End or the Scillies", and they gave us the whole of that money, it would make a very big difference to the helicopter operation from Land's End to the Scillies, and we say they would be no worse off and we would be better off.

959. What I want to know is the sort of amount of money we are talking about?—It costs about £30,000 a year to operate these aerodromes, and if we had helicopters they could scrap those aerodromes, and if they gave us £30,000 it would go a long way to making the helicopter operation a profitable one.

Chairman.

960. Now we come on to the international field, but before we come to that I would like to clear up the position of the Ministry and yourselves over the fares that you in fact charge for your internal services. We have been told by a Ministry representative that there is in fact no statutory authority for the Minister to control your fares, and that it was an understanding of the Corporation that they came to the Ministry—this is Question 172, and this is on cabotage rates and on the internal rates as far as B.E.A. is concerned. So that the position as put to us is slightly contrary to the position as you seem to be understanding it?—(Lord Douglas.) No, I do not think so. I do not think there is any statutory right on the Minister's part to control the domestic fares, but in point of fact he has always insisted on having the last word, and you can understand why—because he is under pressure from the consumers' interests, the Advisory Councils, etc., on the question of fares.

961. We obviously must not ask you to comment on the Minister's behaviour; I am not commenting on it. All I am trying to establish is the actual constitutional position. There appears to be—unless you tell us something to the contrary—no statutory authority on the part of the Minister and, in fact, no statutory responsibility resting in him?—I think that is perfectly true.

962. That is as you understand it?—Yes.

963. Now can we come back to the international field? We have in the course of the last 40 minutes or so been discussing some uneconomic routes

at home and you have told us that it is only once in recent years that London-Paris even has been a profitable route. Does that mean that there is, in fact, a wide variation in the profitability of various routes; and if that is so, is that brought about by the fares that are imposed upon you by I.A.T.A. Agreements?—Of course, there is a considerable difference between the profitability of various routes, depending on the length of them and the traffic potential. On some of the routes the problem is very accentuated. But by and large, one might say that all the international routes either make a profit or only make a small loss with a potential profit. We ought to be able to keep the Paris route as a profitable one from now on, but not at a large profit. But by and large, our international routes are profitable, you can say.

964. Is there any international route which you feel forced to fly over which is uneconomic?—No.

965. And you are not subject to pressure of any kind to open up services on routes that you think are bound to be uneconomic in the long run?—No.

966. You have recently been at an I.A.T.A. Conference?—Yes.

967. You have given us your thoughts on fares at an earlier meeting and at a meeting we had about I.A.T.A. Is there any point on which you would like to bring that previous evidence up to date as a result of that meeting?—Mr. Lawton was Chairman of the Traffic Conference at Cannes as a preliminary to the meeting at Delhi which I went to, and I think perhaps he would be the best person to talk about it. Various points have come up; the question of jet differential fares, for instance. From our point of view the most important thing is the question of getting lower fares on to our Continental routes.

968. When you say lower fares, could you clarify that (because you made us clarify that in previous evidence)? Do you mean by that, lower fares for the same type of class, or a lower class of fare?—We want lower fares and an economy class.

969. You want the two?—Yes.

Mr. Albu.

970. You want higher fares for jet planes?—Not necessarily, no. A jet

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differential I do not think means that jets need charge more. I think we would be prepared to charge less.

971. If you could reduce the others more?—If we could keep the jet fares where they are now.

972. And reduce the others?—We would be prepared, I think, to leave the jet fares as they are and to go underneath them. Our policy is lower fares.

Chairman.

973. Mr. Lawton, is there anything you would like to say following what your Chairman has said?—(Mr. Lawton.) Is your question, "How did the Conference go in general"?

974. Lord Douglas has given you a lead in. You heard what I said to him. We would like the previous evidence of which you are aware brought up to date. You are as aware as I am of the points that were made before?—First of all, speaking as the Chairman of this particular Conference, the Committee should know that the Conference failed in its objective, to agree fares for the next year of operation which starts on the 1st April next year. It is the first time it ever has failed to reach agreement on the fares and rates to be charged. For that reason the Conference did not conclude its meeting but only adjourned, and will meet again in January.

975. What is the position if it goes on failing?—If it goes on failing I am afraid there will not be any fares agreed by the I.A.T.A. It will be left to the Governments of the world to take what action is possible to them under the bilateral treaties in compelling the operators to charge fares. The reason it did not reach an agreement is very clear on the records of the Conference. It did not reach an agreement because of the problem of certain carriers wanting a surcharge for jet services. Those carriers were led by the Italians but it is only fair to the Italians to say that when the debate began there was a majority of the carriers in favour of the jet surcharge.

976. A surcharge means a fare for jets higher than at present in operation?—Yes.

977. With everybody else retaining the fares at the level they are now?—Yes. I think perhaps, had the Italians been prepared to modify that view to the

extent of having lower fares for older types of airplane, there might have been a possibility of coming to terms. That we shall find out at the adjourned meeting in January. The other reason why it did not reach agreement was because of a very unfortunate disagreement about freight rates on the North Atlantic, primarily between Seaboard and Western, an American trans-Atlantic carrier, and the scheduled passenger carriers on the North Atlantic. The details of that are that as the passenger carriers have bought these very large jet airplanes and are putting them on to the North Atlantic route the cargo carrier, Seaboard and Western, believes that the jets can produce a very great volume of cargo space which they will not be able to sell at today's rates. Certainly they will produce a great deal of cargo space on the North Atlantic in the winter when their passenger seats are lightly loaded. It seems inevitable, therefore, that these passenger carriers will sell out their cargo space at very low rates. Seaboard and Western, who rely entirely on cargo for their living, desire to see the rates held high. This led to a very serious disagreement in I.A.T.A. as to whether the cargo rates on the North Atlantic should be allowed to drop which the passenger carriers want them to, or whether they should be kept high which the cargo carriers want them to. I have some doubt as to whether an effective solution is going to be found to this. As the conference affected me, it was B.E.A.'s intention at this particular conference to do two things: to arrange a working group to sit during the year in order to bring about a satisfactory state of affairs for the introduction of economy class services throughout Europe in 1960. We believe it is very much better to go to a conference in 1958 and ask for a working group to be set up to work for a year rather than to go to a conference in 1959 and quite suddenly, out of the blue, ask all the airlines to face up to such an important step as putting an economy class into service. The working group was duly established. The prospects are that 1960 looks rather early for many European airlines and B.E.A. will not have an easy passage in establishing economy class services in 1960. That does not mean to say by any means that it will not obtain its objective, but I

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do not think it is going to be easy. The other thing we set out to do in this particular conference was to lead the way into lower fares by establishing some particular specified low fares on our night services. In this particular instance we had the support of the other scheduled carriers, members of I.A.T.A. but there were some carriers who were opposed. Since the end of the conference that difficulty has been sorted out and these lower fares have been in fact established.

978. So that is one step forward which you have achieved?—Yes.

Mr. Ernest Davies.

979. What carriers opposed all these cheap night fares? Did the other British carriers oppose it?—(Lord Douglas.) Yes.

980. Were they the only people who stood out against it?—Yes.

Chairman.

981. What were the grounds given by those people?—I think purely commercial, that they do not want us to put those fares on such a low rate that we should be competing effectively with them.

982. I do not suppose it is very easy to answer this question, but in fact if you had not been successful in putting down the night fares to the level you want, could it have been said that you were subsidising your night traffic with profit elsewhere?—Not at all. Night services have not been running very full and we have had a lot of empty seats. This is a means of filling these empty seats at a reasonable fare.

Mr. Ernest Davies.

983. Supposing you took those night services off, would you save more, or do you make more by keeping them on at lower fares?—The latter, certainly. (Mr. Milward.) These night planes can attract very low rates. They are used at times when the aircraft would otherwise not be used at all. If you have reduced the fares you will easily find someone who will leave Venice, as we do now, at three in the morning getting back here at six. If you cannot reduce your fares or introduce these inclusive lower fares, you will have those aircraft lying over on the ground at either end earning nothing at all.

984. So it is greater utilisation of the aircraft which is one factor in maintaining these services?—We have no intention of losing money on these inclusive lower fares at all.

985. Mr. Lawton said there was agreement on certain matters at the I.A.T.A. Conference. Does it mean that there is no overall agreement on fares unless everyone is agreed? In other words, it is not taken separately? You referred, for instance, to the disagreement on freight, and unless agreement is reached on the freight charges then you do not get agreement on the passenger charges; is that correct?—(Lord Douglas.) That is because you have got the unanimity rule. According to the rules the freight carriers of I.A.T.A. can scuttle the passenger rates by simply voting against them.

986. In other words, everyone must be agreed; if one person stands out the resolution is not passed?—That is right.

987. Even if they are not concerned?—Well, that is the point about this particular instance.

988. Is not that a most unusual, a most remarkable, arrangement?—Well, I think it is. We have discussed this at considerable length in Delhi, of course, in the Executive Committee last week and we are now scratching our heads as to some way of getting round this particular difficulty. It has never arisen before. But this American carrier is a member of I.A.T.A. and as such can vote on anything, whether it is freight or passengers or anything else.

Mr. Albu.

989. Can he vote on European resolutions?—No; I do not think he votes on Europe. He votes on Atlantic resolutions. (Mr. Lawton.) He can vote in Traffic Conference No. 2, because this particular American carrier operates between Traffic Conference 1 and Traffic Conference 2 and that gives him a vote in both conferences.

Mr. Bonham-Carter.

990. What happens if there is no agreement reached in January?—(Lord Douglas.) It would then become a question for Governments.

991. Would it become a free market: anyone could put what fares they like?—No, it would not quite work like

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that, because Governments would have to come into it, I think. For instance, if there were no rates Air France could not put in, say, some cut rate on Paris-London without the agreement of our Minister.

Chairman.

992. We did have some fuller evidence on this at the last meeting, if you have a look at that?—It would mean a most laborious process throughout the world of the different countries' Governments getting together and agreeing between themselves what they were going to allow the airlines to charge on certain routes.

Mr. Ernest Davies.

993. On this question of the differential between the jets and the more conventional planes, Mr. Lawton said it was a surcharge. Lord Douglas said it was a question of reducing the charges. I take it from that that the first proposal you put forward was for a surcharge, but you were willing to compromise on the reduction of your existing charges; is that right?—(Mr. Lawton.) Yes. (Lord Douglas.) Yes. Well, what I said was largely personal. I believe it would be a more acceptable solution not to have a surcharge but for the non-jet operators to lower their charges. That is B.E.A. policy.

994. You are talking about pure jet, are you?—Yes.

Mr. Albu.

995. But I understood Mr. Lawton to say that it was the Italians who wanted a surcharge?—Yes.

996. B.E.A. made them a proposal?—Well, we put our point of view.

Chairman.

997. Could you just tell us what you proposed to say?—We put up a paper to the Minister. Mind you, B.O.A.C. do not agree with us on this.

998. I understood that from the last meeting?—They are one of the people who do not want the jet differential. We want the jet differential and that indeed is the policy which Mr. Lawton pursued at the Cannes Conference as much as he could, sitting in the Chair. But the rest of our delegation voted in favour of a jet differential.

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Mr. Albu.

999. Yes, but the essential point is did B.E.A. go to the Conference with the intention of getting a reduction of fares and a jet differential to leave the jet charges where the highest fares are today, or did B.E.A. go to the Conference with the object of getting a jet differential which would leave the jet charges higher than the present charges?—(Mr. Lawton.) We went to the Conference primarily to talk about fares for 1959, and in 1959 there will be exceedingly little jet operation in our area. Therefore, our contribution to this particular discussion in Cannes was more academic and looking to a further future. We were prepared to vote with the Italians and vote with the Companies who wanted a jet surcharge. But our immediate requirement was to get these lower fares. Our immediate requirement, also, was to set up this working group to establish the economy class. It follows from that that when we get the next Traffic Conference which will deal with the 1960 period, then there will be considerably more jet operation in our area. The policy of the economy class and the policy of a higher charge on jets can usefully be married together and we can attain our objective in 1960 along both directions, both higher charges in jets and an economy class in the older types of airplane.

1000. With the result that the final jet charge by then will not be higher than the existing highest charge?—The jet charge then need not at that time be higher than existing fares.

Mr. Ernest Davies.

1001. Would you consider that the latest Viscount or the Vanguard when it comes in belong to the older type of aircraft which you would use in the economy class?—(Lord Douglas.) The distinction is between jets and propellers and not so much age.

1002. I thought Mr. Lawton referred to "the older types"?—(Mr. Lawton.) I nevertheless include the Vanguard, although it is a new one. I am sorry I used the expression. I mean the propeller types.

Chairman.

1003. You mean jets on one side and propellers on the other?—Yes.

1004. Now I would like to ask you a series of questions on your Report. They

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are rather bitty ones, but I think they might clear up some points. The first one is on subsidiaries. I notice in your Report, Appendix 3, page 51, that you hold 9 per cent. of the shares in the Italian Airline (presumably the one you have just been talking about). Why is it that B.E.A. is a 9 per cent. shareholder in a major national airline? What benefit is that to B.E.A., and, Lord Douglas, if I might ask you a question, how much of your valuable time does this directorship use up?—(Lord Douglas.) Well, I go to Rome about once every three months, to a Board meeting and some meetings with the Chairman and Chief Executive. It does not entail a tremendous lot of work. This is a very old standing arrangement. I think that, with the encouragement of the British Government and the Foreign Office, we took up these shares to help the Italians just after the war and we have been in there ever since. It is quite a successful Company; it has made a profit most years. It has never paid dividends so that we do not get any financial benefit but we get a tremendous lot of indirect benefits from this connection. As you know, our bread and butter is traffic rights. Traffic rights through Rome are all-important to us. I did see the figures this morning. You will see on page 17 of the new Report, if you look, "Mediterranean"; that shows that 236 million passenger miles are flown by us in the Mediterranean and nearly all those services go through Italy. For that reason we have to have the traffic rights from the Italians. We have been very successful in getting and keeping those rights in face of a good deal of general unhappiness on the part of the Italians who have been cutting down on foreign airlines traversing Rome. But they have not cut us down, and the fact that we are shareholders in Alitalia, I think, does help us considerably in that regard. So that, by and large, I think it is a very useful hold there. It does not cost us anything and it does get us a great deal of goodwill. I think there are other benefits outside the airline. I think the Foreign Office, for instance, would take a poor view of it if we suggested we should pull out.

1005. I am grateful to you?—(Mr. Milward.) Nearly one-third of our continental international traffic goes through or to Italy.

Dame Irene Ward.

1006. Have they literally prevented any air service from any other country from going there?—(Lord Douglas.) Oh, yes, frequently. T.W.A. is the latest instance; they have cut them back. (Mr. Lawton.) I think their best effort was a little while ago, perhaps a year and a half, when they cut back Pan American and T.W.A. on the America-Paris-Rome frequencies. They cut them down very substantially. They reduced the American effort by about 50 per cent.

Mr. Albu.

1007. I take it this will be a weapon that will be used in bilateral agreements when you come to traffic fare negotiations?—(Lord Douglas.) Yes.

Chairman

1008. You may always supplement what you have got to say. On the remaining subsidiaries you have, some of them are connecting airways and some of them are service companies. You give in Statement G some account figures of three of them. Are there any amongst the remainder which are very uneconomic and you would rather be rid of but have to hold for some special uncommercial reason, or are you satisfied that it is right and proper on commercial grounds, quite apart from any other grounds, that you should have the shareholding that you have got?—I have got the figures and I could let you have them. I could go through them one by one, if you like. But overall last year we made a profit of £14,769 on certain of these Companies; and a loss of £22,729 on the remainder. So that our subsidiaries and associate companies (which, of course, is slightly different) last year cost us about £8,000. Gibraltar Airways make a profit, Aer Lingus makes a profit; and Alitalia makes a profit; Cyprus Airways made a loss last year but will make a profit this year; Malta Airways makes a considerable profit; Air Terminals, International Aeradio and SITA are all non-profit making organisations; Associated British Airlines (Middle East) makes a loss, or made a loss last year, a considerable loss; Cambrian Airways made a small loss; and Jersey Airlines made a small profit in 1957 and a sizeable loss in the period ending 31st January, 1958.

13 November, 1958.] Lord DOUGLAS OF KIRTLESIDE, [Continued.
G.C.B., M.C., D.F.C., Mr. A. H. MILWARD, O.B.E., and
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1009. But they are potentially profitable Companies?—Jersey Airlines we are a little bit doubtful about. They made quite a big loss last year and we think we will have to do something to help them. The same applies to Cambrian Airways.

1010. Do you still think it right to run those airlines through them rather than to take any other action?—We are only minority shareholders in Jersey Airlines and Cambrian Airways. We have got 30 per cent., I think, in each.

Mr. Ernest Davies.

1011. Where you have a minority holding in the subsidiaries do you compete with them?—No; we try to avoid that as much as possible. Part of the object of the exercise of going into these Companies was to avoid just that, to make mutual arrangements by which we are complementary to each other.

1012. Take Aer Lingus: do you have an arrangement with them over the frequencies?—Yes, and we also operate a pool.

1013. Do you operate with any of these others: Alitalia, for instance?—We are operating a pool with Alitalia, yes. (Mr. Milward.) Jersey Airlines is a case in point where, in fact, it is unfortunate in a way that there is an element of competition between us. It is rather fortuitous because they always have operated out of Gatwick when there was not quite the same competition. Now all the Channel Island operations are from Gatwick anyway, so we are running parallel with them. I think this partly accounts for their unsatisfactory financial position.

1014. Why did you take an interest in Cambrian Airways? Was that for social service reason or is it a straightforward commercial proposition?—(Lord Douglas.) Up to this year, when it has come down rather badly, it has been a reasonably successful little company and it has been useful to us in some respects as a feeder service. But of course the main reason, I think, was because we are under pressure all the time from Wales (who are pretty vocal) to do something for Wales and they are always nagging us to lay on services to and from and through Wales. They say, "Look what you do for Scotland and all the

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money you lose there. Why cannot you come and lose a bit of money here?" We thought that by taking an interest in Cambrian and helping them and inter-linking with them we would do something for Wales, something practical which would help to satisfy their aspirations.

1015. Do you anticipate that this will prove a profitable investment in the long run?—I think so, in the long run, although they are going through a bad period at the moment because their traffic was cut away last summer and so they are in rather low financial waters at the moment. But we are helping them. We have got a plan for helping them with their operations next summer which, according to our experts' calculations, will show a profit. (Mr. Milward.) They are entirely changing the basis of their operation. They will run our aircraft which we do not require next summer on a modest basis. The trouble is their capitalisation has been so heavy in the past that it was bringing them down.

Chairman.

1016. It was your decision to take over Cambrian Airways?—(Lord Douglas.) We have not taken them over, we have only got a 30 per cent. holding.

1017. I am sorry—it was your decision to take the interest in Cambrian Airways, and it was not imposed upon you?—No; it was entirely a decision of the B.E.A. Board.

1018. Now may we turn to another point? We have, I think, from time to time discussed with you the depreciation rates. I notice that when you sold aircraft in the last year you made a profit on the sales. At least, that is what I understand from the phrase on page 81: "Profit on retirement of aircraft less" a sum "for deferred taxation". Am I right in assuming that you did in fact sell above the book value after depreciation?—Yes. I have got the figures here. Since B.E.A. started we have made a considerable profit so far on sales of obsolete aircraft.

1019. That means that on the whole your depreciation rates are too high?—I think they might have been too high in the past but I am not so happy about the prospects for the future. We have sold seven Elizabethans at quite a considerable profit but we are left with

G 3



13 November, 1958.] Lord DOUGLAS OF KIRTLESIDE, [Continued.
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I think it is 13 now or 12 on our hands which we are finding great difficulty in selling, and I should think we will very likely make a loss on those.

1020. That is merely due to temporary market conditions? Somebody told us the bottom had fallen out of the second-hand aircraft market?—Yes. But I am almost ashamed to confess that since 1947 we have made a net profit of £437,734 out of sales of obsolete aircraft.

1021. That is partly due to the general rise in prices?—Well, up to recently secondhand aircraft had a ready market. (Mr. Milward.) It is certainly interesting to find we are selling Elizabethans today at practically the cost price to us eight or nine years ago.

1022. That has happened in the field of machinery in other industries?—Yes, it has, but it seems to have ended now.

1023. The next point I want to go on to is on page 15 of this year's Report where you set out the way your expenditure is broken down under different headings. You have a sizeable expenditure on sales and publicity, to which I refer. This last year, 1957-58, it was £2,990,583 which represent 4½d. per capacity ton mile. You compare that with a figure of just over £2,500,000 in the previous year which, on this Table, is said to represent a figure of 4.3d. per capacity mile, which shows an increase from that statistical point of view. If you look back to page 14 of the last year's Report, and you look under sales and publicity in 1956-57, you find quite a different figure which is somewhat puzzling to the layman who reads the Report. I think I can see, by looking at the figure above, Station costs, that there may have been a transfer in your accounting, but one is impressed with this large expenditure on sales and publicity. One is impressed with the fact that it may be for very good reasons that it had to be increased over the last year; and when one looks back and compares the figure given in your last Report one is further impressed by seeing that the increase appears to have been substantially greater than is shown here. Perhaps you could explain that so that we might add a note to the explanation?—(Lord Douglas.) It was clever of you to have picked that up, if I may say so. You are absolutely right and perfectly justified in what you said. I think I will

get Mr. Lawton, as it is his department, to explain it. It is actually a question of a change in the system of accounting. (Mr. Lawton.) In the early part of 1957 a re-organisation of the Commercial and Sales Department necessitated a change of expenditure analysis which resulted in certain costs previously included as Station expenditure falling into the selling and advertising bracket. The costs in question were those of Sales Manager, London, and Sales Manager, North America, and they amounted to £272,583 and £16,976 respectively. The change in treatment became effective on the 1st April, 1957. So that, when the table of comparative expenses on page 15 of the 1957-58 Report was prepared the figures for the previous year were adjusted, so that a true comparison was given. It will be seen that Station costs per capacity ton mile have been reduced in the comparative figures on page 15 by 0.5d., thus compensating the 0.5d. increase on sales and publicity. It is a transfer of account.

1024. As I indicated to you, I had rather guessed that. This is a small point and was obviously capable of explanation, but it did just occur to me it might be useful, if you were in future Reports changing the basis of your accounting, just in the normal way to give a short note to say that you have done so?—(Lord Douglas.) It should have had a footnote really.

1025. That is the point I want to bring out. The other point is that it is a very large figure and I do see in the competitive world in which we live you do have to expand a very great deal on sales and publicity; but I imagine, Lord Douglas, you and the Board are constantly on the look-out to see it is not too much, because there must of course be in your own mind some limit to it. I wonder if you can give some guidance as to the way you go about it? It seems rather a difficult problem?—(Mr. Lawton.) I should have liked to have had an opportunity of looking through the figures but I strongly suspect that this figure includes the sales commission. The sales commission is 7½ per cent. on passenger business and 5 per cent. on the freight business. If it does include the sales commission, as I think it does, then it is directly related to gross revenue, to the extent that gross revenue is derived through selling agents outside

13 November, 1958.] Lord DOUGLAS OF KIRTLESIDE, [Continued.
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B.E.A.'s own sales offices. Over 70 per cent. of international sales take place through sales agents and 50 per cent. of domestic sales through sales agents. So you do get this fairly large figure of sales agents' commission appearing as a sales factor. (Mr. Milward.) It certainly does include that, because the advertising expenditure as such as compared with other lines is very low. I think it is $2\frac{1}{2}$ per cent. of our revenue, which gives a figure of about £600,000. We have been checking up recently for our Board; we did a paper recently on advertising and to the best of our estimate we are about the lowest rate for advertising among the big airlines. There is one airline in America which spends 10 per cent. of its revenue on advertising. (Lord Douglas.) If you look at page 79, sales and publicity is analysed there and commission payable on agents' sales amounts to £1,901,000; pay and allowances, pension fund contributions and other staff costs are getting on for £500,000; advertising and publicity is rather more than £500,000.

Chairman.] I am not, of course, attempting to criticise your advertising expenditure; of course not. We know, in a competitive field, how important that is. Your answer that that expenditure is about $2\frac{1}{2}$ per cent. of revenue is the answer I was hoping for. I think those are all the questions I have on your Report. We are coming to more fundamental matters when we get on to a Memorandum which the Minister of Transport has given us earlier, of which you have, I think, by now got a copy and about which we are going to ask you some questions next week.

Mr. Ernest Davies.

1026. I was going to ask some questions on the international fares structure, if I might. It does arise out of the Report. On page 23 in the paragraph on "Future Fares Policy" it is stated (at the end of the second paragraph): "Results so far give support to B.E.A.'s view that there is no need in Europe to offer more than two classes of service, although present tourist standards should be simplified to allow for fare reductions". Of course, Lord Douglas was telling us earlier that you are increasing the number of seats for first class on a certain number of routes and you have

got the tourist services, and now you are agitating for the introduction of the economy class. That rather conflicts with the statement here that you consider two classes adequate?—Oh, no; we only want two classes. We want first class and economy class. The reason why we are thinking of putting more first class seats in is simply that with 12 seats we have found from experience this summer they are apt to get sold out. We could have sold more first class seats if we had had more to offer. It is quite true it is going to reduce the economy class by one row of seats, by five seats in the case of the Viscount, but we shall get four first class seats.

1027. So you envisage in future when the economy class comes in that you will have first class and economy class in the same plane?—Yes.

1028. And the tourist will be completely abolished?—That is what we feel is the right answer. (Mr. Milward.) Our aim is a higher proportion of first class seats, I think, and a large cabin full of economy class seats.

1029. Is this a proposal you put up to I.A.T.A., that the tourist class should be abolished?—(Mr. Lawton.) Yes. But we have a lot of goodwill from the name "tourist", so while we would like to abolish the tourist class and introduce the economy class, we did say we would like to call the new economy class tourist.

Dame Irene Ward.

1030. Why can you not do that?—I think we shall be able to do, with the approval of the IATA. I think we shall achieve that objective.

1031. Do you not think economy class is a bad name psychologically?—Yes, I do. That is why I hope that when we institute the economy class we shall actually call it tourist class. I think that that will be possible.

Mr. Ernest Davies.

1032. I am not quite clear as to how you decide as between the number of first class and the tourist class at the present time. Is the ratio of charges such that the first class pays if you increase, say, from 12 to 16; the differential between the tourist and the first class is so great that it more than compensates for the loss of the tourist traffic?—Yes.

13 November, 1958.] Lord DOUGLAS OF KIRTLESIDE, [Continued.
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1033. And it is worked out on that basis? There must be a point where it would not?—(Mr. Milward.) You only lose one seat on this extension. You substitute your four first class seats for five tourist. That easily pays if you could get a good load on the first class fare.

Mr. Fort.

1034. One expects the lower fares to produce more traffic. Have you got from experience any quantitative assessment of how much increase you get in traffic loading for 10 per cent. or 15 per cent., or whatever it is?—(Lord Douglas.) As you know, they put an economy class on the Atlantic route this year, and the number of passengers travelling the Atlantic by air has gone up by over 30 per cent. The other instance is the cheap week-end fare to Glasgow. It has only been going for two or three weeks and I have not the precise figures in my head. (Mr. Milward.) It is sold out for the month. (Lord Douglas.) And we have got to put on extras. (Mr. Milward.) The danger is, if you put on a lot of extras, you need a high load factor to break even at that fare. Generally I think the limit would be what the trains carry; we are coming very near the second class fare now.

1035. What is it per mile?—It is 2½d. per mile.

Chairman.

1036. This does not apply to routes much shorter than the Glasgow one?—We are doing Manchester for £5 10s. It certainly will be more difficult. Belfast and Glasgow are perfect routes for this.

Dame Irene Ward.] I have travelled absolutely every way in the air. If I travel tourist there is quite a nice substantial reduction, and you do not really seem to get much less excepting you cannot take as much luggage which is slightly boring, but it really does not matter very much. I really cannot make out how you can reduce it so much when you do not appear to reduce what is actually offered. It has rather puzzled me.

Mr. Albu.] If Dame Irene Ward had my legs she would understand.

Dame Irene Ward.

1037. I agree about that; you do not have as much room.—(Lord Douglas.)

What they call the seat pitch is different; the seats are closer together. We have put in a more comfortable larger seat in the first class than in the tourist class. You get a bigger luggage allowance for the first class and you get a better meal and free drinks.

Mr. Albu.

1038. And there is much less space in the economy class?—There is much less space in the economy class. (Mr. Milward.) We should say the economy class is going to be economic. In a large aircraft it is going to be six abreast, three each side of the gangway. It will be a newly designed seat with a 34 inch pitch, which will certainly give you remarkably good leg room considering, but there will be a 34 inch pitch. There will be no meals at all of any sort and there will probably be no bar service; so it will just be a ride and a lump of barley sugar for take-off.

Dame Irene Ward.

1039. Are you going to have that and at the same time your first class passengers as well?—(Lord Douglas.) Yes, in a different compartment.

Chairman.

1040. I think we must bring this interesting discussion to an end. There are two rather formal questions that I would like to put to you. We have had two Memoranda from the British Overseas Airways Corporation; one is the comparison of wage levels between B.O.A.C., Pan American and K.L.M., and in the course of it they give some figures about U.K. weekly wages.* The Memorandum has been shown to you and I would ask you whether you agree with the estimates put forward by the B.O.A.C. about U.K. weekly wages, the working week and the rate per hour?—No, we do not quite agree with those figures. In B.E.A. the weekly wage figure £11 14s. 2d. is appreciably less than the amount that the chap takes home in his pay packet. In the first place, a good many of them get service pay, for long service; I think anyone who has been five years in the Corporation gets another 7d. In addition, unlike B.O.A.C., we have got an incentive bonus scheme which brings in a man on the average about £2 a week. We would say that the average wage of

* Appendix 29.

13 November, 1958.] Lord DOUGLAS OF KIRTLESIDE, [Continued.
G.C.B., M.C., D.F.C., Mr. A. H. MILWARD, O.B.E., and
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a skilled mechanic in B.E.A. is more like £14 5s. with these additional payments.

1041. I wonder whether your officers could talk to their opposite numbers on the B.O.A.C. and perhaps compile for us a memorandum which gives the U.K. position and variations between the B.O.A.C. and the B.E.A.?—Yes. I think we might have to put in two figures because B.O.A.C. have not got the incentive bonus scheme.

Mr. *Albu.*] If that is done it will be necessary to revise the B.O.A.C. industrial figures.

Chairman.] I am coming on to that. I think it is very important to compare like with like.

Mr. *Albu.*] This is headed "Comparison of wage levels" and Lord Douglas has been talking about earnings. It may be that the B.O.A.C. would want to revise their figures.

Chairman.

1042. I think they may. My object really was to collect the right facts for this Memorandum?—We also think, according to our information, the Dutch

figure is too low. The weekly wage of a skilled mechanic in K.L.M. is £9 8s. and not £8 16s.

1043. There again, perhaps we could get all that right. The other Memorandum* is the one headed "Aircraft maintenance expenditure" and is expressed as a percentage of traffic revenue; there they give your figure as 18·7 per cent.?—We agree with that except that it is the year before last and our maintenance costs have gone down proportionately. Last year it came down to 16·5 per cent. (Mr. *Milward.*) It is a very big reduction. It compares with a cost per C.T.M. of 6·8 per cent. instead of 7·5 per cent. It is a noticeable reduction in our case. (Lord *Douglas.*) We accept that figure for the year in question.

Mr. *Ernest Davies.*] They do not give the years.

Chairman.

1044. I agree the Memorandum as it stands is deficient in that no dates are given. We will try and get figures for the immediate past year as well as for the year before?—(Mr. *Milward.*) The figures shown are all 1956-57.

* Appendix 32.

THURSDAY, 20TH NOVEMBER, 1958.

Members present:
Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.
Mr. David Jones.

Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

Memorandum submitted by the British European Airways Corporation

COMPARISON OF AIRLINE PERFORMANCE

This table gives certain useful figures with which to compare B.E.A. with other operators. These are additional to those given in the table of "Airline Operating Statistics, 1956" prepared by the Ministry of Transport and Civil Aviation.*

	UNIT	B.E.A.	B.O.A.C.	SWISS- AIR	S.A.S.	K.L.M.	AIR FRANCE	P.A.A.	T.W.A.
Average passenger journey length ...	miles	329	2,929	489	671	1,313	763	1,306	893
Average one-way fare ...	£	7·9	79·3	11·8	19·6	34·7	19·7	29·6	17·0
Passengers per employee	number	246	22	192	121	51	122	123	220

Examination of Witnesses.

Marshal of the Royal Air Force, Lord DOUGLAS OF KIRTLESIDE, G.C.B., M.C., D.F.C. (attending by permission of the House of Lords), Chairman, British European Airways, further examined; Mr. A. H. MILWARD, O.B.E., Chief Executive, British European Airways, called in and further examined; Mr. R. L. WEIR, O.B.E., Financial Controller, British European Airways, called in and examined.

Chairman.

1045. Lord Douglas, today we would like to take as our starting point the Table that was given to us by the Ministry of Transport and Civil Aviation entitled "Airline Operating Statistics, 1956".* This Table compares in a number of respects the performances of BEA, BOAC, Swissair, SAS, KLM, Air France, Pan American, and Trans-World Airlines; I think you have had a copy of it for some time in your possession. I think the whole Committee will realise that in any exercise like this, trying to compare the statistics of a number of airlines, one has got to take account of the basic differences between what each of the airlines

may be trying to do. One thing I think we are all aware of is that you are more concerned with short haul operations than most, if not all, of the other airlines. Would you like to start by making a general statement to us affecting the comparison between you and other airlines? Then, if that is convenient to you, I will put to you certain questions on the important differences which stand out?—(Lord Douglas.) Could I, as a preliminary, hand round just a small Table which shows how the average passenger journey of BEA compares with the other airlines?†

1046. Certainly?—It gives the average one-way fare which is very

* Appendix A.

† Printed above.

20 November, 1958.] Lord DOUGLAS OF KIRTLESIDE, [Continued.
G.C.B., M.C., D.F.C., Mr. A. H. MILWARD, O.B.E., and Mr. R. L. WEIR, O.B.E.

noticeable. In our case the average one-way fare is £7.9 as compared, for instance, with BOAC's £79.3. We have 246 passengers per employee as compared with the others which are all very much smaller, as you will see from this table. It does emphasise the fact that we are a short haul airline carrying a lot of passengers a short distance at a very low fare. Therefore, what you said just now is perfectly true, that to compare our short haul network with these long haul carriers (they are not entirely long haul ; some are part short haul and part long haul) can, in some respects, be misleading.

1047. This table shows that your average passenger journey length is the lowest of all these?—Yes. The average fare is again much the lowest of any and the number of passengers per employee—that is the number of passengers we handle as regards staff—is again a good deal the highest. The nearest is TWA. These figures are per annum.

1048. But it is rather curious that TWA are so near you though their average passenger journey length is more than double yours?—That is true. Of course, they have quite a number of fairly short routes inside the United States, domestic routes, which may account for it to some extent, but not entirely.

1049. We are grateful to you for this Table which brings the point out very clearly. Is there any other difference that you would like us to bear in mind when we are asking you questions about this Table?—I do not think so. We fly these short distances at a low fare and carry a lot of passengers. (Mr. Milward.) There is one figure which I do not think your sheet gives. We added it later and it does help to emphasise the point. That is the average stage length which in BEA is 263 miles. Our average flight length is no more than 263 miles between landings. That is a very important point. I have not got the others, I am afraid, for comparison, but BOAC which could be taken as a typical long haul operator have an average flight length of 1,048 miles. Perhaps your Committee would like to add those figures to the sheet.* (Lord Douglas.) You appreciate the difference between the journey length and the stage length. We talk about passengers doing several stages.

* Appendix 21.

1050. Yes, I understand. BOAC of course we know is almost entirely long haul. Some part of Air France's business is very similar to yours?—Yes.

1051. But the rest of its business is very similar to BOAC?—Its main business, like most of these Continental carriers, is long haul business. They regard their European network largely as a feeder service for their long haul routes. We are the only purely short haul airline of comparable size in the world.

1052. Would that explain, then, why item 11, Utilisation of aircraft, is 5.18 hours per day for BEA, whereas for BOAC it is 7.62, Pan American is 8.59 and Trans-World Airlines is 7.7, and Swissair, which is the nearest to you, is 6.77?—Well, I think it does explain it, really. The Ministry themselves have made the point in their notes. The Ministry refers to avoidance of night arrivals and departures, a longer time on the ground between flights and the seasonal nature of the business. But they do not refer to some other points, one of which is the question of arranging flights at commercially attractive times. It is easy enough to persuade people to fly the Atlantic at night, but it is not so easy to persuade them to fly to Paris or Zurich or shorter distances at night, which interferes with our utilisation, although we do our best by putting on these cheap night excursion flights in order to induce people to fly at night. And of course there is the question of shorter sector distances. If you are landing every hour, as we are, and you have to sit on the ground and refuel and fill up again, it obviously affects your utilisation routine. It is much easier to pile up utilisation by flying long distances, e.g. across the Atlantic.

1053. During this last year your Report (page 25) shows that utilisation has fallen even below 1956. Have you got the exact figure? It has fallen by 7 per cent. ; I take it that is 7 per cent. of 5.18?—Yes, 4.5. I think that is mainly due to a large use of faster aircraft. We have now got an entirely Viscount fleet on the international fleet which, of course, are faster than the Elizabethans and considerably faster than the Pionairs. I think that would probably explain the difference in utilisation.

20 November, 1958.] Lord DOUGLAS OF KIRTLESIDE, [Continued.
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1054. Does the reliability of the aircraft have any part to play in this figure of utilisation?—I do not think so. The Viscount is very reliable.

1055. I was only wondering whether now you have got the Viscount and you have got a fleet almost entirely Viscounts, that would make any difference to this? It is obviously a factor in the cost?—Yes. (Mr. Milward.) As you say, it is the most important factor very nearly in running a short haul airline. There are two factors really: this aircraft utilisation and air crew utilisation which is nearly as important. The crews now cost us £7,000 per crew per annum, and on an average we need four crews for each aircraft of the fleet. So you can say that £28,000 per annum is the cost of crewing one airplane. Therefore, air crew utilisation and aircraft utilisation are now vital to our economy. Of course, they are, as my Chairman has said, the most difficult things to get out of an average stage length of 276 miles which is just about, in the Viscount, a shade over one hour's flying, just on 65 minutes between when the aircraft goes up and comes down again. All that reflects very badly on crew and aircraft utilisation. It is quite right, as you say, that the utilisation has in fact fallen slightly in the last year and it is due in the main to two things. One is the retirement from service of the Elizabethans. Once you start retiring a fleet from service you begin to lose utilisation very rapidly as the fleet diminishes. The other thing is the Pionair, which is now Dakotas, utilisation which is never capable of great improvement because it is operating all these very short sectors of which we spoke at your last meeting, the Highlands and Islands. This is one of the basic reasons for our losses on those short routes. The Dakota flight distance is probably an average of about 200 miles, and as we start turning over those services to Viscounts the Pionair utilisation will drop and so also will the Viscounts which are going on to those services, because, as our Chairman says, it becomes more difficult to get utilisation when your flight air time is reduced by a fast aircraft.

Mr. Ernest Davies.

1056. If you had faster planes would there not be occasions when those planes could be used for more flights per day?—Yes.

1057. Would not that offset to some extent the fact that they are faster and therefore increase your utilisation?—It offsets it but it is not easy to improve it because you cannot turn your aircraft round quicker. In fact, it is even more difficult to turn a 50 seat aircraft round after half an hour's flying, say, than it is to turn round a Pionair. I think the two just about balance, but if you isolate the aircraft on those short domestic services you will find their utilisation (which is included in this figure in front of you) is really down to about 1400 hours a year; that is all we get out of the Pionair aircraft.

1058. But they are only a small part of your fleet?—We have 45 of them.

1059. Surely there must be occasions when you have got a faster plane on a long flight, say London to Rome, that you can get in an additional flight on those planes than you did on the slower planes?—That is quite true, yes. We eliminated night stops from the early days in the air. We have no night stops on the route now. They go out, stop and come back, or they do the out and back trip in the day. It is comparatively easy; in fact it is the difference between the short haul and the long haul. You have the similar difference within the BEA between the ultra short and the medium long haul. The utilisation for a Viscount on the London to Beirut or the Persian Gulf is easy compared with utilisation on the Highlands and Islands with the Pionair.

Chairman.

1060. I would just like to clear up one point on this utilisation. Does the figure you give here, 5.18 hours or the other which is about 4.5 you just mentioned, mean the number of hours the aircraft is in the air or the number of hours it is in the air and waiting on the tarmac to take off?—(Lord Douglas.) No, in the air.

1061. That does not include the number of necessary hours that it has to spend in the day on the tarmac?—No, nor does it include the time that the aircraft spends in the hangar being overhauled and modified.

1062. It does not include that?—It does not include that. (Mr. Milward.) It is the total hours flown by a fleet in the whole of BEA in the year divided by the number of aircraft we hold and as my Chairman has said, some will be

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in the hangar, some will be on the tarmac and so on. It is the worst figure. (Lord Douglas.) It is the worst figure you can get.

1063. The next figure that comes to mind is the operating cost per capacity ton mile. In that you have a figure of 39·7d. for 1956 which compares about equally with BOAC which is slightly higher than Swissair, much higher than SAS, much higher than KLM, lower than Air France—considerably lower than Air France—higher than Pan American and lower than TWA. Could you explain why you think those differences occur?—I think the reasons are much the same. If you have a short haul network as we have, landing every hour roughly, obviously you have to man the stations every hour with the maintenance staff, engineers and everything else. So I think the short haul line must tend to cost more per C.T.M. than the long haul airline which may, as I say, fly the Atlantic with just station staff required at each end of a long route. I think probably that is the main reason. This 39·7d., I think, is rather a creditable figure compared with some of these other airlines who have these long haul routes which we have not got.

1064. That would be the explanation you would give to the very low figure of K.L.M. and Pan American?—(Mr. Milward.) Can I put it in a rather emphatic way: we reckon that it costs us just as much to do the documentary work, the paper work, to get a passenger from the time he goes into our booking office on to the flight if he is going to Jersey as to do all the work necessary to get a passenger on to a BOAC or TWA flight to fly the Atlantic. There really is no difference at all; the paper work is the same, the reservation system is the same, which illustrates the cost per capacity ton miles as between the short haul and long haul. (Lord Douglas.) And, of course, we have more landing fees. (Mr. Milward.) A landing fee every hour instead of one every eight hours.

Mr. Albu.

1065. I suppose as a matter of comparison it is not possible to obtain any figures showing the statistical distribution per length of flight: how many flights of yours fall within the distances up to 200 miles, 200-300 miles and 300-500 miles and so on? Could you compare that with, say, KLM and Pan American?

—(Lord Douglas.) You have got the average passenger journey length here;* it is not quite the same thing.

1066. No, it is not?—(Mr. Milward.) The average stage length very nearly does that. We could get that if the Committee would like it for the other operators here.† It might take a little time.

Chairman.

1067. I want to know to what extent you could get us a little more information because the point that has come out, as you have brought out so clearly, is the importance of the short stages and short hauls generally in your cost make-up. We know, as you have said, that Air France, SAS and KLM and, I believe, TWA, too, have their short hauls as well as their long hauls. The more information you could let us have about the effect of that on them the better for us?—(Lord Douglas.) I think it is significant that the airlines you draw attention to, KLM and Pan American, if you look at the Table we gave you, are way up at the top as regards average passenger journey length: 1,313 miles for KLM and 1,306 miles for Pan American as compared with 329 miles for BEA. I agree with Mr. Milward; I think possibly to complete the picture we should get the stage lengths of these other airlines as well as the journey lengths.

Chairman.] That would help us very much.

Colonel Lancaster.

1068. In making these comparisons, Lord Douglas, of course we must have regard to the comparative wage rates in different countries and we have certain figures as between ourselves and America, and ourselves and Holland. But in looking at this sheet you have given us, of course the most reasonable comparison in regard to the hauls is yourself and Swissair. You do 329 miles and they are the nearest, they do 489 miles. Your operating costs are 39·7d. and their's, as I see it, are 38·2d. Do you happen to know if our wage rates are fairly similar to the Swiss wage rates?—I am very sorry, I have not got that particular paper with me. I did not think it was going to be raised

* Page 126.

† Appendix 45.

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today. I remember BOAC put the paper in.

1069. Yes. They did not deal with Switzerland. The only ones they gave us were the comparisons between ourselves and America and ourselves and Holland. Of course, America are more than three times our wages rates so it is very difficult to pin a comparison down. I was just wondering when attempting to make a comparison between yourselves and Swissair, they being the nearest in the aspect of average passenger journey lengths, if in fact you had a similar wage level to Swissair?—I am afraid I have not got that figure. We could easily get that for you. I should say they are very comparable.*

Chairman.

1070. Would you like to tell us the factors that go to make up the operating cost, because I think we ought to have those in mind? Obviously wage levels are one but not the only one, nor, judging from the figures we have seen relating to Pan American, can they be the most effective one. Obviously the length of haul is another. If you could make a statement to us, giving us the factors that build up to make the cost. I think the Committee would be grateful to you?—Yes. I have got a paper here which comes up under some of the other questions that you asked us and which I was proposing to hand in if you would like to have it. It goes into this question that you said you were going to ask us about, overheads. Here is a paper on the apportionment of costs which shows what goes into the various categories, variable costs, allocated and apportioned costs, and overheads.†

1071. Would you like to hand it in? —We divide our costs into three categories: variable costs, those which vary directly with flying hours or services operated, that is fuel and oil, landing fees, overhaul of components, etc. and those costs form approximately 31 per cent. of our total costs. I must say this paper is high lighting the domestic services because that was the question we were asked.

1072. You are reading from a paper which was compiled to answer the questions that we asked you last time about

the apportionment of costs as between the various domestic routes. I imagine what you are reading to us is applicable, though it may not be exactly correct, to your routes generally?—No. I have got the figures, I think, for the international routes as well. (Mr. Weir.) The same classification applies whether it is domestic or international. (Lord Douglas.) The percentages may vary.

1073. I think perhaps you could give us the percentages later. It is the classification and the type of costs that we want to get clear?—The second category is allocated and apportioned costs. These are costs which can be charged direct to a group of routes, including such items as amortisation of aircraft, air-crew costs, whilst apportioned costs are those which have to be spread over several groups, such as the bulk of station costs. These represent in the case of domestic routes approximately 57 per cent. of the total cost. Finally, you have got overheads which amount to about 12 per cent. Those are the things like departmental administration, public relations, medical services, head office passenger and cargo sales, tariffs, commercial reservations and traffic branches, flight operations requirements, ground communications, project and development, accounting, stationery and printing, industrial relations, training and welfare, accommodation and equipment costs. Those are what we count as overheads, and, as I said, in the case of domestic routes they account for 12 per cent. of the total costs.

1074. What I was trying to get at was to what extent are you comparing the costs of B.E.A. with the costs of Pan American? Should account be taken of things like efficiency of the aircraft, the shortness of the haul, the difference in wage levels, the difference in the type of service you are trying to give, and finally the general efficiency of the airline?—(Mr. Weir.) The price of fuel is also relevant.

Chairman.] And the price of fuel.

Mr. Ernest Davies.

1075. And maintenance and so on? —Yes. (Mr. Milward.) Those rather come under the heading of wage cost to some extent. If I may put it like this, wage levels obviously are very important, and the price of fuel, as Mr. Weir says. Landing fees are very significant. But

* Appendix 30.

† Appendix 17.

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above all we come back to the thing I said earlier, utilisation of aircraft and aircrews. If you take those five headings, those are the significant points which make up the cost per capacity ton mile of any airline. I do not know if I am right, it is a certain amount of guesswork, but I would put aircraft utilisation and air crew utilisation as the two most important.

Chairman.

1076. That is why you have emphasised that to us at an earlier stage this afternoon and why you are doing everything you can to improve both those?—That is right.

1077. Do you see anything important happening in the course of the next year or two?—No, frankly I do not. I hope the Committee will not take this as complacency, but I think we are getting near the top level of aircraft and air crew utilisation. It can be improved a little bit by getting more and more night services on. That is about the only way left to us. In considering night services then you have to do a very careful balancing and compromising act. You can only sell more and more night services at a corresponding lower fare. All the costs of operating night services are higher than day services, or most of them are. Labour costs obviously are because of overtime, night shift pay. Crew utilisation drops at once with night flying because we cannot operate night crews consecutively on many nights of operation. They have to have a day in between as a rest period. So you have to take your increased costs out on one side, your reduced revenue rate per mile on a night service because you are offering a cheaper fare, and you have to balance that against the greater use you get out of the same standing charges of the aircraft. I think we are getting somewhere near the point where we are getting towards saturation of the night market. But that is not by any means certain; it depends how far we can reduce costs.

1078. Anyway, you are watching that. You said two things: utilisation of aircraft and utilisation of crew. From the figures you gave in answer to an earlier question I understood you to say that you had four crews per aircraft?—Very roughly that is about the average.

1079. Is there some fallacy, then, in the argument that each crew is only doing one quarter of 5·18 hours per day?

—No, that is correct from a flying time point of view, but it is not correct from a duty time point of view. I am sorry to keep coming back on this: the reason you cannot get better flying time out of our pilots is a very simple one. Their duty time is out of all proportion to their flying time. If you take a crew doing the double Paris-London route, the normal practice is Paris out and back in the morning and out and back in the afternoon. It is quite a hard day's work for the crew because of the complexities of modern air traffic control. You do not just get in the cockpit and fly and land the other end. There are seven different routings on the London-Paris flight. We look upon that as a hard day's work in a short haul airline and the crew certainly do. It is very unpopular. The aircraft flies for four times one, four hours; the crew flies four hours. It takes a ten hour duty day for the crew to do it, so they are flying for less than half of the duty day. They report, shall we say, an hour before departure in the morning and they sign off half an hour after arrival. They waste an hour each end on each turn-round. So that is again a limiting factor on our flying utilisation, but it puts the duty hour figure very high for crews.

1080. Your non-flying duty hours for your crew are higher because of your short haul operations than they are for other lines?—Very much. The crew, by contrast, flying the Atlantic will do eight hours flying on a ten hour duty day. On our ten hour duty day they may do three or perhaps at best four hours flying.

1081. That is another thing that adds to the cost?—(Lord Douglas.) It adds to the crew cost right away.

Colonel Lancaster.

1082. Might I ask a further question in that regard? You put considerable emphasis on this matter of crew utilisation from the aspect of the cost of crews. Could you give me a very rough approximation of men on the ground, men in the air in BEA, so that we can get that into its proper context?—The aircrews are 700 odd pilots and radio operators.—(Mr. Milward.) They diminish all the time.—(Lord Douglas.) And we have got just about 11,000 employees. That is



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about 1 to 11. It is in our latest Report, Appendix 14 on page 69. Flight Branch, that is the administrative side; Pilots—Flights and Test, 714; Radio Officers, 141; under training, 38. So it roughly adds up to between 900 and 1,000 in the air to 11,000 on the ground.

1083. I appreciate that, and I appreciate that presumably men in the air are paid a good deal more than the men on the ground?—(Mr. Milward.) Yes, far more.

1084. Nevertheless it does only represent one-eleventh of your number employed and I wondered why you put so much significance on that one-eleventh as against the other ten-elevenths?—It is a great deal more in cost. I have not worked this out, but there are also air crew costs as well as air crew salaries: Allowances abroad and meal allowances on turn-rounds and so on. I think you could say that crews cost us at least double, and it may even be treble, the ground staff on average. It could be a 1 to 4 ratio.

Mr. Palmer.

1085. On the matter of the load factor in the utilisation of aircraft maintenance efficiency would come a great deal into it. It is important to you to keep your aircraft available for flights and so on. If they are grounded a great deal, in trouble, that goes to drop your efficiency and utilisation?—(Lord Douglas.) Yes.

1086. That is always, I take it, the subject of close study; it is a matter of administrative efficiency and so forth?—Quite, yes.

1087. And you would say you are making progress on that?—Yes. But I think there are limits to utilisation on short haul airlines like ours. We shall never get up in utilisation to the figures that are shown for some of these long haul people.

1088. On the whole do aircraft today show much greater reliability than they did in the past, or are they becoming so complicated?—I think on the whole they are becoming more reliable.—(Mr. Milward.) I think the most reliable aircraft in the world today is the Dakota. The Viscount now is just about up to that figure and I think will go beyond that. But as far as we are concerned, until the Viscounts arrived we had not had such a reliable aircraft as the Dakota.

This question of reliability has a significant effect on aircraft utilisation because with any aircraft you have to have a standby fleet. In every fleet you must have a standby aircraft in case of unserviceability. In point of fact, on the twenty-five 701 Viscounts we now operate with only a standby of two for the whole of our network. At one time we would have had double that. If you could get to the ultimate in efficiency of completely reliable aircraft you would have no standby at all, so your utilisation would go up immediately.

1089. You get most of your teething trouble, I suppose, with new type planes when they first come into commission?—(Lord Douglas.) Yes.

1090. That is an argument against changing them too often?—(Mr. Milward.) Yes.

Chairman.

1091. There is one factor in this Table, the passenger load factor, in which you are the best of the lot and that presumably is a factor where short haulage helps the figure. Is that right?—(Lord Douglas.) I do not think so, particularly. no. I would not say it was.

1092. I would like to know what the answer is?—Of course, it is a significant factor. I think good scheduling and good commercial practice is the main reason. But unfortunately our load factor has dropped since this Table was compiled and for this year it is only 63·1.

Mr. Ernest Davies.

1093. This current year?—Yes, 1958. That explains why we are not doing so well this year.

Dame Irene Ward.

1094. Have other airlines also dropped?—Yes, even more than us.

1095. What is the reason for the decline?—It is this general recession that has affected the whole of the airline world over the past year.

Mr. Albu.

1096. Known vulgarly as a slump?—It is a sort of slump. We think that we have just turned the corner. The last two months we have been doing better.

Mr. Ernest Davies.

1097. I think there is a mistake in a figure here, if I might ask for a correction. In the Report your figure for the

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passenger load factor is 68·5 per cent.?
—I do not quite know what this 1956 refers to.

Chairman.

1098. I was coming to that?—The figure I have just quoted is for the financial year 1957-58; the passenger load factor is 63·1, and our overall load factor is 60·4 per cent.

Dame Irene Ward.

1099. If your passenger load has dropped, has the same ratio been maintained?—No. I think some of the other airlines have done worse. KLM, I think, went down to somewhere in the 40's. (Mr. Milward.) I think I may have the figures with me amongst my reading matter. During the first nine months of 1958 the Iberian Airline had a load factor (these are the summer months, too, which is very significant) of 49·2; KLM 46; Sabena 53·6 in spite of the World Fair which affected all their routes very heavily, or should have done; SAS 50; Swissair, rather good, 59·2. During that particular period I have been giving you the BEA load factor was 62·9.

Chairman.

1100. That was the summer?—That would be the first nine months of this year which of course includes the summer. So that, apart from Aer Lingus which has had a significantly high load factor all this year, BEA's load factor was considerably the best; it varied from our load factor of 62·9, say 63, to KLM's 46. For an airline to have a 46 per cent. air load factor during the summer months is a very serious affair.

1101. Thank you for those figures. Mr. Ernest Davies, I think, was raising a point about the figures in your Report, page 7, and some of the figures here. As I have understood these figures on this Table, they are in fact your financial year 1956-57?—(Lord Douglas.) Honestly, I was not quite certain. It is headed "Airline Operating Statistics, 1956".

1102. I think it is very important that we get the right answer. But in fact in your Report you do show for 1956-57 a passenger load factor of 70·3 per cent. so that they are exactly the same?—You appreciate these are not our figures; these are figures coughed up by the Ministry.

1103. I was aware of that point. That is why we sent your office this paper some six months ago and I would hope that if they were figures you did not like you would have corrected them in the course of the six months?—(Mr. Weir.) I think it means what it says; it is in fact the year 1956. Most airlines quoted there do in fact terminate their financial year to coincide with the calendar year, and the Ministry usually present any figures of that nature for the calendar year.

1104. It is only a point of complete accuracy; it need not affect our discussion today, but I would be grateful if we could know exactly what period it covers. The Table purports to give the same figures as are given in the Report; for the passenger load factor they do give exactly the same figure; for the operating cost per capacity ton mile they give a different figure but that may be because they give the cost per capacity ton mile which is different from the operating cost per capacity ton mile. You have been telling us that your passenger load factor has dropped recently. Has your operating cost per capacity ton mile also increased?—(Lord Douglas.) Yes, it has increased, I think.

1105. Whereas the cost per C.T.M., that is the fifth item on page 7, as between 1956-57 and 1957-58 decreased; it in fact improved slightly. But it may of course have gone up since?—(Mr. Milward.) It has gone up slightly.

1106. Perhaps we can come to the most important figure of the lot here; that is item 12. At least, it appears to be very important. It shows that the capacity per ton miles per employee is 13,200. The BOAC figure is very similar to yours; Pan American is 34,200; Trans-World Airline is 39,300, and they in one other respect had figures quite near yours; I wonder if you could explain to us these differences?—(Lord Douglas.) You have seen Note No. 3?

1107. Yes?—That is the note which the Ministry of Transport and Civil Aviation produced which goes some way to explain that. It is all wrapped up in this same business of a short haul airline and the fact that you have stations at frequent intervals and therefore have to employ more people than you would if you were doing long hauls. Indeed, I think that is really the main reason. You cannot run a short haul airline with



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a comparable number of employees to those required to run a long haul airline, for quite obvious reasons. Therefore, we have to employ more people to fly a certain number of capacity per ton miles. It is almost axiomatic, really.

1108. I quite see you have to employ more people. The point I am on really is whether you have to employ so many more people as these figures would show. Swissair, which has an average passenger journey length shorter than the others (it is comparable with yours), seem to do nearly twice as well in this respect, which is a big difference. It is the size of the difference that worries me?—I think it is a most dangerous comparison. The figures are hardly worth, in some ways, the paper they are written on. You have got to look at each airline and see exactly what its job is, how many stations it has to man, how many aircraft it has got and so forth.

Mr. *Albu*.

1109. Do they all do their own maintenance?—There again that is a dangerous question because some airlines do all their own maintenance, others do not overhaul their own engines; we do not. Some overhaul the engines of the aircraft of other airlines. And all these employees go into this figure. For instance, we handle a very large number of foreign airlines at London Airport and elsewhere in this country and we have, of course, to employ staff to do that.

1110. That must be reflected in the revenue?—We handle no less than 26 other airlines. That is reflected in the revenue, of course. We get paid for it and make a profit on doing it, but it adds to the number of employees and may therefore affect our average to quite a considerable degree. That is why I think this is a terribly dangerous set of figures to start comparing the efficiency of the lines.

Chairman.

1111. I thought it was a very useful set of figures to get explanations on. That is what we are here for. Incidentally I am on a point which you yourself in your Report say is very important. On page 10 of your Report you tell us that in the year since these figures you have increased your capacity ton mileage per employee?—It is one thing, if I may say so with respect, to compare yourself with the year before,

but another thing to compare yourself with an entirely different airline with different aeroplanes and a different network, a different job and so forth.

1112. I quite see that. But what I think pleases the Committee to know is that you have made that improvement. This obviously is a factor of some importance and, as I said at the outset of my remarks today, one must realise that in comparing these figures you want explanations of the comparisons in order fully to understand them. But I was perplexed by the bigness of the difference?—C.T.M. per employee has gone up in the latest figures; the figure I have got is 15.19.

1113. What are the significant changes that have enabled you to improve this result?—(Mr. *Milward*.) Increased efficiency, bigger aircraft which certainly do not take more staff in proportion to handle them. Bigger aircraft, of course, have a very big bearing on the question of capacity ton miles per employee. Of course, to us our own performance of capacity per ton mile per employee over a year is of vital importance. That is one of the things we look at more than any other—staff utilisation. But, as my Chairman says, to compare airlines is really quite misleading; we could illustrate that in a very small way. We are at the moment taking on our own engine overhaul instead of Rolls-Royce. Since the Viscount started the Dart engine has been overhauled in Derby by Rolls-Royce. We are now taking that over ourselves. We started some five months ago. We shall have completed the transfer in another year. We shall take on another 300 staff to do it, but the cost per capacity ton mile of doing it ourselves is going to be significantly less.

Chairman.] I think the Committee would probably like to take aircraft maintenance expenditure separately. I will now let other Members of the Committee ask you questions on the other points we have raised today. Mr. Palmer wants to ask some questions on revenue. Then, if the Committee would agree, we will come back to aircraft maintenance expenditure, which I think had better be taken by itself.

Mr. *Palmer*.

1114. I wonder why you are still relatively low on the freight revenue as

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compared with other countries, allowing for this difference in size of undertakings. The French are apparently very high. What is the difference between the characteristics of the two services in the matter of freight?—(Lord Douglas.) There again it is tied up with our short hauls. It pays you hand over fist to send freight by air a long distance, say, across the Atlantic or from here to Australia; but if you are going to send freight from here to Paris it is almost as quick to do it by surface. The amount of time that you gain by sending a wireless set or something from London to Paris is very small indeed compared with ordinary surface transport. Therefore, I am sure that the build-up of the freight traffic of the world will come first of all mostly in the long haul region because that is where you save the time.

1115. Are we anxious to have freight traffic?—Oh, yes; we are. Indeed, our freight traffic is doing pretty well. There is a graph in the Report somewhere which shows our increase in freight traffic. Freight and Mail Ton-Miles. It is page (ii) in these Tables in the middle of the book. You see our freight traffic is going up pretty well after a comparative set-back in 1953-54 and 1954/55. It has been shooting up quite well lately. We certainly want the freight.

1116. And it really pays us, does it?—Oh, yes; it pays very well. (Mr. Milward.) It does not pay us as much as passengers. The rates for freight per kilo are far below that of passengers. This is another little problem we always have to face. It pays us to carry passengers and one of the reasons my Chairman is able to refer to that growth in freight traffic—it is growing now more rapidly than it has ever grown before, about 20 per cent. a year—is that unfortunately the passenger load has dropped and there is therefore more weight capacity for freight because it is not monopolised by passengers. That does not pay us so well, but obviously it is better to sell for freight than not at all.

1117. Why can you not carry freight at night when people do not want to travel?—We do that. The 802 Viscount is designed for that purpose: the seats fold up against the walls, it is

turned into a freighter in about an hour and a half at night.

1118. Is this known to the public? Do you advertise your freight service?—Yes, very much so. We have a Freight Depot in Dilke Street, Chelsea, which is proving extremely popular, where we collect from or manufacturers deliver to. (Lord Douglas.) And we have a freight sales staff, of course.

Colonel Lancaster.

1119. Lord Douglas, could you help me? I seem to remember there was an independent inquiry into it may only have been BOAC a year or so ago, when it was suggested, I think, that there was a superabundance of employed. Did that cover BEA or was it confined to BOAC?—It was confined to BOAC.

1120. Would any of the general recommendations in any way have applied to BEA (I know this is a hypothetical question) had they had a similar inquiry?—That was an inquiry of BOAC's own; it was not an outside body. They inquired into their own maintenance and engineering organisation and came to the conclusion that they had got far too many people. They sent us their report which I gave to my Chief Engineer and told him to do not such an elaborate inquiry but to go into the thing and see whether we were going the same way. He produced a comparison with other airlines which showed that we were really quite good. We were somewhere about the average of all airlines, in our maintenance costs and our maintenance staff.

1121. So generally speaking the findings of that internal inquiry would not apply to BEA in any way?—No. In fact, we are taking on more people at the moment; we have got to for these new aircraft coming along and for taking over our own engine overhaul work. We are rather short of maintenance personnel.

Mr. Ernest Davies.

1122. It seems to me one of the outstanding contrasts in these Tables, allowing for all the reservations which have been made, is that of the KLM compared to the other European airlines. For KLM there is a passenger load factor of 61.5 which is, apart from SAS, the lowest of all the European lines, and yet they succeeded in having the highest return of any one of the European lines given here. Do you know of any special

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factors which make the outcome for KLM so much better on this sort of basis of profitability?—I think, of course, the main reason is that they have some very useful long distance routes. These figures which Mr. Milward was quoting were for European routes where they have had a very low load factor. But they regard their European service as a sort of feeder service for their long distance routes and on that they make their profits. I think if these figures were brought up to date you would see a rather different picture. KLM have had a bad year; they have lost all their Indonesian routes and their load factor, as we have heard, in Europe has been very low. I think you will find that both their load factor and their profit are very well down.

1123. There may be special reasons why their position has changed since this was published; that I understand. But we are comparing these actual figures for 1956 and I was asking are you aware of any particular items in the operations of KLM which enabled them at that time to operate so successfully?—As I say, I think that is the explanation. They appear to lose money on their short haul routes but make a good profit on long distance routes. They have got some very good long distance routes on which they do quite well and get quite a high load factor, and that is the most profitable thing you can have. (Mr. Milward.) I think the concept of KLM which we have in all our minds as being a short haul operator is totally false. If you look at the figures we distributed you will find that KLM have in fact a slightly longer average passenger journey length than Pan American themselves. BOAC, of course, are miles out on a limb at 2,900, but next to that is KLM and they are tied in with Pan American. Both of those are really long haul projects. They do operate a small European network but it is not to be compared with their South African, Far East, Atlantic, Middle East, Arabian, South American and so forth, flights. They are long haul operators, not short haul.

Dame Irene Ward.

1124. This is a terribly small question, but when you arrive at an air station, say at Nice, where all the airlines have their different places, do you all pay the same sort of rent and overheads, or does it depend on the number of staff

you have got? How do you allocate the different charges?—(Lord Douglas.) Of course, in many cases we handle each other's passengers. BEA handles a lot of European operators at London and at places like Nice which you mentioned Air France handles us. We have a very small BEA staff at Nice. But if you say do we pay more than Air France for comparable accommodation, of course, the answer is no. But they would require more accommodation because they are not only handling themselves, they are handling us and probably half a dozen other airlines as well. We do a good deal of mutual back-scratching in that way because, of course, it saves money.

1125. It is based on the space occupied and the staff that are there?—It is the space occupied. You pay a rent like you do for office accommodation. (Mr. Milward.) Nice is a very good case in point; it is such a good average airport. We have very little staff there at all, though when you land at Nice you may get the impression of being handled by BEA. You are not, you are being handled by Air France and the only man you will see there with a BEA cap badge is a supervisor. We always have a BEA staff member, a Frenchman, supervising operations there in case somebody gets into trouble and wants assistance. The rent we pay at Nice is very small, I might almost say negligible. We merely have an office for which we pay rent. We pay our share of that vast concourse and splendid new building there, not in the form of rent but in the form of landing fees for the use of the airport.

1126. Then, to take the London Air Terminal, do you make a profit over the whole thing compared with what Air France and other people handle for us in other parts?—(Lord Douglas.) I think we each make a small profit out of each other when we handle each other and that balances out. But it is quite a small profit; it is done almost at cost price. We naturally do not handle Air France at a loss; we charge them about 5 per cent. (Mr. Milward.) At one time we had an agreement with SAS that neither side would charge the other side at all. I cannot remember whether that still exists, but it illustrates the point that you could do that.

1127. Could I ask one other question on fuel? Does that vary according to whether a country has a special tax, or

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how does that work out?—(Lord Douglas.) There is a special tax in this country on petrol but not on kerosene. We pay a tax and that only applies on flights inside this country. If you fly to Paris you pay no tax; if you fly to Manchester or Glasgow you pay a fuel tax. Different countries vary; some countries have a fuel tax, some do not. And of course the price varies tremendously. The price of petrol or kerosene in the United States is very much lower than it is in this country.

1128. So it would really pay you (only you do not fly there) to fill up in the United States?—If we went there, yes, it would. Of course, your question is a very good one, because our Captains do have instructions to re-fill, as far as possible, at places where petrol is cheapest.

1129. Then it would be better, perhaps, to do that in some other country rather than here?—Yes, that does happen sometimes, if there is a choice. (Mr. Milward.) It does not happen precisely in that way. I think I am right in saying no airline pays tax on international operations at all. (Mr. Weir.) That is so; we get a drawback. If we do pay it, we get a drawback. (Mr. Milward.) If we flew between Rome and Naples we should pay Italian fuel tax, but we do not. On the basic fuel price London is the cheapest for planes in our area. Therefore, out of London all Captains will take full tanks provided, of course, the load permits them to do so, and we will try and concentrate our maximum re-fuelling in London. This question of what we call economy of fuel is worth something in the order of £200,000 a year to us if we can do it successfully. It is a very big thing.

Chairman.

1130. You have just mentioned this fuel point; I noted the point when you mentioned it earlier. It does affect, of course, your domestic line costs?—(Lord Douglas.) Yes.

1131. What is the difference in cost of fuel per 200 miles or some stage, between flying domestic and flying overseas?—(Mr. Weir.) The tax is half-a-crown a gallon, is it not?

1132. I do not know how many gallons you use?—(Mr. Milward.) I did this in relation to our Elizabethans when we were contemplating whether we could

afford to keep them on domestic routes, and I think the figure was that on a return Manchester flight we burn 200 gallons of petrol and at half-a-crown a time that is £25.

Dame Irene Ward.

1133. Is that as much as the subsidy that you, so to speak, give to the domestic route?—(Lord Douglas.) We do not give a subsidy. We are not giving any subsidy.

1134. You did say that Scotland was getting something out of you?—I hate that word "subsidy".

Chairman.

1135. I think to be fair, just for the record, it was not Lord Douglas who said that, it was a Member of the Committee who is not here today?—(Mr. Milward.) Putting it this way, if we used Elizabethans, which we would dearly have liked to have done because they were very suitable for the domestic routes, if we used them on our cheap weekend fares to Manchester, it would take five passengers both ways to pay the petrol tax alone.

Mr. Ernest Davies.

1136. Are you saying that if you had not to pay tax you would have kept the Elizabethans in operation?—Very likely. It would have had a very significant effect on our decision. (Lord Douglas.) Absolutely. We pay round about £300,000 a year in non-recovered taxes on fuel and oil, and practically all of that is in the United Kingdom.

Colonel Lancaster.

1137. The tax on kerosene is much lower?—(Mr. Weir.) Yes. (Lord Douglas.) There is no tax on kerosene but 2s. 6d. a gallon on petrol.

Chairman.

1138. 2s. 6d.?—(Mr. Milward.) For a Pionair operating these domestic routes you can say we pay the same price for fuel for its large tanks as you pay at a roadside pump for your car. There is hardly anything in it.

1139. On kerosene for the Viscount you pay no tax at all?—No.

1140. It is also basically cheaper before the tax goes on?—(Lord Douglas.) Please do not give the Chancellor ideas!

1141. The petrol tax here appears from what you have said to have forced

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you into a commercial decision in running BEA; in other words, to get rid of the Elizabethans which you would not otherwise have done?—I think that is so.

1142. When you are forced to such a decision, I imagine before you take it you discuss the matter with a Government department so that they know what has happened?—Yes.

1143. I do not want to argue the merits of the case?—We have discussed this many times.

Chairman.] It is a new point to me, I have not heard of it before.

Mr. Ernest Davies.

1144. On the question of revenue received from mail, does the Post Office pay for the internal carriage of mail the international rates or a special rate?—A special rate. The international rates are settled between IATA and the EPU every four years, I think it is, or five years; so that is fairly straightforward. Internally we have to negotiate with the British Post Office.

1145. Is the rate that the Post Office pays you comparable to international rates or higher or lower?—It is lower. (Mr. Milward.) It is very much lower, really. We regard it as highly unsatisfactory.

1146. You consider it is uneconomic?—Yes.

1147. And you have had negotiations?—(Lord Douglas.) It is a bit dangerous to say that; I would not say uneconomic. It is unsatisfactory but it is a fill-up load. If you regard it from that point of view, it is worth having. We would rather carry the mail even at a low rate than not carry the mail at all.

1148. What arguments have been produced against your receiving the international rate for the internal routes?—Have you ever tried to negotiate with the Post Office? It is one of the most difficult tasks that I have ever undertaken. They are very tough, it is very difficult to get anything out of them. I have often threatened to say, "Well, we just will not carry the mail at the prices we are offered". But we have never quite got round to implementing that threat.

1149. Are you aware of the position of other airlines when they carry internal mails? Do they receive the international

rate?—It varies in different countries. (Mr. Milward.) I think it is right to say that the small domestic American carriers, North-West and people like that, who live on mail very nearly, get the most enormous mail rates.

Mr. Albu.

1150. That is really a subsidy?—Yes.

Mr. Ernest Davies.

1151. I was wondering what the position is regarding your European competitors?—(Lord Douglas.) I honestly do not know. I suppose we could find out. (Mr. Milward.) There are so few European competitors doing domestic mail; that is the odd thing. The French do it a bit. But we are by far the biggest carriers of internal mail. The Dutch do not run any domestic service at all. They used to but they found it was too expensive an operation and they gave it up. (Mr. Weir.) So far as the French domestic is concerned, we suspect there is an element of subsidy in the internal mail rate, but the French are naturally disinclined to discuss it with us.

Mr. Albu.

1152. You do not know whether the same applies to the larger American national airlines?—(Lord Douglas.) No. They do not now receive a mail subsidy. A year or two ago Congress insisted on showing mail subsidies as separate items. Some of them did get subsidies until recently. Pan American were getting a subsidy.

Sir John Barlow.

1153. Do the other lines carry any internal mail here or do you carry all British internal mail?—They carry none inside this country, nor have they any internal routes.

Mr. David Jones.

1154. I did not quite catch whether you did deal with the point of comparison between international mail carrying and internal mail carrying?—The international rate is settled internationally by agreement between the International Air Transport Association and the European Payments Union who meet every four or five years and agree a rate, so there is no argument about that. All Post Offices pay us that rate for the mail we carry. But the rate for mail inside Britain has to be settled by negotiation between BEA and the GPO.

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1155. How does the one compare with the other?—The internal rate is appreciably lower than the international rate.

1156. How does the rate for mail compare with that for freight?—It is considerably higher. (Mr. Milward.) You mean the domestic rate?

1157. I want them both?—(Lord Douglas.) I have not got the exact figure in my head but we carry mail inside this country at freight rate plus a differential. (Mr. Weir.) Mail differential. (Lord Douglas.) I cannot remember what it is. It might be in the order of 60 per cent. I would rather not have any figures quoted.

1158. In return for that you have to provide accommodation on specific aircraft for mail, irrespective of whether you have potential passengers or not?—Yes.

1159. Whereas with freight you can defer that to a later aircraft if you have got any higher paying passengers?—(Mr. Milward.) It has absolute priority.

1160. In return for that you get a higher rate?—(Lord Douglas.) Yes, a higher rate than freight. I cannot remember the precise figure.

Chairman.

1161. I have one more question on the Table, item 13, the ratio between capital employed and traffic revenue. What importance do you attach to that set of statistics? You are 1·3 which is the same as Air France; BOAC is substantially smaller; KLM is about the same; you are less than Pan American and about the same as Trans-World Airlines. Can you give us some guide as to the importance of that statistic?—I cannot regard it as terribly important. What it means is that we are turning over our capital rather more than once a year which I think is a healthy thing to do. But I would not attach great importance to these decimal points, I do not think.

1162. As you begin to buy even more expensive aircraft then the figure may tend to drop?—It might. (Mr. Weir.) Unless the revenue goes up, of course.

1163. Yes, I have taken account of that?—(Mr. Milward.) It is not, I do not think, a very significant thing because if you buy more expensive equipment, by and large, if you bought the right equipment, your capital requirements will obviously go up but your cost

per CTM in item 10 certainly ought to come down.

1164. But this one is not on expenditure, is it; it is on revenue?—Yes. (Mr. Weir.) This particular comparison is not used generally by airlines. It is the first time I have seen it.

1165. You do not use it as a yardstick yourself?—We would not place much importance on it.

1166. Are there any other ratios or figures to which you attach great importance in running the business of BEA and which are not here mentioned? You use financial statistics as a yardstick to tell you how to help Lord Douglas and Mr. Milward to carry out their duties. Are there any others which we ought to have in mind?—I do not think there are any other figures which could contribute to our thoughts in these matters. The load factors, of course, are under constant attention, not only once a month but almost every day. That is a very good yardstick as to our costs. (Mr. Milward.) Within BEA, of course, as we said earlier, capacity ton miles per employee are vital. They are watched month by month; we have a very tight staff control and it is based on the productivity of the staff as shown in the figure. The only other figure I would like to see here quoted (and it would be very interesting to see it quoted) is the one we quoted for ourselves, average stage lengths. That is a vital one: the miles between landings. It is a yardstick to judge an airline's efficiency.

Colonel Lancaster.

1167. Are there any comparative safety records per passenger miles or the like? Of course, there would be a very considerable variation between the big airlines. That would have some bearing on one's approach to figures of employees and the like. Are there any statistics of that nature which we could have?—(Lord Douglas.) We could get them for you. We have not got them here.

Colonel Lancaster.] I think it would be helpful, because they might have some bearing in one's mind in approaching the various factors that go to make up this schedule of figures.

Chairman.] I did hope we might perhaps at a later date have a statement from you on safety, because that affects the general efficiency of your line, obviously, and it must have some bearing

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on costs. Whether you would like to do that by putting in a paper or answering questions at a later date, I leave to you. I think Sir Alexander Spearman has a question he would like to ask you on accounts.

Sir Alexander Spearman.

1168. I see that the shares at cost plus advances add up to about £1 $\frac{3}{4}$ million?—Which page is this?

1169. Page 77. It is never easy for me to find my way about a balance sheet and I do not know what the return on dividends is in the associated companies?—(Mr. Weir.) We do not get much in the way of dividends. They are shown separately in the Profit and Loss Account. If you turn to page 81 you see there is a dividend receivable from Malta Airways Company. That is the only company which consistently pays dividends from among our subsidiaries and associated companies.

1170. Does that mean there are other advantages?—There are other marked advantages. The main investment here, I think, is that in Alitalia which of course has been of great benefit to us from the point of view of traffic rights. Our position *vis à vis* traffic rights would have been much worse than it is today.

Chairman.] We dealt with that, Mr. Weir, last time.*

Sir Alexander Spearman.

1171. I see the remuneration of the Chairman, Chief Executive and Members of the Board is £23,000 odd. It would seem to a layman very little for the responsibilities involved. Could I ask two questions about it? First of all, is there any other remuneration such as directors' fees of subsidiary companies?—No. These accounts are prepared to comply with the Companies Act. As you know, the Companies Act requires that the full emoluments of directors are shown. These accounts are prepared in exactly the same manner to the same standards. (Lord Douglas.) All our directors' fees of subsidiary companies are paid into the Corporation. We do not touch them.

1172. Are those fees fixed by the Ministry?—By the Minister personally.

1173. Does he fix how they are distributed between part-time members of

the Board and full-time Executives?—Yes, he does. It is in the Letter of Appointment.

Chairman.

1174. And, I think, published in a White Paper?—Yes.

Mr. Ernest Davies.

1175. I have one or two questions about the actual total number of passengers carried. Your number of passengers carried last year increased quite considerably, but at the same time you state in page 18 of your Report that B.E.A.'s share of the total U.K.-Continent air traffic fell from 44 per cent. to 42 per cent. You also state that this was largely as a result of major increases in independent operators' Inclusive Tour and Car Ferry Services. To what extent are these independent operators having an effect on your carriers?—It is a very difficult figure to gauge, but we think they must have a considerable effect. The inclusive tours are largely carried out by the independent operators, although we have done quite a lot of tour work ourselves and are planning to do more. But I think it is inevitable that a certain proportion of the passengers on inclusive tours by air would not go at any other rate. However, undoubtedly it milks away a certain proportion of the passengers from our regular services.

1176. To what extent do you consider that the increase in the number of passengers carried by the independent operators is entirely new traffic and to what extent would they otherwise go by B.E.A.?—It is difficult to say. It means looking into the minds of hundreds of thousands of people to know whether some of the people who go on inclusive tours would have gone by the ordinary services at ordinary rates had there been no inclusive tours. It is very difficult to say.

1177. What steps are you taking to counter that?—We have been inhibited up to this time because the inclusive tour fares that we have been allowed to charge have been tied to I.A.T.A. rates; they have to be a percentage of I.A.T.A. rates. But you may have seen something about it in the Press. At the Cannes Traffic Conference the other day we filed about 18, I think, low inclusive tour fares.

1178. Yes, I think you gave some evidence on that last week. Were you

* Q. 1004-6.

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doing inclusive tours before the independents came into that form of operation?—Yes. We have been doing it for the last ten years.

1179. You are now increasing it substantially in order to counter their competition?—Yes. Well, partly that and mainly, of course, in order to get more revenue. (Mr. Milward.) I think one can illustrate it in this way. During the year which you are looking at on page 18, I would say that the incursion of inclusive tours had a small effect on us, only because it is all summer traffic, of course, and during the summer period of that particular year, which we knew was a bumper year, we made £1 million profit operating a very high load factor. But if you look at the summer just ended you get an entirely different picture. That was traffic which we could certainly have carried on our service without the least difficulty. We lost something like 10 per cent. on load factor. So in a good year it would probably have an insignificant effect, but in a year of depression it has a very big effect.

1180. To what extent would inclusive tour traffic take away from your regular services?—That we do not know. It is very difficult to find out, as my Chairman says.

1181. Then the independents are now operating some scheduled routes also. They are not normally permitted to operate parallel routes to you but they operate some scheduled routes, particularly to the provinces now, I believe. To what extent do you find that is siphoning off traffic from the provinces which might otherwise be fed to London and use your normal scheduled services?—(Lord Douglas.) There again it is very difficult to give a precise answer. I should say very little. They have very few scheduled services and they are not very important from our point of view. (Mr. Milward.) They have done very badly on them, too. I can only think of one which could have an effect, but not a very big one, and that is there is a scheduled service operating between London and Pisa by Eagle which has certainly taken away from some of our North Italian traffic. But, as my Chairman says, I think it is small, it is not a significant thing.

1182. So that the main competition, then, is on the all inclusive tours?—Yes.

1183. Then as far as trooping is concerned, did you do that before the ban?—(Lord Douglas.) No, we have never done regular trooping. We have done a little ad hoc trooping from time to time. But we are not allowed to tender for regular trooping contracts.

1184. No, I know. Then in the same way with chartered operations, you are not allowed to keep planes specially for charter work but you do find that you have some planes which you are able to use for charter work?—Yes, we do. I think you will see in our accounts how much revenue we got from that. (Mr. Milward.) That is shown in Appendix 5, page 58. (Mr. Weir.) Page 78. (Mr. Milward.) Page 58 also shows it. (Lord Douglas.) On charters we made £155,000 during the year ending 31st March, 1958.

Chairman.

1185. That is net revenue after deducting expenditure?—(Mr. Weir.) No. (Mr. Milward.) On the other hand, the Committee will note that in the opposite direction we spent in that particular year £711,000 in chartering other people's aircraft. That in the main was our German internal operations. We were not able to do them ourselves and for a matter of two or three years they have been done for us by charter. In the last month, as from November 1st, we have taken back all those operations into our own network with Viscounts, and as at present all German internals are operated by B.E.A. in its own name, in its own Viscount aircraft, which will certainly give a very big headache to the Americans and French who are our competitors now.

Mr. Ernest Davies.

1186. That was negotiated under the bilateral agreement. Have we a permanent concession in Germany? I know how it arose, at the end of the war, but what is the arrangement now?—(Lord Douglas.) I think so long as the present conditions in Germany persist the arrangement will remain. It stems, as you know, originally from the Military Control and the Germans themselves are not allowed to operate into Berlin; only ourselves, the Americans and the French are allowed to do so. (Mr. Milward.) These are all services into Berlin. We are not allowed to operate a German internal service as between Frankfurt and

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Dusseldorf. When we say German internals we mean Berlin as a focal point going to, I think, seven places: Cologne, Hanover, Dusseldorf, Hamburg, Munich and somewhere else I cannot remember now.

1187. Is it a profitable operation?—
Yes. They are rather low fares but it is extremely difficult to get a fare raise out of a German.

Mr. Palmer.

1188. On this question of independent operation, is it worth having the summer motor car traffic?—(Lord Douglas.) I do not think it really affects us to a great degree. In any case, we have always taken the view that that is a special sort of business not suited to our type of work. We have not got the aircraft to do it and it seems quite a reasonable thing for Silver City and these other people to do it. It is the sort of thing, I think, that independent operators ought to be allowed to do.

1189. It is becoming very popular?—Oh, I think it is. (Mr. Milward.) It is a very big business, mainly at the expense of poor old British Railways and their boats. (Lord Douglas.) We do not come into that. We have told the competitors that.

Mr. Ernest Davies.

1190. The only Colonial Coach service which runs parallel with your routes is the one to Cyprus?—And the one to Gibraltar.

1191. To what extent do you find that your traffic has not been as great as you think it would otherwise have been, as a result of those services?—It has had rather a curious effect in Cyprus. What has happened in Cyprus is that all the Forces traffic—we have a special Forces cheap fare—fly B.E.A.; but the non-Forces traffic tends to fly on the Skyways and Colonial Coach service because our ordinary fares are so much higher.

1192. And you are not allowed to bring your fares down?—We have just been allowed to bring them down to something comparable at night. (Mr. Milward.) This is very recent; it has been a long drawn-out struggle. The Forces fare return Cyprus—London is £60 for both parties, so naturally with our name we carry all the Forces for £60. The Colonial Coach fare has been and still is £80 and ours is £108. Therefore Skyways carry all the civilians. Now we have been

allowed to introduce a night fare at £85 which will be three times per week and we hope that the bulk of the civilian traffic will now come back to us because there is only £5 difference in the fare and we operate at a very much higher frequency.

Chairman.

1193. When you say you have been allowed to, that is where the Ministry control comes in?—(Lord Douglas.) Yes.

1194. And that, if I remember right from last week, is Ministerial control without any statutory authority?—That is right.

1195. Yet you feel yourselves definitely prevented from competing by altering your fares without the permission of the Minister? I am not criticising you?—Short of defying the Minister, which one does not do except on something extremely important, that is the position.

1196. I am not criticising you; it is rather difficult to get the position clarified. As you realise, one of the points that has been discussed on the floor of the House and discussed in responsible newspapers and so on is the degree of control and supervision of nationalised industries carried out by Government departments without statutory authority and with some commercially disadvantageous effects upon the running of that particular nationalised industry. That, I think, is a fair way of summarising the point. I am not suggesting what should or should not be done. I am certainly not suggesting it is right for you to defy the Minister. But I am anxious to establish the real facts of how a great airline like yours works when it is nationalised and when it is subject to the present arrangements between the Chairman and the Minister. I do not think any one of us wants to comment on questions like that; we merely want to establish the facts. So if you will excuse us if we appear to be asking you rather impertinent questions, you will understand why it is?—I would like you to understand that he equally controls the fares of the independents; it is not only the nationalised corporations. He claims the right and exercises the right to control them also.

Mr. Ernest Davies.

1197. Before the Colonial Coach service on the Cyprus route was instituted were you fully consulted in that

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and did you take an opposing view to it?—Oh, yes, very much so. We have all along protested about the Colonial Coach fares.

1198. But were you willing to operate a service at comparatively low fares, at the same fare?—Not at the same fare. We want to bring our fare down below this very high rate of £108 return to Cyprus tourist class. We have for years maintained that is much too high and we have not been given permission to bring it down.

Mr. *Albu*.

1199. How is it that is so much cheaper?—We are prepared to run a return service to Cyprus at a comparable fare.

1200. You said you had not been able to do so. When Mr. Davies asked you whether you were willing to run a service at a cheaper fare you said, you would like to run it cheaper than your current fares. Why was it at that time you did not think it possible to run it, or you did not wish to run it, at the same fare as the Colonial Coach service?—It is a little difficult to say exactly what we were prepared to run it at. We thought the fare to be charged was too high. I do not know that we ever actually said we were prepared to bring fares down as low as the Colonial Coach. (Mr. *Milward*.) We would have done. We were quite prepared to run an £80 fare. It is a high revenue rate route and it was not very difficult for Skyways to undercut our fare at £108. When the controversy arose we said we were prepared to operate at £80 and we compromised in the end by having night services at £85 which is satisfactory.

Mr. *Ernest Davies*.

1201. But the quality of the Colonial Coach service is not as high as yours, presumably?—(Lord *Douglas*.) It is fairly good on Cyprus. They are flying Hermes and they only stop once on the way, whereas we stop twice.

1202. What about the seating capacity? Is it as roomy?—It is comparable. (Mr. *Milward*.) It is a bit tighter. They do not provide anything very elaborate in the way of meals. They are adequate but I do not think as good as ours. The main difference is they use the obsolescent aircraft which they bought pretty cheap, and handling

charges are certainly far less than for a Viscount.

Dame *Irene Ward*.

1203. On this Ministerial control, who would advise the Minister? He cannot do it off his own bat?—(Lord *Douglas*.) Of course, he has got suitable staff on the Civil Aviation side.

Dame *Irene Ward*.] How have they got their experience?

Chairman.] I think we have to be careful not to ask Lord Douglas questions we ought to be asking Mr. Watkinson or the Permanent Secretary.

Dame *Irene Ward*.] It was just as a matter of interest, because it looks like a sort of duplicate arrangement.

Chairman.

1204. I think that properly could be put to the Minister?—I do not want to be misunderstood on this. By and large I think the Minister has a very efficient staff and our relations are very friendly; we get on with him very well. Naturally, we have our disputes and our differences but I would say that the atmosphere is good.

Mr. *Ernest Davies*.

1205. To get the record straight, should it not be stated that the Transport Advisory Council recommends to the Minister whether licences should be granted for the operation of these routes in the first place?—That is right.

1206. It is an independent body to which applications are made?—Yes.

Dame *Irene Ward*.] It is awfully interesting to know that there are such a lot of people in different places who have got the knowledge and are able to offer advice.

Chairman.] I am sure it is. I was merely making the point from the Chair that it is rather hard to ask Lord Douglas to comment on arrangements inside the Ministry of Transport and Civil Aviation which we can easily go into, and will go into, on another occasion.

Mr. *Ernest Davies*.

1207. Could we just round off the independent point by asking about the Gibraltar route? Could Lord Douglas say very briefly how their experience on the Gibraltar route in competition with

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the Colonial Coach service compares with their experience in Cyprus?—Their frequency is very low. At one time it was once a month, now it is twice a month. It is done by Huntings with Vikings, I think. We think that is a comparatively small thing and our load factor to Gibraltar is pretty good taking it by and large.

1208. Do you run a daily service?—Yes. (Mr. Milward.) And more: daily and nightly. We operate about ten times a week and nobody can compete with that on the basis of once a fortnight. I think it carries mainly troops and their families.

Sir Alexander Spearman.

1209. As the Minister can interfere with fares in independent companies, which I had not realised until you said just now, what is there that the Minister can interfere with in the Corporations which he could not interfere with in an independent company, except apparently remuneration of the directors?—(Lord Douglas.) I do not know that there is anything very much. The application for routes goes to the ATAC who submit their recommendations to the Minister. He is the final authority. He can accept or not accept their recommendations. He likes to be consulted about the fares and may put his oar in if he does not agree with what is proposed. (Mr. Milward.) On safety matters, through the ARB, the Air Registration Board, he has very wide powers. Licensing of pilots is of course done by the Ministry; that could be looked upon as an interference but nobody would question it at all. I cannot think of anything else. (Lord Douglas.) And finance, of course; he has statutory powers there.

1210. Those would therefore be the main differences between you and the independent companies?—I think it would be.

Mr. Fort.

1211. And he can interfere with regard to the machines required?—Not directly because that stems from finance. It is up to him whether he recommends to the Treasury that they should allocate capital for us to buy aircraft, and he could say, "Well, I will not recommend the Treasury to let you have another £20 million if that is the aircraft you are going to buy". That

would be his line if he wished to do that. That is how I think he would exercise his authority.

1212. And has done?—I do not think he would tell us what sort of aircraft we could buy or what we cannot buy, but he can say, "I am not going to recommend the Treasury to give you the money to do that", which he has the right to.

1213. And has done?—No, it did not come out in that way in the end.

1214. There was an effort to do it?—Well, you are making it rather too simple.

1215. I mean, he certainly could not have treated independent companies as he treated you in the matter of the type of aircraft?—No. An independent company would go and spend its own capital, obtained by other means than we have, on any sort of aircraft it wanted.

Mr. Palmer.

1216. Those independent companies are buying secondhand?—No, they are buying some new Viscounts.

Sir Alexander Spearman.

1217. That is where they have an advantage?—(Mr. Weir.) I do not think so, because if an independent company wants to buy American aircraft from America it would require to get Treasury approval.

Chairman.

1218. In that, they are in the same position as you are. You have got to get an import licence?—We have got this further obligation to satisfy the Minister.

1219. Which we went into last week. I quite see the point that Lord Douglas has made about the Minister having *de facto* control over the independent airlines' fares. He has been giving us an example of the effect of the control, whatever the purpose of the control. The effect of the control is to reduce your competitiveness in the Cyprus route, and to increase therefore your costs on the route by reducing the load factor, and therefore to affect your commercial operations. I do not know whether you know (you are probably not the right person to ask any more

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than you were on the last question), has there been a case to your knowledge where a similar thing has been done to anybody else other than BEA, affecting their competition as well?—(Lord Douglas.) Certainly you must ask BOAC that. They of course have had more trouble over the Colonial Coach services than we have. We have only had these two.

1220. I was thinking of you?—With us, no, only Cyprus and Gibraltar. You mean, generally speaking? On our international affairs the Minister has always accepted up to now the recommendations that have come out of the IATA Traffic Conference. He has consulted us from time to time about the rating of domestic fares. (Mr. Milward.) I would just like to add this. There has been a lot of talk on this matter of interference which has given the impression, may be, that we get a lot of interference from the Ministry. As my Chairman say, I and my staff (Cyprus was an exceptional case which has now been put right) get the very greatest possible help from the Ministry on matters of traffic rights and the now perpetual battle against foreign competition and so. They are most helpful and our relations are excellent.

1221. The Cyprus position is now right?—Yes.

1222. You can do what you want to do; you are doing what you want to do? Your load factors will therefore come back into good trim and you will be working as economically on the Cyprus route as you ever could be if you were free of all this?—We are never satisfied. We complained when we were given the £85 fare because we said we would like to have an £80 fare.

We did not put our heart in it because we think we are going to be all right.

Mr. Ernest Davies.] It has taken quite a few years to put it right.

Chairman.

1223. I have got all the thoughts in my mind about protecting the poor man who is paying the fare. Are you really saying that you could charge only £80 if somebody did not make you charge £85, and that you would on that Cyprus route contribute a profit to your general funds? Is that your argument when you say you want to drop the fare to £80?—We did put it in that way. (Lord Douglas.) It was not quite that. We would like to have brought the fares down earlier and we think we would have carried more people at a lower fare and thereby had a better financial result. That is what we are saying.

1224. And now you are further saying that now you have got down to where you wanted to get two or three years ago, you might want to go further down?—(Mr. Milward.) That would have to be proved. If we were given a choice now I would recommend to my Chairman that we remain at £85 because from the taxpayer's point of view we may do better that way. We get an extra £5.

Dame Irene Ward.

1225. I would not like to think you would get more passengers if you dropped from £85 to £80; I do not think that is very much?—(Lord Douglas.) No, it is not. I think that is what Mr. Milward is saying; it is hardly worth bothering about. (Mr. Milward.) To a civilian with a wife and two children it is £20; it is not inconsiderable. (Lord Douglas.) We were talking about £108 before, as compared with £80.

WEDNESDAY, 26TH NOVEMBER, 1958.

Members present:

Sir Toby Low, in the Chair,

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Fort.
Sir Keith Joseph.

Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

Marshal of the Royal Air Force, Lord DOUGLAS OF KIRTLESIDE, G.C.B., M.C., D.F.C. (attending by permission of the House of Lords) Chairman, British European Airways, further examined; Mr. A. H. MILWARD, O.B.E., Chief Executive, British European Airways, called in and further examined; Mr. B. S. SHENSTONE, Chief Engineer, British European Airways, called in and examined.

Chairman.

1226. I think we can perhaps start with a few questions on safety and then come to aircraft maintenance expenditure at the end. We have since we last met received from you a number of useful papers. Amongst those is a document entitled "Comparative figures. British European Airways", which shows that the passenger fatalities per 100 million passenger miles in BEA was just slightly above the average of all the world's airlines. Then it goes on to show in paragraph 2 that BEA's total number of landings was considerably higher than any other of the airlines quoted. From that I think the Committee would conclude that in your view the number of landings, and indeed the length of stages, is an important factor for us to consider when we are looking at safety statistics?—(Lord Douglas.) Yes; because it is fairly obvious that it is at landing and take-off you get the accidents, not during progress through the air. That is why we think that is a factor which ought to be taken into account.

1227. Is it a fact that of your unfortunate accidents the vast majority take place at landing or take-off?—Yes. Of course, that does not apply to the latest unfortunate one we have had near Naples. But apart from that one, I would say over the last five years they have all been landing or take-off accidents.

1228. Of those accidents at landing and take-off some, one imagines, will be due to human error, human misjudgment, and others may be due to defects in the airplane; would that be right?—Yes.

Some are due to human error and some to defects, and some are due to both, a technical defect which induces the captain to make a mistake.

Mr. Fort.

1229. In view of your latest accident and the increase in that type of aircraft, collision in mid-air, with the two bad ones in the States and that shocking one at Washington four or five years ago, do you anticipate that this type of accident, mid-air collision, is going to be an increasing factor in the danger of flying? If so, is it one which it would be possible to overcome by improved methods of navigation and control?—Yes. I certainly think it is liable to be a rather more serious factor than in the past, on account of the obvious reason, increase of speeds. But I think we can mitigate the effects of that, not only in this country but in all countries, if ICAO establishes the right remedies. We believe in BEA—we have said so and we have told the Minister, we have told IATA and everyone else, and most people agree with us—that what we want is first of all a unified military and civil control, one man controlling both civil and military aircraft. We think that is immensely important. The other thing is that in order to enable the man to do this we should have complete radar coverage throughout the length of British airways so that aircraft travelling along and across the airways can actually be seen on the radar screen and the controller can take appropriate action.

1230. Is there any resistance to that either from our own or other Govern-

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ments or from the other airlines?—No. The only resistance, of course, is the money question. It would be an expensive thing to establish a more positive control. I think there is some resistance on the part of some air forces to one unified control of civil and military, but I think that is dying away; it has become so obvious now.

1231. Is the financial difficulty on the military or the civil side of aviation?—Of course, it depends in whose hands you place the responsibility. I think it ought to be on the civil side and therefore the financial pressure would fall on the civil side, I think, naturally.

1232. In your experience is each accident, whether a mid-air collision or a landing or take-off accident, followed by a falling off in passengers either on the route where the accident has taken place or generally throughout the bookings of BEA?—It is extraordinary how little effect it seems to have. (Mr. Milward.) I think we might say that after the Anzio accident the other day there was no noticeable drop in bookings on that route or any other. Six years ago BEA would have said something quite different. An accident then was, perhaps, followed more by a sharp drop in bookings.

1233. Is that also the experience of other airlines when there are accidents, that it is now having no effect on the bookings?—It is difficult to say of other airlines but it is certainly having a much less marked effect than it has had.

Chairman.

1234. The statistics you have given us show that the United States domestic lines have a very low record of passenger fatalities. You have been unable to give us the statistics showing the number of landings that they have. What is your explanation?—(Lord Douglas.) I think that the United States airlines are very efficient, the larger ones particularly. I think they have the best sort of radio aids and bad weather facilities of many countries in the world.

1235. Are those radio aids airborne or ground radio?—Both; it was ground aids particularly I was thinking of.

1236. I notice in the Pan American Report they take credit for the fact that their entire fleet of D.C. 6's and 7's is

fully equipped with airborne radar?—Yes, weather radar.

1237. What is your position on that?—All our new aircraft will be equipped with weather radar.

1238. Will that affect safety as well as comfort?—Yes, I think to some extent it will. It will keep aircraft out of really turbulent bad weather, but it is chiefly for the comfort of the passengers. (Mr. Milward.) Mainly it is the question of the comfort and avoiding damage to aircraft. That is a very important thing. I cannot recall a case in which BEA has had an accident through bad weather when en route; but we have had aircraft damaged. We had one this summer in a hail storm so badly damaged it was off service for seven weeks, and certainly the passengers got a very rough time of it.

1239. So radar is more a matter of obtaining efficiency and comfort than it is of safety. Lord Douglas mentioned the importance of general equipment from the safety angle in the United States. Where do we fall short here in Europe?—(Lord Douglas.) I do not think we fall much short in this country; we are pretty good here. But in some of the other European countries standards are not nearly so good; especially down in the East Mediterranean and when you go over to Poland and places like that, the radio aids are somewhat sketchy in places. Of course, the U.S.A. are doing just what I have advocated this minute to Members of the Committee. They have taken a definite decision to put all control under one unified hat and they are establishing radar coverage of their airways. But it is a very expensive programme. It is going to take them a number of years to do it, but they are definitely starting.

1240. Would your feeling be that even allowing for the good figures here of the United States domestic airlines, if you were to take the passenger fatalities per passenger landings your record would be as good, if not better than, other lines?—It would certainly look better than it does on these figures here, because if you take the United States domestic airlines of course there are some U.S. domestic airlines which are of a comparable pattern to ours; Capital Airlines is one but when you take the big three, that is

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[Continued.]

American, United and Eastern, they are flying quite long routes and long sectors.

1241. In these accidents connected with landings you said that some would be due to human error, some to faults in the airplane and some to a combination of both. Is it possible to give us any idea of the proportion that goes to each of those three?—I do not think I could give you it without having a report from my Accidents Committee.

1242. I imagine that you keep a watch over these points to see that training and personal handling of your pilots deals with the one and that your maintenance schedules deal with the other?—We are doing that all the time. We have got this Committee that does nothing else. Every accident is investigated very closely by ourselves, and of course in cases of fatal accidents by the Ministry. We have the most intensive scrutiny of every accident.

1243. Are there any steps that you have taken recently as a result of accidents which you would like to mention to us as an example of what you have just said?—(Mr. Milward.) Yes. I look upon it as one of my most important jobs in the Corporation, watching this particular aspect. We spend an enormous amount of money and time on the accidents because, as the Committee will see, of our tremendous number of landings and take-offs. It is vitally important that we should have a good safety record. In fact, in some ways we have to have a much better safety record than anybody else because of this disproportionate number of landings and take-offs. One thing we have done recently is to strengthen our Air Safety Committee very much by bringing in more people. We have put one of our Board members as Chairman of the Air Safety Committee with direct responsibility to the Board. We have stepped up our training of captains in every sense and quite recently we had a week, we called it a symposium, of our senior captains away from BEA on a residential course, in which we did nothing but examine every aspect of safety we could think of. Mr. Shenstone, our Chief Engineer, comes in fully in all these accident investigations because, as my Chairman said, I think we have come to the conclusion that every accident has at least two if not three causes basically. There is usually an

element of human finger trouble and nearly always, going into it, we find there are other causes, two or three things building up causing an accident. As my Chairman says, we do believe that a good deal of the safety of the American airlines is due to effective landing aids. One significant thing is aerodrome lighting. We believe that (not in our case) two or three accidents in civil aviation recently, including one in America, have been caused by landing approach lights. It is that sort of thing in which there is still a deficiency in Europe, even in parts of this country. Some of our Highlands and Islands routes have inadequate lighting. That we will take up with the Ministry. But in general, over Europe there are quite a number of places where we are not fully satisfied with the landing aids.

Sir Keith Joseph.

1244. Could I ask if you know how many of the accidents were in fact not in landing or taking off, other than the recent Anzio one?—(Lord Douglas.) I have not got the figures with me. (Mr. Milward.) Very few.

1245. But they are far more likely to produce total fatalities and therefore more serious from the aspect of human life, perhaps, than the landing and take-off ones?—(Lord Douglas.) Yes. It happens so rarely. The only other accident that happens in flight, other than a mid-air collision, would be some major catastrophe. (Mr. Milward.) Or due to fatigue like the one that occurred about eighteen months ago, which you will remember was the subject of a public inquiry, being caused by bolt failure in the flap mechanism. That on the face of it was a landing accident but it was a case where the captain had no control at all.

1246. In the Ministry's memorandum* the U.S.A., admittedly non-domestic, have had the largest number of fatal accidents, though because of the number of passengers the proportion comes out very well. Could I ask whether there is a contrast between the United States domestic and the United States international?—(Lord Douglas.) I have not got the United States international figures here.

Sir Keith Joseph.] I am assuming that the memorandum is international.

* Not published.

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[Continued.]

Chairman.

1247. I have assumed it is the airlines of these countries whether they are flying domestic or international, both?—(Mr. Milward.) It does not say.

Sir Keith Joseph.

1248. No?—I think that is the total.

1249. I wonder whether this re-inforces what Lord Douglas was saying of the higher quality of American landing aids and communications and the effect of the lack of that high quality on their international routes?—(Lord Douglas.) Yes.

Colonel Lancaster.

1250. Are safety regulations under domestic control or international control?—Safety regulations are under domestic control, the Minister of Transport.

1251. Do they vary very much between the major operating countries?—There is a great variety between countries. You find it in Europe very much so.

1252. But as between ourselves and America, for instance, would there be any great variation?—Between ourselves and America there is not any very great significance, except I would say by and large, as Mr. Milward says, my impression is the American aids are more technically effective than ours. I think they spend more money on them.

Mr. Fort.

1253. Would it be fair to say that as far as Heath Row itself is concerned it is the finest equipped airport in the world; I have certainly heard pilots—and not British pilots—say that of it? Would that be a true comment?—I think that would be a fair comment. London Airport control is very good indeed.

1254. So it is on the outlying airports in our own country?—Yes. As Mr. Milward mentioned, the Highlands and Islands are a bit ropey.

1255. But not any of the major centres of traffic, Edinburgh, Glasgow, Manchester or Belfast? They are well equipped?—Edinburgh is not so well equipped as we would like, but that unfortunately is not our responsibility. It is an Air Force aerodrome. We have asked the Ministry of Transport and Civil Aviation to consider taking it over.

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Chairman.

1256. From what point of view is it not well equipped?—It has not got GCA. (Mr. Milward.) It has not got ILS at the moment and it certainly has not got GCA. There is a very wide variation as between the major airports in this country. You have classed them together, but in fact they are very different. Belfast is not particularly good; it also has a bad weather record. Edinburgh is not particularly good. Glasgow is better, and so on. It is really not possible to draw a line through the airports in this country and determine a standard, but I would certainly agree, and our pilots would certainly agree, that not only London Airport but the London Traffic Control is the best in the world; it is certainly of a very high order.

1257. So we have got the equipment to do it but we do not do it everywhere?—It is a matter largely of money, very big money, too. It has got to be concentrated on places like London Airport because of the traffic density.

1258. Can you give any indication as to the cost of putting this country under a complete radar system for flying purposes?—(Lord Douglas.) I would not like to hazard a figure. (Mr. Milward.) I believe the Minister mentioned £5 million as a start to extend the radar coverage of this country. But the radar coverage of this country is infinitely better than any other country to which BEA flies.

Sir John Barlow.

1259. Would you say it is better than the United States as a whole?—The London traffic control zone is nothing to complain about at all. I am making a distinction between London and other places.

Mr. Albu.

1260. I understand you to say that the airport at Edinburgh does not belong to the Ministry of Civil Aviation?—(Lord Douglas.) No, it does not. It belongs to the Air Force. It is what we call a common user aerodrome. The RAF is responsible for radio aids and for traffic control and the controllers are RAF personnel.

1261. This really comes under your heading of wanting to get the whole of the ground control under one authority?

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—Yes. (Mr. Milward.) Discussions are going on at this very moment on this subject, and I am pretty sure in the near future it will become a civil responsibility.

1262. I have rather forgotten the history of the last five years, and I cannot remember whether these figures for the five year trend and the last year are due to a number of accidents in one year or for one type of aircraft for one particular reason or whether they were in fact spread over the five years. They could have been brought to this level by one or two special cases, could they not? I cannot remember whether there were bad accidents at a particular time during this five year period?—(Lord Douglas.) I am speaking from memory, but I think they have been pretty well spread, except that we did have one rather unfortunate year. (Mr. Milward.) The year before last. (Lord Douglas.) We had three, I think, quite bad accidents inside a short period.

1263. Were they due to one type of aircraft or to one cause?—No. One was this accident of the Viscount Mr. Milward has referred to, where it was due to the failure of a bolt and the flaps gave way. The unfortunate pilot could not do anything. (Mr. Milward.) There was the Munich accident which was a take-off accident, you remember, with the Manchester United Football team. In general, I think, no BEA accident is ever due to the same cause and very seldom is there the same type of accident in any sense. It is this business of correcting one thing and something else turns up which you had not thought about. I am sure Mr. Shenstone could add to that as Chief Engineer. There is no common run through our accidents which would enable one to say that it is pretty well the same cause in any sense.

Dame Irene Ward.

1264. Could I go back to the question of aerodromes? Do I understand that, taking it by and large, the arrangements and the conditions of the aerodromes are better and safer for civil flying than they are for service flying? Am I right in making that deduction?—(Lord Douglas.) Yes, I should think that is, by and large, true.

1265. With regard to what you have said about money for providing the necessary equipment, have you applied

and been refused?—You can hardly say we have applied and been refused. I think one could say that the Ministry are as keen as we are on improving these facilities, but of course they do find trouble in getting the money. They draw up the programme which has to go through the Treasury and has to be approved, and the result is they do not get along as fast as they would like to do. There is a committee, of course, that sits on all this and on which we are represented and BOAC. They draw up a programme of work, the Ministry bend their wits to getting money to do it and they do not always succeed in getting all they ask for. That is the sort of way it works. There has been no case of my writing to the Minister and saying I must have this, that and the other thing, and the Minister writing back to me and saying No, you cannot; it does not work that way.

1266. Perhaps this is an absurd question, but balancing the results of the accidents, looking at it now from a financial point of view, would it perhaps not have been an economy if we had spent the money; or were the accidents not really due to the conditions of the aerodrome or lack of equipment?—I do not know that money is a tremendously important thing, because of course the insurance companies are the people who suffer; we do not suffer and nor does the Ministry. But what I am concerned about is the question of the safety of human life. I do not like the thought that because something could be done which was not done, lives might have been saved.

1267. I was really including everything?—(Mr. Milward.) I think this is a difficulty. We are really much more concerned about the countries to which we fly outside the United Kingdom. Again speaking from memory, I cannot think of an airport accident, you might say, which has occurred in this country for a very long time. You find them elsewhere. Munich was a very good case in point. As my Chairman says, we are always asking the Ministry to go on providing us with additional facilities and this is a thing which we need as aviation goes ahead. A very simple illustration is that the landing aids have in our view been sufficient at the Highlands and Islands while we have been operating,

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and still are, Dakotas which have an approach speed of some 80 knots. It is a very different matter when you start substituting Viscounts where the approach speed is 110 knots. So this is a continual progress and we are really looking now for better landing aids than we found acceptable some years ago.

Chairman.

1268. Are there to your knowledge, taking the last five years, any accidents in which BEA has been involved which were due to the lack of equipment at British airports?—(Lord Douglas.) There was the ambulance one. (Mr. Milward.) We lost an ambulance, a Heron, at the Island of Isla, I think, a little over a year ago which was again a combination of things. You know the ambulance plane operates a mercy flight very often, and pilots are first class people who will always try and fetch in a patient. I think one could say that had the landing lights at that airport been better that accident would not have occurred. I do not think I would be prepared to blame the Ministry for that because you could equally well say that the pilot should not have operated. But it is a case, and a very rare one, where we have had an accident. The only other one I can think of was the Viscount at Belfast, Nutts Corner, some five years ago which crashed at night on the approach. The Court, I think, returned almost an open verdict; we do not know what happened. It is my opinion—this is purely an opinion—that it could have been something to do with the approach lighting. But it is a very rare occurrence in this country.

Mr. Blyton.

1269. Would it be fair to say that one improvement could be that of the fire service at airports?—(Lord Douglas.) Oh, yes, I think so. (Mr. Milward.) It is certainly a deficiency on many aerodromes abroad.

Mr. Palmer.

1270. Would it be too much of a generalisation to say that the majority of accidents are due to inadequate ground facilities at foreign airports?—(Lord Douglas.) No, I think that would be going too far.

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Chairman.

1271. It may be that my memory is at fault. When an Inquiry is finished there has usually been found, as you indicated to us, a combination of factors which belong really to the fields of human error and something in the airplane for which you are responsible, even though it may be a defect due to fatigue or something to do with the manufacture. But I do not recollect (correct me if I am wrong) any accident inquiry to which publicity has been given, other than the Nutts Corner one, at which comments were made on the equipment at airfields. That is the impression I have got in my mind. I want to know whether it is right or wrong?—I think that is a fair statement. Apart from these two Mr. Milward mentioned, I cannot recall any accidents within the last five or six years that one could say were due to inadequate ground facilities and so forth at the airport, certainly not in this country. (Mr. Milward.) Again I think one should say that a lot of our effort in asking for better facilities at these airports is not really quite so much on safety grounds. We have to take care of what we have got at these airports on safety grounds. We fix our operating minimum accordingly. What we really want is better facilities so that we can step up the operating efficiency and have less irregularities due to bad weather etc.

Mr. Palmer.

1272. You mean that you make allowances for these inadequate ground facilities?—Yes. We set a different minima at every airport throughout the world to which we fly. (Lord Douglas.) It depends on the local conditions.

Dame Irene Ward.

1273. Could I take you up on one point; it goes back to the question I asked before, which was dealt with. If you had, then, better facilities to make your services more regular when there was bad weather, would it then be easier to ensure that you make your profits?—Undoubtedly. Irregularity is very expensive; you have aircraft landing away from the base, stranded all over the country. We have been having it these last two or three weeks in a very big way.

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1274. Can I put the same question I put before on safety? If the money were spent on improved equipment, the Treasury might not benefit but would you benefit?—Undoubtedly, yes.

Chairman.

1275. As a matter of practice today do you pay higher landing fees at airports which have complete equipment of the latest type, air landing aids, radar and so on, than you do at airports like Edinburgh?—Landing fees vary remarkably in different parts of Europe and, indeed, in this country, but I cannot say that they are particularly related to the excellence or otherwise of the ground aids. It is very often related to the potential profitability of the airport or the unprofitability of it. (Mr. Milward.) No, I do not think we ever charge for the facilities available. We sometimes wish we had that aid known as FIDO. If somebody put FIDO into an airport and then charged for using it, although we know the charge would be extremely heavy, it is almost certain to pay us. The November results of BEA are going to be significantly worsened by the prevailing fog of the last few weeks. So it is a matter of very great concern to us financially to get better facilities and greater regularity. Of course, the traffic does drop off very much once people believe, even though they believe wrongly, that their regularity is going to be affected. That is very significant on the domestic services where a man will go on the night train to Glasgow because he believes that he is going to get there on time whereas he believes, perhaps wrongly, if he goes by BEA he will not.

Mr. Blyton.

1276. On the question of safety, could Lord Douglas tell us if it is a condition that at least one member of the crew should be trained in first aid work?—(Lord Douglas.) They all are trained in first aid work, but that is actually one of the qualifications the stewards and stewardesses have to have before they are taken on. A stewardess has to have nursing qualifications or at least the Red Cross or St. John's Ambulance certificate. But the pilots and the radio officers do a certain amount of first aid too.

Chairman.

1277. Mr. Fort asked you a little earlier about the effect of your safety record on the number of passengers who wished to fly by BEA, and I understood you in answer to say that so far as you could see there was no observable effect at all. But you would say to us, would you not, that there is a limit beyond which you cannot go in accident rate? I want to know if my impression is right. Perhaps one ought to take more note not of the large number of fatal accidents in any one accident but rather, when you compare them with the number of passenger miles flown, the almost infinitesimal number of accidents there are at present. I imagine you would say to us in further extension of your answer to Mr. Fort, that any airline—I am not suggesting yours, but any airline—that had a bad safety record would at once feel that in its revenue?—Well, that is what we have been saying, really. We have not noticed an obvious falling off in our traffic after one of these fatal accidents.

1278. But is not that because it is generally known you have a good safety record?—Well, I hope it is. (Mr. Milward.) We should fully agree that if you have got a good safety record you can have an accident without an appreciable effect on your revenue. But an airline with a bad safety record will never make a commercial success of it at all.

1279. Now can we turn to aircraft's maintenance expenditure. We have got a paper actually put in by BOAC which I think you have seen, which shows the aircraft maintenance expenditure of various airlines as a percentage of their traffic revenue.* The figure given for you is 18·7 per cent., but I believe that you wish to reduce that for the latest year to 16·5 per cent.?—(Lord Douglas.) Yes.

1280. Even taking that reduced figure which is about equivalent to the Pan American and Trans World Airlines, it is above KLM and above the Scandinavian airlines and a little below Swissair. What is the reason, in your opinion, for the difference in these percentage figures between the various airlines?—I think I would like my Chief Engineer to answer. (Mr. Shenstone.) It is very diffi-

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cult to say much about a 1 or 2 per cent. difference because that can be buried in the sort of way they do it and some airlines, for instance, do a lot of outside work, particularly SAS; they, no doubt, can pile overheads on that and thereby make their actual airline work a little cheaper. KLM does that also, whereas I think most of the others do not. It is possible Air France does, but obviously not with very good effect. So that I should think the 16·5 per cent., if you have no outside work which will help you with the airline work, is very close to the low level expenditure on this.

1281. In your case 16·5 per cent. figure as given to us is after you have taken over the maintenance of the Dart engine from Rolls Royce, is it?—(Lord Douglas.) Not completely, yet. We have made a start.

1282. It is after you have made a start, so that figure will go up when you have completely absorbed all the work?—(Mr. Shenstone.) No, it should go down because the other figure includes the cost of the Dart at Rolls Royce. (Mr. Milward.) 16·5 per cent. includes everything.

1283. It goes up? The relevance of your observation is that the figure goes up or down in accordance with the efficiency of your maintenance organisation?—(Mr. Shenstone.) Yes.

Mr. Albu.

1284. What at present is the proportion of maintenance overhaul you do yourselves, and what at present is being done by Rolls Royce or any outside firm?—At the moment practically all our engines are done outside, but we are just beginning to bring the Dart engines in; so that includes practically all the engines done outside. We find that we at the moment do approximately 35 per cent. of our other work outside. So the large majority of that is engines. This is mainly because we have not sufficient workshop area to do the work inside. But, as you know, our base is being expanded and we shortly will have sufficient area.

Chairman.

1285. Before you decided to take the Dart back from Rolls Royce and do it in your own workshop, you must presum-

ably have worked out what financial gain that would bring to you?—Yes.

1286. How much cheaper do you reckon you can do it in your base than Rolls Royce?—(Lord Douglas.) The figure I have in mind is that for the Dart engine in the 700-type Viscount which is our first step, we shall probably be able to gain at least £200,000 a year by doing it ourselves.

1287. What proportion of the total is that? Figures may mean anything?—We are spending about £1,250,000 on engine overhaul altogether; that includes certain piston engines apart from Darts. That gives you an idea of the amount that is involved. We hope to take all that in ourselves within the next two or three years. (Mr. Milward.) I am not sure the Committee appreciate this, that in the 16·5 per cent. there is practically no allowance for our doing our own engine overhauls at all, because we have only just started. It is an infinitesimal proportion; in a year's time it will be most of our engines.

1288. That you say will reduce that figure?—Yes, I hope quite substantially.

Mr. Albu.

1289. That includes, I suppose, transport of engines to Rolls Royce?—(Mr. Shenstone.) Yes. It includes the capitalisation of extra engines which are always on the way between us and Derby.

Chairman.

1290. In this £200,000 is included the cost of transport and the cost of extra engines necessary because of the longer time taken by having them done in Derby instead of at your own base?—Yes.

Mr. Albu.

1291. One of the reasons you give for a fall in maintenance costs is the increase in flying hours between checks on engines, or is it on aircraft as a whole?—It is on them both.

1292. You give these figures on page 32 of your last Annual Report. I am just looking at these charts you have given us,* page 16 of which shows that the total engineering costs of the Viscount 701 have in fact over the last two years been rising, and so have the costs per hour, I think, given on the

* Appendix 35.

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next page. I do not know whether this is due to recent modifications?—It is.

1293. And this has more than balanced the increase in the period between checks?—Yes, unfortunately it has. We have had a great deal of very expensive work to do in the last two years.

1294. It was partly that flap trouble?—That was a small part; the main factor is fatigue and all the spars which we have had to change.

1295. That is why you say, of course, you get the benefit on the later model of the Viscount because in fact the work that you have had to do with this increased cost over the last two or three years is now done?—Exactly. (Mr. Milward.) This is a very good example of the cost to an airline of introducing a revolutionary type of new aircraft. The main spar fatigue occurred in the first 35 aircraft of which we have 25. Anyone buying the Viscount today profits enormously by the cost to us of this main spar modification.

1296. So there is a great incentive to carry on with a new aircraft based on the same original design?—If it is a good design. I think Mr. Shenstone could tell you that in fact the design of the wings of the Viscount is now obsolete and the Vanguard is being designed on a totally different principle to avoid this very type of fatigue. (Mr. Shenstone.) That is correct.

1297. Does that mean you are going to start again?—Not really. It is starting again in the sense that it is a new airplane, but it is making an airplane that has none of the known faults of the Viscount and is not based only on the experience of Vickers but on the experience of many other operators all round the world in other types of aircraft. No doubt it will have some of its own faults.

1298. But you expect to start lower with maintenance costs than you expected to start with the Viscount?—Oh, yes.

Chairman.

1299. On the Viscount 701, if I may interrupt, on the next sheet which is Reported Defects, by Aircraft Type: having shown us that the cost of looking after the Viscount 701 has gone up in the last few years you show us that the number of log entries of defects for the

Viscount 701 has come sharply down in the last two years. I am sure that is an easy explanation so that we can understand it. Perhaps you could let us know what it is?—Yes. The log entries are a record of the small defects in aircraft and equipment which occur en route. They are put into the log by the crew and then listed and, of course, put right as soon as possible. The curves on page 25 indicate that over the years these small defects have been improved by us or by the manufacturers improving the equipment in reliability or in technique or overhaul maintenance. But the other point which I mentioned, the fatigue trouble and the expensive work of modification is quite a different thing. That is not something that you see en route and it is not something that affects the day to day operation of the aircraft. It is a very major thing which, of course, does not get into the log. The figure on page 25 really indicates the improvements that you might say the passenger notices; in other words, he is not held up so often.

Mr. Albu.

1300. We have not so far taken evidence from B.O.A.C. on maintenance costs but it is common knowledge they are high which they admit themselves. Can you say whether the inspection and maintenance methods that you employ, are the same as those employed by B.O.A.C.?—No, Sir, they are not the same. We base our maintenance and overhaul on a premium bonus scheme which is used only by B.E.A. and S.A.S. Also, I might say, we are great copycats; we are always going all round the world to see what everybody else is doing and getting the best out of it.

1301. Is the relationship between the inspection staff and the maintenance staff the same in BEA as in BOAC?—(Mr. Milward.) In numbers, you mean?

1302. I meant in responsibilities. Obviously the numbers must be less?—(Mr. Shenstone.) All I can say is that it may not be quite the same, but as far as I can see by their more recent chart of organised duties, it looks as if it will be almost identical.

1303. But they are making modifications?—Yes.

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[Continued.]

Chairman.

1304. On this question of your methods and so on, you say you have taken a great deal of trouble to find out how other people are doing these things. You must be closely in touch with Rolls Royce and what they do at their big aero-engine servicing shops. In your plan for taking the Dart over, are you going to use more people or fewer people on the job than they do?—We reckon we will probably use roughly the same number of people, but we will use them in a slightly different way. After all, Rolls Royce are essentially manufacturers of engines and their overhaul is a sideline. For us it is the main thing and so we would concentrate more of our best effort on that. I do not think any manufacturer would ever think of putting his best effort on the repairs and overhaul; his best effort is concentrated on the manufacture. That is not a reflection, I hope, on Rolls Royce or Bristol or anyone else. But that is our feeling and I think it is right.

1305. In the last three years you have reduced your engineering costs quite considerably. In your last Report it was 6·8d. per capacity ton mile, having been 7·5d. the previous year. I cannot find out what it was the year before but in the Report for the year before you say that the costs had fallen by 2·5 per cent. Has this process of reducing engineering costs been going on steadily since you began and do you see it going on, or do you think you are coming near the wall?—(Lord Douglas.) I think it will go on but I really think we are learning and improving ourselves all the time. But, of course, when we get these new aircraft coming in like the Vanguard, the Comet, the D.H.121, we may find it will be a trend the other way for a time owing to the thing that Mr. Milward has been referring to several times, the cost of bringing in a new type of aircraft. You get a shorter number of hours between engine overhauls; you get all the teething trouble of a new type which do put up engineering costs. So you may see next year, when we bring in the Vanguard and the Comet, a tendency the other way.

1306. Your capacity per ton mile goes up too?—It certainly does. But even so I would not be surprised—I do not know whether Mr. Shenstone would agree with me—if maintenance costs per

ton mile might go up a little when the new types come in. (Mr. Shenstone.) Especially with a brand new type like the Vanguard. For the first few months it may be difficult to handle. We will learn more about it and the costs then should turn downwards like some of these here. In the case of the Comet I should think it will probably be easier to handle because it already has experience of flying and operation. (Mr. Milward.) To take a general review over the next ten years, I think we could say that apart from certain sort of kick-ups, as my Chairman suggests, of new types coming in, there would be a considerable decrease in maintenance costs for the Corporation. There will be a line going down all the way. I think we have still a good deal to learn on maintenance and methods of reducing our costs.

1307. When you are talking about maintenance costs you are talking about this figure of pennies per C.T.M. and not, of course, the total?—No, the total will certainly go up because it is a matter of efficiency per C.T.M.

1308. With the costs having come down, I assume the labour force must have come down too?—No, the labour force has not come down. The work output has been so greatly accelerated all the time.

1309. And the productivity has gone up?—The labour force has in fact over the last few years remained remarkably static and the output has increased greatly, you may say, sometimes by up to 20 per cent. in a year.

Mr. Palmer.

1310. You mean the labour force has increased absolutely but not in relation to your capacity?—I might say it has increased very little absolutely.

Colonel Lancaster.

1311. Is there any comparison between the amount of maintenance or standard of maintenance that you set yourselves as against, for instance, the amount or standard that American airlines set themselves?—(Lord Douglas.) No, I do not think one can say there is a difference in standards. I think one of the figures shows they do succeed in doing maintenance, I should say, of equivalent standard to us, but of course they have a much higher paid labour force, but less in numbers.

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1312. That is what I had in mind. I want the explanation of how they are able to do a similar standard with rather less men. You say that they have a more specialised, a more highly paid type of labour?—Yes. (Mr. Shenstone.) That is one of the problems that we have spent a lot of time on. We have collaborated very closely on the technical side with United Airlines, for instance, and they pay their people much more than we pay our people. The general ratio of pay is such that possibly people on the floor level would get three times as much as our people per hour or per week. The top people may get five times or six times as much as our people, so there is an increasing incentive there; there is much greater acceleration point in that people have further to go in the salary range than our people. I feel that that is one of the great incentives they have and therefore they tend to take a much more lively interest. Of course, another aspect is that income tax there is not so high and so they have an overall gain and a sharp gain. That was one of the things that did impress me when I made this study of United Airlines and as a result, of course, you tend to get people keener and they equip themselves better and are more anxious to make a good impression and to get ahead. One result of that is that these chaps are willing to take more responsibility themselves on the floor which makes less inspection necessary. Of course, you must always know who did the job. The inspection is therefore rather differently organised and that is one of the things we have been studying also. A major change in technique such as inspection is a very difficult thing to do and it is a long job; it is a job that we are trying to improve.

Mr. Palmer.

1313. Are the engineering supervisors salaried people?—Yes.

1314. And they are organised separately from the others?—Yes. (Mr. Milward.) There is one further point we might make that we have a long way to go, as a lot of industry in this country, on mechanisation. At our new base we are spending a large sum of money on mechanising our equipment partly for engine overhaul, but also on all sorts of details, such as cranes, which will mean less manpower. As Mr. Shen-

stone says, that is another thing on which we are fairly good copycats. There are very few weeks in the year when we have not got engineers and technical people of all sorts in America looking at what they are doing there.

Chairman.

1315. That is very interesting. That will enable you to answer this question. How much in the way of equipment, machinery and in particular instruments, is there in American airlines' engineering shops which you have not got?—(Mr. Shenstone.) I cannot give any details here, but I should think they probably use about twice as much machine horsepower per man than we do; it is that order of factor. On the other hand, you can say that they pay their men so much that they have to do that. In other countries where they pay considerably less than we do, say Poland or Yugoslavia, they have even less machinery; it is becoming less and less worth while to have it because the men get paid so little there can be more men. So we are well up the ladder, but not quite up to the American standard on that.

1316. What stops you giving your men twice as much horsepower as you are now?—There is nothing to stop us literally, except our Chairman who might think it was rather expensive.

1317. That is what I want to know?—I have already mentioned this pay differential. You find that a piece of machinery here costs very little less than it costs in the United States for the same job and therefore, if your men are paid somewhat lower than their men, there is an optimum amount of machinery when you take into account the rate of pay. We may be a little below that, we may not. It is a very difficult thing to determine.

1318. It would appear from the figures in this paper* that there is a positive economic commercial advantage in having twice the amount of horsepower at the elbow of the working man because, as you have said yourself, you can pay the working man three times or more than you are paying him and still your maintenance expenditure in proportion to your revenue, taking PAA and TWA as examples, is just about the same?—Yes. If we could pay our

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men more and got that much more from them, the answer is yes; but of course it is not just as easy as that.

1319. We have been asked by the House not to go into conditions of work and pay. You will understand why, and I do not want to get you involved in these questions which we would much rather keep off. But here we are on what we would all think is a solid economic point and we will try and put our questions as well as we can without raising these difficult questions of wages and conditions of work. What I am really concerned with is to make quite certain that there is nothing preventing you from getting into your workshops all the latest and best equipment which you and your Board and Chairman think is justifiable?—There is nothing preventing us.

1320. Is it a fact that these instruments and machines are not made in this country or would they be made if you wanted them?—Most of them are made here. There are a few that you must get from places like the United States and Germany and Switzerland.

1321. But you can get them; there is no difficulty over licensing?—We can get them. We have tried to steer clear of dollars, but when there is no other alternative we do sometimes go to the United States.

1322. And from the point of view of the control over your capital expenditure which the Minister of Transport has, Lord Douglas, you do not find difficulty there? If you want to spend more money on equipping your shops you, broadly speaking, can get it?—(Lord Douglas.) Yes, I think you could fairly say that. Also, of course, as you know we have over the last two or three years been told to stay within a certain limit of capital expenditure, but that has been lifted recently.

Sir Keith Joseph.

1323. You have told us that one of the economies in bringing the Dart engines to your own base is that the transport costs will be eliminated and it will mean you will have fewer engines out of use. Is this a factor that you take into account in considering machinery? I realise the relevance of wage levels but would machinery speed up turn-round of your engines and thus again reduce your costs, or is speed not a factor in this case?—

(Mr. Shenstone.) When you take an overhaul like that then we put in a lot of machinery for that purpose. Where we may not have so much machinery is in handling equipment in the hangars, and there may not be so many complex handtools for the men. But in an overhaul shop like that we realise that time is money and we put in as much as we can. This shop that we are now building for all the Darts, which is an improved overhaul shop, will not have its equal anywhere.

1324. Is it a three shift day or a two shift day or a one shift day?—Basically it is a one shift day with special shifts at certain times, so that you have somebody there all the time to look after difficult problems arising any time of the day or night. We have a very small permanent night shift to deal with the minor checks that occur every night on a regular basis.

1325. Again, could you speed this a great deal by going on to more shifts per day?—Yes, we could make a theoretical difference but it would be very expensive, because if you have a night shift you have the double difficulty of having to pay them quite a lot more per hour and the main difficulty is finding as good supervision for the night shift as you can for the day. In fact, it should be better supervision because there are fewer senior people there. That is very difficult to get. A good supervisor is almost always in a position to choose whether he works night or day and he usually wants day.

Chairman.

1326. What happens in United Airlines?—They do all their engineering on day shift.

Sir Keith Joseph.

1327. That is more significant since they have more machinery standing idle at night even than you do?—Yes.

Mr. Palmer.

1328. The question I want to put is on the matter of horsepower and the maintenance worker. If I understood rightly you said the Americans had a lot more horsepower?—Quite a lot more.

1329. Could you give us the extent?—Certainly. It may be twice as much, but I cannot be precise about that.

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1330. One can understand a great difference in the matter of comparing the rather backward out-of-date industries with advanced American industries. I should have thought in the aircraft industry, an up-to-date modern industry in this country, it is surprising that there should be such a gap, or is this bound up with wage levels?—I think it is essentially bound up with wage levels.

1331. It really does not pay to put in machinery?—There is always an optimum. (Mr. Milward.) We are of course talking about aircraft maintenance rather than manufacturer, and we think that one might say that we are not particularly up-to-date on aircraft maintenance in this country but we are rapidly approaching that way. Therefore, we have not nearly reached our limit in the amount of mechanisation we can do. (Mr. Shenstone.) We have not reached the maximum wages; that is another point. The more we have to pay our men the more machinery we must put in.

Mr. Albu.

1332. On a scientific point, I notice that on page 38 you describe the Organisation and Methods Research unit you have in BEA, but you describe it as only operating on the commercial side. Have you any Work Study Group or any other similar organisation operating on the engineering side?—(Mr. Shenstone.) We have in the engineering staff a number of people who do that regularly. But in addition, when we have a particularly difficult problem we call in what you might call Organisation and Methods people.

1333. You use them?—Oh, yes. We have almost all the time one or two jobs going on the base which are such that it is better to call on the O. & M. staff than on our own day to day staff.

1334. Are they staff capable of undertaking studies in industrial fields as well as on the commercial side?—Yes.

Dame Irene Ward.

1335. Do they come from within what I call the Government organisation or do they come from outside?—(Mr. Milward.) They are our own Organisation and Methods people.

1336. Not from your organisation but from the Ministry?—Our own

staff. We have about 20 people in the Organisation and Methods branch and I think two or three people work permanently in the engineering base on these particular matters. The paragraph on page 38 I think wrongly stresses the work they do on the commercial side, whereas I think that certainly a third of their time is spent on engineering matters.

Mr. Albu.

1337. They include Work Study in engineering?—Yes.

Dame Irene Ward.

1338. Do they ever measure their capacity with any outside organisation?—Our capacity?

1339. Originally, when we were dealing with this kind of thing during the war in the Air Ministry the whole of this Organisation and Methods arrangement started by calling in an expert outside firm, and from that sort of thing developed all the organisations within this sphere. What I am asking is have we completely eliminated our outside contacts and are we using entirely our own staff?—(Lord Douglas.) We started off without our own Organisation and Methods branch and we brought in a firm called Production Engineering, business efficiency experts, who did a very good job on the whole. They stayed with us two years and did quite a lot of useful work. Then when they left, on their advice and with their help we set up our own Organisation and Methods branch. How often they measure themselves up against some organisation outside I do not know.

1340. I wondered whether they ever did?—They are quite lively people, they seem to get about a lot.

Chairman.

1341. They keep in touch with the outside world like Mr. Shenstone himself?—(Mr. Milward.) They are amongst our regular visitors to America and also work very closely with people like ICI who have a vast Organisation and Methods branch. We have all been—I have myself—to spend a day studying the ICI methods on what they call their Open Day.

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Dame Irene Ward.

1342. In other words, there is a general exchange of views?—Yes, there is a continuous exchange of views in that field.

Sir Alexander Spearman.

1343. Is it then quite clear with regard to labour saving devices that it is only your own judgment that prevents you installing them?—(Lord Douglas.) I think so.

1344. There is no opposition from either workers or Minister or anyone else?—No.

1345. Who forms that judgment?—It comes back in the end to Mr. Shenstone, our Chief Engineer. He is responsible. (Mr. Milward.) His advice is nearly always he wants more machinery and capital expenditure, and my Chairman and I have to balance that and say whether he can have it. There is no holding back on that side at all. I would think we could make the point that this is a matter which you cannot rush. You have to take it fairly gently. To put a lot of machinery in the base before we know exactly what we want, taking it by stages, would be a very great mistake; we would waste money, probably get the wrong machinery and we should get some opposition then.

Sir John Barlow.

1346. Going back to the question of maintenance of engines, you say you will save about £200,000 on £1 million expenditure annually, or something like that. Do you get the idea that the manufacturers, Rolls Royce, cannot do it as cheaply as you do or that they perhaps do not like that type of work and for that reason do not give you as good service and as cheaply as they might?—(Lord Douglas.) They give us a good service but I think that Rolls Royce would be expensive as they are in everything else; they always charge you full price and a bit more. We are very satisfied with what they have done for us in overhauling our engines, but our impression is that they are rather expensive and we can do it more cheaply ourselves.

1347. Do you service the enormous number of small instruments that you have on a plane yourselves?—Some we service ourselves and some we put out to manufacturers. (Mr. Shenstone.) We service most of them ourselves. There

are some quite complex instruments that need very expensive testing equipment and some of those we send out because one firm in the country has the testing equipment and it is not worth our while buying it just for ourselves.

1348. Generally speaking, you try to do all your own servicing because you find it more efficient and cheaper?—Yes.

Mr. Fort.

1349. Have you found, as with ICI, that it is possible to bring in a bonus incentive scheme on maintenance work?—(Lord Douglas.) Yes, we have had one for about six or seven years now.

1350. Is that for all maintenance work or just for very selected sections?—For all maintenance work. (Mr. Shenstone.) We do not use the incentive scheme on what we call station work, where the aircraft comes in, turns round and has a small amount of work done to it; that is done on a per time basis but everything in the base which we consider practical is on the incentive scheme.

1351. And the bonus amounts to what? 15 to 30 per cent. of earnings?—Yes. Actually, at the moment it is rather higher than that, and it is still paying us well, as well as paying the men.

1352. Can you visualise a Work Study method without a bonus attached to it?—I can visualise it but I think it is harder to do.

Chairman.

1353. There is one last thing I want to get quite clear. You have told us in other meetings that the load on your aircraft operations varies at different times of the year. But I imagine your load on your maintenance department and your engineering department is so worked out as to keep a level load throughout?—(Lord Douglas.) We do as much as possible of our major maintenance inspection in the winter six months and we do all our modifications which are quite considerable during the same six months.

1354. You are able to keep it stable?—For instance, now we are starting to turn our Viscounts into the high density tourist version which is quite a big job and is costing several million pounds to do. (Mr. Milward.) The load on our station engineering, of course, varies as it does on any other operation.

THURSDAY, 4TH DECEMBER, 1958.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Fort.

Sir Keith Joseph.
Sir Alexander Spearman
Dame Irene Ward.

Sir GERARD D'ERLANGER, Chairman, and Mr. BASIL SMALLPEICE, Managing Director, British Overseas Airways Corporation, called in and examined.

Chairman.

1355. It is some time since you were last here, Sir Gerard, I think, and, in fact, you have not really met this Committee which has been set up for this Session at all, but we are, of course, aware of the evidence given before our predecessors during last Session. We propose today, if it is agreeable to you, to base our questions on two memoranda we have had from the Ministry of Transport and Civil Aviation, both of which I think you have seen, headed "Comparison of Airline Performance."* At a later date we will come back to some matters in your report that will not be covered directly here, and we will of course give you a chance, if that chance has not arisen indirectly on other matters, of bringing your June and July evidence up to date. I am sure you would like that before we come to a report?—(Sir Gerard d'Erlanger.) Yes.

1356. These operating statistics give comparison between BOAC and your foreign international competitors. We will take the detailed points of comparison, but before we got on to that, is there any general remark you would like to address to the Committee giving us advice as to the matters we should take into account generally when we are making these comparisons? To give you an idea of what I have in mind, when we put the questions to BEA they made the quite valid point that they were a short haul operator and not all of the other airlines operate with such short hauls?—That is certainly a point, of course—we are rather a long haul operator and BEA a short haul one. If I may make a general observation first, and I hope I shall not be misunderstood, but some of these comparative statistics, unless they are taken with the full background which leads

up to them, can be awfully misleading, so we will try in any answers to give you as much background as we can to show you the conflict that there so often is between statistics and reality.

1357. That is the purpose this Committee can serve in general, to give you a chance of explaining things which perhaps we in the House of Commons and the public have not a chance of understanding. Are there any other points?—Yes, perhaps there is one more general point. Time is also very important; the time element with regard to any particular set of statistics in which comparisons are made between one organisation and another is terribly important. It so happens that at the time taken for these particular statistics—and this is not an excuse—I think BOAC were particularly badly placed to be compared statistically with other airlines. We were in that period commencing re-equipment.

1358. That would apply in 1956-57?

—Yes, and is still going on now.

1359. You will bring that out in the course of our discussion?—Yes.

1360. May we take at once Item 10 on the different operating cost per capacity ton mile. For 1957 your operating cost is given as 39.1d., for 1956 39.9d.—there had been an improvement. With the exception of Air France and TWA the other international airlines have lower operating costs. (When I said TWA I was referring to 1956; that does not apply to 1957.) In the case of Pan American their costs in 1956 were 31.5d. and in 1957 30.9d. There is a straight comparison between you and Pan American which shows a quite substantially lower cost in the case of Par American. Could you give us some explanation of why you think that is?—I think there are a number of reasons. I am going to ask the Managing Director shortly to elaborate on

* Appendices A and B to the Report.

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[Continued.]

them. There is, first of all, this capital to revenue relationship, which confuses this picture because we were in a period of re-equipment. We had new aircraft only being partly utilised and yet being amortised, that is one factor. Another factor, which I think we have mentioned before but I will mention it again, is that we are conscious that some of our costs are too high, particularly in the engineering field, and that is being dealt with.*

1361. Would you like to take the individual items and tell us what you think are the most important factors affecting your operating costs—aircraft utilisation, crew utilisation, wages, engineering, and so on?—(Mr. Smallpeice.) My Chairman was drawing attention to the trend, and we have not brought a graph along with us for that, but I think this is a case where the question of time is important. In 1957 we were still left with a lot of old aircraft and, in particular, with a whole fleet of expensive Constellation 749s. We have been held to a level of operating costs of about 39d. per capacity ton mile now for about four or five years. We expect to be able to reduce that very considerably over the next year or two because of the attack we are making on our engineering costs and also because of bringing into service modern aircraft which Pan American have had access to for a few years.

Mr. Albu.

1362. Is it at all possible to indicate, either in overall money terms or in terms of operating costs per capacity ton mile, the effect of these separate factors, in particular the factor of old aircraft and the factor of the heavy engineering costs or costs of labour?—(Sir Gerard d'Erlanger.) Could we take the ingredients one by one?

Chairman.] That is what I was suggesting, then shall we see as we go along one by one whether we can get from you some evaluation of how important each is?

Mr. Albu.

1363. It is the significance of the various items in this that we want to get at?—(Mr. Smallpeice.) We have a break-down of the total operating costs. (Sir Gerard d'Erlanger.) They are at page 24 of the Annual Report, but

* See Q. 1641.

with another column, a percentage column. There is another column on the right showing costs in pence per capacity ton mile, so we get the relative importance there of the various groups of expenditure. (Mr. Smallpeice.) In particular you will notice that aircraft maintenance, which is what we are very much worried about at present, shows up at 10d. per c.t.m. and we would hope to achieve a substantial reduction in that.

Chairman.

1364. Do you know what proportion of the total it is with Pan American?—It would be about 5d. lower, I think.

Mr. Albu.

1365. About half?—Yes.

Chairman.

1366. It might help you and help us, I think, if we decide to deal with this problem of engineering aircraft maintenance separately by itself because it is obviously going to bulk rather large in our consideration. I would like to leave that out and have it at our next meeting. We have it in mind, but perhaps we can clear the other things out of the way first?—(Sir Gerard d'Erlanger.) Yes. There has been a paper on that subject showing aircraft maintenance expenditure, but I will not refer to it now.

1367. Yes; thank you for reminding me. We have these points in mind as to the breakdown of operating costs per capacity ton mile, but I wonder if I might put you my question in a slightly different way? The effect of this expenditure on your profitability is obviously governed by things like the utilisation rates of your aircraft, utilisation of your crew, rates of wages and the number of people employed, those sorts of things?—Yes.

1368. I think it might be convenient if we grouped our questions like that. We will have in mind these particular figures, but perhaps we could first of all take the aircraft utilisation. In that case your figures, according to these tables, appear to be what I might call average good, judged by the 1956 statistics. We have not any full statistics for 1957?—We have brought with us a little graph, which I think is round the table, which shows the story going back to 1955.

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[Continued.]

1369. That is the top one of these papers?—Yes, headed "All Fleets Aircraft Utilisation".*

1370. What does that show exactly?—That shows, taking the fleet as a whole, the utilisation over the years 1955 to mid-1958, expressed in both columns as hours per day, so it varies between those hours per day and is every nine hours per day over that period. Right away you will notice that there is a trough for the period the whole of the year 1957, the utilisation having fallen from that peak in the middle of 1956, starts rising again in 1958. There lies one of the explanations for our high cost at any rate during the year 1958 because our utilisation dropped.

1371. 1957-58?—Yes. Our utilisation dropped there because we were introducing new types of aircraft, Britannias in the main during that period, and there is always a slow build-up when you are introducing a new aircraft, but there was a particularly slow build-up in the case of the Britannia because after we started taking delivery of them we ran into this icing trouble which kept them out of service for a considerable period whilst the icing trouble was cured.

1372. You have counted the Britannias as aircraft for this purpose even though they were what I might call "frozen"?—Yes. Most of them were actually flying around doing various trials, but they were not earning revenue.

Sir Keith Joseph.

1373. What is the relation between aircraft at base and aircraft on roster, because the graph moves according to hours per day of aircraft—aircraft on roster or total aircraft?—(Mr. Smallpeice.) Aircraft on roster.

1374. Where is the relationship between aircraft at base and aircraft on roster? Is there another total which shows that? Is that shown in the overall load factor? In other words, which of these proportions reflects the total fleet and not just the aircraft on roster?—(Sir Gerard d'Erlanger.) I think the answer is neither of these two.

1375. I was referring to Appendix A because the hours per day is very important for the aircraft on roster, but

* Not printed.

there have been periods when the aircraft at base have been only about equivalent to the aircraft on roster, whereas now, presumably because of your new equipment, there are many more at base than on roster?—I think one of the things that is confusing this is the presence here of aircraft which have been retired and held for sale.

Sir Keith Joseph.] That is confusing.

Chairman.

1376. That is included in aircraft at base?—Yes.

1377. Aircraft on roster are the aircraft from which you pick aircraft to fly on operations?—Yes.

1378. Aircraft at base include aircraft you are never going to fly on your operations again?—That is correct.

Sir Keith Joseph.

1379. Where are aircraft being maintained, at base or on roster?—(Mr. Smallpeice): On roster, and aircraft being modified are also included as on roster.

1380. At base you now have 81 aircraft which you have included at the end of this graph?—(Sir Gerard d'Erlanger.) Which include those on roster.

Chairman.

1381. In other words, you had 22.9 of an aeroplane, so to speak, which were at base but not on roster?—That is correct, and most of them sit outside my window in the form of 749 Constellations, which have been cocooned for months, and Argonauts.

Sir Keith Joseph.

1382. They are represented in your capital, which affects your ratio?—They are to the extent they are not amortised. The 749 Constellation stands in the books at £300,000 each, and we have at the moment 12 of them, I think it is, sitting outside my window. (Mr. Smallpeice.) I think it is 8 at the moment, but it would have been quite a number at this period.

Chairman.

1383. We had better get these figures clear: 12 Constellations awaiting sale?—(Sir Gerard d'Erlanger.) Yes. Is that right?—(Mr. Smallpeice.) I do not know what the number was last March.

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[Continued.]

1384. The graph ends in July. Anywhere where the graph applies?—In July it would have been about 12, certainly.

1385. You see, it is rather important for us to understand these figures for the graph to be of value to us. Perhaps we had better come back to this when we come to Item 13, the ratio. The business of how many aircraft you have got which you have decided not to use for operations, of course, is a separate point from the aircraft utilisation point, and I gather from your answer to Sir Keith Joseph that this graph is based on aircraft on roster and not aircraft at base?—Certainly.

Dame Irene Ward.

1386. Is it not rather extraordinary to get in the new Britannias and then find there is icing trouble? I do not understand why they were delivered to you with that sort of difficulty?—(Sir Gerard d'Erlanger.) Well, I will try to answer the question as fairly as I can. I think it is fair to say that this icing was generally only encountered in certain rather peculiar weather conditions, monsoon conditions, and then not invariably. It depended on the temperatures and moisture quantity at the height it happened to be flying at the time in those conditions. I think it is fair to say about the manufacturers that whereas they had done a considerable amount of testing before delivery to us, they had not encountered these particular conditions. They had been looking for icing troubles more in the areas where you would expect to encounter normal ice and not this peculiar condition, which I do not think anybody appreciated before, which really gave rise to a thing known as dry ice, a powdered ice that impacted inside the engine and was not building up on the outside of the aircraft as in ordinary icing conditions, so it was not until they ran into this that we realised we were in trouble. We then spent between the manufacturers, ourselves and various sections of the Royal Aircraft Establishment, twelve months at least trying to trace it down to see what it really was, under what conditions it really occurred, and what the cure was. So I think, to be fair to the manufacturers, it was not conditions that anybody knew anything about previously, it was not a condition we had had difficulties with on any other aircraft in those same

conditions; it was attributable to the peculiar design of the engine on this aircraft and because that particular engine had not ever run into these conditions. It is difficult to put too much blame on them, I think, for having delivered aircraft in a condition which subsequently proved to make them inoperable. It was a new phenomenon. I am sorry to be so long.

Dame Irene Ward.] I have followed the answer, but it only seems to me odd that the manufacturers do not do every kind of test. They seem to go on testing for ever.

Chairman.

1387. Is this not related to the point you made earlier that you are one of the airlines of the world that are concerned with flying aircraft that have not had long development flights?—That is quite correct.

1388. I said at the beginning that the figure of 7.62 on the 1956 table looked average good compared with others, but of course in comparing your figures with others one ought to take account of the fact that you are long haul and probably the longest haul on the average of any of the airlines whose figures are given here?—Yes.

1389. Would that factor not produce, other things being equal, a better record in utilisation of aircraft than any of the other airlines?—(Mr. Smallpeice.) I think, as compared with BEA, it would be a factor because BEA's operations, which are short haul in character, also have a preponderance of daylight work in them, but with the other operators with whom we are being compared, such as Pan American, KLM and TWA, I should have thought that it would not have made a substantial difference because certainly Pan American, KLM and TWA have a lot of night flying in their relatively short haul operations. Most of Pan American's short haul operations are, I suppose, on the west Atlantic between New York and Puerto Rico, for example, where they do a lot of night flying. The question is not so much as to whether it is long or short haul, but whether night flying forms part of the operations or whether it is round the clock for 24 hours, which is so in our case—it is also, I think, the case in most of these operators.

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1390. Are the hours per day given hours in the air or hours on the tarmac?—From "Chocks away" to "Chocks on"—in other words, it includes taxiing time at both ends, otherwise that is time in the air.

1391. It does not include time spent in stoppage. If you have short haul aircraft there are short stops and a lot more stops, and you are going to have worse figures than air lines like BOAC, which have very few stops?—That depends upon how long the stops are, because with short haul operations the stops can be and are down to 15 or 10 minutes a stop, and BEA quite often have stops of not longer than 25 minutes. We, because of the nature of our operations and because of not only the re-fuelling but the re-victualling that is involved, have stops of three-quarters of an hour to an hour, and in some cases an hour and a half.

1392. Thank you for that explanation. Let us come back to the 1956 figures, which are better than the 1957 ones for the reasons you have mentioned—when I say 1956, I mean the year ending 31st March, 1957. Your graph shows them to be better than the next year, but this comparative Table shows them to be very substantially worse than Pan American, otherwise the other air lines are about the same. At that time you were not introducing Britannias. What was it that made the Pan American figures better than yours?—(Sir Gerard d'Erlanger.) You are comparing the 7.62 with the 8.59?

1393. Yes?—(Mr. Smallpeice.) I have not got an answer available at the moment. One thing that does affect it is that it depends from what these figures are produced. If they are produced from statistics of aircraft owned by operators and those figures of aircraft owned which divide into the flying hours of the operators, then it would be affected by aircraft chartered and hired by those operators, and I do know that Pan American have at one time had 12 aircraft which they have chartered from other sources as part of their operations. That may be, I do not say it is, a reason.

1394. I think it is probably unfair to ask you why Pan American are better than you. What we are asking really is why your figure was not better than 7.62 in 1956. You have given the reason for

1957, the introduction of the Britannia new aircraft?—You mean as to why the figure has gone down between 1956 and 1957?

1395. No; why it was not better than 7.62 in 1956?—(Sir Gerard d'Erlanger.) I am afraid I do not think I can help on this one. I was not there at the time.

1396. Let us put the question the other way, because we are all after is to see whether we are not all the time improving—that is what I am searching for. What steps are you taking now to increase or improve the utilisation of aircraft?—(Mr. Smallpeice.) In our plans for the remainder of this year and also for next year we are planning for a higher utilisation of these aircraft. We are planning for an average utilisation of about 9½ hours a day for Comets going up to 10 hours a day for other aircraft, and I think that the beginning of this work is shown in this graph in which the upward tendency in the first seven periods of 1958-59 is shown.

1397. And you expect that trend to go on, do you?—We expect that trend to go on certainly for a little. I doubt if it will be much higher for the fleet as a whole, than an average of 9 or 9½ hours a day.

1398. That is a great improvement?—It is a tremendous improvement. This is tied in with our engineering organisation, because this improvement is a product of keeping aircraft at base for shorter periods for maintenance.

1399. You are saying you are now taking steps with your new aircraft to see that utilisation is quite substantially higher than it has been in the past?—With our new aircraft and also by reason of our new approach to engineering maintenance.

Dame Irene Ward.

1400. Can I ask this? I am not quite clear about the night flying side of it, when you had more hours of daylight than when you are doing the short hauls. If you are flying at night does it make it more difficult? Does it reduce your utilisation or increase your cost?—It does not increase the cost and it does, in point of fact, make it easier to get a higher utilisation rate per 24 hours, for one is flying for a longer period in

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the 24 hours. For example, when we fly to the Far East or Australia, we fly through the day and night, and in that way because we have got the whole 24 hours available to us we get higher utilisation, and it is, of course, an advantage.

1401. Night flying makes no difference at all?—From a cost point of view it makes no difference at all to speak of. There are additional costs at certain points for laying on lighting for night landing and that sort of thing. Generally speaking, it does not increase costs one way or the other.

Chairman.

1402. As to utilisation of crews, can you tell us what the trends have been with the annual hours of flying?—(Sir Gerard d'Erlanger.) There is a copy of a photograph of a chart headed "Captains Utilisation".*

1403. That goes for the crew as well as the captain?—(Mr. Smallpeice.) That is typical of them. Here, again, the downward tendency in the last two years has been preparation for, and indeed we are still in the middle of it, converting over a large number of crews from old types of aircraft to new types. As you will appreciate, as new aircraft are introduced into the service the crew have to be taken off flying duties and are put into the training unit for conversion to those new types, and that does have the effect of reducing the total amount of flying we get from the operational strength which we have. So that that is a downward tendency caused by, and which always will be associated with, a change-over of aircraft types. We are in the middle of a very major change at the moment, and it is expected that our utilisation of air crew will go up once we get to 1960 and settle down on to a static fleet pattern.

Dame Irene Ward.

1404. How long do you reckon the downward trend is when you are introducing a new aircraft? Can you put a period on it?—It depends on what sort of a conversion we have got. We in BOAC have over this period, and it is still continuing, virtually changed our whole fleet, so it will continue on this occasion for about three years, but in the normal case it would last a matter of a year or eighteen months.

* Not printed.

1405. Would one be having any new aircraft at the end of three years?—No; we shall have a Boeing 707 in service, and then have a static fleet until the Vickers comes along.

Mr. Albu.

1406. Is not the legend reversed on this?—The lower line is the utilisation based on the total strength.

Chairman.

1407. Which would be the lower figure—it is a proportion of the total strength?—(Sir Gerard d'Erlanger.) I want to underline a point made by Mr. Smallpeice about captains being off service for conversion courses. During that particular period again many of them were off twice. We took them off Constellations, we converted from Britannias, the Britannia did not work, and we had to take them back and convert them back to Constellation, and then back again.

Dame Irene Ward.

1408. Do they need re-training to go back to something they have already been flying?—(Mr. Smallpeice.) Yes.

Chairman.

1409. There is one thing I want to get clear, and that is the difference between operational strength and total strength. When you have decided to take a captain off Constellations and train him in Britannias, is he classed as operational strength, or what?—He is classed as operational strength, although not strictly operational, but the difference between total and operational strengths are the captains who are doing executive duties and only fly for a limited number of hours a year, say 200 hours a year, or may be taken off for development work on Comets or something of that sort before Comets have come into operation.

1410. The training requirements are absorbed in the lower part?—Yes.

Mr. Albu.

1411. The operational strengths, according to this chart, are minute, if the dark shading is operational strength?—The dark shaded part is the effect of the difference between operational strength and total strength.

Chairman.

1412. I think we want to get this quite clear. The top line shows the number of hours per captain on the operational

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strength which are flown in the year on an annual basis?—Yes.

1413. The operational strength being lower than the total strength, you would expect the number of hours flown per captain on the operational strength to be higher than the number of hours flown per captain on the total strength?—Yes; it is divided by a smaller figure.

Sir Alexander Spearman.

1414. Can I, at a rather lower intellectual effort, hark back to what you said about re-training? I was very surprised indeed at you saying that captains had to be trained from Constellations to Britannias, that is obvious, but then had to be given a re-training from Britannias back to Constellations?—(Sir Gerard d'Erlanger.) Refresher courses, yes.

1415. Is it 24 hours, so that they can recognise the dials and the knobs again, or is it a week's work? I am just so surprised that anything more than a few hours is needed?—(Mr. Smallpeice.) It is more than a week's work.

1416. On a re-training?—Yes, because they will be time expired on all their licences, and they will have to be re-trained and re-checked on every aspect of them.

1417. Are the demands in your licences archaic by modern standards or necessary?—I do not think so, when one bears in mind that the pilots concerned have been in the meantime trained on to a completely different type of aircraft. We do insist that, apart from the demands of the licences, we are absolutely certain they are able to operate an aircraft blind-fold, so to speak.

1418. In any conditions?—Yes.

1419. How long is a conversion course from piston engined aircraft to turbo jet—six months or a year?—In general I suppose it would be about four months off service. It is not always as short as that, because they have to be taken off duty, taken through a certain aspect of it, and then they are in a queue waiting to go through the lists. It might be longer and could be shorter.

1420. Are the Ministry of Transport's Regulations stricter than those of other countries' comparable regulations?—I do not know about all countries. Certainly the major countries would have comparable regulations.

Dame Irene Ward.

1421. When you take a captain off Constellations and put him on Britannias and then back again, do you keep a special sort of training staff just for doing these refresher courses on Constellations or Britannias?—Yes.

1422. When you say that they are taken on and trained, what exactly do you mean?—We have a special training unit that takes them through all the time. They are going in for six-monthly checks, too, even when not being converted on to a different type of aircraft.

Chairman.

1423. What average figure for hours of flying per year per captain are you aiming at?—(Sir Gerard d'Erlanger.) Could I try and answer that question by starting another point? The limitation on how much flying crews can do in the course of a year, and therefore per month and per day, is first of all controlled by certain Regulations. 1,000 hours per annum is the maximum, so many hours per month is the maximum, so many hours in the 24 hours is the maximum, so right away you get a complete limitation at 1,000 hours, which becomes further limited unless your rostering is absolutely perfect. You run out of time during a period of 24 hours or during the monthly period. That brings that level of 1,000 down to 2½ hours per day. So the theoretical maximum is 2½ hours, so you achieve about two-thirds of it. Then leave comes into it, training periods; there may be periods of sickness, and a whole lot of other things. I think it is generally known throughout the industry that if all is going well and you can achieve something like 800 hours per annum it is the absolute theoretical maximum, and we have got somewhere near it occasionally during 1957-58. At one moment of time the operational strength was just about 800.

1424. You were on the 800 in the middle of 1957, a year and a half ago?—Yes, but I believe that is the absolute optimum, 800, and I do not think it is easily capable of achievement unless everything is going smoothly.

1425. Since the strike have things improved in this respect?—(Mr. Smallpeice.) We do not expect so many hours at the moment whilst there are so many people being trained.

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Chairman.] Are there any questions on crew utilisation?

Sir Alexander Spearman.

1426. With regard to the difficulties of rostering, are modern methods with computers going to make it easier for you?—(*Sir Gerard d'Erlanger.*) We believe so. (*Mr. Smallpeice.*) Yes; I think also the difficulty of getting the optimum from the roster is very often a matter of the timing of commercial schedules, too.

1427. In a period like this, where everything is in chaos, it throws your rostering out for months?—Yes; but the problem of planning a roster ahead is such that it may be necessary to have departures or transit through certain places at certain times to pick up loads, and that means you cannot get the optimum result out of the flying staff.

Chairman.

1428. The next factor I would like to take is the number of employees and the capacity per ton mile per employee. I want to take employees generally and leave the question of engineering to be dealt with separately. The latest figures, the 1957 figures, show that your employees are 19,300, and the CTM's per employee are 16,400, which is a substantial improvement on the 1956 figure. But when compared with the figures of Pan American, which are 34,000 CTM's per employee in 1956 and 37,700 in 1957, your figures do not look so good?—(*Sir Gerard d'Erlanger.*) If I might first of all start by pointing out one of the pitfalls in these sort of comparative statistics, it is that we probably employ more people on our own work than practically any other air line in the world; in other words, we contract out very little of our own work. Furthermore, and I am afraid I cannot quantify this one, but it is an illustration, in so far as we employ dollar aircraft we try and save dollars by doing a great deal of repair work to spare parts and the like, much more than we know our counterparts do operating in any way in the United States of America. That is only an example, I cannot say it counts for a lot, but it is an example. We certainly do a great deal more work than I think practically any air line in the world. We run our own coaches; BEA do not, they employ London Passenger Transport Board. We overhaul all our engines and a great many more for the United States

Air Force at Treforest. BEA do not overhaul their engines.

1429. They did not?—They do not yet.

Mr. Albu.

1430. The revenue from this work is included in the accounts, is it?—The revenue at Treforest is included. (*Mr. Smallpeice.*) It is not included in the figure of incidental revenue on that page which you are looking at. It is at page 36, sales to other operators and Government Departments?—(*Sir Gerard d'Erlanger.*) £585,000.

Chairman.

1431. But the men employed are included in these figures before us?—Yes.

Mr. Fort.

1432. Did you say you were doing things in a more expensive way to save dollars?—In that particular illustration I gave, yes, we are overhauling parts we would not overhaul.

1433. Which you could do more cheaply if you did not aim at saving dollars?—Yes.

1434. Does that amount to a substantial figure?—I would not know what the figure was. I merely gave that figure as an illustration of how careful one has to be in comparing these.

1435. That was on the Constellation and Stratocruisers?—Yes.

1436. Is it your intention to do the same on the Boeing?—(*Mr. Smallpeice.*) We know we are going on with the policy by and large, but I do not think it hurts us very much. It is a little more expensive, I think, but the important point is it does mean employing people which other airlines would not do and therefore in these comparisons as to how many capacity ton miles are produced per employee, there are those employees to be divided into the total output.

Mr. Albu.

1437. May I ask whether in the number of employees on the Corporation are included any employees of ancillary undertakings?—They are included in our employee figures.

1438. It is not an ancillary service—it is not a separate company?—It is by definition under the Act. It is called

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under the Act, I believe, an ancillary undertaking, and we are required to provide separate accounts for it.

1439. In the accounts of this ancillary undertaking for 1956, as I understand it these are only the accounts of the outside work, is that right. They do not include the accounts covering maintenance of the Corporation's own aircraft?—At the top of page 36 you will see a figure of £1,486,039, which is the sales to departments and subsidiary companies of the Corporation by this ancillary undertaking.

1440. How is this figure arrived at? What is the basis of the pricing of this work?—It is at standard cost which, by and large, means at cost—that is to say, there is not any very great difference, or has not been, between the estimated cost and actual cost, but if we wonder why there is a loss—

1441. That is the question I was coming to?—on the accounts, we deliberately took on work for other operators at prices below total cost so as to maintain work at Treforest during a period when there would otherwise have been a shortage of work between giving up piston engines and the starting of the overhauling of Proteus engines for the Britannia. There was a trough in the manpower requirement at Treforest and we went out to take business in to keep the momentum of employment at Treforest and in doing that the figures were not so remunerative as we would expect them to be.

Dame Irene Ward.

1442. It is the problem of the prefabricated parts of a ship. There was a case where they did not add in the man hours of the prefabricated parts when they calculated the number of hours it took to launch a ship?—(Sir Gerard d'Erlanger.) I would like to make quite clear that we are not complacent about the output per employee, even with those qualifications I have made, as one of the graphs before you purports to show.* It shows what has happened and what is planned.

Chairman.

1443. What is planned. That is what you are aiming at, is it?—What is

* Not printed.

actually planned for the years 1957-58, 1958-59, and 1959-60.

1444. This graph is going up nicely on the current year. I know there were circumstances in the middle of the current year which may have affected it, but, broadly speaking, from what you know of what has happened, would you say this target is being achieved?—Yes. Would you agree, Mr. Smallpeice? (Mr. Smallpeice.) Yes.

1445. We said we would deal with aircraft maintenance and the engineering side separately and in detail. There are a large number of other employees that you have. Are you satisfied that you do not employ substantially more of these men and women than your competitors, or do you think you do?—(Sir Gerard d'Erlanger.) I think the answer is expressed in terms of output per employee: we do employ more.

1446. Why is that?—Because we are not getting the output.

1447. What sort of things are these people doing?—When I say we are not getting the output it is the question of re-equipment, and we are not getting the full output not only from our staff but because we are not getting it out of our aircraft.

1448. It is linked to aircraft utilisation?—It is largely or partly linked to aircraft utilisation.

Mr. Albu.

1449. On this specific point of utilisation I think what you have said to us is that so far the revenue has not been high enough, or you have not sufficient surplus because of two facts. One is the excessive costs of maintenance because of the outmoded system of maintenance, and the other is because of having to utilise obsolete aircraft because of the hold-up on the Britannia and therefore having excessive charges due either to conversion or under-utilisation, and also because now you have aircraft standing around, which are still at quite a high figure in your balance sheet and on which you are paying charges. Therefore these figures will be represented in the first column on this sheet showing the break-down of operating costs, will they, or will they be reflected anywhere else? I am not on the maintenance, entirely on the aircraft. That would be the £4½ million, roughly?—They are

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[Continued.]

itemised on page 31, C-3, "Fleet obsolescence—aircraft and spare engines; fleet insurance and uninsured losses; aircraft licences".

1450. Fleet obsolescence is the amount written off in the year?—Yes.

1451. That is included in the first figure on your break-down of operating costs?—Yes, £4.589 million.

1452. The obsolescence is included in that?—Obsolescence of £3,851,000 is included.

1453. Of that amount of £4½ million what proportion of it is due to the factors you have explained to us are the extraordinary factors causing your bad operating results in the last one or two years? Is it, for example, a million pounds, and how much would one expect to save in the future?—I can perhaps get at it in another way.

1454. You did make this point fairly strongly to us at the beginning of your evidence?—I would rather try and provide you with the figure accurately than to try to guess it.

Mr. *Albu.*] I think it would be useful if we could have some attempt to quantify this statement.

Chairman.

1455. Yes. Do you think it would be useful, reverting to a question I put to you some time ago, in rather more detail about your employees? How many are engineering, how many are administrators, etc.?—You mean the various grades?

1456. The people who give the passengers service?—(Mr. *Smallpeice.*) I would rather put in a paper; I could only give you it from memory. We could easily do that.*

1457. I think it might be helpful to understand that. We had given to us by the BEA when we were talking to them figures which show us the ratio of passengers to employees. I do not know whether you have seen these figures. They show that as to passengers per employee you have 22, Pan American has 123, KLM 5, SAS 121, TWA 220, and BEA 246. There are very, very large differences there. Perhaps this too is another side of the point we have been referring to. Have you any special comment to make on that?—(Sir *Gerard*

* Appendix 25.

d'Erlanger.) Again I would like to point out the difficulty of some of these figures because we have got a comparison in line 12 of c.t.m.s per employee which shows a very different story comparing BOAC with BEA. I do not know what they have called a passenger in their statement, but to them a passenger is a man who steps in an aircraft in London and gets out in Rome. To us very often a passenger is a man who gets in an aircraft in London, gets out in Rome, gets out in Beirut, gets out in Basra, gets out in Karachi, gets out in Calcutta and gets out in Singapore during the course of his journey of 2,929 miles. We may have looked after him on the ground as if he were four, five or six passengers. So again that I am afraid confuses the issue; that is the difficulty with all these figures.

Dame Irene Ward.

1458. Is it not possible to have a uniform plan for that kind of thing, or has it got to be different?—You mean a uniform yardstick?

1459. Yes?—C.t.m.s per employee is the nearest yardstick, but even that goes wrong when you get instances of BOAC operating its own coaches and BEA operating with the London Transport Board.

Chairman.

1460. If we may now turn to Item 7, your passenger load factor went down between 1956 and 1957. I think you dealt with that in your report, 66 per cent. in 1956, and 63.3 per cent. in 1957?—I think the explanation is not very difficult to find for the fall between those two periods. It was that we were introducing more capacity; it is best illustrated by the graph in with the report and accounts on page 17. We were introducing more capacity at a time when the industry as a whole was going through a period of little or no growth through world affairs. Arising from that, the recession in the areas we largely serve would produce raw materials where commodity prices were down.

1461. Has that trend remained, or have you begun to see a greater increase again?—The trend remains on the eastern routes and the African routes, but there has been a large upswing of the number of people travelling the Atlantic this year due to the introduction of the economy class fare.

1462. Would you say your passenger load factor is improving?—(Mr.

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[Continued.]

Smallpeice.) I think over the whole Corporation the passenger load factor is about the same as last year. There is one factor of which we are very conscious in BOAC, and in saying what I am going to say I do not want to do a disservice to the manufacturers, but in the course of the introduction of the Britannia into service we have had to cope with the most appalling irregularity due to the failure of components one after another. This is altogether apart from the icing problem which delayed the introduction into service. Once we got the aircraft into service teething troubles in the Britannia have gone on for a longer time than with any other aircraft. We have a bad reputation for irregularity on the eastern routes, which are the most punishing routes from the point of view of finding out teething troubles in an aircraft, and we have suffered in consequence on our general load factor on those routes. Our load factor on the Atlantic, on the contrary, has been higher throughout this summer than any other operator, that is to say, in respect of traffic between the U.S.A. and the United Kingdom and Europe, and we have had load factors on the Atlantic higher than any other operator. But it is counter-balanced by the situation we have been experiencing on the eastern routes owing to the factor of unpunctuality of operation.

1463. How long has the Britannia been in operation?—It started on the 1st February, 1957, to Johannesburg, and on 1st March, 1957, to Australia.

1464. Is the teething period over?—No, it is not.

1465. You are having as much trouble now as you were last year?—It fluctuates from time to time, but I suppose we have had the greatest irregularity we have ever had during August of this year.

1466. Minor difficulties?—On the whole minor difficulties, but they have had a very crippling effect on the operation as a whole. We were having trouble, which hit us only in the summer of this year, with the bag tanks in the wings which carry the fuel, and they just went "bad" shall I say, and we would have failures of this bag tank anywhere on the route and just had not got the necessary facilities for coping with them. In fact, we were not prepared for that sort of trouble arising. Since then, in October and November, we have run into a lot of difficulty with the torque links on the

undercarriage failing. Again, in the previous 18 months operation of Britannias we only had a total of seven failures throughout of these torque links. All of a sudden at the end of October and early in November we ran into a whole epidemic of them suddenly failing. That sort of thing has affected our regularity of operation. It has had a serious effect on our goodwill.

Dame Irene Ward.

1467. As to these tank troubles you have explained to us, why were they not found out before? Is that something to do with the atmosphere?—No, this is, I think, a question of the material. It is a rubber type of synthetic product which has not proved good enough to stand up to the wear in the circumstances of its design and also of its operation.

1468. Do they not have a sort of arrangement as they had when they were going to climb Everest, testing everything out properly before they used it? It seems to me to be horrifying.—This is one of the things they only found out—or we have only found out—with the fatigue factor in the material used.

Chairman.

1469. Is that because you have now flown more hours than in the prototype?—Yes, and that is certainly so in the case of the undercarriage torque links.

1470. That is inherent in what you do in taking brand-new British aircraft and taking them on for hours that are longer than the prototype has flown?—Yes.

Mr. Albu.

1471. May I ask you this question, which may not be easy to answer: how far do you think the troubles you have had are due to design failures and how far are they due to unforeseeable factors that you would have had to discover in testing anything—design or manufacturing troubles?—(Sir Gerard d'Erlanger.) I would have the greatest difficulty in trying to give you a percentage on a sort of division as between those two.

1472. It is your view that some of these component failures are failures of design and manufacture?—The remedy has meant very often a new design and a change of material. (Mr. *Smallpeice.*) I think it would help to take the two cases we have talked about. In the case of the bag tanks in the wings the fatigue factor was accelerated, I do not think there is any doubt, by the

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[Continued.]

method of the attachment to the inside of the wings which was a feature of the design. Had it been different it would not have occurred so rapidly, and similarly with the undercarriage torque links again, they have proved to have a much shorter fatigue life than was expected, and I do not know whether you would call that a design weakness or not. (Sir Gerard d'Erlanger.) Going back to the icing problem, you could say that was design, but there was a reason for it. The Proteus engine has a reversed air flow and is about the only engine that is designed in that way. It was designed to go into the Princess flying boat, and they had to have reversed air flows to get the engines in.

Chairman.

1473. I should have thought that by now there were fatigue tests before the aircraft went into operation?—(Mr. Smallpeice.) There are.

1474. Do you not insist on that?—No, because there is not time to get all the testing done before the aircraft goes into service.

1475. I thought the fuselage was subjected to a water tank test?—Yes.

1476. If there is time for that is there not time for a good deal of testing of bits and pieces?—Yes, indeed there is, there is time for a lot of testing.

1477. I realise that this costs money. You do do some development—you pay a good deal for the development of these aircraft?—Yes.

1478. Somebody has got to decide how much you should pay and how much the aircraft constructor should pay. I imagine that you must look from time to time at the arrangement between the aircraft constructors and yourselves in asking yourself whether you have the right balance, because you appear to be paying very considerably for development?—Responsibility for the testing of components ought to rest, I think there can be no doubt about it, with the manufacturer because we would expect an aircraft from him that we are capable of operating in service to the standards to which we operate.

1479. Some of these things would not disclose themselves until the aircraft had been flown for so many thousands of hours?—That is so, and indeed in the weather conditions experienced.

1480. Have you some arrangement with the aircraft constructors as to how much flying you must insist on before you took the aircraft in?—It is not only a question of flying; it is a question of the design strength of the manufacturer and the pains he takes with the component manufacturers who are making the pieces for him, and we are satisfied, by and large, that the manufacturers with whom we have now placed orders for aircraft are in a good position to ensure the necessary quality.

1481. You have applied the lesson of the Britannias to the future?—We have endeavoured to.

1482. And you are satisfied?—As well as we can be.

1483. As well as the ordinary mutual bargaining in these cases will allow?—We think so.

Dame Irene Ward.

1484. Do you get any money back from the constructors?—(Sir Gerard d'Erlanger.) We try awfully hard.

1485. Have you had any success?—In the first instance we retained considerable sums of money from Bristol's in the context of Britannia until they fulfilled various contractual obligations at their expense. Those moneys were kept until about three months ago. The last retention moneys were released to them they having by then put right the various defects they were under contractual obligation to put right. But now the period of warranty has run out; there is no warranty attached any longer to this aircraft. I do not know how much of this evidence is going to be published, Mr. Chairman? I am in some difficulty here.

Chairman.

1486. We are in difficulty too. We cannot tell you whether it is going to be published until you have given it. I cannot remember the exact words I used, but base yourself upon what I said in the first session. Broadly speaking the position is this. It is desirable you should answer our questions fully and completely, but when the time comes for us to decide what will be published in our report we will certainly bear in mind the requirements of commercial security from your points of view and any points you may like to make to us about difficulties you might get into with manufacturers, and difficulties you might get into

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[Continued.]

because you have been answering our questions without perhaps having legal advice, or any other points you may like to put. I cannot guarantee what our reaction will be, but I can guarantee you will be allowed to express yourself as forcibly as you like on the desirability or not of publishing, and we will take all that into account?—

* * * * *

—(Mr. Smallpeice.) May I add that I hope nothing I have said will in any way prejudice Bristol's ability to sell aircraft to other people. The point is that over the last two years we have in operating these aircraft come across these difficulties and they are now being put right, and therefore from the point of view of anybody wishing to buy the aircraft they are a very good aircraft indeed. The only point we want to make is that it has borne rather heavily upon us in the process of operating these aircraft and finding these faults in commercial service.

1488. There are other Britannia operators?—Yes.

1489. Do they inform you when they find difficulties?—Yes.

1490. And you inform them?—We inform Bristol's. It is done through Bristol's.

1491. Despite your experience with the Britannia over eastern and African routes, you have recently put a Britannia, a bigger one, on the Atlantic route?—Yes.

1492. Is that subject to the same teething troubles?—It is indeed. A good many of the original Britannia teething troubles had been got rid of by the time they got on to the Atlantic route, but the Atlantic Britannias have been subject to these teething troubles in respect to bag tanks and undercarriage torque links.

1493. On this point which was raised as to the aircraft at base, excluding the aircraft on roster, I think we should like to know more about that. It may be you might like to put in a paper on that. We want to find out why those aircraft are there, why it takes so long to dispense with them, and what your general policy and considerations are?

—(Sir Gerard d'Erlanger.) The aircraft which are at the moment sitting on the ground consist of a number of Constellations 749s, which have been withdrawn from service as the Britannias came in, and a number of Argonaut aircraft which

are also being withdrawn from service as the Britannia came in. They are all for sale. Originally we had 16 749s, we have sold 8, so we are down to 8 outside my window. We have been selling them on a falling market.

* * * * *

Mr. Albu.

1495. Do you feel that it applies more to large aircraft than smaller ones?—(Sir Gerard d'Erlanger.) The small Dakota is still just as much in demand as ever. (Mr. Smallpeice.) We are getting rid of the aircraft in one's and two's. We have at the moment got 24; there are the 8 Constellations still for sale and 16 Argonauts. We sold a Constellation the other day and, as I say, they are going in one's and two's. It is a slow process. (Sir Gerard d'Erlanger.) 14 out of 16 Stratocruisers are under contract for delivery to Boeings in part exchange for new Boeings, so that only leaves two Stratocruisers to find homes for.

Chairman.

1496. I saw a report that aircraft operators and manufacturers in America are tending to make contracts like that, whereby they trade in an old one for a new one. Other than the arrangement you have made with Boeings, have you thought of doing that with anybody else?—To be honest with you, no. The only occasion we might have done it, being wise after the event, was when we ordered from Vickers. They might have been prepared to take Argonauts, though I doubt it very much, or Constellations in part exchange. (Mr. Smallpeice.) I do not believe they would.

1497. In America it is usual to do it with the firm's own aircraft?—Yes, unless there is a case where there is a triangular arrangement as there was with Quantas and their purchase of Boeings; there was an arrangement there.

* * * * *

1499. Your normal practice is to write aircraft down to 25 per cent. of cost in 7 years?—To 25 per cent. in 7 years, yes. These Constellations which we had to buy in 1954 when the Comets went out of service—they were Comet replacements—were bought at very high prices and have only had three to four years in use.

1500. Was it part of that arrangement that you were going to sell them back?

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[Continued.]

—To sell them, but not back. We were to try and sell them for dollars.

Sir Alexander Spearman.

1501. Do any of the manufacturers ever considering making renting contracts with you so that they carry the capital burden—renting new aircraft, say, for seven years and then it reverts to them as their property? Is that at all a practice?—(*Sir Gerard d'Erlanger.*) I do not think it exists in this country at all. I do not believe it exists in America as done by a manufacturer. I believe there has been a company set up recently to buy aircraft from manufacturers and lease them to operators.

1502. I would have thought an arrangement like that might have paid you, in an industry where depreciation is faster than even in the shipping industry. Do you not feel that is right?—I imagine the leasing company would take that into consideration in the rate it would fix for the lease.

1503. It would save you having these huge sums of money being tied up in aeroplanes which have to be written off inside ten years?—I am trying to think of that as far as the future is concerned. We have nothing else in contemplation against which we could apply that principle if it were right. We have committed ourselves to Vickers and Boeings for outright purchase.

Chairman.

1504. And to some payments before delivery?—And to large payments before delivery.

1505. Which is going much further the other way?—If we were to say to Vickers "It doesn't suit us to put down the money to buy the equipment, will you arrange a leasing arrangement?", I have no doubt the City could arrange a leasing arrangement to furnish BOAC with such aircraft, but I think the net result would be that we should pay more by way of interest charges than we pay Her Majesty's Government.

Sir Alexander Spearman. You pay on rather preferred rates, it is true!

Chairman. I do not know whether there is any point you would like to make to us on pay, salaries and wages generally, the comparison between you and other airlines. So far as we are dealing with engineering and maintenance we will leave that until next time.

Sir Keith Joseph.

1506. And their implications in productivity, because the pay scales are so far apart?—In general we believe that as to the comparison of pay scales between this country and the United States, and any other country you care to pick on, by and large the ratio is the same at whatever level you take it, floor level, managerial level—we have no reason to doubt that by and large that is not true. That being so, if we look at a paper we have already put in which sets out the comparison of wage levels,* we find that in the United Kingdom 5s. 4d. appears to be the standard rate per hour, 17s. 11d. per hour in America and 3s. 8d. in Holland, and that is probably more or less the ratio all the way up and down the scale.

Sir Keith Joseph. What is the implication of that in terms of productivity, leaving now the relative merits of the wages. The Americans must perforce use less labour per capacity ton mile if they bring out their cost per unit at something like ours. I imagine this is too big a question to deal with now and will reserve it to deal with another time.

Chairman. Does it apply mainly in the engineering field, or is it the fact that the American airlines employ fewer people in their administrative and service departments.

Sir Keith Joseph. And flying.

Chairman. Are they smaller crews?

Sir Keith Joseph.

1507. As a supplementary of that, could we have a break-down of your total wages and salaries bill not in pounds shillings and pence but in the proportions between maintenance, flying, service, sales and administration, so that if you say the Americans are comparable in flying and not in other things, we can tell what the weighting is?†—Yes.

Chairman.

1508. Do you feel you employ larger crews than the Americans?—In some cases we know we do. By and large within the four walls of the confines of the United States themselves, however, large an aircraft it is usually flying a flight deck crew of two. We, plying all over the world, employ normally a flight crew of four, sometimes five, depending

* Appendix 29.

† Appendix 25.

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[Continued.]

on the conditions; we carry a flight engineer invariably; we carry a radio operator sometimes. (Mr. *Smallpeice*.) We have just stopped carrying radio officers. (Sir *Gerard d'Erlanger*.) It has just become possible.

Sir *Keith Joseph*.

1509. Your past figures include them? —Yes, and we do carry a navigator under certain conditions where aids to navigation are not the same as within the four confines of the United States.*

Chairman.

1510. What do the Americans do outside the United States?—I think I am right in saying that they do not carry flight engineers. (Mr. *Smallpeice*.) By and large they do not carry flight engineers, I think. We do. It is our policy to do so because we are so widespread in our operations.

Mr. *Albu*.

1511. Are we more widespread than the Americans?—We are more widespread in parts of the world where it is more difficult to get service, that is to say over the eastern and African routes. The same applies with navigators. There are those areas of the world where navigators still have to be carried, whereas American airlines operating up and down South America would probably not carry them.

Chairman.

1512. Because you have to carry a navigator in certain parts of the world, do you carry navigators in every part of the world?—No, only where we have to, or if we have to get them into position to be carried.

1513. Would a flight engineer do his engineering during the flight or only when the aircraft is on the ground?—He does engineering during the flight in

the sense he watches all the instruments and the panels, and so on.

1514. How do the Americans do without him? They have just as many instruments and just as many panels?—This is a matter of considerable argument between the American pilots and the American airline managements because there is now a distinct pressure on American airlines to carry three pilots because they do not carry flight engineers.

Sir *Keith Joseph*.

1515. I should like to ask whether it would be possible for American costs to be reduced if they paid, for instance, for selling services by way of discount to other people rather than by way of cost for their own employees? In other words, are we really comparing like with like?—In answering your last question first, yes, we are comparing like with like, as far as selling costs are concerned.

Chairman.] Was Sir Keith suggesting the American airlines should make use of some of the BOAC facilities?

Sir *Keith Joseph*.

1516. No, that they provide travel agents to do the selling which BOAC employ their own staff to do?—Pan American employ their own staff for selling. We employ travel agents all over the world—

Chairman.

1517. Pan American selling costs must be more than yours because their salary costs are more than yours?—To the extent that they employ salaried people.

Sir *Keith Joseph*.

1518. It appears in the revenue?—It appears as an item of cost, but is a fixed percentage.

Sir *Alexander Spearman*.

1519. As to aircrews, how do our salaries compare with Air France who fly very similar routes?—Very similar.

* Appendix 27.

WEDNESDAY, 10TH DECEMBER, 1958.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Mr. Blyton.
Mr. Bonham Carter.
Mr. Ernest Davies.
Mr. Fort.

Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

Sir GERARD D'ERLANGER, Chairman, and Mr. BASIL SMALLPEICE, Managing Director, British Overseas Airways Corporation, called in and further examined; Sir GEORGE CRIBBETT, Deputy Chairman, British Overseas Airways Corporation, called in and examined.

Chairman.

1520. Sir Gerard, today we would like to start by asking you questions about aircraft maintenance and engineering costs. I think the best way we could introduce the subject is to refer to your last Report, on pages 10 and 11 of which you set out the steps that have been taken within the Corporation since 1956 to tackle the problem of the organisation and procedure of engine overhaul and other matters. Will you be so kind as to bring us up to date?—(Sir Gerard d'Erlanger.) With your permission, as this is very much within the province of my Managing Director I would like to ask him to deal with it. (Mr. Smallpeice.) We set up a Committee of Inquiry to go into this question of engineering costs, which of course we have been aware of in general terms for some time previously, because we do obtain through the Costs Committee of I.A.T.A. comparative figures of our operating costs compared with those of our competing operators. With the appointment of the Chief Engineer in 1956 and the making of him directly responsible to me as Managing Director, we then proceeded early in 1957 to set up a Committee which was charged with the task of comparing the amount of engineering effort involved in maintenance and overhaul of BOAC aircraft and those of other operators, and to establish the reasons for the apparent wide differences. They visited selected aircraft maintenance and overhaul bases for the purpose of examining broadly the techniques, procedures, equipment and other matters contributing to those differences, and for the purpose of making recommendations for improvement in the Corporation's own practices and organisation as a result of that review. The

Committee came to the conclusion, which corroborated the general view we held of the problem, that the cost of maintaining our fleet was, aircraft per aircraft, and flying hour per flying hour, substantially higher than was incurred by any of the other airlines investigated. Perhaps at this stage I should mention the names of the airlines investigated. It was Pan American, and we took the Pacific Division because we had an easier entry to that Division; the KLM and the United Airlines of America. The Committee also concluded that the high costs arose in BOAC mainly from defects in our engineering department organisation, practices and procedures, the disparity being most pronounced in the indirect staff category; but it did extend throughout all occupations, trades and grades. The Committee concluded that we employed as a whole more than twice as many staff per aircraft or per flying hour as did the airlines visited. They have also concluded that there were no compensating factors such as the possession of better equipment or the subcontracting of work to other airlines that could account for any significant part of this disparity, and it was generally agreed that the engineering task which we had in BOAC was no greater in scope or weight than those of other airlines. As a typical example, this excess of labour employed in the direct labour force category was considered to be due mainly to a lower output per man. A number of reasons contributed to it but that was the basic cause. I do not know how far you would like me to go into detail in this.

1521. If you start by giving us, as you are, the general matters of importance that came out of this inquiry, I think Members of the Committee may like to

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[Continued.]

bring out details later. But I leave it to you how much you tell us in the first place?—I think the most significant other factor that emerged was the very much greater weight of inspection and supervision that we have had in BOAC than in any of the other lines.

Mr. *Albu*.

1522. Is that what you mean by indirect staff?—Yes. In those two categories we employ as a matter of interest 4 to 6 times as many staff as these other airlines visited. The reasons for that go back a long way, in fact they originated in practices that existed at the end of the war and have not been changed since. They are also brought about by the approved inspection organisation which is required by the British Air Registration Board which, because of what is laid down, does need more inspection personnel than, in fact, the American and Dutch operators require. In saying that, though, I would like to add straightaway that the ARB, now that we have brought this problem to their notice are very sympathetic to us and to the problem, and have given every indication of helping us to get out of the difficulty by reducing their requirements where it is at all possible. I think specially the reason for this higher rate of indirect labour is that in our approach we have placed much more reliance on repeated inspection and supervision at too many levels, whereas the American and the Dutch operators have been more content to rely on the actual mechanic doing the job, to tell him the right degree of quality required. So what is needed to be done, if we are to get our costs down, is not only the re-organisation of the direct labour force but also to get a completely new approach to the question of quality control which does not involve anything like the same heavy weight of inspection and supervision. Necessarily this report took a good deal of time to obtain because we had to make certain that our engineering costs committee were comparing like with like when they visited the organisations. We obtained this report in December last; it was made public in January and we have since been working the matter out with the trade unions concerned and even more with the employees' representatives on our local consultative committees. Our approach to this is to deal with the matter in two stages. The first stage is one of basic organisation structure within the engineering department.

That has been completed and it took about 6 months to get through. The second stage which we have now started upon, involves negotiation with the unions and agreement with them of the job descriptions for all the work which we undertake. We have got there a major problem for the Unions and also for ourselves, because if we are going to have a completely new approach to the question of quality control we have to obtain their agreement to the responsibility for quality being placed with many of the direct labour employees, and there will be a considerable scaling-down of the responsibilities of the inspection and supervisory functions. We are obliged under the Act to negotiate these job descriptions, which is something that does not occur in ordinary industry; but it is an obligation laid upon us in the Act and therefore the whole of this re-organisation will necessarily take much more time than perhaps it would do in other circumstances. We are now embarked on this and I think that it will take probably another 15 to 18 months to carry it right through. But that is the present position we are now in.

Chairman.

1523. Without criticising, but in order to get the facts quite straight, the position is that some time in 1956 you decided that your maintenance and engineering methods were faulty in some way or other; at any rate, were very expensive, and that you do not see how you can really get what was wrong put right until towards the end of 1959; is that right?—Well, it has started to be put right already; it is not all waiting. There must be (I have not noticed this before) a misprint here, because it was in fact in 1957 that this expert team was appointed. I am afraid I had not noticed that. It was in June, 1957, this group was appointed. They reported in December.

1524. This is page—?—Page 10.

1525. Page 11 starts off by saying, "In June 1957", and refers to a further inquiry.—I am sorry; that is June, 1957; that is quite right.

1526. So that something happened in 1956 which shows that in 1956, at any rate, you of the Management had become aware that something was wrong?—In 1956 an expert team was set up to investigate engine overhaul procedures and that has been implemented already, and

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in fact did take effect during this year under review, 1957.

Mr. *Albu*.

1527. Is that the full extent of the change that will take place in engineering?—Yes.

1528. That is the full extent?—No. there will be more, because we are continuing. But that particular review was acted upon and made effective in 1957. It was in June, 1957, that we set up the committee to look into the question of engineering generally at London Airport.

Chairman.

1529. I will come to other points in your statement in a minute, but just again in order to get the facts clear before us, we have a paper which you put in in October,* which shows that at that time (I take it this was referring to 1956) BOAC's aircraft maintenance expenditure was 23·7 per cent. of their traffic revenue. Can you tell us what the corresponding figure was for the year covered by your last Report?—Yes; 25·9.

Colonel *Lancaster*.] 25·6, is it not?

Mr. *Albu*.

1530. During this period it was in fact going up?—Yes. Of course, this percentage is expressed as a percentage of traffic revenue.

Chairman.

1531. The other figure that we have got is a percentage of total expenditure; this is a percentage of traffic revenue?—Yes.

1532. In the course of your statement you told us that in comparing these three other airlines you had found that there was no compensating factors such as possession of better equipment?—Substantially, yes.

1533. We have other evidence that has been given to us which indicates that the aircraft maintenance engineer in the United States has twice as much horsepower behind him as the British engineer in aircraft maintenance. Would you agree to that figure?—No. From our investigation that was certainly not so, as compared with our own organisation.

* Appendix 32.

1534. You are satisfied that you have got in your shops all the best equipment that you want?—Well, yes, with the exception of Treforest where we overhaul engines. We know there that there is better equipment in the United States which we are in point of fact incorporating gradually in our operations down there. Otherwise, in terms of our hangers at our base at London Airport we consider that we are as well equipped as an American airline would be.

1535. When you come to consider the question of output per man, which is the next point you went on to, there is not only the individual effort of the man to be taken into account; there is the horsepower he has got behind him, the kind of machine he is working with and, of course, the whole organisation of the work, is there not? So what you are telling us is that from the machinery point of view you are satisfied, with the exceptions you have mentioned, you start the man off on as good as case as your competitors?—Broadly speaking, yes.

1536. So the main problems you have got to tackle are problems of organisation?—Yes.

1537. And goodwill and incentive and so on?—Yes.

Chairman.] I just wanted to clear that up. I think Mr. *Albu* was asking a question on the last occasion and he would like to take it up.

Mr. *Albu*.

1538. I just wanted the Committee to be absolutely clear. Do I understand that far the larger part of the saving in the engineering department will be by reducing the inspection staff?—No, it will not be by far the larger part, but it will be proportionately most in those sections or in those functions. There is a very substantial volume of direct labour which would be affected to a lesser extent in itself, but the actual amount that would be achieved would probably be greater.

1539. This is due to re-organisation of methods of work?—It is a re-organisation of the method of work. (Sir *Gerard d'Erlanger*.) If I might interject, there is another very important feature and that is the integration of the fleet as opposed to segregation.

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[Continued.]

Chairman.

1540. Could you explain for us exactly what you mean by integration? —(Mr. *Smallpeice*.) I think probably the easiest way of putting it is that, certainly ever since I have been in the Corporation (and I have been in it since 1950) our engineering department has been organised by reference to aircraft types; it has been broken down into different units and each unit has had its degree of overhead costs and inspection structure, its technical officers and so on and so forth. We have now got the opportunity, since we have got into our new buildings at London Airport and we have had our new wing hanger in operation, to centralise the engineering functions and to deal with it as a whole, and put all aircraft types under the same management rather than having it broken down into a lot of separate units.

Mr. Albu.

1541. Which will reduce the amount of management supervisory staff needed?—Yes.

1542. And the amount of inspection?—Yes.

1543. But the main reduction of inspection staff is the change in the relationship between the inspectors and those who do the jobs?—Yes.

1544. By transferring to those who do the job a good deal of the present responsibility for ensuring that the work has been carried out?—Yes.

1545. I wonder if you could describe a little more in detail the actual line of the authority, perhaps, that flows from you down to the actual job on the floor? How many levels are there? I understand, of course, in the past you broke it down into these types and now you are not going to break it down into types? —Basically, immediately below me is the Chief Engineer who is responsible for engineering standards and overhaul of aircraft as well as for maintenance. Underneath him there is a Production Manager who is responsible for the whole of aircraft maintenance, both major and minor; and then there is a Works Manager underneath him for each of the separate functions; that is to say, minor maintenance, major maintenance and component overhaul. Then below him there are shop superintendents and

below those foremen. In the past there have been more layers between.

1546. There are a number of Works Managers for different aircraft types? —Yes.

1547. How long has this system been operating?—Our previous system?

1548. Yes.—Certainly since the war and before, I believe.

1549. Was such a system also employed by BEA?—I do not know. —(Sir *Gerard d'Erlanger*.) I can try and answer that owing to my previous incarnation in BEA. We did set up on rather a different basis in BEA. We went straight for the incentive bonus scheme, for those working in the hangars; and that did bring about pretty quickly a desire on the part of the men to do much more themselves and to do it quicker.

1550. I do not quite see the relevance of this. The evidence you have so far given us has not had anything to do with the pace of work, or very little. The evidence you have so far given us is that the costs of maintenance are due to the multiplication of inspection and supervision, the two factors: one, the segregation into types and two, the traditional method of inspection. The question I am really on at the moment is whether or not those factors operate also in BEA?—No. There had to be a certain amount of inspection in BEA to meet the requirements of the Air Registration Board. But the pace set by the incentive bonus scheme tended to have less supervision and more direct work by the men because only so much money could be spent on doing a job, and an incentive bonus scheme tended to attract it to those actually doing the job as opposed to the foreman.

1551. I suppose it is not fair to ask you this question because the present organisation goes back to a period of time previous to your responsibilities? —(Mr. *Smallpeice*.) But our committee did establish the reasons—what they thought were the reasons—for the disparity in staff numbers between ourselves and other operators, in the direct labour category. Is that what you are pursuing?

1552. I am really trying to find out why this was not established before. I should have thought there must be some relation between you and BEA; you must look at each other's methods of operation. Over such a long period how

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[Continued.]

was it not seen that the proportion of maintenance staff was so much higher? —As far as concerns the inspection supervisors?

1553. Yes. How is it that this comparison has not been made?—It was before my responsibilities as Managing Director. Before that I was Financial Comptroller and I did know of the problem for a number of years, but it was not then my responsibility to deal with it.

1554. I think you said that the method of inspection, or the relationship of inspection to the actual maintenance work, was in order to satisfy the requirements of the British Airworthiness Committee, or whatever it is?—The Air Registration Board.

1555. How was it they required from you a standard which apparently they did not require from BEA?—I think my Chairman just indicated that they did require the same standard.

1556. But the BEA satisfied them in a different way?—(Sir Gerard d'Erlanger.) I think the airworthiness requirements are identical for BEA and BOAC. But where I think a divergency occurred, a difference in methods, was in the question of supervision, very largely.

1557. And the BEA satisfied the authorities by a different and cheaper method than BOAC?—Of supervision, yes.

Sir Keith Joseph.

1558. May I ask if your Committee of Inquiry compared your inspection methods with those of private firms like Rolls Royce, who have had maintenance contracts in this country?—(Mr. Smallpeice.) No; on this particular operation we did not. We restricted ourselves to looking at other airlines.

1559. Do you propose, or have you recently looked at private operators doing a comparable job to see whether you can learn anything?—The only private operator in a comparable job, in size, anyway, would be an engine manufacturer or engine overhaul organisation and we have always been in very close touch with Rolls Royce, and are familiar with their processes. They do overhaul certain engines for us.

1560. Are their unit costs and supervision less than your present ones or less than the ones you hope to achieve?

—We are talking about slightly different things here, because in the case of Rolls Royce it is a question of engine overhaul, and in engine overhauls the problem of supervision does not arise to such a great degree. But we do know that the prices charged to us by Rolls Royce are, I think, no less than we would achieve ourselves.

1561. You say that question is rather off-beam. Is there any organisation, private or public, in this country, other than BEA, doing a comparable job?—Not doing a comparable job to the one that we are doing now.

1562. Your Chairman mentioned the incentive bonus scheme that had been put in in BEA. Does not that tempt the evasion of quality from time to time, and does it not in fact require more inspection?—(Sir Gerard d'Erlanger.) It is now seven years since I left BEA and I do not know that I can answer that.

Chairman.] I think it is a question for BEA.

Sir Keith Joseph.

1563. You have not drawn the implication that one of your economies is going to be an incentive bonus scheme?—(Mr. Smallpeice.) Not necessarily; it might well be. We have not decided.

Mr. Palmer.

1564. You gave to Mr. Albu an account of the line of supervision right the way down, coming finally to the foreman. What is the size of the working group under the foreman?—I am sorry, I do not know offhand. I would rather not guess. If I may, I will answer it next meeting.*

1565. Then to follow up the point that the Chairman was raising, the matter of installed horsepower kilowatts per worker as compared with the Americans: I understood you to say that we were not inferior. Have you got the figures on that?—No, not in terms of horsepower. And I do not think that sort of criterion, which I suppose you would apply within the case of the manufacturing industry, can be so easily applied in the case of aircraft maintenance. But certainly in the terms of equipment required for specific jobs of maintenance and specific categories of maintenance checks, our team were satisfied that by and large we were as well equipped as the Americans.

* Q. 1694-7.

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[Continued.]

1566. So if the American's figures are ahead of us on maintenance costs it would not be due to the fact that they have more machinery?—No, not in respect of our base operations at London Airport. In respect of Treforest we have still a little way to go.

Mr. Ernest Davies.

1567. In connection with the actual inspection, when comparison was made with the foreign firms it was found, was it not, that the amount of inspection was very substantially less than it is with the BOAC? Now, could you tell me, was that due largely to the fact that the requirements of the Air Registration Board were such that it largely accounts for the additional inspectorate?—It accounts for a substantial part of it. I would not like to say a majority and I am not able to quantify it offhand; but it is certainly not the only reason, and I think equally important is the difference of philosophy which the American airlines have adopted of placing responsibility far more on the mechanic.

1568. Let me put it this way, then. If that principle were applied in the case of British airlines, would that satisfy the Board?—Not at the moment, but we are in the process of talking to them about it and they have indicated that they understand the problem and will co-operate with us in trying to solve it.

Mr. Albu.

1569. Why does it satisfy them with BEA?—I could not speak for BEA, but I do know they have a problem of inspection.

Chairman.

1570. We shall have another chance of putting questions on BEA to them. You realise that we are cross-examining them at the same time? We cannot expect you to answer what BEA think about these things?—No.

Mr. Ernest Davies.

1571. If the man responsible for the job were responsible for quality and it was also subject to spot testing, which does take place, I understand, in some of the foreign firms (for instance, KLM), would that satisfy the Board, as far as you know? Does it satisfy at present?—No. At present we have not got agreement with them, but we are going to reach agreement with them on a much greater degree of reliance on the work

of the actual operator, and provided there is adequate supervision and a proper system of planning and maintenance too.

1572. Then might I return to the earlier questions put by the Chairman? The first major action which was taken, the appointment of a committee to investigate by yourselves, was in 1956?—That was in respect of engine overhauling.

1573. But in your Report on page 10 you make it quite clear that the Corporation for some years had been concerned at the apparently high level of its engineering costs as compared with those of other airlines. Then the reasons are given why this was postponed. But if you were aware at that time of this serious position, does it not seem reasonable that some action should have been taken earlier than it was, that greater priority should have been given to this?—I think that it should have been, in fact. I have been raising this point within the Corporation since 1952, but it was not my responsibility at that time. It has been my responsibility since 1956—since the middle of 1956—when we started almost immediately and dealt with the question of engineering overhaul costs. It has been necessary to bring all levels of the engineering management within BOAC to a realisation of this problem.

1574. With the result that you expect to save hundreds of thousands, if not millions, of pounds?—Yes.

1575. Might I ask you what reasons were given—I know it was not your responsibility—for delaying any action on this matter?—That is really difficult for me to answer.

Chairman.

1576. I think we are in a bit of difficulty here because all you three gentlemen took on your present responsibilities in or about May, 1956; is that correct?—(Sir Gerard d'Erlanger): Yes.

Chairman.] I think we have to have that in mind.

Mr. Ernest Davies.

1577. I appreciate that, but this Committee is looking into the BOAC and it is difficult for the present witnesses to answer; I fully appreciate that. So you are not in a position to make any

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further statements about the reasons for this delay?—(Mr. Smallpeice): I am in a position to, but I would like to be excused from doing so. I have expressed my view that certain action should have been taken.

Chairman.

1578. That was the point. In your opinion, action could and ought to have been taken earlier?—Yes.

1579. But your present position, and that of the Chairman and Deputy Chairman, began in May, 1956, and your Report discloses that immediately thereafter some action was taken?—Yes.

Sir Keith Joseph.

1580. Can we ask whether the representations reached Board level?—They did.

Mr. Ernest Davies.

1581. Just to put it on the record, therefore the management of BOAC up to the Board were really aware that there was this problem from 1952 on, and four years elapsed before action was taken?—The financial side of the Corporation were aware of it but did not succeed in convincing the rest of the Board.

Colonel Lancaster.

1582. Mr. Smallpeice, I am right in my assumption that what you said was that your maintenance inspection was roughly of the order of four times the size of that of the two concerns you compared yourselves with; but I also gathered that you were, of course, in that regard at the mercy of the British Airworthiness Authority. As a result of your representations to them and their further thought on this matter, to what extent—obviously this answer can only be of a very general nature—do you feel, from the British Airworthiness Authority's rules and regulations, would it be reasonable to expect an improvement, bearing in mind that the purpose of maintenance and inspection, other things being equal, is the safety factor margin. You are, of course, aware that we have had discussions on this matter and we have had a good deal of facts put in front of us showing that our safety factor is no greater or no worse than the average up and down the world. Bearing that in mind, as I say, what benefit do you think is reasonable to

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obtain from the aspect of the Authority itself?—In general terms, I am sure that we shall be able to arrive at a substantial improvement. It is impossible to quantify at this stage because we are talking to the executives of the Air Registration Board all the time, and therefore it is not possible to be precise. But I am satisfied that from their attitude—which I hope the Council of the ARB, of which Sir George is a member, will endorse—we shall receive every consideration, and succeed in achieving the objects we want to achieve without in any way reducing the standard of safety in operation.

1583. What is the object you want to achieve? Is it half this number, or parity with your competitors?—My own target would be to get down to about a third of the number that we have now got in that category.

Mr. Fort.

1584. Did I hear you say that you had not so far been able to have careful planning of your maintenance programme?—No; I am sorry, I did not mean to convey that, if I said it. We have always had careful planning of our maintenance programme, but we need to improve it very much more, and now that we have seen what other operators have been able to achieve we have got some major changes in mind which we hope will give us a much better plan. We have, in point of fact, been introducing better programming of maintenance steadily, certainly over the last two or three years, and I think as an example of that I can mention that the number of days for which a Stratocruiser had to be out of service for a Check 4, which is the sort of major overhaul, was reduced from 21 days about 4 years ago to 11 days, and similarly with other aircraft. We have brought the out-of-service period for major overhauls down considerably by continuing improvements in planned maintenance.

1585. By as much as that?—Yes.

1586. By half of it?—Yes.

Sir Keith Joseph.

1587. I understand that the Armed Forces have made considerable economies in time by use of work study techniques. Is there anything you think you have to learn from them or are you pursuing your own inquiries?—We are

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[Continued.]

pursuing our own inquiries, but we are also in touch with the Air Ministry.

1588. Because you have the same safety requirements to some extent?—Yes, to a greater extent. But we are very conscious that we do need to do a lot more in the way of work study and in time and motion study.

1589. So you may be building up a work study department in order to reduce the maintenance department?—Yes; but, as you know, the amount you have to build up is many times off-set by the amount you reduce.

Chairman.

1590. I would just like to ask you some questions which have occurred to me during the recent half hour. You said that you did not know what was going on in the BEA maintenance line. Is that because you are Managing Director and not Chief Engineer? Or do you mean by that that the BOAC does not know what is going on inside the BEA's aircraft maintenance shops and their general proceedings?—It is because I am Managing Director and not Chief Engineer.

1591. There is close liaison?—Yes, there is.

1592. It is part of your Managing Director duty to see that that does take place?—Certainly, yes.

1593. Now, the comparison with the United States. I will start by saying you have not convinced me on this comparison yet. As I understand the position, it is this: take the Pan American—your expenditure on aircraft maintenance is something between 50 per cent. and 100 per cent. larger than Pan American's in respect of the revenue, and you have told us that you have, say, twice as many people as Pan American?—Yes.

Chairman.] But what we have omitted to remind ourselves of today, which you told us last week, is that Pan American pay their people right up through the whole structure approximately three times as much as you do. Now, bearing all those things in mind, the sums do not quite work out; there is still a missing link. I would expect, for example, that when your latest procedures have been installed your costs of aircraft maintenance should be substantially lower than Pan American's because your wages and salaries of

supervisory staff are one-third of theirs. I would expect that, unless there is some great difference in procedure or equipment. Now, that is the problem as I see it. I had tried to put it as baldly as I could. Quite frankly, you have not yet persuaded me to understand the gap in the equation.

Dame Irene Ward.] Could I add grades of employee, because you must compare like with like, must you not?

Chairman.

1594. What they said last time was that right along the whole scale, from top to bottom, the differential in wages was the factor of three. So I do not think we need break it down. Do please try and convince me that you are going to be as efficient in equipment and procedure as the United States and that you have mastered the whole problem. That is really what I want?—I shall certainly expect our costs to be lower than their's, too, in the same way that you would. Perhaps I might give you the actual figures which this Committee of Inquiry produced. These are the maintenance costs per flying hour of ourselves and Pan American. Our total costs are £80.73 per hour—per aircraft hour, that is.

1595. That is the aircraft hour in the shop, is it?—No, aircraft flying hour, for every hour the aircraft flies. Pan American's costs are £58 per hour. If we adjust the Pan American figures to European rates of pay, which we have done, then the Pan American figure comes down to £43 an hour. So that is why we feel that there is scope for a 50 per cent. improvement.

1596. That is what you are aiming at, to reduce your £80.73 down to £43 or lower?—I do not know whether we shall get down as low as that. I should hope I would not be tied to that.

1597. I want to press you: why shall you not get it down to that?—For the reason that I think a lot of other industries find, that our output per man is not as good as it is in America. This is a feature of British industry generally. I would not like to claim that we shall necessarily be able to solve the problem.

Chairman.] The point was made that that applied to the older fashioned industries, but (it was either Mr. Albu or Mr. Palmer who made the point) why should it apply to a new industry like the aircraft industry?

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[Continued.]

Mr. *Albu*.

1598. May I say that the point really, I think, is that the benefits the Americans have do not apply to this type of work and nobody has ever finally got down to the difference between British and American firms. Do any of these factors really apply here? Your scale of output does not really affect the matter. Is there any reason, really, other than perhaps incentive, why you should not achieve the same costs?—I do not believe there is any reason why one should not achieve it, but I want to be cautious because there are a number of uncertainties over which I have not got the control, such as the attitude of ARB. I hope it is going to be all right, but I do not know. There is the question of whether we can get the agreement of the Unions, which is necessary, to what we want to do. I do not know to what extent I can get that out of the way. I hope to do so and I would certainly hope to reduce our costs by 50 per cent., but I do not know whether we could.

Dame *Irene Ward*.] I wanted to ask whether, when you have embarked on all this new arrangement, it is reasonably easy to get co-operation at all levels.

Chairman.] I am not certain whether we ought to ask you to answer that.

Mr. *Ernest Davies*.

1599. There is one point I should like to put, without pursuing it, and that is about the composition of the Committee of Inquiry you set up. Who was put on that Committee?—It was a Committee of the management of the Corporation and did not include any representatives of the employees.

1600. They were not invited to participate?—They were not.

Chairman.] This is a useful moment to pass straight over to safety.

Mr. *Ernest Davies*.

1601. I have two more short questions on maintenance. I would like to know whether the cost of maintenance in comparison with America would be influenced at all by the fact that their fleets are composed of a more uniform type of aircraft?—No. It would be if they were very much more uniform, but by and large they are not. We have not got any particular handicap in that respect.

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1602. Secondly, would it be influenced by the fact that you very often are responsible for the development of new types which might involve a great degree of maintenance?—Yes, it would certainly be affected by that and has been in the last few years because we have had much greater maintenance work on the *Britannia*, for example, than the other operators would have experienced on their aircraft.

Chairman.

1603. It would not make a great deal of difference to the overall cost?—Not to the overall cost, but it is a contributing factor. It is not necessarily a primary one.

1604. Now we will pass to safety, which is the second item we have said we will take today. Safety statistics have been put in and we have also got some statistics from BEA.* Those statistics seem to show that airlines of the United Kingdom have a worse record of fatal accidents to passengers per 100 million passenger miles than the airlines of the named countries, other than Belgium. Have you seen these statistics? What has been the experience of the BOAC in this matter?—(Sir *Gerard d'Erlanger*.) Could I answer that? I am afraid it will be largely by reading out notes, because, again, it is one of those problems where there is no absolute answer. The airlines have different types of aircraft; for example, in the case of BEA and BOAC the type of operation is fundamentally different, short haul and long haul. In considering the comparison of the figures for BEA and BOAC for the period 1953-57 it should first be noted that whereas the mean stage length for BEA is 263 miles, that for BOAC is 1,048 miles.

1605. Can I stop you there? First of all, I have not got the specific figures for BOAC in front of me. I have got a figure for BEA between 1953 and 1957 which gives passenger fatalities per 100 million passenger miles as 1.14; but I have not got the BOAC figure?—(Mr. *Smallpeice*.) It is 3.16. (Sir *Gerard d'Erlanger*.) But I am afraid we have got to qualify that. We include Comets. If you exclude Comets it comes down to 1.94. We do not think that it is reasonable to include Comets because they are a story all on its own.

* Appendix 44.

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[Continued.]

1606. It is useful to have both figures?
—Yes.

1607. From what you have said, you have reminded us of the difference in task of the two airlines, BEA and BOAC. The point has been made that the danger at the moment is at take-off and landing, and from that point of view BEA does more take-offs and more landings than you do. Therefore, that point would work in favour of BEA and against you?—That is right. That is why some of these comparisons are so very, very different. By and large, we probably carry more passengers in each airplane, so that if there is a crash we have more people in our airplane than they would have in theirs, another thing which distorts these comparative statistics. And, of course, there is the period over which you take statistics. For instance, if you take over the last two and a half years, BOAC's record is nil. We have brought a graph* with us which, I think, is perhaps the most useful document of all, which really shows what the trend has been. This goes back to 1935. It shows the trend all the way down.

1608. Perhaps you could explain it to us?—In the top half of the Table the darker columns are passenger fatalities per 100,000 aircraft miles. The lighter columns are passenger fatalities per 10 million passenger miles. Then the two lines, the green and the red: the red one is a five-year moving average and the green one is also a five-year moving average related to those two passenger fatalities of 100,000 aircraft miles in the case of the green line, and passenger fatalities per 10 million passenger miles in the case of the red line. You will see there is a general trend coming down to a period of blank accidents, 1947-50. Then came the Comet troubles which is the white block and a not very good patch up till 1956. Then at the moment a clear patch.

1609. What are these dark patches in the period mid-1952 to 1956, the ones that were not Comet accidents?—(Mr. *Smallpeice*.) There was a Stratocruiser lost at Prestwick, a Constellation at Singapore and an Argonaut at Tripoli.

1610. Then down below, the second half of the chart, you have a Table showing aircraft accidents involving passengers?—(Sir *Gerard d'Erlanger*.)

That is rate per 1,000 stage flights. (Mr. *Smallpeice*.) That is just the number of accidents per 1,000 stage flights. It shows the same trend. I do not believe it adds anything very much. But I think, perhaps, if we are pointing out in the top half at the right-hand side the difference between these green and red lines, the upper one in the right-hand side includes, Comets, and the lower one is without the Comets.

1611. When we talk about Comets, we mean Comet I?—Yes.

1612. I did not want to interrupt you. Were you going to carry on?—(Sir *Gerard d'Erlanger*.) I think we have covered it, by and large.

1613. What I would like to come to, now we are comparing BEA and BOAC, is why is it that the ICAO figures give the United States such a very good record as far as accidents are concerned?—In my opinion it has a great deal to do with the immense volume of internal flying, within the United States, where they have got their own national control systems as opposed to international control systems. Throughout the networks operated within the United States I think they have invariably got the best types of control and equipment, whereas with us spread all over the world it does vary very much from area to area. I think that has a great bearing on it.

1614. That is really on the point that there is a danger period at landing and take-off?—At landing and take-off, that is true. (Sir *George Cribbett*.) On this question of causes of accidents, the Ministry of Transport frequently produce a publication giving an analysis of causes and lest you should be left with the impression that take-offs and landings are the primary cause, my recollection is—and I am speaking from memory—that the main cause of accidents a few years ago was collision with hillsides and things of that kind.

1615. Is that also affected by control equipment?—It could be, though not necessarily so. I thought probably your thinking was drifting towards the conclusion that the main cause of accidents was landing or take-off and I think, as I say, this Ministry analysis of causes of accidents will show that is not necessarily so.

1616. Is that Report published annually?—It used to be published annually. Quite honestly, I have not

* Not printed.

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kept pace with it. (Sir Gerard d'Erlanger.) I think, if I may say so, the tendency to run into mountains in the last few years, with the advantage of higher flying aircraft, has been considerably reduced. (Sir George Cribbett.) I agree with you.

1617. What you were saying to us a little time ago about the requirements of the ARB for inspection compared with the requirements of the—what do they call it in America?—(Sir Gerard d'Erlanger.) The CAA.

1618. You were saying that those requirements here are more stringent as regards inspection supervision, and yet the requirements in America seem to produce better results?—(Sir George Cribbett.) The system is different. In this country the ARB requirements really revolve around the licensed engineer. He is a chap who has to pass examinations set by the Air Registration Board and his certificate is necessary to enable an aircraft to be passed fit for service. Now, no similar system exists in the United States. They start off by assuming that a good airline, an airline which has their approval, will only employ skilled staff and that those skilled staff can be trusted by and large to do their job. Now, under the licensed engineer system it stands to reason that one man cannot put his hand on his heart and certify all aspects of an aircraft and that in turn means an additional complement or establishment of inspectors to support his certificate. I think that is the point, Mr. Smallpeice, that you were referring to? (Mr. Smallpeice.) Yes. (Sir George Cribbett.) That, of course, can add quite considerably to the cost—this need for an establishment of licensed engineers and their supporting staff, as it were.

1619. But the point is there is no evidence that the system used by the CAA produces a lower safety figure?—No.

1620. From your own point of view are there any steps that you are taking now with radar or with airborne equipment or with land-based equipment to increase the safety factor?—(Sir Gerard d'Erlanger.) We believe in incorporating, or are incorporating, in all our aircraft the most up-to-date equipment, which you might call anti-accident equipment of one sort or another.

1621. Since, as you have stated to us, you have had a clear record for two years, is it—?—Two and a half years.

1622. —you are not really able to give us any guidance as to whether, taking it by and large, in recent years the safety records are affected by equipment at foreign landing grounds?—I think we can give you a measure of the problem, relating it to our near misses in the airline. We have been—not only us, but all operators—particularly concerned, even prior to BEA's accident near Rome, about the Italian area and repeated representations have been made, we know, by H.M.G. to the Italians, and by others. The fact that we have not had any accidents does not mean that we might not have had one.

1623. Do your aircraft carry equipment which would show them on a radar screen the approach of another airplane coming at them?—We do carry radar screens, but it is not absolutely certain that you see the approach of another aircraft on it.

1624. Because they are going so fast?—They are going so fast, the Captain probably is concentrating on a coastline or something or other and he might not notice another aircraft.

Mr. Palmer.

1625. If it is fair to suggest that the Italian area is a particularly difficult one, we have not figures actually of the Italians themselves but we have figures for other West European countries presumably flying out there, and on the whole our figures seem to be worse. Why is that? It would seem that if there are danger areas, you mentioned Italy in particular, this should be a common factor affecting all West European lines?—The Chairman was asking me, are we satisfied with what goes on in other areas as far as air traffic control is concerned, and I was saying that whereas we had not had accidents due to traffic control in other areas, I could point out that our experience of near misses in the Italian area and that of other operators gave considerable cause for misgiving.

1626. My point is that the same conditions would apply generally to West European airlines?—Yes.

1627. The U.S.A. was mentioned; what about Scandinavia? They have a very good figure indeed and yet I should have thought their flying conditions were extremely difficult. Why should the Scandinavians be so much ahead of us in safety? Is it that our aircraft are

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older and slower?—I do not think so. (Mr. *Smallpeice*.) May I come in on that point? I do not believe they are so much better. Those figures are in relation to a specific period of time and these things do tend to come in patches. We have been through a bad patch in the particular period that has been taken for the basis of these figures. It did give us cause for anxiety—perhaps I might go on because I was the only one of us three who was on the Board at that time—it did give us cause for anxiety in 1955 when we got into this patch and we did set up a special committee to go into this question of air safety which reported to the Board in December, 1955, with a number of recommendations which have been implemented. They involved a number of changes in the organisation of the airline itself because we found that we had one or two incidents which were due to human error and we felt that necessitated changes in the management of the operations department so as to bring about a better feeling within it.

1628. You suggest that the statistics in this field would have to be treated with caution?—I do.

Mr. Bonham Carter.

1629. Could I return to Italy for one moment? Is the danger which you have noticed, in fact inadequacy of control of air traffic?—(Sir *Gerard d'Erlanger*.) It is the inadequacy of control of air traffic by the Italian authorities coupled with the multiplicity of military operations near Rome.

1630. Secondly, are their controlled landings and take-offs equally inadequate or is it simply in the air that their control is inadequate?—I am not aware of any landing and take-off control slackness. It is confined to near misses in the air. (Mr. *Smallpeice*.) I do not believe it is due to slackness in the control system. It is the complete inability of the civil authority to control the military element, at all levels, whether close to the ground or high up in the air.

Chairman.

1631. Let us pass on now to some general questions. Amongst the general questions which I want to hear you on is the effect of Ministerial supervision on your commercial operations. During the course of earlier evidence you gave

to the Committee last Session you explained to us what happened in investment of aircraft. You also explained to us that in cabotage routes the Minister did, in fact, insist on approving the fares you charged. Are there any other instances in which the Minister can force upon you decisions which you might not otherwise have taken yourself?—(Sir *Gerard d'Erlanger*.) In the field of fares?

1632. No, in the general field.—In general the answer to that is no. I will ask Sir George, probably, to elaborate on this in a moment. By virtue of the fact that we have to go through the Minister to secure capital and that we have to submit tri-annual estimates to the Minister, he can if he so wishes, at both stages, say, Well, this will not do, or This will do. But generally speaking, the Minister does not impose conditions on us.

1633. This is a question you might like to think about and answer later but I would like the answer to it. Since you have been Chairman—and I just want to make clear I am not criticising, I want to find out for the benefit of the Committee what the facts are—have you as a result of advice or supervision from the Minister then embarked upon a course of policy or a course of action which you would not, if you had been left to yourself, have decided upon? And if so, in what field?—I think the only course of action which comes anywhere near that is the problem related to the Colonial Coach Services which I referred to in my Report. There is the basic problem of the existence of the Colonial Coach at all. Superimposed upon it then comes next the problem that they now are operating pretty modern equipment; in fact, at one moment of time they were more modern than ours—alongside our Argonauts. Now we have got Britannias in that side of things and it is a bit straighter. We are still left with a problem in that field and that is the fare differential which we hope can be sorted out in the not too distant future by general agreement within IATA on the extension of the economy class fares throughout the African as well as the Eastern routes.

1634. Does Sir George want to add anything?—(Sir *George Cribbett*.) I do not think so; at least, not very much. Of course, the Committee must be aware from the general provisions of the Air

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Corporations Act that under the Act the Minister has got certain powers to limit the functions of the Corporation. He can only do so, of course, by making an Order which is subject to a negative resolution of the House. He has powers to give general directions in the national interest but only after consultation with the Chairman; and he has miscellaneous powers relating to the production of estimates, finance accounts and so on. But his main power, as the Chairman has said, is in relation to our borrowing powers, within the limits which have been set by Parliament in the various Statutes laying down our maximum borrowing powers.

1635. Has he power under the Act to make you do certain things on cabotage or Colonial routes?—I think the answer to that is a little complicated and, if I may, I will try to give an explanation of it in relation to cabotage. The Minister certainly has no specific powers to approve cabotage fares. The practice started in pre-war days with Imperial Airways and is really an incident of the subsidy arrangements of those days, under which there was specific provision that the estimates of the revenue of Imperial Airways would be submitted to the Minister (in those days the Air Minister) for his approval, and quite naturally as part of that exercise he would approve the rates of fares. That system, of course, was in fact carried into the British Overseas Airways Act and again into the Air Corporations Act and must be deemed, I think, to have applied quite legitimately during the period when we were in receipt of a subsidy, that is, up to 31st March, 1956. Now, as you know, the present policy of the Government is to give the independent companies rights to operate these Colonial Coach Services at lower fares, and I think we have always accepted the view that the Minister must in the last analysis approve the relationship that exists between those fares and the fares to be charged by the Corporations. Of course, the cabotage element in our fare structure is not a very big one. By and large, all our international fares are controlled by Governments as a consequence of the system of bilateral agreements, dealing with the exchange of traffic rights.

1636. I quite see the reason for it and I do want to make it absolutely clear I am not raising the rights or wrongs of this; I am trying to get facts. There is

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just one more fact I want to establish, if possible. Whatever may be the reasons for the cabotage fare, is it or is it not a fact that the Minister has no statutory authority to do what he has done? —He has no statutory authority at all; that is in present circumstances.

Mr. Ernest Davies.

1637. Sir Gerard d'Erlanger stated just now that the Minister, except in this case of the Colonial Coaches, had not intervened. Could he tell us something about the arrangements which were made when, after Ghana became independent, there was I believe a pooling arrangement made with one of the independents with regard to flights to West Africa. Was that made entirely on BOAC's initiative or was it a result of negotiations?—The question was whether we entered into an arrangement with one of the independents, and the answer is we have not done so.

1638. Is there not any route on which you are co-operating with the independents?—No. (Sir Gerard d'Erlanger.) One of the independents runs our freight service to Singapore. (Mr. Smallpeice.) That is on charter, though.

1639. What was the reason for handing that over to an independent?—This goes back a few years. I think I would like notice of that.*

1640. All right; I will not press it now. —It was about four years ago. There were reasons at the time.

Chairman.

1641. I think Mr. Smallpeice wanted to supplement some of the evidence he gave to us last time on these comparative costs per capacity ton mile.—Last time we were asked for an explanation of the difference in cost between ourselves and Pan American and we did answer rather off the cuff. I think that it might be of advantage to the Committee to have a fuller answer. If you remember, the figures we were comparing were Pan American Airways for 1957, a figure of 30.9d. per C.T.M., with BOAC's figures for 1957-58 of 39.1d. There are just two things I would like to say about that, and that is that the figure for Pan American is Pan American's system-wide, and we have always regarded, within BOAC, that it is a better basis of comparison to take Pan American Atlantic Division.

* See Q. 1664-86.

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Their Atlantic Division does not only cover Atlantic services but also extends right through Europe to the East and is more nearly comparable with our operations. Their system-wide figures include operations to South America and Alaska which are different in character and cheaper in cost. If, therefore, we take the Pan American Atlantic Division figures the Pan American figure is not 30·9d. but 33·4d. per C.T.M.; so it is 33·4d. compared with BOAC's figure of 39·1d. The capacity ton mile unit of measurement varies as between us and Pan American because it depends on what proportion of capacity we provide in first class and in tourist class. If we equate our proportion of capacity to the Pan American's so as to get a common yardstick, then our 39·1d. figure comes down to 37·5d. So a more correct figure of comparison between Pan American and ourselves would be Pan American Atlantic Division, 33·4d. compared with BOAC on a similar capacity output basis, 37·5d. In other words, the figures are closer together. Included in all this, though, the maintenance figures are still very substantially different and I do not want it to be thought in what I have said, in trying to get a better basis of comparison of the operations of BOAC as a whole with Pan American, that I am trying to gloss over the figures of maintenance costs, because I am not. The difference is still of the order of 5d. per C.T.M. between ourselves and Pan American.

1642. That would close the gap?—That would even more than close the gap.

1643. This 37·5d. figure that you have given for yourself in your Atlantic route is the 39 that applies where?—That applies throughout the Corporation.

1644. I only raise it because you have presented us with a paper some time ago which did give exactly that figure. The cost per C.T.M. for the Transatlantic routes was 37·5d.?—Your memory is better than mine.

Chairman.

1645. This is the point I want to clear up. You gave us this paper* on the 14th July. It shows costs per C.T.M., Transatlantic 37·5d.; West Atlantic 34·2d.; Southern 36·7d.; Eastern 33·6d. The

highest one is 37·5d., yet your average cost is 39·0 or 1. That is a piece of mathematics I cannot do for myself?—There must be a difference in the basis.*

Sir Alexander Spearman.

1646. Could I ask a general question?—How do you compare in magnitude of operation with other airlines?—We are second in order of international airlines in terms of capacity per ton mile output; we are second to Pan American.

1647. Are they much bigger?—Yes, more than twice.

1648. No doubt there would be insuperable disadvantages, but would there in fact be substantial economies in costs of administration if BEA and BOAC were amalgamated?—(Sir Gerard d'Erlanger.) This is a very old subject that has been discussed many, many times. Can I express a personal opinion? My personal opinion, for what it is worth, is that you can probably lose more than you would gain. I think you have got a different type of operation in BEA—short haul—against BOAC's long haul operation. You would lose the undoubted virtue of having at least two lines of thought; in other words, the errors you made in one central authority would apply to both. At the moment you can get two schools of thought: how you maintain your aircraft and fly them, and treat the public and so on. I certainly believe that although you might say you can gain, in fact you lose.

1649. What I was really asking was not whether on balance it would be good for the actual operation, but would there not be quite certainly some administrative savings, even though it might be a very bad thing to do otherwise?—I think there might be some savings in administration, yes.

1650. Would they be very substantial?—(Sir Gerard d'Erlanger.) I should not think very substantial.

1651. I am not saying that I think it is a good thing, but to the layman one would have thought the savings in expenses would have been very substantial, when you tell us that Pan American is twice as big as you and they get their costs down very low?—I find this one very difficult to answer.

* Not published.

* See Q. 1687–93.

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[Continued.]

Mr. Albu.

1652. Do in fact Pan American do as much medium and short haul work as BEA?—(Mr. Smallpeice.) No, they do not. I think that is evident from the average passenger distance.

1653. Is not BEA the largest medium and short haul airline in the world?—The largest international one. (Sir George Cribb.) An examination of this question was made four or five years ago and the conclusion was reached there would be very little saving by merging the two Corporations. The view held at that time was that the only approach to the problem would be to have two separate divisions, the BEA division and the BOAC division. Their aircraft types and their techniques of operation and traffic handling differ, and you would get very little advantage, in fact, out of an attempt to merge them. That was the conclusion reached as a result of a fairly careful examination.*

Chairman.

1654. Would that apply to maintenance as well as administration?—Yes.

Mr. Albu.

1655. You told us that you might expect to approach a reduction in maintenance costs by about half; that is to say, you would come down to Pan American level. But if I look at page 32 of your Report, Aircraft Maintenance, I see the total cost of staff out of the gross total is just over £6 million, to which presumably must be added a proportion of the engine and component overhauls, £4 million. So far you have only told us about staff savings, and the whole of the saving, as I understand it, you hope to make to reach a figure of a reduction of 50 per cent., would be in staff savings. But they are certainly not to be found in those figures. I do not, therefore, see how you can expect to make the savings unless there are also savings to be made in other costs. Even assuming that the engine and component overhauls were half labour, that would give you a total labour cost of £8 million out of a total labour cost of £16 million; that is in itself half?—(Mr. Smallpeice.) There are savings in other costs to be expected which are consequent on having a smaller labour force: the whole question of office

accommodation, for example, and things that go with the administration of the working force would be saved. Then also we are able to achieve economies in the consumption of working materials. The main problem, shall we say, is the labour force.

1656. The reduction of the labour force by two-thirds would save something like £5 million; but to come down to a 50 per cent. saving you have still got to save another £3 million which I must say I do not find so easy?—My Chairman reminds me it is in terms of cost per capacity ton mile. In fact, we hope to get 3 per cent. of that in greater utilisation of aircraft and greater output as a result of reducing the amount of work done and the amount of time required on maintenance. There is a productivity factor.

1657. There are other costs than maintenance costs to be saved?—There is a productivity factor as well.

Chairman.

1658. While we are dealing with that, in the course of your Report you make the point that you have made to us, and which I have seen in the newspaper often, that in this recent period your capacity offered has gone up by much more than your revenue has gone up because there has been a slowing down in the rate of increase. To what extent do you suffer in the BOAC from having a whole block of expenditure that is fixed and not variable with the variation in traffic?—(Sir Gerard d'Erlanger.) I do not think BOAC is peculiar in this respect.

1659. It is common to all airlines?—It is common to all airlines. Most of your expenditure really is fixed expenditure and not variable. When you come to analyse it, variable expenses are quite a small proportion of the total: by and large, fuel and oil, and crew expenses. But all the rest, unless you can start getting rid of aircraft, getting rid of crews, getting rid of staff seasonally, are fixed.

1660. And the same is true in your maintenance?—The same is true in the maintenance; although there we can, by and large, so phase maintenance when all is properly planned, as the Managing Director has pointed out, as to be busy all the year round.

1661. But operators who do more contracting out of maintenance work

* See Q. 1788–90.



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[Continued.]

gain in that respect compared with you, because if they have a fall-off in the use of airplanes, a fall-off in passenger traffic, they can cut down the outside work, can they not?—In theory, yes, you could contract out your peaks and so keep the average level lower.

1662. But—I think you have told us this—you have a greater amount of work in your own shops than your competitors?—I think we do.

1663. That is a deliberate policy?—It is a deliberate policy to do our own work.

WEDNESDAY, 17TH DECEMBER, 1958.

Members present :

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.

Mr. David Jones.
Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Dame Irene Ward.

Sir GERARD D'ERLANGER, Chairman, and Mr. BASIL SMALLPEICE, Managing Director, British Overseas Airways Corporation, called in and further examined.

Chairman.] I would like to start today by taking up one or two questions that were not fully answered on the last occasion. The first one was raised by Mr. Ernest Davies, Question 1639, relating to the colonial coaches and independents. Mr. Smallpeice said in answer: "This goes back a few years. I think I would like notice of that."

Mr. Ernest Davies.

1664. That was in connection with the handing over of your freight services to an independent airline. I asked the reasons why and you said you would like notice so I would appreciate it if you could give us the reason now.—(Mr. Smallpeice): Yes. It goes back, in point of fact to the year 1954-55, but the reason behind the decision goes back earlier still to 1953-54. It arose in a period when the Corporation was endeavouring to see how it could work along with the policy of the Government at the time when it had been stated that it was felt that the sphere of all freight aircraft operation was really for the independent operators. In our Report for 1953-54 we did express the view that we felt that in order to be fully competitive with other international airlines we must be able to accept whatever

volume or type of freight business was offering and therefore that we must be free to supplement our passenger services that is to say, cargo capacity available on passenger services, by all-freight services. But we went on to say that we had concluded that these services need not necessarily be operated by the Corporation if the supplementary freight capacity on any route where it was required could be provided by another British operator in such a way, of course, as to ensure that the goodwill of the passenger business stemming from the freight business was preserved for the Corporation. Following on that thinking which we put on record in our Report for that year we were having negotiations at the time with Airwork for collaboration with them on the North Atlantic route, and Hunting-Clan had obtained from the Minister permission to operate a tramp-type of freighter service to points in Africa and we were in close working relations with them in that part of the world. We subsequently entered into a charter arrangement for Skyways to operate our Singapore freight service for us with York aircraft as it was then and subsequently with Hermes aircraft. In addition to the general policy involved in this matter

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[Continued.]

we had also a financial consideration because we had been losing a good deal of money, about £150,000 to £200,000 a year on this service. The keeping of a small unit of York aircraft just for that purpose was expensive and uneconomic, and we were able to negotiate an arrangement with Skyways which was satisfactory to them and also satisfactory to us in that since then we have been able to eliminate the loss which we had previously incurred on that service.

1665. If it had not been for this change of policy you probably would have continued to operate the service yourselves because that was the main cause of this switch over?—It was certainly one cause and possibly the main cause, but it was also a welcome thing from our point of view to avoid the loss involved in maintaining an uneconomic and small unit of freighter aircraft for that particular purpose.

1666. What is the arrangement this time? Do you share in the revenue in any way?—We have an arrangement with Skyways under which we pay them a figure for the charter of aircraft which is related in some way to the volume of business carried.

1667. Then if there is supplementary freight which they have not the capacity to carry do you carry that yourselves or have you a right to do so?—Indeed, we carry whatever freight we want to on our passenger aircraft in preference to their aircraft. We do not give them any priority at all.

1668. It is really the other way round—what you cannot carry goes to Skyways?—Certainly.

1669. Might I follow up the similar question on the independents which was No. 1637 where I asked concerning the pooling arrangement and both the Chairman and Mr. Smallpeice made it clear there was no pooling arrangement and that there was no co-operation with the independents. What I had in mind was the agreement that was announced in the House of Commons by the Minister on the 26th June 1957, concerning the operation of the colonial coach to Ghana; when Ghana became independent a new agreement was entered into. What I wanted to ask you was—at that point we were discussing the relations between the Minister and the Corporation—to what extent were the new

arrangements which were made whereby Airwork and Hunting-Clan were permitted to operate a tourist class service which was a new venture entered into willingly by you or was there any opposition on your part?—(Sir Gerard d'Erlanger): There was for East Africa but not for West Africa I think.

1670. If I might interject there they are quite closely related?—As far as East Africa is concerned first of all there was a situation stemming from the Government policy of 1954 or thereabouts for permission to have colonial coaches at all. Then arose another situation in which the independents concerned wanted to substitute Viscount aircraft for Viking aircraft a situation which we protested before the Air Transport Advisory Council; the Advisory Council ruled differently. That was followed by a situation in which we wished to introduce T.34 which is an economy class fare and which is virtually the equivalent of the colonial coach fare, on the East African operation, particularly with the Britannia aircraft as soon as we have them operating down in that sector. That also was put to the Air Transport Advisory Council and they gave a formula whereby the existing colonial coach operators Hunting-Clan and Airwork were entitled to preserve that part of the traffic I think, to use the Air Transport Advisory Council words, which they had pioneered for themselves. The formula was that when we introduced T.34, which is economy-tourist, they would be entitled to do likewise on the basis of a 30 per cent. share in the capacity against 70 per cent. of ours. Now we protested all those applications all the way along before the A.T.A.C. but there has been, by and large, for many years a general understanding that the Corporations will accept recommendations of the A.T.A.C. to the Minister even though they have protested. I think it is reasonable to say that we did protest very firmly indeed over the introduction of the Viscounts and over this 30/70 per cent. formula.

1671. But by and large, when the A.T.A.C. has made its recommendations you do not have consultations with the Minister to kind of add to your protest before the Council?—We did.

1672. You did in this case?—Yes.

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1673. Of course, this T.34 has not yet come into operation?—It has not yet come into operation.

1674. But when it does it is the sharing on a capacity basis with an independent which would set a precedent? This is the first time it has been done?—It is the first time it has been done as far as I know.

1675. And it will limit your development if you develop on that route; if traffic increases and so on it will mean that the independent would advance with you?—He is limited to 30 per cent. of it.

1676. Yes but if the total capacity is increased he would still be entitled to have 30 per cent. of the increased capacity? He would share in the development?—He would share in the development.

1677. Would you say that does mean there is some restriction on your development there in your obtaining the traffic which you previously had to yourselves and which now you are having to share with another line?—I think the answer to that must be yes; that is why we protested.

1678. Would you not also say that on these routes (I am back to the Ghana route, the West African route) where you have got Airwork and Hunting Clan running parallel to the BOAC?—It is a slightly different situation there because they run round the coast, it is a stopping service.

1679. Let me put it this way: would it mean that traffic from say London to Accra, although it may go round a different route, would be competing with your traffic from London to Accra which is going round another route?—Substantially. It is a more devious way of getting there but it is a cheap way of getting there.

1680. What I am asking is this: is this not an unusual situation where a national carrier like BOAC is not only having to compete on these routes to some extent with the other international airlines, but also with one of its own nationals?—Yes.

1681. That is a very unusual situation?—It is unusual. It was based on the philosophy—it is not for me to question the philosophy or the policy—of the Government at the time that this

colonial coach service generated a new type of traffic.

1682. When it was colonial coach it might have generated a new type of traffic. Once it comes over to the tourist, whether it is first class/tourist or the T.34 services which you may be operating, then it cannot be generating new traffic but is either taking away from you or sharing in the increased traffic that otherwise would go to BOAC?—That is correct. (Mr. Smallpeice.) Shall I supplement what my Chairman has said in regard to Ghana? Before Ghana became Ghana, when it was still the Gold Coast, the Minister had granted rights for colonial coach services to Airwork and Hunting-Clan to operate colonial coach services round the coast to Accra. When the independence of Ghana was about to take place the question was considered by the ATAC as to what should be done and a recommendation was made by them to the Minister, which the Minister accepted, that the rights previously given to operate a colonial coach service should be converted into tourist services because, as Ghana was then independent, of course the service had to be international in character rather than a colonial coach type of operation. And under the arrangement which my Chairman referred to we did accept the decision of the Minister on that, after recommendation from the Air Transport Advisory Council.

1683. Did you protest to or make objections to him when the hearing took place before the Council?—I did not think it was a specific hearing. I think it was taken in with the general policy towards the future of colonial coaches in Africa and we certainly did protest about that service along with the others.

1684. And at that time were you operating a tourist service in competition with the colonial coach?—At that time we were operating tourist services across the desert and the independents were operating colonial coach services round the coast to Accra.

1685. Yes, but the final destination was the same?—They were in competition.

1686. And so once they ceased the colonial coach services, it is the same as in East Africa, they then became direct competitors with the same facilities or the possibility of having the same

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[Continued.]

facilities both as regards type of aircraft and the fares charged?—Yes.

Chairman.

1687. I have two further questions. In 1641 I have put to you gentlemen the mathematical conundrum that had occurred to me on one of your papers that I referred to. I do not know whether you have had time to sort that out or whether you would like to send us a written explanation? There is probably a very easy answer?—I have not got the transcript. Is it the question about the 39·1d.?

1688. Yes, and 37·5?—Yes. The figure of 39·1d. is in respect of the year 1957-58. It is a Ministry figure and it excludes interest on capital. The other figures to which you drew attention were those on a paper that we had put in, I think, headed "Range of Profitability on Routes" with figures varying between 33·6 and 37·5. I think you expressed a doubt as to how the 39·1 could reconcile with that.

1689. That is right?—The 39·1 related to 1957-58 and excluded interest on capital, as I have said. These lower figures to which you have drawn attention related to 1958-59; that is a year later. And they included interest but excluded commission paid to travel agents, because we were preparing the paper to indicate profitability on routes and we had dealt with commissions to travel agents by way of deduction from revenue; so we excluded it from these figures.

Mr. Albu.

1690. What was the average?—The average of those four figures on that piece of paper headed "Range of Profitability on routes" was 35·0d.

1691. That is the average under those conditions?—Yes, for 1958-59.

Chairman.

1692. Well, for some months of 1958-59?—No; it is budgeted for the whole year.

1693. A budget estimate?—Yes.

1694. Then there is one other question the answer to which is still open. It was asked by Mr. Palmer and it referred to the size, I think, of the working group under the foreman, to which you replied, "I am sorry, I do not know. I would rather not guess. If I may, I will

answer at the next meeting"?—Yes. For aircraft maintenance and aircraft overhaul it is 8 hourly rated staff to 1 supervisor in each case; for component repair and overhaul it is 14 hourly rated staff to 1 supervisor; and for the engine repair factory at Treforest it is 15 to 1.

Mr. Albu.

1695. These are weekly paid staff—the supervisors?—The supervisors are weekly paid staff.

1696. What you would call foremen or charge hands?—Both.

1697. Well—it seems a very high proportion to have?—It is indeed and it reflects, of course, the problem which we have, which came out last time. In addition to that we also carry one inspector for every 7 hourly rated staff, so that, as you say, it is indeed top heavy.

Chairman.

1698. It seems to me that we have got further to pursue the maintenance point which we would, I think, best do if we could arrange a joint meeting here with your Managing Director and your Chief Engineer and the Managing Director of BEA and his Chief Engineer, because I think there are some questions clearly resulting from the last meeting we had with you that could better be asked and answered with both parties present. I think you would probably agree that the Chairman need not be present?—(Sir Gerard d'Erlanger.) I would entirely agree. I would say it would help a great deal because some of the questions we have been asked do go into great detail that only engineers are in a position to answer almost off the cuff.

Chairman.] I gather that because of some arrangements of BEA we shall not be able to arrange that meeting until the first Thursday in February because they are away. But if we do that we can leave all questions of maintenance until then.

Sir Keith Joseph.

1699. You were comparing the operating costs of British and American airlines and to help us you were good enough to put in a paper which breaks down the total operating costs per capacity ton mile into different functional departments.* Would it be

* Appendix 22.

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[Continued.]

possible for you to tell us in which departments American practice differs strikingly from British practice? For instance, you spoke of cabin crew as tending, I think, to be less in American lines than in British. We see, for instance, from this paper the importance of aircraft maintenance which absorbed 25·6 per cent. of the operating costs. We know that you are going to operate on maintenance expenditure. The next highest item is flying operations. It would help us if we could compare the normal staffing of British and American lines to see whether part of the extra salaries paid in America is taken up by a smaller staff ratio. Obviously you are not responsible for American airlines and cannot answer for details but we should like any general observations that you have?—(Mr. *Smallpeice*.) Going back to the question of cabin staff, our observations probably referred to internal domestic American airlines.

1700. Yes, but that is a large amount (we have the figures somewhere) of their whole?—We have, I think, in previous considerations been comparing ourselves with Pan American and, certainly if we compare ourselves with Pan American Atlantic Division, there would not be any material difference in staffing in the cabin as between Pan American and, ourselves.

1701. So that as to 22·1 per cent. of operating costs, the lower costs combined with much higher salaries cannot be explained by lower staff. It has to be explained in terms of load factors and length of stages and presumably rates charged to the public?—We shall find a slight difference on the flight deck. My previous remarks relate to the cabin deck. There is a slight difference on the flight deck where they would carry, I think, probably one crew member less than we do.

1702. That in itself accounts for 20 per cent., does it not—1 out of 4 or 5?—On the flight deck it would, yes, but not for the whole aircraft.

Sir *Keith Joseph*.] No, clearly that is so. I do not know whether I am asking for too much detail at this stage in going into this. I only want the broadest comments.

Chairman.

1703. I think this is important. I was just trying to recollect it; I think it was

the time before last. You did deal with this roughly and I think the easiest way to conclude that point is to ask you just to have a look back over the evidence you gave and see if you can supplement it without a great deal of inquiries on your part; because, as you see from previous questions we have asked you, we have all very much got in our minds that the American salaries are three times what yours are, or their pay is three times yours, and yet their costs are either equivalent to or lower than yours. At the closing part of the last meeting Mr. *Smallpeice* did explain how, excluding aircraft maintenance, your operation costs appeared to be about equal?—Overall, yes.

1704. But nevertheless we do have in mind that salaries are higher. So if you can give us any more information, it would be helpful?—(Sir *Gerard d'Erlanger*.) Could I make a general comment under this heading? You and your Committee have obviously been searching for the answers to many questions which we ourselves have been searching for, and bearing in mind how much occupied the Managing Director and his team are on day to day affairs. I did call for an outside investigation to be started about nine months ago, the results of which I hope to get within the next two weeks. It is a very detailed analysis and includes visits to various American companies, it includes looking into ICAO and IATA statistics; and I am very hopeful that when we get the report within the next two weeks we shall be in a much better position to answer many of these questions bothering you and us.—(Mr. *Smallpeice*.) I would agree.

1705. I think that will help all Members of the Committee very much?—(Sir *Gerard d'Erlanger*.) It shows how difficult the answers to this Committee are when an outside body with nothing else to do, with all respect, takes practically nine months in collecting the answers to the questions.—(Mr. *Smallpeice*.) On the particular question asked, I could put in quite easily a typical crew complement operated by ourselves and a similar crew complement operated by Pan American on a similar route.*

Sir *Keith Joseph*.

1706. Thank you very much. That would be very helpful. Also, you may

* Appendix 27.

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[Continued.]

be able to analyse sales, advertising and publicity which are the next largest component of costs, 10 per cent., simply to show whether there is any major difference which you can observe between America and Britain there. We shall by that have accounted for nearly 70 per cent. of operating costs?—There is very little there.

Chairman.

1707. Thank you very much. There is one last point to pick up on the last meeting. At Question 1526 I put to you a question relating to the time that your investigations into maintenance had taken, and I think on looking back over the evidence there is one point that perhaps I did not press you hard enough about. That was the explanation why, having started some inquiry in 1956—I think that the Report said it was limited to engine overhaul—you did not start a major inquiry until a year later when, as Mr. Smallpeice told us himself, he, now Managing Director, had been very concerned for some years at the very high aircraft maintenance costs. I am sure there is an explanation and we would like to know what it is?—Yes. We first of all decided to attack this question of engine overhaul because that was the one on which we had already obtained a certain amount of information from other operators, and we sent out this expert team after the middle of 1956 to visit three European airlines and obtain particulars of their procedures. We found that very useful indeed. We put what we had learned from that into operation and we achieved a substantial improvement during that year. No sooner had we done that—we were then going to turn our attention on to the base at London Airport where the substantial volume of expenditure is involved—when we got taken up almost completely in the problems over the Britannia engine icing and the whole question of whether this fleet of aircraft, of which we had taken delivery of quite a number, could be put into passenger service or could not; there was all the re-arrangement that took place because we decided it could not be put into service then and everyone and the Chief Engineer in particular was completely pre-occupied for some months on the airworthiness problem which arose out of the situation. That took our attention off it. We eventually got the Britannia into service

in February, 1957, and at that stage, I am afraid I had to disappear from the scene to go into hospital, so there was an interval of about another three months before we really got back on to the problem again. But as soon as I did get back on the scene we set it into motion. It was, I think, in June that we set up our team, June, 1957, to study the engineering methods and costs of Pan American, K.L.M. and United Airlines. So that is what happened.

1708. Thank you. Now I would like to pass to some points we did not cover last time, the first being development flying. This is a point the Chairman has referred to on a number of occasions, the different treatment that is received by airline operators in this country and by airline operators on the other hand in the United States. I think it would be fair to say that your latest paper headed "Development Flying"* clearly establishes the facts as being that the American industry receive no special development subsidy or assistance from the Government of any kind other than that assistance which they get because American aircraft manufacturers are in receipt of large orders for transport aircraft and equivalent things like tankers from the America Services. Now, that is a fair summary?—(Sir Gerard d'Erlanger.) I think that is a fair summary.

1709. You say in the fourth paragraph of this paper that "The Airways Corporations when buying British aircraft, are in the invidious position in relation to their competitors, of being the first and initially the only customer for a new aircraft." And as a result of that, of course, you incur expenditure on development, really on improving the aircraft. But would it also be fair to say that you gain some advantage, at least for a short while, once you have proved it, as being the first in the field with a new and proved aircraft? This may seem largely theoretical because in the case of the Comet the thing did not live on to give you that advantage?—Obviously I must give you a correct answer to this question. We certainly derive an advantage from having new aircraft. Taking again, I am afraid, the Britannia as the example, we undoubtedly derive an advantage from being the first to operate the Britannia.

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At the same time we derive a considerable disadvantage in being the first to operate the Britannia not only on the score of expense but on the score of irregularity. On the score of expense I can give you an example of what it cost us to introduce an aircraft of a very similar performance, the DC-7C which we introduced about the same time as the Britannia. Equated to the same number of aircraft, though we did not have the same number of both types—we ended up with 33 Britannias and 10 DC-7C's—the cost of introducing 33 Britannias was £5½ million; the cost of introducing the equivalent number of DC-7C's—in other words, 10 multiplied by 3·3—would have been £2,600,000. So the difference in cost to us between introducing the Britannias and the 7C's was of the order of £3 million for, in performance anyway, a similar sort of aircraft.

1710. The only way out of this difficulty which you see is for the Government, that is the Air Ministry and the Ministry of Supply, to place orders before you for aircraft similar to or exactly the same as the aircraft you require; of course, I am referring to Transport Command. Presumably, when you advocate that, you are assuming that Transport Command will wish to expand and will want to have the latest aircraft. You are not asking for the Government to embark on this specially to help you?—No. I am assuming that they have a similar sort of requirement. Alternatively, if they have not and we are the first to take the aircraft on, then we think we ought to get some form of help, financial compensation, for taking on what in effect is development work.

1711. And that compensation is required to put you on a parity with American airline operators who have the advantage of having had development flying done for them by the Services?—Not only American operators, of course, but other operators such as KLM and SAS.

Chairman.] We mean airline operators that use American aircraft.

Dame Irene Ward.

1712. I really am fascinated by the fact that there seems to have been so much trouble with various new types of aircraft which has been discovered after you have put them on various routes. Is it a new factor? In the old days when

new aircraft were produced did you feel that the producers took more trouble? Has there been a deterioration in the practice of proving a plane before it is delivered to the customer?—It depends how far back you go. If you go back into the post-war era we had aircraft like the Tudors which never came off, the Brabazon which never came off, the Princess flying boat which never came off, the Hermes which took quite a lot of introducing into service, the Comets which did not come off the first time. It is not a new feature.

Mr. Albu.

1713. Do the Americans have similar troubles? Are they found out after flying by the Services?—They have had similar troubles, particularly in the early days of the Constellations. But I think by and large the aircraft they put into service seem to be more ironed out.

Dame Irene Ward.

1714. I really only meant pre-war rather than post-war. Is there a difference in the method of aircraft companies?—Pre-war the airplane was a much simpler thing, very much simpler.

1715. Yes; and so there were not necessarily the same types of difficulties?—I think really, until the DC.3 came in we did not lag behind the Americans at all. I think if there is a lag it really stems from the war years, by and large, when our industry here devoted itself entirely to fighters and bombers, whereas the American industry not only built fighters but was building very vast numbers of transport airplanes. I think that is where they started getting the lead in facilities and in manpower. I think it is directly traceable to that. We have been trying to catch up ever since.

Chairman.

1716. Is the new Boeing giving any trouble?—I heard yesterday (Mr. Smallpeice heard yesterday) of one incident; it is the only one I have heard of so far, an incident rather similar to what we were experiencing in the Britannias—engine icing.

1717. But then they have had the advantage, so you say, of long development flying hours with the Boeing tanker?—They appear to have run into something.

1718. It is very interesting to hear that?—I cannot be categorical about

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this.—(Mr. Smallpeice.) We do not know the reason, really, as to what is the cause of the incident.

1719. When do you get Boeings?—(Sir Gerard d'Erlanger.) The first one will be in December of next year, 1959, but with a different engine, of course—a Rolls engine.

Mr. Ernest Davies.

1720. Would you consider that the snags which have developed in the Britannia and the consequent delays have been rather the exception, rather more than you have experienced in other planes?—(Mr. Smallpeice.) I think they have, yes. But considering that the whole of the systems of the aircraft were new and developed for what was after all the first long range British turbo-prop, considering all the new work that was in it, I would not have said that it was more than would have been expected. The trouble was there were so many new features of the aircraft.

1721. Would it not appear that you have experienced unfortunately more difficulties over the Britannia than, say, BEA did over the Viscount?—Yes, I think so.

1722. And yet they were both turbo-prop? But this was such an advance on the Viscount that it was essentially a new plane?—Yes, it had newer types of system altogether than were incorporated in the Viscount.

1723. May I just revert to what Sir Gerard said just now? In the case of these earlier types of planes such as the Tudor and so on, was not more of the development costs in those days paid by the Ministry of Supply and less of the development thrown upon the Corporations?—(Sir Gerard d'Erlanger.) I think the development cost in the sense of cost before flying, yes. Again, the development flying side was laid on the shoulders of the Corporations.

1724. Might I put it this way: as a result of that was it likely that more of the snags were ironed out before the planes came to you for actual operations or for your development, than is the case at the present time?—Certainly not in the case of the Tudors.

Chairman.

1725. There is a difference between development, so called, and development flying, which we want to get clear. I

think the point you are making is development flying is what you are referring to now?—If I may illustrate it in another way: take the Comet IV as we know it today. That has had an immense amount of background of actual flying experience, not as a Comet IV but as a Comet II both with the Air Force and with the Corporation on non-scheduled operations—an immense amount—and I think that is what has made what we believe at the moment to be an outstanding aircraft of the Comet IV.

Mr. Ernest Davies.

1726. And you have had very few difficulties since the Comet IV was introduced; no snags at all?—Yes.

Mr. Albu.

1727. What is the KC.135 Boeing?—(Mr. Smallpeice.) That is a tanker version of the Boeing 707.

1728. Where you have put down as the cost of column B,* hours flown prior to Certificate of Airworthiness, having been paid by two or three organisations are we to assume that they are equally responsible, because otherwise it does not mean a great deal? Take the case of the Britannia 102: you say the cost is paid for by BAL yourselves and the Ministry of Supply, but you do not say what proportion. That is column E?—No, we have not said what proportions. I cannot remember offhand.

Mr. Albu.] I think we ought to have that.

1729. That is rather important?—Yes.

Chairman.

1730. I see the importance of it but, without putting words into your mouth, Mr. Smallpeice, I see some difficulty because it is all bound up, is it not, in the arrangements for the buying of each Britannia aircraft which will to a certain extent, but not to the whole extent, include payment for the development flying. But if you can give us it, by all means do. I do not think any of us would want to put you to a large exercise on it?—If it is straightforward, may I try and give it to you?

Chairman.] If it is not straightforward I do not think it matters.

Mr. Albu.] The only point is that the Corporation is complaining that they

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have to bear a large part of the development flying costs prior to putting an aircraft into service. Of course, they are also saying they have a good deal of trouble after putting it into service.

Chairman.

1731. C is only paid for by them?—
C is only paid for by us in that case.

1732. And there is only one case in which BOAC share the payment of C; that is development hours prior to passenger service and that is the Comet IIE where there has been some help from the Ministry of Supply. Otherwise it is in the cost of the airplane?—
There were special circumstances in the case of the Britannia 102 and I think I can probably provide the answer easily.

Chairman.] If you will. This paper to which Mr. Albu was referring is of course deficient in some further information which might help us—these blanks under column C when we come to the American airplanes.

Mr. Albu.] And column F.

Chairman.

1733. And therefore in column F, yes. I do not know whether you have, since the 22nd July when Mr. Abell put this paper in, got any further information, but I think it did occur to some of us that the case which you had so strongly made, which I think we understood and I think sympathised with, in earlier remarks was really not backed up on this Table. In fact it seemed rather to weaken your case?—(Sir Gerard d'Erlanger.) I think we must try and get some more information about the KC.135.

1734. Because it is the KC.135 which is really the example?—It is the same as the Boeing 707.

Mr. Albu.

1735. May I ask for an expression of opinion? Is it your view that in regard to American aircraft as a whole it is the orders placed by the Air Force that so substantially reduce the cost of development and production or is it the combined orders placed by the American Air Force and by civil airlines in the United States? I think in this paper you put in it rather appears as if the sum total of orders is the really important factor not so much the orders placed by the American Air Force?—I think

it is both. But to give you an idea of the difficulty in these sort of papers, in the case of Boeings the Government order for the KC.135 is believed to be for about 400 aircraft, while airline orders for the Boeing 707 total over 180 aircraft. That of course, in itself is substantial.

1736. In that case, of course, it is the Government order which is the substantially important thing, the Air Force flying the 135 before any civilian was flying the 707?—But further down the page in the last paragraph: "To cite the case of Boeing it was only after a jet transport prototype had been designed, built and flown as a private venture that military interest was fostered and resulted in substantial orders of the KC.135." That is the official story. But the story as I know it is that Boeings won a design competition for the jet tanker aircraft for the U.S. Air Force, and having won the design competition they took a chance and went ahead to build the prototype with the reasonable assurance that they were going to get the order for the tanker version.

1737. What I am trying to get at, to get back to the British aircraft point of view, is whether in fact orders that might be received from the Royal Air Force would in any way in this country make up to an order book which would make it economic for British firms to compete with American firms. If the orders are of such a size in the United States, not only because of the Air Force but because of the civilian airlines, a size which no British aircraft manufacturer could hope to gain in this country even if the R.A.F. came in, of course, they are in a very disadvantageous position anyway?—Clearly, I am not the person to answer this question but I understand that, by and large, on both sides of the Atlantic you have got to have a production of something of the order of 80 aircraft before you start breaking even.

1738. There is nobody in this country to be able to place such an order; there are not enough?—Between the Corporations and the Air Force, anyway, for big aircraft, there are not enough.

1739. You are now talking of big jet aircraft?—I do not believe there are enough. We know that with the Vickers VC.10 for which we placed an order for 35 with Vickers, they want, so they tell

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us, again, 70 or 80 orders in total, including our 35, to begin to break even.

Chairman.

1740. But of course, that might come on afterwards?—It might.

1741. I am not saying that Mr. Albu's point is not important, but the point mainly made in this paper is that, looking at it from the side of your operations, if only some other authority ordered and flew these airplanes before you had to fly them as passenger aircraft you would then be on a parity with people who use American made aircraft?—Alternatively, if that cannot be achieved, and we have to do development flying, can we please have some help to do it.

1742. Then you would like some financial help or at least recognition?—Yes.

1743. Now, there is one thing that you have told us before that relates to this. On the 19th June at our first meeting, I think, you told us at Question 247 this: that you talked to the Air Force about the VC.10 "in the hope that it might be of interest to them, because if only we could get the Air Force in this country to do what the Air Force does for the industry in America, and not just the aircraft industry but for the airlines industry as well, then it would be of tremendous help." And Dame Irene asked you, "How was your conversation received? Was any progress made as a result of it?", and you said "Not yet; it is quite recent." Now, that was the 19th June and here we are nearing the 19th December; what progress have you got to report to us?—There again I do not know. I am not the person to answer the question which is under negotiation between the Air Force and the Ministry of Supply on their behalf. They are proceeding, I understand they are still interested.

1744. But you are keeping up your pressure?—Yes.

Chairman.] Are there any more questions on development flying?

Sir John Barlow.

1745. I have just one point. I gather from what you said much earlier that for the Britannia type of plane you estimated your' proving cost to be £5½ million for 33 planes?—Yes, that was the Britannia.

1746. For another type it was about half as much?—The DC-7C.

1747. Would you say that is generally the top and the bottom, or would other planes come above the most expensive or below?—I do not believe I can answer that question. I think it varies so very much type by type.

1748. I wondered if the lower cost was the lowest you have and the Britannia was one of the most expensive, in which case all the others would come in between?—We have got some Comet figures which are not really complete yet. It looks, on a comparable basis—these are not completed figures because we have not yet finished with all our development flying with the Comet, although most of it is done—but on a comparable basis the Comet comes out about £3,600,000.

1749. So you probably have quoted the top and the bottom?—Probably. (Mr. *Smallpeice*.) May I just make it clear? I know my Chairman already said this but I would just like to avoid any possible misunderstanding. These figures all relate to hypothetical batches of 33 aircraft, but are derived from a different number of aircraft.

Mr. Ernest Davies.

1750. Of course, I suppose, a certain amount of development flying is advantageous to crew training?—(Sir *Gerard d'Erlanger*.) Yes.

1751. You would have to have crew training in any case?—Yes.

1752. And therefore time is gained. You get quicker delivery if you do some of the development flying with them?—Yes.

1753. So when you take the cost of development flying do you take that into account at all?—This includes initial crew training.

1754. It is included in the development flying? You do not separate training costs from development costs?—There is an element of crew training in this, not all of it. (Mr. *Smallpeice*.) Up to the time of the aircraft going into service the crew training is included in those figures. After that, when there is continuing crew training then it is excluded.

Mr. Ernest Davies.] I see, it is up to the time the plane goes into service.

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[Continued.]

Dame Irene Ward.

1755. Could I ask one more question. During the war I was on the National Expenditure Committee and there was always the great problem of co-ordinating between the Ministry of Supply and either the Air Force or the Army—not necessarily the Navy, but those particular two departments. What I really wondered was, in the sort of triangular arrangements that appear to be the means of discussion with the Royal Air Force and the Ministry of Supply on new aircraft, do you feel that you have got an equal balance of advantage in the conversations or does the emphasis tend to lie with the Ministry of Supply or the Royal Air Force? We spent a great deal of time during the war trying to get the whole system to work smoothly and fairly and I just wondered how you felt about that?—(Sir Gerard d'Erlanger.) It varies from contract to contract. Again, to use the VC.10 as an example, the Ministry of Supply do not come into that at all. It is a direct contract between us and Vickers, Vickers taking the task on as a private venture. In the cases of the Britannias it was a mixture; it was the Ministry of Supply and a direct contract, because the Ministry of Supply had a development contract with Bristols and we had a direct contract with Bristols; and the same with Comets. So I think the simplest answer to the question is it does vary from contract to contract, from type to type.

1756. But do you feel that you have got the necessary sympathy of the Air Force and the sympathy of the Ministry of Supply in your problems or do they concentrate merely on their problems?—I think where it fits and where it suits either the Air Force or the Ministry of Supply they are very sympathetic.

1757. When it does not suit them and it only suits you?—Well, I mean, in the case of VC.10 we placed the contract; we did not seek the assistance of either the Air Force or the Ministry of Supply, so it was not a case of not being sympathetic. We did not ask for help.

1758. Do you think the machine for interchangeability works fairly now?—I think so.

Mr. Fort.

1759. You described to us on the 19th June the operations inside BOAC of your aircraft requirements and specifications.

As a result are your specifications when you go to the industry in the same detail, the same firmness, as your competitors who go to the American industry put forward their specifications; because I was so struck by your remark a few minutes ago that Boeing won a competition with the 707 and went straight to a prototype, presumably a competition on certain specifications put down by the United States Air Force?—That is what I understood.

1760. But is there a very different practice in the sort of specifications you put forward from what your American competitors do?—I would not have said there was much difference. (Mr. Smallpeice.) Except in respect of timing, because when we were considering the VC.10 we worked out a specification for an aircraft which we knew we could not get for at least six years. Therefore, there had to be certain assumptions in the specification as to the type of equipment that would be available by the time the aircraft was available. By and large, our competitors do not have to issue specifications for anything like that period of time ahead. In fact, I think they mainly approach the manufacturing industry in the United States about 2 years before they want the aircraft.

1761. It is a very different procedure?—Yes.

1762. Is that long space of time, six years, due to this maze of committees which have to consider it here or is it due to the set-up of the aircraft industry or to our development procedure, or what?—It is not caused by any maze of committees. It is caused, I think, very largely by the practical problems involved in actually designing the aircraft and making it.

Mr. Albu.

1763. You mean the size of the design teams?—The size of the design teams and then the production that follows afterwards and the designing of the engine to go in it and so on.

Chairman.

1764. When was this competition of Boeing won?—(Sir Gerard d'Erlanger.) Well, they first started building the prototype about five years ago. So that the design competition must have been six years ago.

1765. So the length of time is not incomparable?—(Mr. Smallpeice.) Except that the airlines were not of course specifying that.

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[Continued.]

Chairman.] No, it is a different point. But just on the length of time, it is not incomparable.

Mr. Palmer.

1766. These development costs, as I understand it (unless the point was raised before I came in) have tended to increase in recent years because of the complication of aircraft, particularly as compared with pre-war. Do you visualise them always increasing or is there experience to be gained in this matter so that the whole curve flattens out?—(Sir Gerard d'Erlanger.) I think in the next stage which comes about, the supersonic stage, the costs are going to be astronomical, much bigger than anything we have had to face heretofore. I think in the VC.10 context, which is, as far as we are concerned, the next aircraft after the Boeing coming in, it is not dissimilar in many ways from the 707 and the DC8, although it has the engine in the back as against under the wing; the general characteristics are not dissimilar and many of the Comets are not dissimilar so that I think on the whole the development flying on the VC.10 should not be too expensive. But I think when we get to the next generation I shudder to think of it.

1767. Do you not reach any point where you can reduce the development costs at all?—I think that is one of the big problems facing the industry, certainly over here and the industry the other side of the Atlantic, whether the next stage is taken on. The supersonic airplane, I think, has got everybody a lot worried; I think it has got the airlines a lot worried that this thing might turn up before we have amortised the aircraft we have not yet taken delivery of.

1768. You cannot afford it; that is the problem?—We cannot afford the expense for somebody else's benefit.

Mr. Albu.

1769. This does not apply to aircraft developed so far or in process of development at the present time?—What does not apply?

1770. That the development is uneconomic? What you are saying is you think the next generation of aircraft will really be uneconomic for the airlines?—I am sorry, that is not so. If I implied that, that is not what I meant to imply. I have said repeatedly on inquiry, not here but elsewhere, what

is the pre-requisite of a supersonic airplane, that its economics must compare favourably, expressed per ton mile or seat mile, with the generation of aircraft we are now flying and putting into service. I do not believe the travelling public by and large will pay more to travel much faster, they will not pay 50 per cent. more to cross the Atlantic in 4 or 3 hours than they do to cross in 6 hours. But it is quite conceivable that a supersonic transport can be designed and developed, the economics of which do compare favourably with the aircraft we are at present taking delivery of. What I am saying is that the development of that supersonic airplane is going to involve some very, very heavy costs indeed.

1771. But then the development is part of the cost, or should be, on any reasonable economic system?—Certainly, somebody may have to lay out some very big sums.

1772. That is just exactly the point I am trying to get at. Assuming nobody does lay out any money, then you are saying that it may well be that the cost of these aircraft will make them uneconomic?—It may do.

Chairman.

1773. I just want to tidy up in my own mind, and I think for the sake of the record, what we are talking about when we are talking about development flying. We have just now been talking about development in general, but to come back to this phrase "development flying", some flying for development takes place before the Certificate of Airworthiness is issued?—Yes.

1774. Some further flying takes place after the Certificate of Airworthiness is issued, but before passenger service?—Yes.

1775. I thought it was part of your case, too, that in effect when you have an aircraft which has not done a lot of hours flying, the early passenger flying is also in some way development flying; is that right?—There are three stages. There is the flying before we take any delivery at all, done by the manufacturer. Then there is the flying which we do before putting it into service. Then there is continuous development in the early stage of passenger flying. There are three stages.

1776. So what really matters is the total number of hours that have been

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[Continued.]

flown by that airplane before you put it into passenger service?—And the immediate experience we get with it when we do put it into passenger service.

1777. Then, when you have put it into passenger service there comes a moment when so many hours have been done and you can say, This is now developed; we do not expect it to go wrong?—That is right.

1778. The trouble about this paper* is that it really gives us no guide to what that number of hours is?—May we have another shot at it?†

Chairman.] Yes, you have another shot at it. I think the point is very clear, but I should like some figures to prove the point.

Mr. Albu.] Then we would really have to ask in regard to these aircraft at what stage, after how many hours total flying, the Corporation consider that the aircraft development was complete.

Chairman.] That is a rather clearer way of putting the question. Thank you very much. You are quite right. I think Sir Gerard has the point.

Dame Irene Ward.

1779. It is true presumably that with every new design which becomes more and more complicated there must be a greater expenditure in the development flying. Then do you really get all that additional expenditure back, when you put the airplane into full passenger operation, or is there always a sort of lag, if you see my point, because of the increased complication of the design?—There is more expense. There is always however or has been up to now, an expectation of greater profitability in due course with these more up to date aircraft. That has been the great attraction of them. It is not only that they offer the passenger greater speed and greater comfort but, on paper at any rate, they are promising greater economy when we can really get them running properly.

1780. Is the expectation being realised as you get them into operation?—Yes; to be fair, it is coming along.

Chairman.] Now I would like to pass from development flying to the field of subsidies about which we had some discussion earlier on one of your very early

memoranda.* I want to clear up any possible doubts about that. For the benefit of the Committee the paper is "Subsidies received by BOAC's major competitors." That I think shows that subsidies were paid to Air France, to SAS, to Swissair and then there is some doubt the position of the two American airlines and it is those that I would like to clear up. On the second page you set out what happened to the mail subsidies to Pan American and TWA. It looks to me, unless I have misunderstood the thing altogether, that far from having a subsidy their position is worse than yours, because the figures appear to show that if they had been paid for their mail traffic at the same rate as you were paid they would have received in recent years, at any rate, a very substantial increased sum. Now, have I misunderstood the paper or would you like to have further notice?

Mr. Ernest Davies.] I think something has gone wrong.

Chairman.

1781. "Well, that is what it appears to show. You see what I am looking at under "P.A.A. Published U.S. Mail Revenue including 'Subsidy'"; take 1957, 5.5; then take the next line, "Mail traffic evaluated at BOAC's rate of revenue, 14.6. In other words, if the Pan American had been in receipt of your rates they would have had £9 million more. That strikes me as being contrary to what one might have expected from other observations made?—If I have misled the Committee I do ask for forgiveness. I am mystified by these figures.

Chairman.] The point is there. Perhaps you could have somebody look it up.

Mr. Ernest Davies.] Would you think it means possibly this is the amount which is published in their accounts but actually they are receiving substantially more which is a hidden subsidy?

Mr. Albu.

1782. This is including a subsidy? You are not suggesting that BOAC is paid subsidy rates for carrying mail?—(Mr. Smallpeice): No. (Sir Gerard d'Erlanger.) This is what this suggests.

* Appendix 7.

† Appendix 9.

* Not printed.

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[Continued.]

Chairman.

1783. I think it does unless I have misunderstood it?—(Mr. *Smallpeice*.) I think it is true that the mail revenue received by the U.S. airlines¹ is more than that which we receive. (Sir *Gerard d'Erlanger*.) That is on the international rate? (Mr. *Smallpeice*.) That is for the carriage of U.S. originating mail as compared with what we get paid for U.K. originating mail.

Mr. David Jones

1784. Do I understand that there is not any international agreement for carrying mail? We have been told that there is international agreement by the International Postal Union for the carrying of mail?—There are indeed international agreements for the carriage of mails and those rates correspond with the rates which we in fact receive. But U.S. carriers receive a lower rate for the carriage of mail than the international agreed rate.

1785. The American Government is not observing international agreements; is that it?—No. There is no agreement at all as to what Governments should pay their own airlines for their own mail. There is no agreement on that at all.

Dame Irene Ward.

1786. It is only if you are carrying other people's mail?—Yes.

Mr. *Albu*.] This is really not true to say that the American airlines are getting subsidies for carrying mails, is it?

Chairman.

1787. That is what we are asking the witnesses. Could I ask you to have a look at this?—(Sir *Gerard d'Erlanger*.) May I, please, because I was responsible for the statement and if I have made a mistake I would most certainly like to put it right.

1788. Now I want to get on to associated and subsidiary companies, but I have been reminded by one of the Members of the Committee that there is one point on last time's evidence that I have not referred to, Question 1653, if I can just direct your attention to that. It is a series of questions from that asked by Sir Alexander Spearman to No. 1653 which in fact was asked by Mr. *Albu*, about the advantages of amalgamation with BEA and BOAC. Sir *George*

Cribbitt made the point that "An examination of this question was made four or five years ago". Who was it made by, BOAC or the Ministry of Transport and Civil Aviation?—I imagine the Ministry of Transport.—(Mr. *Smallpeice*.) It was not made by BOAC.

1789. It is obvious that any Committee looking into your Report are bound at some stage to ask themselves would there be a saving in expenditure and an increased efficiency or would there not be a saving in expenditure and not an increased efficiency if there was some fusion of some or all of the activities of the Corporations. The last thing we want to do is for you to embark or embark ourselves upon a full inquiry of that kind, because I think it would take us outside our terms of reference and because I think it is a matter for the Minister and not for you. It does not arise greatly from your Reports. But if you were to find that this Report is in your possession, and it is in your possession to make it available to us or at any rate to make the conclusions available to us, I think we would like to have one copy to see if it might assist us. It would save further inquiries by us or might do, and might save further questioning and further work by you?—My *Chairman* was not with BOAC at the time, I was, and certainly we have no such report.

1790. Sir *George Cribbitt* was referring to his previous incarnation?—He must have been.

Mr. Ernest Davies.

1791. Arising out of this question, of course, is it not a fact that certain of the other European airlines are operating both short and long hauls?—Certainly.

1792. KLM?—(Sir *Gerard d'Erlanger*.) Air France.

1793. And KLM is a case, I believe, where they claim that the short haul feeds a great deal into their long distance work and from that point of view it is an advantage to have the two combined?—Yes.

Chairman.

1794. Well, we will pursue that elsewhere. Now, shortly on your associated and subsidiary companies, it would appear from your Report (I think these figures are right) that whilst the BOAC itself, apart from its subsidiaries, made a profit on their operations of £129,000

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[Continued.]

for 1957-58, the associated and subsidiary companies made a loss of £591,000. We have spent a lot of time inquiring into your activities and we look like spending no time inquiring into why this very large loss, which upsets your record, took place. Certain things have happened recently; they are referred to in the Report. You put all the subsidiary companies under the direction of the new BOAC Associated Companies Ltd. Will you tell us whether in your opinion this new change and anything else is resulting in greater efficiency by these subsidiaries and in fact what has been happening recently in this direction?— I think the formation of a separate group to own our interests in these subsidiaries and in so far as we are in a position to control them, is absolutely essential to the conduct of the affairs of these companies, the number of which is considerable, and the geographical distribution of which is virtually world wide. But having said that, I cannot at this stage say that the formation of BOAC Associated Companies Ltd. to control the activities of the associated groups has resulted in better financial results, because the financial results for the current year of the Associated Companies are considerably worse—and of course the year is not finished—than those for the year to which you have just referred. The losses of the associated group for the year ending next March are at present estimated as £1·8 million, of which about £1 million is attributable—rather more than £1 million—to the Middle East and directly attributable to the troubles particularly in the Lebanon earlier on this year. Also, the losses in the Caribbean have gone up. To be fair to BWIA, whilst we are by no means content—in fact, far from content, extremely worried and concerned—about their financial position, the figures for this year are made worse to some extent by the fact that BOAC has taken away from them certain operations and is doing them with its own aircraft, thereby leaving them with the overheads which they have not yet been able to get rid of. In other words, they were getting a fixed revenue for those overheads and they are not getting it any longer. So there is a certain amount of swings and roundabouts. When I say £1 million, some of it is attributable to the switching of services in the Caribbean, a great portion of it is attributable to the Middle

East and I think it must be said, in trying to get the situation in the associated group into perspective, there is a reason for every one of these associated and subsidiary companies and in many instances, if not all instances they do contribute revenue to the Corporation, they feed in revenue which might otherwise go to our competitors. Having said all that, the losses of the associated companies are going to be considerably greater than they were last year.

1795. The main companies here are the Middle Eastern group to which you have referred, the British West Indian Airways, Hong Kong Airways, Malayan Airways, and are there any others?— No.

1796. May I put it like this: what I am really coming to is, we have a scarcity of information about your subsidiary companies which make losses?—We can certainly provide you with additional information.

Chairman.] I would venture to suggest to you that with the figures of the kind that you have indicated, I think it might be a good thing to make them, if that be possible, more generally available in your Report. I think that would be in accordance with the view that we would express generally to those who come in front of us, because, as I indicated before, we see the enormous trouble and care which you and Mr. Smallpeice take with your major operations and, just on the judgment of the profit and loss account, all that is frustrated by what goes on here with these subsidiary companies.

Mr. Ernest Davies.

1797. Is it not a fact that before you formed the BOAC Associated Companies Ltd. greater details of the subsidiaries were given in your Report?—Yes, because they were direct subsidiaries instead of being sub-subsidiaries.

1798. And because there is this holding company, as it were, now the facts are withheld, not intentionally, but the situation has so developed that the facts have been withheld which were formerly given?—Yes. They could easily be given, there is no reason at all why they should not be given.

1799. Are you aware as a result of that, that it makes it more difficult for Members of Parliament to make out

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[Continued.]

questions concerning a subsidiary company when the facts are not given in the accounts?—I can assure you it was not done for that reason.

Chairman.

1800. You have explained to us the reasons which seem to be good reasons for doing this. They cover a large part of the world and I imagine each of them has its separate block. Let us just take the British West India Airline. You say that they are making a loss and you have taken away one of their revenue earning activities. What makes you want to run the British West Indian Airways?—Well, historically I inherited it. Therefore, one has got to go back a little to find why it was originally taken on as an investment by the Corporation, because I think very often in life you look at what you have in a different way from that which you might be buying. Historically, as far as I can remember, it was thought—I cannot remember whether by the Corporation or the Minister or by Her Majesty's Government—that it was highly desirable to say the least, for BOAC to be interested in the time?—(Mr. *Smallpeice*.) No, it was before my time. (Sir *Gerard d'Erlanger*.) It was thought it was the right thing to do. It was also thought, I believe, that it should be capable of being done at a reasonable expense. It has turned out in the event, in my opinion, quite differently. I think the expense has proved to be unreasonable and we are trying again awfully hard to do something about it. But we are up against political differences out there in correcting what has been done. Although this Company is owned by BOAC, the Federation, Ministers and other people, do regard it very much as their airline, as the key to the development of the Federation. Its staffing is practically entirely West Indians. We have lately been trying to inject into the organisation a non-West Indian as Managing Director and we have met with never-ending good reasons why it should not be done, why it will cause offence in the West Indies. Sir George Cribbett is out there at the moment still carrying on this very same problem of trying to get somebody in, if only for a year or two. We believe it would help them put their house in order but it is very difficult indeed. I realise that is a very unsatisfactory answer to your question but

there it is. It is a situation which we are trying to make the best of. It certainly feeds in traffic to BOAC's network. If BWIA were owned by one of our major competitors it might be a tremendous thorn in our side.

1801. That would not be so if it was an independent?—It depends to what extent they could be circumscribed. For instance, we have recently sold 80 per cent. of our interest in the Bahamas Airways to an independent but on terms that preclude that independent from developing a service in opposition to our trunk route services. If you asked me whether we would buy BWIA today, not already being committed, I do not know quite what the answer is; I think we would hesitate a great deal. (Mr. *Smallpeice*.) I am not responsible for the administration of the subsidiary companies at the moment and there are special circumstances applying this year which my Chairman has referred to. But from the point of view of running BOAC itself, it is of great importance to us to have our main trunk routes throughout the world buttressed by companies which are in sympathy with us rather than in opposition to us as would be the case if KLM or Pan American or other people were interested in these companies. So from that point of view I think there are good reasons why we should want to maintain close associations with these companies. As Sir Gerard has already indicated, we have disposed of a substantial part of the shareholding in Bahamas Airways and are keeping a minority interest, and I think that by and large, with airlines which are national airlines in the countries which they serve a minority interest is probably sufficient to give us the sort of links that we want. It also has the advantage of leaving a substantial financial responsibility falling in the country itself.

1802. Was the Bahamas Airways making a profit?—No, they were making a loss.

Mr. David Jones.

1803. Would it be correct to say that to the Caribbean you have only one flight per week?—No, that is not correct. We have had three flights a week for a long time, one to Trinidad, two to Jamaica, and we have now increased that this year. In point of fact, the amount of revenue which comes to us out of the BWIA area is of the order

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[Continued.]

of about £1 million a year. That is not to say a good deal of that would not come in any case, but there is a substantial revenue interest of ours in that area.

1804. Is there a possibility that if you did not get the interest in these countries one of the South American airways might conceivably do it in your absence? —What we have found is that with colonies becoming independent and becoming (whatever the expression is) independent members of the Commonwealth, they tend to want their own airline and to operate to London, because a good deal of business comes to London, and they will set out to ask our competitors like KLM or Pan American or Sabena if they will operate the colony's airline for them. For example, Air Ceylon is at the moment operated by KLM. So undoubtedly I think an airline would exist and it would be operated by somebody who is anxious not to feed business into our system but into theirs.

Mr. Palmer.

1805. Do the Ministry take an interest in this question of relations with associated companies and on questions of national prestige and national interest enter into it, or is it purely commercial? —(Sir Gerard d'Erlanger.) It varies again from one extreme to another. Take a case in point, Kuwait Airways which we recently took on: we took that on really at the direct request of the Minister and the Foreign Secretary. We get no reimbursement for their losses which are running at the rate of just over £100,000 a year and the Minister did say to me, if I so wished I could state in my Report that we had taken it on at the request of Her Majesty's Government.

1806. Are there other instances? —I am not aware of any other instances that we have taken on as a direct request of Her Majesty's Government but I think, for instance, if we wanted to wind up an important subsidiary like BWIA, Her Majesty's Government would have some views on it.

1807. So this really is not entirely a commercial question? —I do not think so.

Mr. Ernest Davies.

1808. In connection with that, the British West Indian Airways operate a number of internal services, inter-island

services. Now a certain number of those presumably make losses; would you regard them as a social service in the same way as BEA do their services in the Highlands and Islands? —Yes.

1809. So inevitably there would be certain unremunerative routes that you operate for British West Indian Airways? —BWIA do get a subsidy but I do not know what it is. I think it is £25,000 a year towards some of these island services, but it does not cover them.

Mr. Ernest Davies.] In view of how interested B.E.A. are over this, if we could have details of the subsidies that would be helpful.

Chairman.

1810. We have got the parallel inquiry going on with BEA which has disclosed, of course, that the Highlands and Islands are unremunerative services and they from time to time have asked for subsidies for that. Is there one of these subsidiaries that makes a profit? —Gulf Aviation a small one.

1811. What does that cover? —(Mr. Smallpeice.) Bahrein.

Mr. Fort.

1812. It is centred on Bahrein? —It is centred on Bahrein.

Chairman.

1813. Why does that make a profit? —(Sir Gerard d'Erlanger.) I do not know.

Chairman.] I want to know. It sounds a facetious question but you have pointed out how difficult it is to make a profit. Why should that make a profit and Kuwait Airline not make a profit?

Mr. Fort.

1814. I could throw some light on that, considering I have flown some distance on it. I think it is due to very heavy traffic, with the Iraq Petroleum Company moving stores and exploration up and down the whole coast and as far south as Madagascar. That is run by Gulf Airlines and I dare say you do it for Shell in their off-shore explorations too. I think it is the combination of working in the oilfields and moving both personnel and goods. They certainly do have a very heavy traffic on those lines? —Sir George Cribbitt should be here next time if you want more on this; it is his very special province.

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[Continued.]

Dame Irene Ward.

1815. Who found the capital expenditure then, for the expansion of the Hong Kong Airfield?—It was not us. (Mr. *Smallpeice*.) The Hong Kong Government I imagine. It was nothing to do with us. (Sir *Gerard d'Erlanger*.) Whether they were assisted by Her Majesty's Government or not I do not know.

Mr. *Fort*.] No, they are a very self-supporting institution.

Mr. Ernest Davies.

1816. Could the witnesses give information as to what controls are exercised over the subsidiary companies, particularly on the actual revenue side, by BOAC in London?—May I leave that over to Sir George? It is very much his field.

Chairman.

1817. Yes. The last question which I think we would like to deal with today relates to the Comet. At the back of our minds, and anybody's mind who looks at your results over a period of years, there must be the knowledge that if the Comet had not had the disaster your position would be markedly better than it is today. Has any estimate ever been made inside BOAC of the effect upon your balance sheet of the disaster of the Comet I?—(Mr. *Smallpeice*.) We had to write off when the disasters occurred a total of £3,850,000. Then we had to get replacement aircraft which cost us £3,300,000 more than they would have done if we had not had to buy them at the special prices that existed in the market at that time. That has had to be written off in the period that we have used the aircraft. So that I think it can be said that in terms of what can be tracked down we have suffered to the extent of £7,150,000. At the same time we have left with De Havillands throughout the intervening period, between the disasters of the Comet I and the signing of the contract for the Comet IV, a total of £5,300,000

which of course has been applied to the moneys due on the Comet IV subsequently.

1818. They have had the use of that money?—They have had the use of that money all the time. There are of course immeasurable results over and above that through not having the aircraft that we expected to have; there were the consequential delays on the Britannia because of the extra structural tests that had to be made to it as a result of the findings of the Comet Inquiry and also it is impossible to calculate the effect of having to use relatively obsolescent aircraft while our competitors were using new aircraft. Those factors I feel unable to put a figure on. But the figure of £7 million odd is a basic figure which I do not think is open to question.

1819. And your balance sheet is out by that figure?—And more.

1820. I wanted to get that from you for the purposes of the record. We have noticed that in our questions and answers this cost has been just over your shoulders from time to time. I think that brings us to the end for the time being?—I have got some questions unanswered from I think the time before last. What would you like me to do with them?

1821. Can you answer them very quickly?—There is the question of the number of aircraft at base and not on roster.

1822. Yes. I thought you were going to let us have a piece of paper for that?—I can let you have it as a piece of paper.

1823. Are they all things you could put on a piece of paper?—Yes, they are.

1824. Because we are rather pushed for time?—If you like, I will deal with them in that way.*

* Appendix 28.

THURSDAY, 22ND JANUARY, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.

Mr. David Jones.
Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.

Mr. R. E. HARDINGHAM, C.M.G., O.B.E., Chief Executive and Secretary to the Air Registration Board, called in and examined.

Chairman.

1825. Mr. Hardingham. we would first of all like to welcome you here. I understand you are Chief Executive and Secretary to the Air Registration Board?
—Yes, Sir.

1826. We are the Select Committee on Nationalised Industries and we are engaged in examining the Reports and Accounts of the two Corporations, the B.O.A.C. and the B.E.A. I think there are one or two matters on which you may be able to help us, particularly in connection with their maintenance responsibilities, inspection and so on. But first of all I think we would just like for the record a statement from you about the Air Registration Board: what does it aim to do, and how is it comprised?—Yes, Sir. The Air Registration Board was set up in 1937 as a result of the recommendations of the Gorell Committee which recommended, among other things, that an independent body should be set up and that it should have duties delegated to it by the Minister in respect of airworthiness and the control of airworthiness of civil aeroplanes. It is all those duties associated with that control that we are responsible for, to the Minister. It involves us in the issuing of certificates of airworthiness for all aeroplanes in the British Register, and that means the airworthiness of a vehicle and all it means. We are also concerned with the competence of the ground crew who maintain the aeroplane, the people who design the aeroplane, and we are responsible for the technical competence of the flying crew. It means a long string of duties. I have a list of them here, if you would like to see them.

1827. I think, if you would put them in, if any member is interested in a particular aspect he can raise it in questions?
—There are 12 headings here, and I

have put a cross against Nos. 9 and 10 which are applicable to the operators, but the rest are applicable to the manufacturers.

1828. Will you read out the two which are applicable to the operators?—"The technical examination of aircraft maintenance engineers, flight engineers and commercial pilots in relation to the issue of appropriate licences", and the next one is: "The approval of maintenance schedules in respect of aircraft and aircraft equipment." All the others are concerned with the manufacturer and the efficiency of his design and construction and so on—test flying.

1829. Some of the requirements you place on the manufacturer may have an indirect effect upon the operator?—Well, a good effect, I think. For example, the requirement that the manufacturer should produce appropriate maintenance and service manuals: we ourselves produce a flight manual which tells the operator exactly what their aeroplane can do, what limitations it should not exceed, and so on. So that I think our requirements on manufacturers are ultimately to the benefit of the operator.

1830. Thank you. Now, how are you paid for?—We are registered as a private company. We are allowed to leave "Limited" off our name. We are a set-up very similar to Lloyds Register of Shipping which controls the seaworthiness of ships. The only difference is, we have no Royal Charter. We have entered into a financial agreement with the Ministry of Civil Aviation in which they have designed, as far as they are able to, statutory fees which cover our cost. We are not expected to make any money, and it is hoped that our deficit will not be very large. We have guarantors in case we have a deficit. The guarantors are the Treasury, through

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[Continued.]

the Ministry of Civil Aviation, the constructors, the operators and the insurers. They are all represented on our Council, and we are just nearing the completion of a 10-year agreement with guarantors and with the Ministry in which the last three years have shown a small profit on these fees. In previous years we had small deficits which were met by the guarantors.

1831. You said that your income consists of fees?—Yes; they are statutory fees.

1832. Who pays the fees, and when?—The manufacturer pays a fee for our investigation and testing of prototype aeroplanes. In the case of the Comet that might amount to £10,000. The firms themselves do treat us not as a regulatory body so much as consultants on how to meet the airworthiness rules—the National Rules which we publish and the International Rules which the International Civil Aviation Organisation publish in Canada. There is a set fee for the renewal of a certificate of airworthiness. It expires every 12 months. That is paid by the operator, and it is related to the weight of the aeroplane. There is also, for production aeroplanes from the manufacturer, a set series fee, as it is called; that is a set fee. The main design investigation, which involves us in a considerable amount of work, the completion of which is test flying by our own test pilots, is paid for on a cost basis. Our expenditure in a year is of the order of £450,000, and our income is about that too.

1833. The operators pay fees to you once a year for the renewal of the certificate of airworthiness, do they?—As and when the certificate expires.

1834. When there have to be replacements of parts, or overhauls are being carried out, do you charge them a fee for that, or is the cost of inspection and so on for all that taken up in the annual fee?—All our work is taken up in the annual fee.

Mr. Ernest Davies.

1835. Who appoints the Council? How is the Council appointed?—There are 18 members on the Council, and that is in accordance with our Articles of Association, and the intention is that the Council of 18 members should represent all branches of the civil aviation industry, so they are divided into four groups. There are four constructors, who are

nominated by the constructors; there are four operators; and there are four people concerned in insurance. And there is a fourth group which is called the independent group and they are people with an interest in aviation but with no financial interest in the other three groups. The Chairman is drawn from that independent group; it is Lord Brabazon at the moment, and he has no financial interest in any operator, constructor or insurance business. That makes 16. The other two members are direct representatives of the Ministry of Civil Aviation, and the Minister appoints those. One of those, according to the Articles, has to be a practising airline pilot. So that we can say that we have a very mixed bunch. There is not any possibility of an axe being ground because if a particular constructor wants a certificate of airworthiness issued, then the other groups see that it is done fairly and squarely.

1836. Each group appoints its own representatives, does it?—Yes, for a term of four years each, so that we have one constructor, one operator and one insurance retirement every four years.

1837. Who appoints the independents?—The independents are appointed by the other groups.

1838. Not by the Ministry?—No. The two people appointed by the Minister are his own representatives.

1839. And do they have a voice in the appointment of the other people at all?—Oh, yes. We get nominations from the Society of British Aircraft Constructors, from the operators (we call a meeting of the operators), and from the insurers; we communicate with the insurers groups within and without Lloyds and they nominate people, and then the Council reject or accept the nominations.

Mr. Palmer.

1840. What is the size of your staff?—About 250.

1841. And they are technical people, are they—aviation engineers and so on?—Of the highest type, yes.

1842. And many of them are, of course, inspectors, are they?—Yes. Roughly we have an equal division of what I might call practical inspectors in the field, and the other people are the more academic type, with B.Sc's. and design knowledge. We also have a large

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number of specialists in electronics, electricians, engines, materials, and all parts in the breakdown of an aeroplane.

1843. How do you obtain your staff? What is the recruitment source?—Well, we like to see people moving in and out of our staff. We gather them from all branches of the aircraft industry and some of them from the Ministry branches such as the Royal Aircraft Establishment. We have taken a number of people from the Royal Air Force and from the Naval Air Services. But in the main recruitment is a very general one.

1844. When were you established?—In 1937.

Sir Alexander Spearman.

1845. Do you consider that your tests are so stringent that there would be no reason to think that there would be greater risks of accidents if there were a lot of independent companies, instead of the bulk of the business being done by the two Corporations?—That is rather a difficult question. I think the Corporations have an advantage in that they are Government-supported, but they are probably not so good commercially as the independent man, and consequently one does see more elaborate organisations supporting them. My own opinion is that, with a few exceptions, the larger independents are quite efficient and well-run. I do not know if that answers your question.

1846. Yes. My question really is, whether it might be more risky with independents, or whether tests can be devised that would be so stringent as would pick up any weaknesses in the independent aeroplanes, so that you could be sure that there was no reason to suppose a greater risk?—I must confess that our supervision is greater with the independents than with the Corporations. We have a little more confidence in them, because of the rather elaborate resources which they have.

1847. I quite see that there may be more occasion for more interference with the smaller companies, but in the net result, after that interference, are not the tests you devise so stringent that they must provide a regular and uniform degree of safety?—That is the aim, but there are difficulties. The Corporations have the benefit of having the very latest types of aeroplane and equipment. We have a number of independent people

who do, as a matter of habit, buy aeroplanes discarded by the Corporations, and I think it is a little more difficult to keep those aeroplanes in an airworthy condition than it is with new aircraft and equipment. We do exercise a lot of control, and I think we are reasonably successful in keeping to high standards in comparison, say, with other countries.

Chairman.

1848. You place certain requirements on the Corporations by maintenance schedules and by regulations on all their inspecting staff. Is that correct?—I think that should be understood properly, that the two items marked here, which I have read out, are actually the regulations of the Minister, and they are contained in the Air Navigation Order and the Air Navigation Regulations which expand the Order. So that it is the Minister who requires licences to be issued and maintenance schedules to be approved. We are charged with the duty of seeing that the pilots and engineers are informed enough to be holders of licences, and we either write and prepare ourselves the maintenance schedules or the operator prepares the maintenance schedules which we approve.

1849. The maintenance schedule lays down the periods between overhauls of various kinds, does it?—Yes.

1850. And, of course, the strictness or lack of strictness in the maintenance schedule has a great effect on the earning power of the Corporations, as on safety matters?—Yes, but without them I think the Corporations would be bound to do something similar.

1851. The responsibility for a decision on when overhauls and checks should be carried out in the first place is yours?—Yes.

1852. Then in the case of inspection of the work done, what inspectors do you have in the Corporations' workshops?—There are a number of ways of meeting the law, and the Corporations choose to meet the law by providing a maintenance schedule, which we approve, and then the employment of staff and the inspection procedure is up to them. The next piece of law that they are required to meet is that a licensed aircraft engineer—that is a person examined and approved by us and licensed by the Minister—is required by law to be responsible for certifying at intervals,

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which are specified in the maintenance schedule, that all the work carried out has been, in his opinion, carried out satisfactorily. That is the Minister's law.

1853. What personnel do you have, for example, in the B.O.A.C. workshops? —At London Airport I have 10 staff, and they cover B.O.A.C., B.E.A., Hunting Clan, and several other small operators.

1854. In the main you rely upon the inspection systems of the two Corporations which we are dealing with at the moment?—Yes.

1855. Are those inspection systems in any way affected by your requirements? —The numbers of personnel are not; that is left to the Corporations. We are concerned to know that the Chief Inspector, whom we name, is a properly qualified person. We are concerned to know that the facilities of the organisation generally are good enough, that is the workshops, the machine tools and all the equipment. And we are concerned to know that the staff of the Chief Inspector, if they choose that form of inspection set-up, is reasonably adequate. But if they decide to employ 1,000 men, where we might privately think that they could manage with 200, then we would not object. If, on the other hand, they tried to employ 50 men where we thought that 200 men were required, then we would say so.

1856. Supposing they decided, instead of having so many inspectors, to get the work inspected and certified by people who were not inspectors but who were doing the work, what would your views be about that?—We would not mind at all. We have a number of operators who do not employ inspectors, but have licensed aircraft engineers. A licensed aircraft engineer is in fact an inspector who is not backed up by what is called the approved inspection organisation. The whole responsibility is on the licensed aircraft engineer. A fairly big operator, Hunting Clan, follow that procedure.

1857. And that is the procedure generally followed in, say, America, is it not? —No. If we take American Airlines, a particular operator in America, they employ a full inspection staff, and the inspection staff's duties are fairly wide. It is not a question of checking what the workmen have done. They start by inspecting the aeroplane and

they actually detail the work that should be done, and they employ a rather interesting method. Each inspector has three coloured pencils and, speaking from memory (I have a note of it somewhere here), these items which are detailed in red are important items, and when the rectification is made he insists on reinspection by himself or by his department. The blue are items which should be done at the earliest opportunity; they are called "desirable" items, and they need reinspection. And finally there are the items marked in black, which are items which can be done and no reinspection is required. There is also in America a licensing system. They have what is called an "A and E" licence; that is issued by the Civil Aeronautics Administration, and it is a certificate of competence—"A and E" meaning aircraft and engine. But there is no law in America requiring those licensed aircraft engineers to sign that the aeroplane is fit for flight. So the difference in America is law. More or less the same system applies regarding inspectors. The work is done and there is reinspection, and the ultimate clearance, the signing of a piece of paper, is not law in America. But an agreed procedure is followed. All the operators belong to the Air Transport Association, and the operator issues a certificate of competence which is called a "master mechanics certificate". Those people are employed by the companies, the air lines, in a supervisory capacity and they take the responsibility.

1858. Would that system meet your requirements here?—Oh, yes.

1859. Thank you?—It might meet our requirements here, but it would not meet the law which requires this signature. This is a licence issued to an engineer by the Minister authorising him to sign that an aeroplane is fit for flight.

1860. We have been told that American standards of inspection would not at the moment satisfy you. Were they referring to this rather technical point you have just mentioned, do you think, or were they referring to other matters? —They were referring to the technical legal point, which is not strictly in our requirements.

1861. Is that also true of the Dutch methods?—Yes, the Dutch follow a similar scheme. They follow the American scheme rather than the British, but

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there are touches of the British methods in the Dutch methods of doing things, and that goes for most of the European countries. There is a certain American influence, and that is because in the main they are operating with American aeroplanes. Throughout the Commonwealth the British method is followed. Australia, Canada, New Zealand, India—all those countries follow the British system, even to the licence.

1862. It appears also from the evidence which we have had that, taking the B.O.A.C. for example, they say they have four to six times as many inspectors as their competitors, the Dutch and the Americans, have?—Yes.

1863. And you are saying to us, are you, that that is their business and is not as a result of your requirements?—That is my honest belief, yes.

1864. And do you discuss these matters with them at all?—Oh, yes, frequently.

1865. Not necessarily with you, but with your Department?—With me in particular, yes. I understand the Committee are aware of a Report produced by the B.O.A.C. themselves, and that Report was sent to me for my comments, and I later met the B.O.A.C. Board and their Chief Engineer.

1866. On what date was this? We have had references to a number of inquiries?—This was not an inquiry officially; it was a domestic inquiry organised by B.O.A.C. themselves.

1867. Yes, but what date was it?—I do not know if this Report has a date on it . . . yes: December, 1957. This Report was sent to me for my comments, I think, as a private individual. Most of the Report does not deal at all with anything affecting the Air Registration Board, but I did point out that certain things were being done by the Corporation which were not required by the Board, and they have since taken advantage of those suggestions.

1868. They have also told us—following on what I said about the number of their inspectors being four to six times as many as those of their competitors—that they would like to cut their present inspectorate to about one-third of what it is. Are you likely to have any objections to that?—I think I would recommend it.

1869. You would recommend it?—Yes.

1870. Can you tell us whether there is any difference, so far as you have been able to observe it, between the inspection systems of the B.O.A.C. and the B.E.A. and, if so, why?—I would like to make clear first of all that, in so far as the Air Registration Board requirements are concerned, they apply equally to the B.O.A.C. and the B.E.A.

1871. They are the same standards of requirement?—Exactly; they apply also to any other British operator who operates in this country. The difference between B.O.A.C. and B.E.A. must be entirely due to their own domestic arrangements and management.

1872. I wondered if you had any personal observations to make on the matter?—Well, I might have many—but I do not think I want them taken down.

1873. Yes, I quite appreciate that, but do you think you can help us on this? You see, we are both after the same end—to see that there is no misunderstanding of the requirements and that there is the maximum efficiency. I think you would be helping the Committee, and I think helping the Corporations too, if you would give us your comments on that subject. Now, having said that, I quite realise that any man is reluctant to express “off the cuff”, as it were, views about other people which may appear to be criticising them, but the more you can help us the better it will be for all concerned, I think?—Well, I am very anxious to be helpful to the Committee. I have been in this aviation business for a long time. I think that this Report alone gives you all the information you want. I hesitate to hand you my copy, which was sent to me personally, but it is rather revealing. It has been quoted in the Press, and a statement was made in the Press that B.O.A.C. had decided that they had 3,500 too many employees on the engineering side. I would not dispute that for one moment—and I do not think the B.O.A.C. do.

Mr. *Albu*.

1874. In other words, the B.O.A.C. have now arrived at conclusions which you have long ago reached?—A lot of people have held those views.

Mr. *Ernest Davies*.

1875. You were aware of this situation before the Report came out, then, were you?—Yes.

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1876. And had you conveyed your views on the matter to the B.O.A.C.?—Not at Director level, no, but at Chief Engineer level, yes. I think another revealing thing is to look at the utilisation of each aeroplane. I am very familiar with different parts of the Commonwealth; I usually visit Australia and New Zealand quite a bit in an advisory capacity; and it is usual for Qantas (the Australian airline) to achieve something like 3,500 hours per year per aeroplane. Now, that is not approached in any way by B.O.A.C. You cannot earn money with aeroplanes that stay on the ground, you know.

1877. The reason for their low utilisation is the fact that so much greater time is spent on maintenance, in your view, is it?—No. I have seen (as you must have done) aeroplanes which are not being maintained, at a standstill at London Airport, day after day—and they are quite ready for service.

1878. That is really nothing to do with this question of airworthiness?—No.

Chairman.

1879. This is a matter of administration rather than maintenance requirements?—I think B.O.A.C. have got a little more difficult job than many operators. Their routes are world-wide. They have to employ more types of aeroplane than many other people do. So I think their job is more difficult. It is more difficult than B.E.A.'s, who have a much simpler route system and who can use less types of aeroplane.

Mr. Albu.

1880. Is this time on the ground, if not due directly to time spent on maintenance, due to something in the organisation of maintenance, in the inspection system, which causes hold-ups in the process of maintenance and so on?—B.O.A.C. have another difficulty. They usually begin operation with new types of aeroplane, and although we have tried hard to take all the "bugs" out of a new type of aeroplane, it sometimes runs into thousands and thousands of hours before we strike something—which causes quite a lot of trouble. I would remind you that the Comet originally ran into trouble after 30,000 hours. B.O.A.C. do have that difficulty of continuing with the final development of an aeroplane; when they are the first purchasers of Comets and Britannias, they have the difficulties and

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early trouble of the types. I imagine that, now that they have ordered the Boeing-707, by the time they get their Boeing-707's, probably at the end of this year, there will be something like 300 of that type operated by the United States Air Force, and some 7 or 8 operators will already be operating that type, and those will be the people who will find the difficulties. As a matter of fact the Americans are running into trouble with the 707's and B.O.A.C. may not have them with the British aeroplanes.

Mr. Ernest Davies.

1881. On this question of the inspectorate, to what extent is the additional inspectorate of the B.O.A.C. due to legal requirements on the one hand and your requirements on the other hand, if at all?—I do not think there are any. I have a note here which I can hand in, which is a note of the licensed aircraft engineers employed by B.O.A.C., B.E.A., and Hunting Clan. Now, the total number of current licences at the 31st December, 1958, was 3,563. That is throughout this country and throughout the Commonwealth—British licences. Employed by B.O.A.C. there are 681. Employed by B.E.A. there are 325. Now, this is the important point: of the 681 employed by B.O.A.C., the number of licensed aircraft engineers signing certificates of maintenance to comply with the law for their fleet of Britannias, Comets, Boeing-707's and Stratocruisers is 69.

Mr. Ernest Davies.] I think it would be useful if the Committee had that paper.*

Chairman.

1882. Can you give us the other figures, Mr. Hardingham?—Of the 325 employed by B.E.A., those using their licences to comply with the law total 106. Hunting Clan employ 19 licensed aircraft engineers, and they use all of them.

Mr. Ernest Davies.

1883. When the Committee were examining the B.O.A.C. witnesses, the impression was given to us that a substantial number of their inspectorate could not be dispensed with, to bring their level down to a level comparable to these foreign operators, because of the requirements of the Air Registration Board. What would you say about that?—I would not agree with that for one moment.

* Appendix 36.

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[Continued.]

Chairman.] Could you just repeat that?

Mr. Ernest Davies.

1884. I asked the B.O.A.C. witness at Question 1567: "(Q) In connection with the actual inspection, when comparison was made with the foreign firms it was found, was it not, that the amount of inspection was very substantially less than it is with the B.O.A.C.? Now, could you tell me, was that due largely to the fact that the requirements of the Air Registration Board were such that it largely accounts for the additional inspectorate?"—and the answer was: "(A) It accounts for a substantial part of it. I would not like to say a majority and I am not able to quantify it offhand; but it is certainly not the only reason", and so on. It was definitely stated that the higher level of the number of these engineer staff was due to the requirements of the Air Registration Board—but that is not your view, I take it?—Not at all, no.

1885. You see, I then went on to ask: "(Q) If that principle were applied in the case of British airlines, would that satisfy the Board?", and they replied that it would not at the moment. I asked whether, if the same principles were applied, as applied to the foreign airlines, to the British airlines, would that satisfy the Board—and the answer was that it would not?—The confusion there is that it does not satisfy the Air Navigation Regulations, which are none of our making.

1886. So the fact that they would not satisfy the Air Registration—which is not you, but the Government requirement—would account for some part of this higher inspectorate?—I do not think it need do. I have shown you by these figures that the B.O.A.C. employ, so far as the law is concerned, many more ground engineers than they need do. On the other hand, it is quite reasonable for B.O.A.C. to employ these people who have been licensed by us as competent people.

1887. I am trying to get this straight—as to whether you consider that your requirements and those of the Government, either each or separately, do account for the higher numbers being employed by British airlines than would be employed if the foreign airlines' system were followed?—No, I do not think so at all.

1888. Definitely not?—No.

Mr. Ernest Davies.] Thank you.

Chairman.

1889. I just want to clear up the last point in Mr. Davies's question that has just been referred to, referring to the difference in philosophy; it was a point I had in mind in an earlier question I put. I think it was the Chairman of B.O.A.C. who, in answering that first question, said this: "... and I think equally important is the difference of philosophy which the American airlines have adopted of placing responsibility far more on the mechanic." That is, more on the mechanic than on the special inspector; and, as I understood from you earlier, so long as the mechanic is a licensed aircraft engineer, which he manifestly could be from the figures you have just given us, in a number of cases the transfer of responsibility to him from the special inspector would meet with your requirements?—Yes, it would, but I think that I ought to explain that both the Americans and ourselves, and, for that matter, all the operators of very complicated aeroplanes, have decided that it is more than one man can do to be responsible for these very complicated aeroplanes, and it is felt by all the big operators—whether Dutch, French, American or British—that a staff of qualified people is needed. Whether you call them "master mechanics", "licensed aircraft engineers" or "inspectors" does not make any difference; you want the system rather than the individual.

1890. By that you mean a staff of people who are not actually doing the work themselves but who can inspect the work after it has been done?—Yes; but the usual system is to inspect first, to say what has to be done, and, when it has been done, to see that it has been done properly.

1891. The Americans, on the other hand, whatever they may do with the initial inspection, have a system whereby the man who carries it out, if he is a qualified mechanic, is entitled to sign the certificate saying that the work has been properly done?—Well, it is a work-sheet, not a certificate, where all the items are broken down. They have work-sheets, the B.O.A.C. have work-sheets, and the B.E.A. have work-sheets, and those work-sheets are details of

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the maintenance schedule, but there are always additional items which have arisen through inspection of the aeroplanes and which are not necessarily covered by the maintenance schedule, and each operation is signed by the workman and then in the case of B.O.A.C. signed by an inspector. Now, the difference in America, as I said earlier, is that the whole field of that work-sheet is not covered by inspection. The responsibility for the lesser work is vested in the workman, and the inspector shows with a red pencil mark those items which he wants reinspected. Have I made myself clear?

1892. Yes. Therefore, if that American system were adopted, that would not suit you because it would not fit in with the maintenance schedule?—No, it would be perfectly all right.

1893. Then it would suit you?—Yes.

Mr. Ernest Davies.

1894. If the work was not certified by an inspector at London Airport but by the man doing the job, provided he is sufficiently qualified that would fit in with the Air Registration Board's requirements, would it?—Yes.

1895. And it would fit in with the Air Registration Board's legal requirements?—The only legal requirement is this requirement which says that a licensed aircraft engineer shall sign for the lot.

1896. It is not required that he shall be a separate inspector from the person who did the job?—No. He expects to get from the work-sheets information which shows that each job has been done by a workman and signed for, and when he is satisfied he will do a check inspection and he signs that the aeroplane is fit for flight.

1897. I understood from answers that have been given that consultations are now taking place with you—that is, the Air Registration Board—with a view to changing your requirements so that some of these recommendations in the B.O.A.C. Report could be applied?—No, that is not in fact true. An approach was made by sending me this Report. As a result of reading that Report, I made certain suggestions to the Chief Engineer that certain testing of aeroplanes need not be done to meet our requirements. This was a misunderstanding, possibly, on their part that we required testing to the extent which they

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were doing it, and I pointed out that so much of this was not necessary. I also pointed out that they need not weigh aircraft so much as they did. Weighing an aeroplane is quite a job: you have to drain the petrol and oil and so on. It can take you two days to do that, and it is quite an expensive operation. Therefore, in answer to your question, they have not sought to change our requirements; I tried to help them by discussing their methods of interpretation of our requirements. These are our requirements. Most of them are related to the design and construction of aeroplanes. But *here* is an Advisory Manual, and *this* is not mandatory and *this* is. *This* is advice to manufacturers and operators as to how we think things should be done, and we do write at the beginning: "If you can think of a better way—tell us."

1898. So that, as far as the Air Registration Board is concerned, the Report of the B.O.A.C. could be put into effect without any changes in your requirements?—Well, I have here a further Report, which is on B.O.A.C.'s proposed re-organisation, and it does not change any of our requirements.

1899. Does it mean that there would be some changes in the interpretation of your requirements?—By them.

1900. And were they mistaken in their interpretation previously, or have they just decided to interpret them in a certain way?—I think you are pinning a lot of B.O.A.C.'s "trouble" (shall we call it) on inspection. I would rather look at it from the point of view of pure engineering staff. It is too big. That is not inspectors; that is men in the workshops. You eventually get to the case where you are inspecting the inspectors! In certain airports there is so much inspection of inspectors that my people do very little. There is so much duplication of effort, and it is completely wasteful.

Mr. Palmer.

1901. Your views on a simplified but satisfactory system of inspection have been known to B.O.A.C. for quite a time, have they?—We do not interfere with B.O.A.C.'s domestic organisation. We are only concerned to see that our minimum requirements are met.

1902. Nevertheless, you have a general interest in the efficiency and effectiveness of these things, and I was wondering

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[Continued.]

whether, either officially or unofficially, your views have been known to B.O.A.C. for quite a time?—It is not confined to me. I have a large staff, a lot of people who know a lot about civil aviation.

1903. If these facts have been known, then what stands in the way of a change being made?—I do not think you need to go to me or to anyone; it is all in *that* Report. B.O.A.C. say they have 5 times as many supervisory staff than any other operator.

Chairman.

1904. So far as Mr. Hardingham is concerned, what we are trying to find out is whether Mr. Hardingham does or does not stand in the way, and his answers have shown us that he does not stand in the way of that, and I think we ought not to press Mr. Hardingham for views about what other matters may stand in the way. I think there are other witnesses who can deal with that.—I would rather not be pressed for my private views on that.

1905. Quite. I think we have your answers on the important matters. I just wanted to finish up by putting to you some of the points which have been made to us and some points which have occurred to me during the course of your evidence, and then I will ask other members of the Committee to put their questions to you. You told us that Hunting Clan use 100 per cent. of their licensed aircraft engineers?—Yes.

1906. Does that mean that their system is entirely different from the Corporations' system, or does it mean that their aircraft engineers who do the work are not in general licensed aircraft engineers?—No. It means that they have not got an inspection organisation such as B.O.A.C. and B.E.A. have. They have a number of skilled workmen and they have these licensed aircraft engineers who are the supervisory people who take the ultimate responsibility.

1907. And that system is satisfactory so far as your Board is concerned?—Well, it is satisfactory because they operate with less complicated types of aeroplane. However, I think there is a possibility that they will operate Britannia aircraft. Now, I think it would be desirable for them to have a proper, approved inspection organisation to deal with that sort of complicated aeroplane, and I think that is the belief of every operator.

1908. In answering Sir Alexander Spearman earlier, you said you had to be more stringent with the independents than you had to be with the Corporations?—I should like to qualify that—certain independents.

1909. This sort of organisation in Hunting Clan—does that make your requirements more stringent, or not?—Because Hunting Clan have recently suffered an accident, which may very well be due to their engineer organisation, I would rather not answer questions about Hunting Clan.

1910. There are one or two detailed points. We have referred to maintenance schedules. Does the maintenance schedule cover the aircraft as a whole or does it also cover component parts, and engines?—It covers the whole aircraft and engines. The Air Registration Board assists in this by suggesting the life of components. I mean, if a Britannia has a Proteus engine, we will tell B.O.A.C. the hours that that engine can run between overhauls. It may be 1,000 hours, or 1,500 hours between overhaul. That is done on our experience of inspecting stripped engines at the makers, and we usually start with a low figure. We will start, for example, with 500 hours on a new type of engine and as our experience grows and we have seen so many engines in for overhaul, we gradually increase the hours. The Dart engine is now 2,000 hours between overhaul. That applies to the propellers and the major components, and we agree with the operator and the manufacturer that certain components, instruments and equipment, shall be removed at a certain number of hours for overhaul, and it is usually designed to have them removed before they cause any trouble. A more recent problem has been metal fatigue, where the Board has had to require not the removal for overhaul, but the replacement, of components—wings, tail planes and so on—before they fail by metal fatigue, and that is all written into the maintenance schedule. I think the mistake some operators can make is to remove items on a life basis when they could quite easily run on to failure or until their condition has deteriorated—and you can tell by inspection that they have deteriorated—without renewing them at stated intervals. On some items a failure in the air would not be catastrophic or cause any emergency.

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[Continued.]

1911. With some of the parts you start with a short period of overhaul and gradually increase the period?—Yes. In some cases, where we have trouble, we decrease it.

1912. But with a new engine you may start with short periods of overhaul and then increase it. What are your requirements with regard to an increase?—We have an agreement with four engine operators, such as the B.O.A.C., and it applies to B.E.A., too. If we have a Viscount aeroplane with one thousand hours between overhaul for the four engines, we allow one engine of the four to go to 1,200. That is quite safe because if, within that peak, in that 200 hours, something does happen, that plane has got ample performance on three engines. We expect the operator to initiate action with us rather than that we should initiate action with him. One will find an operator constantly wanting to extend the engine overhaul hours when we do not think it is safe to do so. Another operator will overhaul engines more frequently than he needs.

1913. With this system of allowing one engine out of four to have an extended operating period between overhauls, do you not dictate how many engines have got to pass that test before you agree to a relaxation?—Yes. We may take three, or four, engines but they are only allowed to put one on an extended trial per aeroplane.

1914. I have heard it said that your requirements are such that the process takes a very long time. Is that a fair criticism, or not?—That is not so. I am trying to give you an example. The Proteus engine, which has been in operation with the Britannia, in less than three years has grown from 500 hours to, I think, 1,800 hours, which, remembering that we were in trouble with the Proteus with icing problems in the early days, is quite good.

1915. The last question of some detail relates to what happens overseas. Is it a fact that your requirements result in B.O.A.C. having to keep overseas numbers of their own skilled men, and, indeed, qualified men, in order to meet your, I think it is called, certificate of compliance, for every repair, replacement or modification made to the aircraft?—They are not licensed people necessarily. They are people who are approved by the operators themselves,

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and not by us, but we do advise on the general system that a defect should be rectified by somebody or some person that the operator thinks is qualified to do it. In other words, do not leave it to the haphazard business of the crew putting it right, or, if landing in India, for an Indian to put it right, or some unqualified person. But any defect should be rectified or, if not rectified, have this certificate of compliance that it has been done to the satisfaction of a properly qualified person, and that qualified person is selected by the operator, not by us. But we suggest the system.

1916. They could not, for example, employ another aircraft operator's men for that work?—Yes, that could be done. I might mention that this was a move on the part of my Board to relieve the operator quite a bit.

1917. How recently was that move made?—Three years ago. The law did require—and when I say the law I always mean the Air Navigation Regulations—that a licensed engineer should sign for the rectification of the defect because it had the effect of cancelling the previous maintenance clearance. At our suggestion that regulation was altered by the Minister to allow for the rectification of the defect to be made without cancelling the previous maintenance clearance. I hope you appreciate the point. We design maintenance schedules not only in relation to the aeroplane itself but to the use to which it is put. The most glaring example is if we are drafting a maintenance schedule for training aeroplanes, doing circuits and “bumps” as we call it. We then require a great deal of attention to be paid to the undercarriage. On the other hand, with an aeroplane which flies from here to Australia with four or five intermediate landings, there is not half the attention paid to the undercarriage. What has been designed is a maintenance schedule for a particular type of aeroplane which will take it on its flight and back so that the maintenance schedule work is done at the base, but one cannot do that without encountering defects occasionally on the route, and those defects previously cancelled the maintenance schedule release and consequently there had to be people dotted all over the route.

Sir John Barlow.

1918. When?—I think, three or four years ago.

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[Continued.]

Chairman.

1919. If the certificate of maintenance you have given runs out while the aircraft is out of the country, what happens then?—They can do it away from the base with properly qualified personnel, but the usual procedure is to apply to the Board for an extension to the maintenance schedule, and on our knowledge of the aeroplane we will grant or refuse it. In the case of B.O.A.C. and B.E.A. we have given them a concession to grant their own extensions up to a limit. If we take a check—most of these maintenance schedules have a pre-flight check and there would be check one, check two, check three and check four. Check one is about 100 hours. It might vary between 100 and 150 hours, and we have given them permission to extend, on the chief inspector's authority, by ten per cent. at any time without reference to us. That is to say, the situation of an aeroplane sometimes being diverted and the scheduled flight is extended.

Mr. Palmer.

1920. What happens if an extension certificate is refused, or they have over-run their period?—It is usual for the B.O.A.C. staff wherever the aeroplane is—the out-station staff—or they may use another airline's staff at the aerodrome, to get this new maintenance release, signed by a properly licensed aircraft engineer, so it does involve having one man there to be satisfied that the work is done properly, but there is no restriction on who should do the work.

1921. You would in some circumstances accept foreign certificates, if it is in another part of the world, to cover the extension?—They would be our certificates. It might be signed by an Australian aircraft licensed engineer, which would be perfectly satisfactory. That often happens. One gets B.O.A.C. and QANTAS exchanging spares and other facilities. There is no great difficulty.

Mr. Ernest Davies.

1922. Has the change which has arisen from this report—would it have saved any manpower?—This concession?

1923. Yes?—I did it because I felt my surveyors were taking a responsibility the Corporation should take themselves.

1924. Did it make any difference to the numbers which would be employed?—I would not know the answer to that.

1925. But it would not be substantial?—No.

Chairman.

1926. I think we should ask B.O.A.C. about that. Certified standards of airworthiness and general standards of safety—would you say yours are about the same as those of other airworthiness authorities?—I think so. This thing is so international these days. In the case of B.E.A. I think I would volunteer the information that they have made a very careful study of American methods and also of the Dutch K.L.M. and in many ways, B.E.A. do copy American systems. The chief maintenance engineer, a man called Ivor Gregory, is very well informed on the American system. He has made a study of it.

Mr. Palmer.

1927. You say there are these international standards?—Yes, there is an international organisation which has standards and there is an international transport association where there is this technical knowledge and exchange of information. Generally there is very close co-operation between operators internationally and nationally.

1928. And broadly speaking one country does not have an advantage over another in this matter because the standards are the same?—Yes.

1929. And that is the aim of it?—Yes, absolutely.

1930. I should like to put this question: are the standards tending to rise? Is the aim to make aircraft aim at higher standards than in the past?—Yes, I think that is the aim all the time. I think the recent American accident statistics show that generally, safety in airline operation is going up. The figure produced in the last fortnight is half a passenger killed in 100 million passenger miles.

1931. Does that, on the whole, mean more inspection?—I think what causes more inspection is that aeroplanes become more complicated, and they do tend to do that.

Mr. Palmer.] We have not had any figures, Mr. Chairman, have we, on the costs of inspection?

Chairman.

1932. No. We will get them from the Corporation side, will we not?—The

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[Continued.]

costs of inspection vary very much between one manufacturer and another and one operator and another, but it is a very necessary operation, I assure you. The only thing one tends to do is that by leaving so much to the inspector, the workman in the workshop loses his sense of responsibility or initiative. I think that is a great tragedy, and I have seen it happen all the time.

1933. The right system, in your opinion, is to balance the various factors, the importance of having a highly trained inspecting staff there to inspect, and the importance of giving the chap who does the work full responsibility for it?—Yes. I saw an interesting system in the American Douglas Company, which is one of the largest, with 80,000 employees. I was rather amazed to see the number of inspectors employed. It was quite a lot on a percentage basis compared with some British manufacturers. I found in the workshop a simple, but effective, scheme of additional inspection. So far as they were able to, they divided up gangs of men, sometimes it was six and sometimes 20, and there was a leading hand in charge of the gang who was issued with a rubber stamp. Everything the gang produced, he inspected and put the rubber stamp on, and nothing was taken to the proper inspection department until that rubber stamp was put on, showing the particular gang who had produced the job. He got 30 cents an hour extra for that, and if inspection found too many faults with the production of that gang, that inspection stamp and the 30 cents were taken away from him and passed to another man. There was intense competition for this, but it did mean there were hundreds of additional inspectors throughout the factory who were doing a job of work as well, and who had a sense of responsibility, and they were rather keen about their job as well.

Mr. David Jones.

1934. Does that not conflict with the other case? Would not the other nineteen feel that the last person who put the stamp on was the person who was responsible? Would not precisely that argument apply in the other cases?—It did not seem to. The 30 cents an hour extra man saw to it that the other men did not let him down. There was intense competition for the stamp.

1935. Do you not think the possibility of an occasional inspection rather than a

regular inspection might do the two jobs—might keep the workman on his toes because he does not know when it is going to be inspected and, on the other hand, the very fact that his job was going to be inspected might keep him on his toes?—There are hundreds of inspection jobs which are of no concern at all; they inspect the carpets, the lavatories and the curtains. All those things are done by inspectors. I do know when a generator has been changed on an aeroplane by a workman it is not necessary to go over everything that workman has done, but it is necessary to test the generator to see whether it is functioning.

Mr. Palmer.

1936. Did I understand you to say that curtains are inspected?—For cleanliness.

1937. By qualified inspectors?—I do not know whether they are qualified; they are not qualified by me, but I imagine they are members of the B.O.A.C. inspection staff.

Chairman.

1938. There is a check up?—Yes.

1939. Has any member of the Committee got any more questions? I think we should like to thank you, Mr. Hardingham, for the way in which you have given your evidence. I ought to have made it clear at the beginning that you will get a copy of the evidence you have given to us and if, on consideration, there are any points in the written evidence which you think it better to be kept confidential and not published, perhaps you would be so kind as to sideline them and explain to the Clerk of the Committee, why it is, and we will, of course, bear in mind the points you have made?—I think I was only concerned when you pressed me for opinions rather than factual answers.

1940. I would not press you to give us opinions you wanted to sideline, because it is facts and comments I particularly had in mind. That is why I did not press you on opinions. It is unsatisfactory for the Committee to have opinions which are put to them by eminent gentlemen such as yourself and not be able to publish them, so I did not mean you to sideline your opinions, but there was a reference to a particular independent airline which you may want to take out for the reasons you gave yourself?—Yes.

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THURSDAY, 29TH JANUARY, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Mr. Bonham Carter.
Mr. Ernest Davies.
Sir Keith Joseph.

Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

Mr. M. M. V. CUSTANCE, C.B., a Deputy Secretary, and Mr. C. W. EVANS, C.B., C.B.E., an Under-Secretary, Ministry of Transport and Civil Aviation, called in and examined.

Chairman.

1941. Thank you for coming here, Gentlemen. Now, I think you know that we have been examining the Reports and Accounts of the two Airways Corporations, and that we have had evidence from your Department, from the Treasury, and a great deal of evidence from each of the Corporations. We are now gathering up the pieces, as it were, and bringing our inquiry steadily to a conclusion, and we have got some questions, about which I think you have been given some notice, affecting a number of matters. We will take them in order. The first matter we want to deal with is the subsidiaries, and the first question I would like to ask on that relates to Kuwait Airways. We have had evidence from B.O.A.C. at Question 1805, that the B.O.A.C. took on Kuwait Airways as a subsidiary at the direct request of the Minister and the Foreign Secretary, and that they are currently incurring a loss of just over £100,000 annually, and that loss, of course, has to be absorbed in the Corporation's General Account. Is it your Department's practice to allow that to happen and so to damage the profit record of the Corporation without considering whether there should be any reimbursement?

—(Mr. Custance.) No, Sir, it is not the practice of our Department to do anything of that kind. Indeed, to the best of my knowledge this is the first occasion on which the B.O.A.C. have undertaken any investment of this kind for other than essential commercial reasons. There were special circumstances on this occasion, and if you wish I will try to summarise them. In the first place B.O.A.C. had had a connection with Kuwait Airways extending over quite a number of years. It had not always been a happy connection. Kuwaitis are not always the easiest of people to deal with.

But they had an interest there, and if it had been possible for them to have arrived at a satisfactory commercial arrangement with Kuwait, B.O.A.C. would like to have done so. Secondly, at the time in question there were a number of rather urgent special reasons why it was of value that these previous efforts of B.O.A.C. to make a satisfactory arrangement with Kuwait Airways did not fall through. For those reasons it was suggested to B.O.A.C. that they should make one last final effort. They did so. They were not on purely commercial grounds entirely satisfied with the proposition which resulted, but the proposition was nevertheless one which had a distinct commercial element. There was the possibility, at the least, that this arrangement over a reasonable number of years might prove a commercial success. It was not therefore so much asking B.O.A.C. if they would do something which was a complete, permanent and certain loser, as asking them if they would, in the special circumstances, be prepared to take a marginal risk on what was at least partly a commercial proposition, which involved, comparatively speaking, a small amount of money.

Colonel Lancaster.

1942. What is the particular service provided? I mean, you talk about Kuwait Airways. Is it Bahrein, or Abadan, or what?—It is from Kuwait. I do not know the precise details of the operations which the new airline will undertake, but broadly speaking they are operations based on Kuwait and ranging from Kuwait to places like Beirut, and other regional routes of that sort within the Middle East, with Viscount aircraft supplied by B.O.A.C. as part of the terms of the contract, and with B.O.A.C. retaining management control over the whole operation.

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[Continued.]

Chairman.

1943. Now that it is clear that this proposition is a loss-maker, does your Ministry play any part in advising B.O.A.C. what to do?—Certainly we would, at the right time. In this particular case I would not like to be sure that that time has yet been reached. This particular arrangement is still comparatively young. Everyone knew that it would not pay to begin with, and indeed under the most favourable possible commercial arrangement B.O.A.C. regarded this as something which would pay, not in the short term, but possibly in the long term. Therefore it is no surprise whatever that in the first year or so there is a loss. If, in due course, it seemed likely that that loss would continue or would increase, then undoubtedly my Ministry would be concerned and obviously B.O.A.C. would be as well.

Dame Irene Ward.

1944. Do they have any time in mind for a really final assessment?—Do you mean the period over which the deal might “pay off”?

1945. Yes—whether it was a commercially profitable thing or otherwise?—Well, you will understand that these things must necessarily be pretty speculative. I am quoting from memory, but I think that the thought was that, with luck on the political side, bearing in mind all the political snags that can arise there—with reasonable luck this was a proposition which over, say, a 3, 4 or 5-year period would “pay off”, but not in the first 1 or 2 years.

1946. So you would be reluctant, so to speak, to get involved until a reasonable period of, say, 5 years had elapsed. Is that the implication of what you are saying?—I do not think we would like to be quite as definite as that, particularly in an area of this sort. If, after say 18 months or 2 years, there were certain political changes which altered the reasonable prospects for B.O.A.C.’s investment in Kuwait, or indeed anywhere else in that area, then I am quite sure that my Ministry and B.O.A.C. would want to look at the whole matter all over again.

Mr. Ernest Davies.

1947. When this proposition was made, did the B.O.A.C. suggest to you that if a loss was incurred there should be a

subsidy from the Ministry?—They did, I understand, think that that might be an attractive idea, but I think it is only fair to say that they did not press that.

1948. And you did not encourage them to?—I think it is fair to say that we did not encourage them to.

Chairman.

1949. Supposing they now came to you and said that they would like to get away from this commitment and get out of the Kuwait area, what would you say to that?—I am afraid I could not give you a definite answer to that. If they did that, we would have to look at the whole thing all over again, which we have not done recently, and it would depend upon our study what answer we gave. What I think I can say with complete confidence is that I do not believe that in the last resort we would suggest that B.O.A.C. should be propelled into such an investment if they were really very dead against it. I think this was the sort of situation where commercial interest in the investment was marginal, and therefore it seemed to us legitimate to underline the national and political advantages of undertaking it. If B.O.A.C. then—or now, on revision—said that it was not marginal, that this was really a very important thing for them that they should not go in and that there was a good deal of money involved, then I do not think that we would press it any further.

1950. Of course, if you did press them to retain this against their will, you would be incurring them in a loss direct and without compensating them in any way?—Yes, indeed.

Sir Alexander Spearman.

1951. What are the reasons for thinking that it will be less unprofitable in the future?—I cannot give you the answer in detail. It is just one of those business propositions where you have to make a fairly large investment to begin with, and therefore your account over the early period shows a loss, but over a longer period you break even or even make a profit. In particular, the immediate requirement of B.O.A.C. was to find new, modern aircraft for this airline, and that in itself is an expensive item to place against the returns in the first year or so of operation.



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[Continued.]

Colonel Lancaster.] I was out in Kuwait two years ago, and what was being said at that time was that we were losing a tremendous lot of "face" by not having a national air service in that part of the world, and that it would take time, even if we introduced B.O.A.C. or whoever it happened to be, to gain ground over Air France—and I think there was a Scandinavian air service and an American service there—to break in on their ground. I think that rather bears out what was said, that it would not be immediately profitable. But there was an opinion held in those days that we ought to get back into that service and probably be able to run a self-supporting industry. I do not think anybody thought at that time that we could go straight into it and be profitable. Certainly the political aspect was the immense loss of "face" we were incurring at that time by not having in our own particular territory, so to speak, any air service comparable to what was being provided by other nations.

Chairman.

1952. The points which you put to B.O.A.C. in discussion were of course in the course of your close relationship with them. You have no statutory powers at all, have you, under which you can persuade any of the air lines to go into any particular service?—No, not in general terms. The Minister has power to give a general direction, but I very much doubt whether legally he could enforce that power for a purpose like this, and I am quite sure that in practice he would consider it inappropriate to do so.

Chairman.] Now perhaps we can pass to the question of the West Indies. I think Mr. Ernest Davies has a question to ask on this.

Mr. Ernest Davies.

1953. There has been a disposal of one of the subsidiaries in the West Indies recently. Now, when a sale like that takes place, is the Ministry consulted before the Corporation decides to dispose of its interest in a subsidiary?—Well, "consulted" has a slightly formal flavour. We certainly know and are told what B.O.A.C. have in mind in these matters, and we learn of their plans and proposals in a variety of ways—most of them informal, but nevertheless effective. If they have it in mind

to do something of this kind and it particularly interests us or worries us, then we would take it up with them, and it may be that the matter would then become something fit for more formal consultations. So that in substance the answer to your question is: Yes, we are consulted. Formally we are not, but in substance we are, because they keep us, by one means or another, constantly informed of their plans, their policies and so on, on matters of this kind, and they give us every opportunity of questioning them about them and talking the matter over with them if we wish to.

1954. I mean, what is the purpose of not considering this consultation? You say you hear about this and you discuss it with them, but what is the difference between that information and actual consultation?—None at all. That was the point I was trying to make. I was not quite sure whether I was misunderstanding the sense in which you were using the word "consultation". There is no "consultation" in any strictly formal sense—where B.O.A.C. send us a formal letter and then there is a formal meeting.

Chairman.

1955. It is not statutory consultation?—It is not statutory consultation, not procedurally formal.

Mr. Ernest Davies.

1956. Before the B.O.A.C. decides to dispose of an interest in a subsidiary, do they get the authority of the Ministry to do so?—In effect they will, because in practice they will tell us what they have in mind, and that will give us the opportunity of saying whether we like it or do not like it, or whether we want more information and want to talk to them further about it or not.

1957. In this particular case, did the initiative to dispose of their interest come from you or did it come from the B.O.A.C.?—From B.O.A.C.

1958. And have there been cases where the initiative has come from you first?—No.

1959. And have there been cases where the B.O.A.C. have either wanted to take an interest in a subsidiary or have wished to dispose of it, and the Ministry has taken a different view from that of the Corporation?—Not as far as I know, no.

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[Continued.]

1960. And what was the reason for disposing of the interest in the West Indian subsidiary?—Well, frankly, I think that is a question which B.O.A.C. would be much better qualified to answer than we would. If they tell us about a proposition of this kind, unless there is some *prima facie* objection from our point of view against it, we would naturally regard it as a matter for their commercial judgment, and that the most satisfactory thing to do was the course that they proposed.

1961. Now, in regard to the formation of this holding company for the subsidiaries, the B.O.A.C. decided for some reason or other that they would create a holding company which would look after their interests in subsidiary companies. When that decision was taken, was the Ministry consulted about it?—Yes.

1962. And was that at the initiative of B.O.A.C. or the Ministry?—The B.O.A.C. produced the idea and they consulted with the Ministry about it before they committed themselves to it.

1963. And did the Ministry consider that that was a good idea?—On balance, yes.

1964. For what reason?—The chief reason was that we felt that B.O.A.C. were right in believing that their interests in these various associated and subsidiary companies throughout the world was so important to them that they required special attention, and that it was desirable for that purpose that B.O.A.C. should organise themselves so that they could concentrate on the affairs of these companies and bring to their problems—which in many ways are very different from the problems of B.O.A.C. proper—special attention, special expertise and so on. And it seemed to us that a proposal to have a theoretically separate company under the Board of B.O.A.C. to look after these affairs was a reasonable one and was likely to produce more efficient results and a better understanding of the peculiar needs of those local or regional associated and subsidiary companies.

1965. As far as you are aware, did the Ministry take account of the fact that, as a result of this action, less information would be given concerning the operation of the subsidiary companies for presentation in the Report to

the Ministry and through the Ministry to Parliament?—Yes, we did, and one of the points that were made and agreed between the Ministry and the B.O.A.C. was that the activities of this company would not be in any way more independent and free from the supply of proper information and so on than the activities of B.O.A.C. themselves.

1966. But is it not a fact that since this company has been formed there is less information in the Annual Report than there was previously?—That is indeed so, and all I would say about that is that there was one of those unfortunate misunderstandings at the stage preceding the production of the Report in question as a result of which it was not possible to scrutinise the layout of the Report until it was too late to make substantial alterations in it. It was clearly misunderstood between us and B.O.A.C. that proper details of their subsidiary holdings would be displayed in their Report but, as I say, the actual form of the Report was only available to us at too late a stage to make effective alterations in it. But I am quite sure that that was just an unfortunate accident and no more. The matter has been taken up with B.O.A.C. and it has been emphasised that in subsequent Reports the position of subsidiaries must be made perfectly plain; so that we do not expect that particular problem to arise again.

1967. So that the Ministry has in effect requested the B.O.A.C. to give as much information in the future as they did in the past?—Indeed, yes.

1968. And this one Report would be an exception?—It should be the only exception; that was an accident, as I say.

1969. Because the fact that information is not given does detract from the ability of Members of Parliament to hold the Corporation to account, does it not?—Certainly.

1970. And therefore it is undesirable?—The Ministry is very well aware of that. We have emphasised that this will not happen on another occasion.

Chairman.

1971. I have one question to ask you on the West Indies. The British West Indian Airways operate a number of internal services that the B.O.A.C. regard

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[Continued.]

as social services. We understand that there is a subsidy paid, I think, by one of the West Indian Governments of about £25,000. That is an example of subsidies being paid to a commercial corporation or a commercial company for the operation of routes which are not commercially justified. Were you consulted about that, or is that a Colonial Office matter?—That would be essentially a matter for the colonial government, and I do not think we would regard it as anything very unusual, because there are a number of cases in which colonial governments consider it suitable to subsidise transport services not only by air but, to my own knowledge, by sea and possibly by land as well, for social reasons, and we would regard that as a contractual matter between the colonial Government concerned and the airline concerned. Broadly speaking, it is immaterial to us whether the contract were with a nationalised corporation, a local airline, or, as is indeed the case in some instances, a mixture of the two.

1972. In so far as a subsidy is insufficient to prevent a loss, in effect the British taxpayer is providing a residual subsidy for that purpose?—We would expect the subsidy not to be insufficient, and if it proved to be insufficient we would expect the airline either to renegotiate the contract or, if it got into difficulties, to tell us about it.

1973. In this case they have told us all about it by saying that there is a £260,588 loss on the British West Indian Airways. I am not making a criticism, but I want to find out how in practice that works. When you see that, does it occur to you that the British taxpayer may be subsidising colonial air routes, justified for social reasons, through a nationalised industry? It may be that they are quite willing to subsidise them; I am not suggesting that they may not be willing to subsidise them; but the subsidy would be done through a nationalised industry for colonial Government reasons and not on a Colonial Office Vote. Do you take the implications of that into account?—We certainly would, if it arose. We would take rather a poor view of such a situation, at any rate in the Ministry of Transport, but I am not aware that this has arisen in this case. You mention a very large loss of £260,000 odd in the

case of British West Indian Airways, but I do not think that arises out of the operation of the inter-island subsidised services. I think those losses are losses incurred by the airline as a whole, including their international operations.

1974. When you see a loss incurred in an overseas territory, do you not make it your business to find out why that loss has been incurred?—Indeed we do.

1975. Then why cannot you tell me exactly about this loss which has been incurred?—With respect, Sir, I did not say I could not tell you why there had been such a loss. I was merely saying that I did not think it right to say that that loss was attributable to the subsidised services. It is a loss incurred over the whole of the airline's activities. It is quite true that if we see that a B.O.A.C. subsidiary is incurring substantial losses, and particularly if they happen to be persistent losses, naturally we ask B.O.A.C. for the reasons, and what they think can or should be done about it. In the particular case of the British West Indian Airways, the reasons for the losses of that airline, I think, are very complicated. They include the fact that that area of the world, possibly rather more than most, has been severely hit in the last year or 18 months by a general recession in traffic. They also include the considerably involved problems of local management. It is a difficult operation to base an airline in an area as large as that with a lot of scattered points of call. The airline has tried to undertake a number of operations which are inherently difficult for it to undertake and make to pay. It has had to find an answer to those particular problems and it has spent the last one or two years doing so. Part of that problem has been to re-equip the airline with up to date aircraft, which has been done, with various additional capital expenses in the process which should pay off in the long run but which for the immediate moment will help to swell the deficit. Finally, B.O.A.C. have assured us—and we are well aware of it—that they have for some little time been much concerned about the problem of making a success of British West Indian Airways. They have carried out a very full investigation into the removeable faults in the airline. They have had reports, of which they have given us confidentially some indication. They have

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made certain changes in the Board, and they have various other ideas for internal organisation and the future programming of the airline which they expect to result in a more efficient airline and a more profitable return. All these developments are matters which they keep us in touch with and discuss with us, and thereby they put us in a position to satisfy ourselves that they are aware of the problems and are really making an effort to deal with them.

1976. Now may we pass to the question of the United Kingdom and B.E.A.? We have heard about the difficulties in making the services on the Highlands and Islands routes and on the Isle of Man route remunerative. It appears to be the view of B.E.A. that these services are not likely to run at a profit. Would you agree with that?—Yes.

1977. But it appears also to be their view that there are strong social reasons why those services should be run. That would be your view also, would it?—Yes, indeed—in general, at any rate; I would not like to be committed to every single service.

1978. Now, here we have an airways Corporation that is providing services generally on a commercial basis and justifies its services on a commercial basis at home on whether they are commercially profitable or are likely to become commercially profitable, and in the main B.E.A. have told us that they expect the remaining routes in the United Kingdom to be made profitable in due course, but not these. In those circumstances, is there, in your opinion, a case for a subsidy or is there not?—Well, I think that there are arguments for and against. I do not think this is at all clear-cut. So far as B.E.A. are concerned, until two or three years ago they were under Act of Parliament in receipt of a subsidy in any case to cover their operations. They were also in enjoyment of a high measure of protection, which requires a monopoly of operations within the country, and indeed they had it. Therefore the general doctrine applied that in those circumstances it was not unreasonable to expect the Corporation, in the familiar cliché, to take the rough with the smooth. Of course, exactly how much rough they took and how much smooth might be a matter of judgment, but the principle operated. But they ceased two or three years ago to

draw any direct subsidy, and then the matter might be said to have taken on a different complexion. However, the other factors remained, in that they retained a certain monopoly advantage in the operation of the services, and moreover in the intervening period their operations as a whole have been successful; they have shown a profit—sometimes a large one, and sometimes only a small one. As I have said, so far the view of the Ministry would be that in purely practical terms there has been little justification for an additional subsidy in respect of these particular services. It would not have had any measurable, material effect on the results of B.E.A.'s operations.

Sir Keith Joseph.

1979. You said "... a monopoly advantage". Do you mean a monopoly advantage on *these* services?—No, in general.

Mr. Ernest Davies.

1980. Could the witness explain what he means by a "monopoly"?—I was referring to the fact that the Air Corporations Act provides the Corporation in the first instance with theoretically a complete monopoly of scheduled services. In practice they share those services with a number of other companies who operate in association with them. That sharing is decided by the Minister on the advice of the Air Transport Advisory Council, who operate under strict terms of reference which emphasise the need to protect the position of a Corporation, so as not materially to divert from their services or to damage their ability to maintain their position as national flag-carriers. I was a little hesitant about using the word "monopoly", but it is rather difficult to find the right word—perhaps "quasi-monopoly" might do, but that is rather a clumsy expression.

Mr. Albu.

1981. If some services which are required for social reasons cannot be made to pay, then the service is subsidised, and the choice surely is only between subsidisation by the other users of the air line or subsidisation by the general body of taxpayers?—I think that is probably right, yes.

Mr. Ernest Davies.

1982. How does the Ministry reconcile its opposition to a subsidy for B.E.A.

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on these particular Scottish services when it gives a subsidy to the shipping services, namely to MacBrayne's, of, I believe, £300,000 a year?—There is a subsidy given under contract between MacBrayne's and the Government for the shipping services, but I think there are a great many differences. In the first place the MacBrayne's services are solely to the Western Islands and Highlands; they do not have a coverage of the rest of Scotland, England and Wales. So there is no opportunity for them to take the rough with the smooth.

Mr. Ernest Davies.] No, but they do have some other services on the mainland.

Mr. Albu.

1983. They do not have an opportunity to allow their other customers to pay for that service?—They may.

Chairman.

1984. That is what "taking the rough with the smooth" means?—Yes.

Mr. Ernest Davies.

1985. But do not MacBrayne's run other services, presumably at a profit?—I have not been in touch with MacBrayne's business for quite a while, but, as far as I recall, the people running MacBrayne's services do that as a particular job. I have no doubt that there are interests in the MacBrayne outfit which have other interests elsewhere, but this particular job is done as a single private venture by MacBrayne's, as a contract job with the Scottish Office. I would have said that was different in kind from the B.E.A. operations, which are more analogous to the operations of a big bus company which has a number of profitable routes but which at the same time is expected to undertake a number of unprofitable routes in return for a reasonable measure of protection against pirate companies that come in and "cream" the traffic.

Mr. David Jones.

1986. But is it not true that MacBrayne's services extend to the mainland of Scotland substantially?—I would not like to say.

1987. The Highlands and Islands services of MacBrayne's are not divided from their mainland services. That is true, is it not?—I cannot answer that with complete confidence, but I am

pretty sure that the bulk of the MacBrayne activities are concerned with the Highlands and Islands. They may have certain others as well, but, taken by and large, the essential part is unremunerative.

1988. When you say that a subsidy is paid to MacBrayne's for Ministry services, it is carried on a Ministry of Transport Vote, is it not?—I think I am right in saying that it is carried on the Scottish Office Vote. The Ministry of Transport come into the picture, I think as (God help them!) technical advisers to the Scottish Office in practice.

Sir Alexander Spearman.

1989. Are the prices of the tickets as high as the traffic will bear, would you say, in the case of these losing services in Scotland?—Oh, yes, I think we would say so.

Sir Keith Joseph.] What proportion does the loss bear to the turnover, so that one can see by how much the prices would have to be raised to break even?

Chairman.] Could I just refer you to Appendix 17 in which we have full particulars of what appears to be a very large loss—£365,000 in one year, 1957-58, on the Highlands and Islands services.

Sir Keith Joseph.] Thank you.

Chairman.

1990. I think we must be careful how we put our questions to you because it is no part of our function to criticise Government policy here; that is not our business. But what is our business is to find out the conditions in which the Corporations work, and to make quite certain that you at any rate understand the point of view that we have got from the Corporations, so that we are, so to speak, at one on this. It would seem, from what you have said, that you are quite happy at a situation in which the B.E.A., whose affairs we are dealing with now, goes on running uneconomic services to quite an extent; for instance, this loss of £365,000 which they absorb in their general Profit and Loss Account, and therefore in effect have provided a subsidy from the rates of the Scottish taxpayer or the British taxpayer. Does it not seem to you that that is a surprising position, that that is as you

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would like it to be? I want to get your general attitude towards it and find out what the position is?—I would not like to go on record as being happy with the position or as thinking that it was necessarily right. I think all I can say, as I have tried to do, is that we think that there are arguments which are not insignificant in support of the present position.

1991. This is perhaps a rather narrow argument that may appeal to members of this Committee, but if one follows this particular principle of encouraging nationalised industries to run on uneconomic routes it means that the general accounts to the public do not give an indication of the general efficiency of their operations, nor, without delving very thoroughly into them, can we compare their results with those of their competitors from abroad. Have you taken that into account?—Yes. I am quite sure that it would be fair to say that the air line, at any rate the major national air line, which is free to run routes which alone are profitable is a very rare creature indeed.

1992. Which routes are you thinking about which alone are profitable—because we have not discovered any in this country?—No, but B.E.A. have a certain network, and a number of routes in that network lose maybe quite a lot of money, and others make money. What I am saying is that I do not believe there is a major airline in the world which does not include in its network of services a variety of routes which, by ordinary commercial standards, it is crazy to run, but which for a number of non-commercial reasons it operates. I would have said that was a fairly common thing to do. I am saying that what B.E.A. are doing at the moment may differ from what some of its rivals are doing in degree, but I do not think that basically it differs in kind.

Mr. Palmer.

1993. Does not something depend on the sort of trend of the financial results of the line? Do you not look at the trend, as to whether it is towards profitability in the future or otherwise? There may be a case for an uneconomic undertaking running in the early stages at a loss, but to make the thing pay later on. Surely that is the issue?—Oh yes, certainly.

1994. But do you take that point into consideration?—Oh, yes.

1995. And is there also not this test: what the attitude of the Ministry would be if B.E.A. in this case decided to discontinue the service. In that case would not you be faced with the need for paying a direct subsidy?—To be quite honest, I am not sure that I could answer that question. If B.E.A. decided flatly that it would not continue running these services?

1996. They might in the end say: "We have tried it for a number of years, we hoped that it would pay, but it will not pay. We therefore think we should bring it to an end". Is the Ministry up against it on the subsequent policy?—I think the answer is that if B.E.A. came along and said "If we continued this uneconomic operation on this scale, we should become bankrupt", then plainly the Ministry would have to get together with the B.E.A. and various other people and decide what to do about it. But exactly what would be done I would not like to forecast. I would like to fall back on the usual answer, that "It is a hypothetical question".

Mr. Albu.

1997. That would be a matter of Ministerial policy?—Yes.

1998. Surely the question whether or not other customers or the taxpayers subsidise these other routes is a matter of Ministerial policy?—Yes. I thought the question came round full-circle to a remark I made earlier, that for the time being this business of losses on the Scottish services, and may be on other services, was not one which had a significant effect on the plus or minus balance.

Mr. Palmer.

1999. Would your view be that the trend of losses here has been marginal so far in relation to the total trading?—Yes. I think if the business were to become really serious for B.E.A. in relation to the way their business was in fact going, in relation to certain intangible advantages they got out of those services, we would expect them to say so, and at that stage, no doubt, new policy would have to be considered.

2000. But that situation has not arisen yet?—I think it is fair to say that it has not.

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Mr. Albu.

2001. But is there not a substantial difference between some domestic services and others? It can be argued that the domestic services from London to Scotland and through England are part of the general commercial operations of B.E.A. and provide an imponderable contribution in better service and prestige; but surely this cannot be argued about the Channel Islands and the Highlands and Islands services both of which make a substantial loss?—Regarding the Channel Islands services, I was not aware that B.E.A. themselves considered that they had a case for special Government support, and until they do so I think it is reasonable that the Ministry should leave them to operate those services as they do.

Mr. Ernest Davies.

2002. But surely the Ministry do not say that a loss of £365,000 is insignificant? Surely a loss of that size is of considerable importance to B.E.A., when it is either making a profit of a million pounds or a loss of something like an equivalent amount?—Yes. I accept that, of course. And I do not want to be misunderstood: I am not trying to say that that is a small loss.

2003. On the point Mr. Albu has just made, do you not consider that this is a separate case, that you can look upon the Highlands and Islands services as an entity in itself, as something which is a social service which it is desirable should be maintained, which B.E.A. operates for social service reasons—and therefore that it should be looked upon entirely differently from its other services?—I think it is difficult to answer that question exactly as you put it. All I would say is this, that the Ministry believe that there are a number of reasonable arguments, or arguments which have been reasonable so far, for maintaining the present position whereby these services are provided by B.E.A. as part and parcel of, if you like, an omnibus deal. Clearly there are arguments for approaching the matter differently, and for saying "This is a special problem which should be dealt with differently". But when it comes to saying which arguments have the advantage over the others, then it seems to me that you have to take into account the precise circumstances at the time one is talking about,

and finally you come up against a matter of Government policy.

2004. Is it not a fact that B.E.A. do look at it in that way, and that they have asked you for a subsidy from time to time?—Yes.

2005. And on every occasion it has been rejected?—So far, yes.

2006. And are you aware that the B.E.A.'s evidence has been that there is no comparable service provided by any of the other European companies which is comparable to the Highlands and Islands services?—If they said that, they might be right. I have not got enough knowledge to say whether it is right or not.

2007. Because earlier you did imply that this was just a normal operation as far as the Corporation was concerned, and our information is that that is not so, that this is an exceptional service?—I am afraid I just do not know the answer to that.

Dame Irene Ward.

2008. If you are operating a service, say, from here to Scotland at a loss, commercially you may be building up an air-minded public which in the long run will make the service pay. You must make a distinction, surely, between a social service, which can never be regarded in that light, and that sort of service. Therefore, if it is going to be run as a social service, surely it should come into quite a different category. For example, we have had our service to Cumberland withdrawn because it does not pay, and we are very anxious to build up an air service from that place, and we might use the money which is available for the social service to carry on at a loss. If you are going to run a social service, which I think is very necessary, perhaps it ought not to come into the commercial operations of a commercial undertaking?—Yes. I think all I am trying to say about this business of the Scottish services is that throughout the world there are transport services by land, sea and air, which come into the category of social services, and which do not pay, which will never pay, but which, for a variety of reasons, the country in question feels must be provided.

2009. A real social service in the sense that we mean it?—Yes—which are quite uncommercial and which will never

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be anything else. There are two basic ways in which you can tackle them. One is to subsidise them outright, providing them wholly from government sources.

2010. And then the general taxpayer is involved, and everybody bears the burden?—Yes. Or, alternatively—and this happens in the bus world in this country in a small way—you may be able to work them into a general commercial undertaking, in effect as part of a bargain where the undertaking gets certain advantages, privileges and protection, and in return undertakes to do certain things which normally it would not do. And at the moment the B.E.A. services in Scotland are being run on the second basis. It is a matter of Government policy whether they are done on that basis or on the other. All I can say is that there are arguments for the basis on which they are being done at present, and I am sure that there are parallels in kind elsewhere in the world.

Chairman.

2011. What you are saying really means this, that the House of Commons is asked to approve a system whereby a subsidy is given to Scotland for social reasons, not through the Scottish Office Vote nor through the Ministry of Transport Vote, but through the accounts of a nationalised industry. That is what your arguments amounts to, in accounting terms. I want to know whether that is right, as a statement of your argument?—I should think it very probably is.

2012. This is rather important to this Committee, because we expect to be commenting on how the nationalised industries run themselves, and we find ourselves here with the question laid before us, whether it is a good thing or not for the Highlands and Islands services to be subsidised, and we look at the figures we have been given and we find that as the services increase so the losses increase too. That is a familiar sort of thing which happens when a service is definitely uneconomic. So this is quite a big question of principle. Now, I see the general theme of your argument, which is that in transport operation as a whole—take, for example bus companies—they are allowed to have a licence to go on certain bus routes on the understanding that they run on some other uneconomic routes. Now, which

are the routes which are meant to be so profitable that the B.E.A. have got which are part of this arrangement here?—Well, there are very few, if any, of B.E.A.'s routes on which competition from other British carriers is permitted.

2013. You want to look at competition in the transport services, do you not? I mean, take London to Edinburgh: is that a route where no other British carrier is allowed?—As far as I know, yes.

2014. But you can go to Edinburgh from London by bus, by train or by aeroplane; there is some measure of competition there, surely?—Oh, yes. I did not wish to imply that there was no measure of competition there, merely that there could be a greater measure of competition. There could be parallel air competition, and there is not. And, far more significant in financial terms, when it comes to B.E.A.'s international routes, even on those they have to face up to surface competition from foreigners and air competition from foreigners of course. But they do not have to face up to, by and large, fratricidal competition from their own brothers in the air.

2015. But does it matter whether it happens to be your brother or a more distant relative?—Yes, I think it does, because whereas you cannot stop the French or Italians operating airlines in competition with you, you need not add to the struggles of your Corporation by allowing another United Kingdom airline to do it. To that extent B.E.A. do enjoy a measure of protection from the Government.

2016. Which you consider justifies you in asking them to incur a loss of £365,000?—It is a case which can be reasonably argued.

2017. I would like to say this, in case you do not know, that the figure given to us for the London—Edinburgh route is that it costs B.E.A., in loss, in 1957-58, £96,000; 1956-57, £103,000; and the London—Glasgow route also incurred them in a loss. But the difference between those routes and the Highlands and Islands is that B.E.A. consider that they can turn these routes into profitable routes, and regarding the Highlands and Islands routes, we have been told by the Chairman of the Corporation that

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"it is only in the case of the Highlands and Islands, including the Isle of Man, that the criterion whether the route is going in the end to be profitable does not apply". That is what he said. Then he went on to tell us that in the case of the French airways they do get a subsidy from their Government for running unprofitable domestic routes, and that is also the case with the Scandinavian airlines. So that when you first said that, so far as you knew, all over the world they took the rough with the smooth, that is to say that one kind of passenger subsidises the other, there are cases of the Scandinavian Airways and the French Airways where other Governments do not impose on their airlines this same "rough and smooth" policy?

—Yes, Sir, but when I said that I did not wish to imply that the "rough with the smooth" policy was completely universal; I merely meant to explain that it occurred here and there throughout the world quite commonly. In the case of the French and Scandinavian Airways, I believe that what you say is correct. It could be—but I do not know for certain—that Air France and S.A.A., in addition to being subsidised in certain cases, may have to undertake certain tasks which are not very profitable without any subsidy. These things do vary.

2018. We have a memorandum from the B.E.A. that summarises the points put by them to you, on I think 6th August, covering the period during the lives of several Governments, I think before 1951 as well as after. If you think, on reflection, that you would like to put in to the Committee a paper setting out your views and the principle on which the present policy is operated, we should be very glad to receive it. But otherwise we will stand on your evidence?—Thank you very much.*

2019. Now, the next question relates to the mail rates agreed to by the G.P.O. We have been told by the B.E.A. that these rates are unsatisfactory so far as they are concerned. Now, when one of these Corporations has a complaint against a Government department, what part do you play in all that?—Well, Sir, it would depend. There are occasions when one of the Corporations would deal direct with the Government

Department concerned. But if the matter were one of any real significance we would expect them to come to us and not go direct to the other Government Department, because we should be the people who can understand their difficulties and their needs, and we should be the Department to advocate their needs to the other Government Departments and to explain the problems of the Corporation to the other Departments in turn. I think that, apart from relatively small matters, the Corporation would come to us in the first place and say: "We think this is unfair. Can you help us?", and then we would get them to explain what was worrying them, we would think about it and go into it, and then take it up with the other Government Department concerned.

2020. What happened in the case of the G.P.O.? The evidence given to us was that the G.P.O. rate is lower than the international rate, indeed it is very much lower, said Mr. Milward to us?

—I am afraid you have caught me completely on the wrong foot on that one. Perhaps I could ask Mr. Evans to deal with that.

2021. Yes?—(Mr. Evans.) The international rate is fixed every 5 years by a meeting of the Universal Postal Union who, among other things, fix the maximum rate for the carriage of foreign mails, that is to say one country's airline carrying it for the post office of another country. The other sort of overseas mail which airlines carry is mail originating in the country of the carrier, and for that purpose the foreign rates do not apply; each Post Office makes a bargain with its own airline for the carriage of mails originating from its own country. Then there is a third set of mails carried, that is to say domestic mails, internal ones, and there it is a question of a bargain being struck, an ordinary contract between the Post Office and the Airline which it wishes to carry those mails. In the case of the domestic mails of B.E.A. there have been arguments between the G.P.O. and B.E.A. stretching over a number of years on the contract rate which the Post Office should pay to B.E.A. for the carriage of these domestic mails. There are several reasons why that rate should not necessarily be the same as the foreign rate. In the case of the foreign rate, it is a question of international agreement.

* Appendix 19.

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There is very much more advantage to the Post Office in the carriage of foreign mails because the distances are so much greater and therefore the speed and advantage of Air Mail is so much higher. But in the case of internal mails, the Post Office has to weigh up what it could get mails carried for by other forms of transport.

Mr. *Albu*.

2022. This is not only internal mails, is it: it is internal originating mails?—I think the claim by B.E.A. is for internal mails only.

Chairman.

2023. Mr. Evans in his answer has been covering the whole field, by way of explanation?—Yes, because there has been a comparison with the foreign rates. I was saying that there are differences in the advantages which the Post Office receives by air carriage, differences as between domestic mails and foreign mails, and therefore the Post Office says that the international rate is not necessarily a criterion for what the domestic rate should be.

Mr. *Ernest Davies*.

2024. Can I follow up on the question of principle as to whether the Ministry intervenes on behalf of the Corporation? The Annual Report and Accounts are presented to the Minister; that is his official information as to the activities of the Corporation. Is it not a fact that in recent years the Corporation in their Annual Report have drawn attention to two matters in particular where other Departments are concerned: one is the question of mail rates, and one is the question of paying tax on the fuel they use on their domestic routes? Now, do you expect some other approach to the Minister to be made by the Corporation than through their Annual Report which they present to him, when these difficulties arise?—(Mr. *Custance*.) Yes, indeed. In fact I would say it would be the other way round, that if a Corporation feels obliged to comment on something like that in an Annual Report it almost certainly means that they have raised it with the Ministry before and discussed it fully with them, and efforts have been made to help them and have probably failed. And the Corporation then feel—whether or not they believe that anything useful will result from it—

at any rate they feel that it is right and fair that they should record in their Report their unhappiness about this situation.

2025. In both these cases had the Ministry intervened on behalf of the Corporation (a) with the Post Office, and (b) with the Treasury?—(Mr. *Evans*.) On the Post Office side, yes. We have been in discussion with officials at the Post Office on this question of the domestic rate, and we have to consider the point of view of the Post Office as well as the point of view of B.E.A. Now, I do not wish to contradict what B.E.A. have said, but when they say that the domestic rate is very much lower than the international rate, I do not think they have taken into account this fact. It is true that the domestic rate for first-class domestic mails is a little lower than the foreign rate for those mails. I think the figures are about 2·6 gold Francs per tonne-kilometre for the domestic rate and 3 gold Francs for the foreign rate, for first-class mails. The foreign rate for second-class mails is only 1 gold Franc, so that with a quantity of mails going abroad at the foreign rate, part of it would be at 3 gold Francs and part would be at 1 gold Franc. But for the domestic rate they all go together, and G.P.O. pay the same rate for the first- and second-class mails, so it needs to be worked out whether the actual payment for a quantity of mails is less. I think it is round about the same for a quantity of B.E.A.'s domestic mails as for a similar quantity at the two classes of foreign rate.

2026. In other words, you have not really taken up the cudgels for the B.E.A. in this case? You have not supported the attitude of B.E.A.?—Yes, we have argued B.E.A.'s case with the Post Office, but they have been unwilling to meet us wholly, and indeed this very matter is still being negotiated at this moment.

2027. And what has been the position in regard to the tax on the fuel oil for internal routes, because from the evidence we have received that influenced the B.E.A. in regard to the type of aircraft they have been using?—Yes. I think over the last 8 or 9 years that matter has been raised, perhaps before then. It was raised with successive Chancellors of the Exchequer. And in every case, both with the Labour

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Government before and with the Conservative Government since; the answer has been No.

2028. But you have supported B.E.A.? —We have supported B.E.A., yes.

2029. Because it is quite relevant to the earlier discussion that we had on subsidies?—Yes. The main reason for the refusal has been the difficulty in administering two prices for the fuel.

2030. It is done in the case of the Railways: the Railways pay no tax on their diesel fuel?—(Mr. Custance.) I would very much like to emphasize the general point here that the Ministry regard themselves very much as "fathers in God", so to speak, of the Corporations. We expect them to come to us if they are in trouble. And if we think they are in trouble we will go to them. But either way, we regard it as very much our task to fight their battles for them with other Government Departments. But obviously that does mean that if we are genuinely convinced that what they want is not possible or is not reasonable or must be qualified, then we have to tell them so. And on occasions that may look as if we are not behind them, though I do not believe that they think that that is so.

Dame Irene Ward.

2031. If you are fighting their battles for them, presumably thinking that they are right, and you lose because in fact the Minister has lost in the Cabinet, how does that get itself sorted out?—Well, we can only convey to the Corporation the decision of the Minister.

Chairman.

2032. You fight, but you may lose? —Yes.

Dame Irene Ward.

2033. You may agree with the Corporation, but you may not necessarily as a Department be able to win the battle at a higher level?—That is true, but it is usually veiled in a cloak of decent obscurity.

Mr. Albu.

2034. And to some extent you are acting as Devil's advocate?—Yes, and that I was thinking would be the normal way—it would be "pull baker, pull Devil", but with an underlying objectiveness—I mean, if you cannot

get your case agreed to, you do not resort to stabbing the other man in the back.

2035. Yes, but this is rather a different point. It means to say that in the end you have the power to control what the Airlines do, and therefore you consider them as . . .?—No. In the sort of cases which have been mentioned—the postal rates, for example—basically the situation is an argument between the contractor and his "opposite number".

2036. But is it? The Airlines have no power to refuse to take the mails? —The fact that an Airline is a national Corporation does not put it in another category. The Post Office are a powerful organisation the world over.

2037. But have the Post Office statutory power to compel the Airlines to carry their goods?—As far as I know, no. But in the case of any airline, particularly the Corporations since they are flag-carriers, there is another Government Department which, at the Government Department levels, will weigh in and do its best to see that the Corporations get a fair deal in their negotiations. I would not have thought it would have worsened the position of the Airlines; I would have thought it would have improved their position.

Mr. Bonham Carter.

2038. But any negotiations are based on the fact that you can refuse to do the job you are asked to do. If you have got to do it, then I do not see how you can arrive at any bargain?—(Mr. Evans.) There is nothing in the Statute which says that the B.E.A. could not refuse. (Mr. Custance.) They could refuse in theory. The B.E.A. in theory could say: "We will not be bothered with mails at all", but in fact neither side is thinking in these extreme terms. So that, in effect, there is genuine room for bargaining and negotiation.

Chairman.

2039. And having threatened to stop carrying the mails, it is prejudicing those negotiations?—I was not aware that currently they are—

2040. The impression I got from Mr. Evans was that, having looked at it all, he thought the Post Office had quite a good case?—(Mr. Evans.) Yes, but I did not say that the B.E.A. had not got a case also.

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Mr. David Jones.

2041. Do I understand that the internal mail in this country is carried by the B.E.A. for the Post Office at an overall lower figure than the figure agreed by the International Postal Union?—It is very debatable what the comparable rate of payment for domestic mail is. There are two sorts of rate for international mail.

2042. Yes?—But for the most part the domestic rates are not split into those two.

2043. They are all carried at a set figure?—Yes.

2044. How does the figure compare with the figure which B.E.A. would get for carrying mail to the other countries?—It is difficult to find out exactly what the figure is for domestic mails for the whole, and what the figure for foreign mails is for the whole, because there is one rate for first-class and one rate for second-class mail. It depends on the volume of the first and second class mails carried at the foreign rate.

2045. But what normal reason can there be for the Post Office to expect their mails between London and Glasgow shall be carried more cheaply than from London to Rome?—(Mr. Custance.) I think the Post Office would say that they would not expect that. Because the method of calculating the rates is different for domestic mails from the international rate, the 2·6, or whatever it is, for domestic mail will give B.E.A. a remuneration broadly equivalent to the remuneration they would get for the same volume of mail of the same type over an equivalent international distance. They may be right or wrong, but that would be the argument, and it is a very difficult argument, for technical reasons, either to prove or to disprove.

Sir Keith Joseph.

2046. I was interested a minute or two ago when you said that you act as protectors of the Air Corporations, but there comes a point where you have to tell the Corporation that they cannot get what they want. At what point in the negotiations is that decision made? Is it at the beginning, or is it after you have tried, or is it after all the channels have

been exhausted?—Normally, it is after we have tried and failed, and it would depend very much on the nature of the request, how seriously the Corporation themselves had it in mind, and so on. It could easily be that the Corporation would come along and say: "It would be jolly nice if we could do X, Y and Z", and we might say: "Yes, we agree, but we do not think there is a good chance of your getting away with it. But if you have some good arguments we will look into it", and then we go back to them and say: "Do you want us to pursue it?", and if they say "No", then in that case it would be dropped at that stage.

2047. On the other hand, supposing the Corporation says "We have a good case", do you pursue it?—Oh, by George, yes!

Chairman.

2048. Now here is a case which affects you directly, and that is in connection with helicopter services. It is possible, is it not, that if the B.E.A. were to introduce helicopter services at a place which previously had fixed-wing aircraft, the expenditure on services at that airport could be cut very considerably by you because you would not have to operate all the paraphernalia needed for landing and so on of the fixed-wing aircraft, and yet I understand that if that were to happen, or in the cases where it does happen, you take the profit and do not give B.E.A. the benefit of it. Is that correct?—No, Sir. The only case I know of is in the Scillies, where B.E.A. have been thinking about this idea of replacing the fixed-wing aircraft with a helicopter service. They have told us a little about this, and we have had a look at it, and they have shown us certain preliminary calculations. In that case they do argue that we would save quite a bit in airport costs, which they suggest we might then hand over to help to subsidise the admittedly expensive helicopter operation.

2049. Why would that be subsidised?—Subsidised simply in the sense that there is no reason why we should pay money to the B.E.A. to run a helicopter service in place of a fixed-wing service. Well, I think I can say that no principle has yet been laid down as to what ought

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to happen if, by some change in the nature of the service, the Department is lucky enough to have a saving in aerodrome costs. Therefore it is certainly not necessarily automatically out of court that that saving could not be passed on to B.E.A. if a proper case could be made out for it. It is something which has never arisen before, to my knowledge. As to the case of the Scillies, the position there at the moment is that the Department have not taken any firm or official attitude either on the point of principle whether the saving, if any, should or should not be passed on, or as to whether there would be any saving. At the moment we are by no means convinced that there would be the saving to us that B.E.A. expect. The whole matter is something which is still being looked at, and I am quite certain there has not been a final decision at all.

2050. Then there is the question of landing fees for helicopters. For commercial flying at the moment a helicopter is charged 50 per cent. of the standard rate, the fixed-wing landing rate, yet surely the actual proper apportionment of charges for a helicopter must be far lower than at a normal aerodrome?—50 per cent of the ordinary rate? I do not know. It would be very difficult to work out.

2051. But these things are likely to affect the decision whether to introduce helicopters or not?—I think not, not at this stage. There is no practical possibility for quite a time to come of helicopter services being introduced on any more than an experimental scale, and long before we got to that point I am sure that we and the Corporations will have to settle matters like landing

fees and the many other matters to do with helicopters.

Mr. Palmer.

2052. What are the difficulties?—At the moment the difficulty is the lack of a suitable machine—a machine which is an economic proposition for an airline to operate. No helicopter service in the world at the moment is being run except at a loss, and a heavy one.

2053. So that really they are not a commercial proposition?—No, they are not a commercial proposition at the moment.

2054. And that is the fundamental reason why they are not being operated, is it?—Yes. We are hoping that they may be a commercial proposition in perhaps three years' time, or something like that.

Chairman.

2055. Those are all the questions the Committee have to ask you up to date on the subsidiaries. Perhaps we could ask you to come back on another Thursday afternoon to answer some further questions. Also may I say that although some of our questions have been put in a form which is apparently critical of policy, we have merely tried to get from you how you look at these things and what is the present reasoning and policy. That is our sole purpose, and it is no part of our function here to criticise what you and your Minister do?—Thank you, Sir.

Chairman.] We are very grateful to you for coming, and may I congratulate you on the way you have stood up to our questions after such a short time in your present appointment.

THURSDAY, 5TH FEBRUARY, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Sir John Barlow.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.

Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

Mr. C. ABELL, Chief Engineer, British Overseas Airways Corporation, called in and examined. Mr. BASIL SMALLPEICE, Managing Director, British Overseas Airways Corporation; Mr. A. H. MILWARD, O.B.E., Chief Executive, and Mr. B. S. SHENSTONE, Chief Engineer, British European Airways called in and further examined.

Chairman.

2056. We have discussed aircraft maintenance problems separately with the B.O.A.C. Managing Director and with Mr. Milward and Mr. Shenstone. There are one or two points on which we thought, to reach proper conclusions it would be helpful to discuss them before both Corporations. I realise that to some extent you have different problems and that your maintenance departments may have grown up in different ways, and I realise that you have different ideas and points of view. We make no comment on that. We should like you to consider frankly the various points which have been put to you and we should like your completely frank answers and approaches, however different they may be and even though it may seem to you that you may be commenting on each other somewhat unfavourably. We are all after the same result, after all, and if we can make use of the time today to get on the record your views on the various problems which seem to us important, it would be helpful.

I should like first to take the general question of maintenance costs. We have had evidence from you which puts the maintenance costs as percentages of traffic revenue. In the case of B.O.A.C. they were 23·7 per cent. and in the case of B.E.A. 18·7 per cent., although the current figure is 16·5 per cent. We have heard from B.O.A.C. that they hope, as their plans develop, to cut their costs by half and so become comparable with the Americans, or even better. We have heard from B.E.A. that the Americans'

maintenance is of an equivalent standard to theirs although with a smaller labour force, but they have told us that they have a good deal to learn on maintenance. We have heard from both of you that your Chief Engineers or members of their staff have been around their competitors' plants and workshops and that you are both doing all you can to see that you have the experience of as many as possible on which to draw.

I want to take the Americans as a comparison because they are the main aircraft operators. What is it, in the opinion of each of you, that prevents you now from being comparable in costs with the Americans, after allowing for the difference in labour costs, which is very considerable? Would B.E.A. help us with that first?—(Mr. Milward.) An airline's costs are drawn up on such a different number of bases that it is difficult to say. Our engineering costs appear to be roughly in line, on the basis of engineering costs against total expenditure, with the fourteen or so American companies with which we are able to compare them. Our present maintenance costs are about 16·55 per cent. of our total costs. You referred to total revenue, but as we are about breaking even the difference is not very significant. The list of American, Canadian and Australian operators we have is very much in line, although on the whole they appear to be higher, we have a list here which I compiled from the latest figures we can get of some fourteen of the biggest carriers in the United States. Our figure is 16·55 per cent. and the average in

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the list is in the region of 18 per cent. That is not to say that we do not believe that with further experience we cannot get our maintenance costs down much further than they have been reduced in the last three years, although they have been reduced to a significant extent. Total engineering costs in 1955-56 as a percentage of our total costs were 19 per cent. They fell to 18½ per cent. the following year and in 1957-58 they were down to 16.55 per cent.

2057. What did you do in that period which was most responsible for that reduction?—We obtained higher utilisation out of a more standardised fleet. I think that would be the answer. Perhaps Mr. Shenstone might like to add something to that. (Mr. Shenstone.) There was nothing else, except working at the detailed problems on which we were not satisfied. There was nothing big. There were a lot of little things.

2058. A general improvement in maintenance efficiency?—Yes. (Mr. Milward.) To illustrate that, in 1956 we used 1.04 hours lapsed time per flying hour maintaining the 700 Viscount. The following year that had dropped to .97 and in 1958 it was .815. There has been a saving in maintenance hours per flying hour on the 700 Viscount. The same is even more true of the 802, but the figures go back for only two years; the figure was 1.46 for every flying hour and we got that down to .96, which is a saving of nearly 50 per cent. There is nothing spectacular about this work.

2059. Was that due to increasing reliability or to an alteration of systems in general and a tightening of the maintenance schedules?—(Mr. Shenstone.) A combination of both. We were able to improve some equipment on the aircraft and we have organised ourselves, in addition, better to look after it. It is a combination of both maintenance and development. (Mr. Milward.) I think it is an illustration of the enormous costs—I think B.O.A.C. will agree—of introducing a new type of aircraft. Five or six years ago we were in the middle of all our initial difficulties. They were not very great in the case of the Viscount, but they were always there. This improvement in part is due to increased efficiency, but I think a lot of the credit must be given to the aircraft, the modi-

fications and the work which was done on them in five years of maintenance.

2060. That is helpful. B.O.A.C. have some special problems and they have put in a paper. Would you like to make a statement on the same lines as that of B.E.A., and from there we can continue our discussion?—(Mr. Smallpeice.) You asked where we are in relation to the Americans. At this moment of time we are in the process of transition. We are trying to put our house in order and we have started to do so. Before that there was the figure of 23.7 per cent. which—

2061. What is the figure now?—I am afraid that I have not the figure. It would be on its way down. The basic reasons are those which we have already mentioned to you. Previously our organisation on the engineering side was broken down into separate fleets for different types of aircraft. Mr. Milward referred to the high costs of introducing new aircraft. In the last few years we have been in the throes of introducing new aircraft and also carrying second-hand aircraft, which as you know we had to buy at short notice to replace the Comets when they were taken out of service. In addition, we have had a different approach to the whole question of quality control of maintenance and overhaul work than that of the American airlines. We are in the process of changing this, and that work is fairly well advanced.

2062. You have put in a paper to us which is numbered by us M 46. It shows what you hope will happen on aircraft maintenance costs?—Some of it has happened. Almost all of it has happened. We have not put in here what we hope and believe will happen.

2063. I was referring particularly to your hope that whereas in 1957 approximately one in three of the Corporation's aircraft was undergoing overhaul or maintenance, in 1958-59 this figure was reduced to one in four and you hope that in 1959-60 it will be one in five. That must be the nub of the problem?—That is one of them.

Mr. Albu.

2064. The proportion of maintenance costs to total costs or traffic revenue, which was not very different from total costs for the last financial year, has

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gone up. The figure in the last Accounts is 25·6 per cent. whereas the figure given by you in the comparative list was 23·7 per cent?—It went up in 1957-58.

2065. How do you account for that? —I am trying to avoid saying something different from that which we said before—

2066. Did we ask you that?—I think you asked that before. One percentage is expressed as a percentage of the traffic revenue and the other as a percentage of costs, but I think this is dealt with in Questions 1529, 1530 and 1531.

Chairman.] Would you like to look at that Mr. Albu.

Mr. Albu.

2067. Yes. One of the factors is utilisation of the aircraft. How do your figures compare with other long-haul airlines at present? I wonder whether you could give them in hours per year? —(Mr. Abell.) I have not the actual figures with me but I believe that the hours per year on our operating fleet are very comparable with those of other long-haul operators. Certain operators achieve very high utilisation in terms of hours per year, notably Eastern Airlines on a very big internal route from Miami and on the east coast of America. Some of the Australian airlines achieve a very high utilisation. But in respect of the operating fleet—that is, discounting the aeroplanes we have standing by ready for sale—we are very comparable with T.W.A., Pan-American and that type of international operator.

Chairman.

2068. On that point, have you the equivalent figures on the DC-7C in the case of T.W.A. or Pan-American—the equivalent figure to that given by you in the graphs behind your latest paper? —I am afraid that I have not the figures for T.W.A. or Pan-American.

Dame Irene Ward.

2069. In order to clear the air for myself, at any rate, may I ask whether the increasing complication of all these aircraft and their greater efficiency from the point of view of design has enormously increased maintenance costs? —In some cases it has. It depends on the development of the aircraft at the time we start operating it. The DC-7C

was a relatively highly developed aeroplane by the time B.O.A.C. started operating it. The Britannia was not so highly developed. We were the first operators of it and therefore a lot of the development had to take place during our operation.

2070. I understand that. The question is, what happens when you get them bedded down? Aeroplanes seem to get more and more complicated in every way. Is the maintenance cost higher as a consequence or is that offset by the fact that you carry more passengers? —It depends very much what yardstick you use. In terms of man-hours or material used on a given aeroplane, undoubtedly as the aeroplane gets bigger and more complicated more man-hours and material will be used per flying hour, but that may be a smaller percentage of the total cost of operating the aeroplane and also of the total revenue.

Sir Alexander Spearman.

2071. May I ask a rather general question? I did not quite understand why such very large economies—for example the saving of half a million pounds in item 5—were possible in 1958 but were not possible in 1955. Do I understand Mr. Smallpeice to say that this was entirely due to the fact that in 1955 there was a new type of aeroplane which caused a great deal more work? —(Mr. Smallpeice.) I think the two questions are separate. These economies which we have achieved here have been possible only since our organisation has been centralised at London Airport and we have been able to get away from the old organisation of aircraft into separate fleets. The second point, which I think is additive, is that in 1955 we had to deal with aircraft which we had to buy second hand and which were in a state not up to our normal standards. We therefore had to do more maintenance work on them. There were two factors involved, which were complementary.

2072. The past does not concern us, except that if such very large economies have been proved possible, one cannot help wondering—knowing very little about it—whether even greater economies would have been possible. That is the reason I asked why this reorganisation which took place after 1955 did not take place before?—There were the factors which I have mentioned. In addition to



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them, as we have said in previous evidence, we realised from the financial point of view that our costs were higher than those of comparable operators at the date of which you speak. But it was not until after I became managing director and Mr. Abell was made Chief engineer responsible direct to me that we got down to the problem of re-organisation.

Chairman.

2073. Shall we try to break this down a little? So far we have been dealing with it generally. In previous evidence from each of you we have had reference to the system of supervision and inspection, and even the bonus element. We have had reference to mechanisation and the amount of horsepower to the elbow. We have had reference to A.R.B. requirements. There are those three things. Because it would be most convenient, I should like to deal with them in exactly the reverse order. At one time it seemed to be the view of the B.O.A.C. that the requirements of the A.R.B. are such that your systems are bound to be more elaborate and more costly than those of the Americans. We have taken evidence from the A.R.B., and I should like to tell you that the impression made on me is that they feel that there is nothing which they insist that you should do which should add in any way to your costs. The first point which I want to clear up is whether in your opinion the A.R.B. requirements involve in any way an addition to your costs by comparison with your overseas competitors?—I will start to answer and I will ask Mr. Abell to follow me. I think it is true that the A.R.B. requirements, strictly as such, do not add anything to our costs by comparison with those of American operators, but when I spoke to you before about this I was referring to the custom and practice which has developed over the years—this goes back to the time of the war and possibly even before that—and which has grown out of the orders issued at that time and the A.R.B. regulations which have arisen as a result. These have given rise to a greater emphasis on inspection in this country than in the United States. While it is true to say that the A.R.B. Regulations do not actually require it, the custom and practice which has evolved in this country since about the time of the war has led to that effect. Perhaps Mr. Abell would like to amplify that. (Mr. Abell.)

Yes, that is really true. It is quite correct to say that the A.R.B. requirements as such today do not require a large number of inspectors at all. They do not specify what type of work-people will do the inspections. They rely on the approved inspection organisation which is centred in our Chief Inspector and he could, in the carrying out of that function, approve hourly-rated direct labour or any other type of direct labour to do this inspection work, so it is true to say that it is not necessary in order to comply with the A.R.B. requirements to have a large number of inspectors. I think this custom has grown up over many years since before the war and was consequent upon the licensing policy then adopted which was that the licence was an inspector's licence, not a mechanic's licence. So that I really think it is custom and practice in this country in the way that the system has developed rather than the A.R.B.'s specific requirements which caused the present large number of inspection staff.

Mr. Albu.

2074. This is a custom and practice which has grown up and which you yourselves could have given up some years ago?—Yes.

Chairman.

2075. Mr. Milward, would you like to give us your views?—(Mr. Milward.) Yes, I would like to go into what B.O.A.C. have been saying. In our opinion, A.R.B. are not a limiting factor on this. Some of these customs and practices have grown up in industry, I think, more by the operators' doing than in Regulations. In general, I think—and I think Mr. Shenstone will agree with this—we find the A.R.B. easy—perhaps "easy" is not the right word; shall I say possible to deal with—when we have wanted to bring in new practices and when we have needed to get an extension of hours of maintenance of engines and airframes. They nearly always go along with us. If they do not, they always put up good reasons for not doing so. We have by this means—and I am sure B.O.A.C. have done the same—got engine overhauls substantially increased so that it is running at about 2,000 hours between overhauls. All this is reducing our labour and maintenance costs very considerably. I do not think we have found that the A.R.B. are unreasonable to deal with, and I do not think they will

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slow us up in our efforts to get maintenance costs reduced. It is really a matter of caution on our part.

2076. Since you began, with your various requirements in the aircraft maintenance Department, Mr. Smallpeice, you have not found any opposition from A.R.B. and you do not expect to have any opposition?—(Mr. Smallpeice.) No, I think they have every desire to be helpful.

Chairman.] I only wanted to get that clear. We will come to the general system in a minute.

Colonel Lancaster.

2077. What concerns me about this is that this custom and practice having grown up, it apparently had not formed very much of an impression on the minds of the people in charge. Was there ever an occasion when any outside body—A.R.B. or anybody else—had pointed out to yourselves that you were operating at a level in excess of those of your competitors, or was it something which only occurred to yourselves?—As far as we are concerned, it had not been pointed out to us from outside, as far as I know. We had gradually become aware of it ourselves from our own comparison of ourselves with other operators.

2078. May I ask about the B.E.A. view?—(Mr. Shenstone.) We have been aware of it for a long time for the same reason. We know that people in other countries have different systems and they require fewer inspectors. This system has not just grown up within the air transport industry. It is a system which has been brought into the air transport industry from the manufacturing industry in general terms. You may well ask why we have not done something before about it when we had realised it for some time. If I could put it in a nutshell, the problem is far less a technical problem than a trade union problem.

Mr. Albu.

2079. You have, in fact, done something. Your system is not the same system as that employed by B.O.A.C.?—Our system is essentially the same. We are talking about inspection only at the moment.

Chairman.] We will let you analyse the systems in a moment.

Mr. Ernest Davies.

2080. On the question of A.R.B., on the 10th December, Mr. Smallpeice, you did state that the additional inspectorate was accounted for very substantially by the requirements of the Air Registration Board? This afternoon you have helpfully amplified that, or to some extent you have amplified it. You then said in reply to a further question that the A.R.B. would not be satisfied with certain of the modifications that you required; that is to say that the A.R.B. present requirements would not be entirely met if you carried through the changes in your procedure which you propose. You said then that you were having talks with the A.R.B. I wonder if these talks have worked out satisfactorily and whether they have been meeting you on that point?—(Mr. Smallpeice.) Mr. Abell has been having those talks.

Mr. Abell.] Yes, indeed, we have had talks and they have so far been most satisfactory. There are one or two items of detail which we are still discussing. Largely, these are more freedom for increasing hours between overhaul of components and engines and that sort of thing as opposed to the inspection system. There are many other points, such as the maintenance schedule, which we are discussing with them, the form it takes and the freedom to alter it in minor detail without having to seek approval from them. That sort of discussion is still going on and we are meeting with understanding and co-operation from them.

2081. In regard to the questions which I put on the 10th December, it was implied that you would have to obtain approval from A.R.B. in connection with the inspection if you made changes. Are you proceeding with that?—I think the answer that we have given earlier clears that up. The A.R.B. maintained that an approved inspection can operate in any way we want it to, provided the chief inspector is satisfied that the people doing the job are properly qualified. They do not have to be inspectors. What the A.R.B. maintain is that there is no need to change the requirements in order to change our system.

2082. So the A.R.B. now are not standing in the way in regard to the changes that you are bringing about?—Of the system, no.

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Mr. *Albu*.

2083. They never have?—They never have.

Mr. *Palmer*.] Could you amplify a little what you said on previous occasions about maintenance costs on the question of the installation of machinery—

Chairman.

2084. I am sorry to keep you on the strict agenda, but I want to keep to the A.R.B. at the moment. There is one point that I must clear up. It is slightly different from what we heard from the A.R.B. I understood you to say today, Mr. Abell, that B.O.A.C.'s costly system had come to their own attention and the A.R.B. had not drawn the attention of B.O.A.C. to the costliness of the system that they were using?—That is correct.

2085. We had quite a long discussion with Mr. Hardingham. Mr. Palmer asked exactly this question. Whilst I am not saying that they claimed to have interfered with your organisation, the impression that we got from the evidence, in Questions 1901, 1902 and 1903, was that the A.R.B. at all levels had been drawing to the attention of B.O.A.C. for some time that their organisation and system was more costly and more elaborate than was necessary. I think Mr. Palmer will remember it.

Mr. *Palmer*.] Yes, I do remember it.

Mr. *Albu*.] I do not know if we could put to the witnesses the evidence of another witness whom they have not heard. I remember it. It was before the time of office of the present witnesses. The evidence was that there had been conversations at lower levels.

Chairman.

2086. That is exactly what I said. May I read to you from your colleague's own answers? Mr. Palmer said: "Your views on a simplified but satisfactory system of inspection have been known to B.O.A.C. for quite a time, have they?—We do not interfere with B.O.A.C.'s domestic organisation"—as one would expect. "We are only concerned to see that our minimum requirements are met. 1902. Nevertheless, you have a general interest in the efficiency and effectiveness of these things, and I was wondering whether, either officially or unofficially, your views have been known to B.O.A.C. for quite a time?—I do

not think you need to go to me or to anyone . . ." That is why I put my original question to you rather carefully. I said that the impression given in those answers was that the A.R.B. organisation had been drawing your people's attention to this for some time. It may be that we ought to have gone more carefully into it. When these bits of evidence get on paper one can see what they amount to?—(Mr. *Smallpeice*.) So far as I personally am concerned, it is not within my knowledge. (Mr. *Abell*.) I can only imagine that we have been discussing with A.R.B. improvements in our organisation for some considerable time. In fact, I made available a copy of our Costs Committee Report to Mr. Hardingham personally. (Mr. *Smallpeice*.) That was in 1958. (Mr. *Abell*.) Yes, in 1958. To my knowledge, no suggestion has ever been made by any of the A.R.B. staff or Mr. Hardingham himself that we are costly in terms of inspection.

Mr. *Albu*.

2087. They would not have direct knowledge of the costs, would they? They would get an impression from going round your workshops?—No impression has ever been given to me that we were expensive.

Mr. *Palmer*.

2088. They said that they did not need to mention them in a direct sense because they thought it was generally acknowledged?—It was acknowledged, and indeed we had told them some time ago.

Mr. *Albu*.

2089. Not prior to 1956?—Not prior to 1956, to my knowledge.

Chairman.

2090. With regard to mechanisation, the point that Mr. Palmer was on, I would like to put a few questions to you first, and then I will ask Mr. Palmer to supplement them. B.E.A. have told us that in their opinion American maintenance shops have twice as much horsepower per man as B.E.A. Is that still Mr. Shenstone's opinion?—(Mr. *Shenstone*.) Yes, it is my opinion. Of course, twice is a round figure—a lot more.

2091. B.O.A.C. have told us that they consider that in their workshops each man has about the same amount of

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machinery?—(Mr. *Smallpeice*.) With the exception of Treforest.

2092. We would like to reconcile these two statements if it is possible because it is a matter of general impression. I would like to know from B.E.A. why they do not have more?—(Mr. *Milward*.) I do not think we want to alter our opinion that we can mechanise our workshops a great deal more compared with the American use of horsepower per man. Whether it is twice, or a considerable proportion, is a matter for argument. The only reason that we have not done more up to date is because of this element of time. We are very sure that in order to evolve a good maintenance system we have to take this very slowly. After all, our new base at London Airport, from which most things stem in B.E.A., has only been in operation for six years. We have been increasing our capital expenditure on machinery, horsepower, methods of handling, equipment and material during that period, and we are going on doing so. The only reason why we have not done it more rapidly maybe is one of caution. Again, as Mr. *Shenstone* says, in all these matters it is a question of taking the unions with us. There is no better way of taking a union with you than to do a thing gradually and explain it gradually and not hurriedly. Every month we are spending considerable sums of money on capital equipment for the base.

Mr. *Albu*.

2093. I take it that the question as to whether to put in more mechanisation is a question of what the economist would call alternative cost?—Yes, entirely.

2094. Are you saying that, other things not being in the way, it would pay to spend more on mechanisation in the workshops?—Yes, I am sure of that. I am equally sure that we shall not get up to the American figure because owing to labour costs it would not pay us.

2095. You have some way to go?—We have some way to go.

Chairman.

2096. And are going it?—And we are going it every month practically.

2097. In the case of B.O.A.C., they look at this problem slightly differently. From the evidence that you have given

to us, and taking into account what we have just heard, you have already gone this distance that B.E.A. are going, Mr. *Abell*, and you do not see yourself increasing your element of mechanisation?—(Mr. *Abell*.) In the aircraft maintenance and component overhaul shops at London Airport we think we have already got adequate machinery, machine tools and general horsepower behind the work. I think the evidence that our Costs Committee produced when going round the American industry, and also K.L.M., showed that we could not find any evidence at all that the American operators are more mechanised than B.O.A.C. In that, we were not trying directly to compare two operators in standards of mechanisation, but we were really putting it the other way round. We could see no excuse for our high costs because of low mechanisation.

Mr. *Palmer*.

2098. You would say that your labour rates are the same, in the main, as B.E.A. Therefore, in spite of that, it has nevertheless paid you to put in the machinery?—(Mr. *Smallpeice*.) We think so.

2099. In spite of the fact that compared to the Americans, you can get labour at a lower rate? It has paid you to put in the machinery?—Yes.

Chairman.

2100. Now we come to the systems—what I call your systems of supervision, inspection, and so on. B.O.A.C. have given us some figures. In aircraft maintenance there is one supervisor to eight staff, for component repairs one to fourteen, engine repairs one to fifteen. In addition, there is one inspector for every seven hourly-rated staff. We have not had equivalent figures from B.E.A. because we have not asked for them. Mr. *Milward*, have you got those available?—(Mr. *Milward*.) I can give you what you need, Sir, but it is extraordinarily difficult to know how to give it to you. If we take our engineering, it is spread over the whole of our stations throughout the Corporation. If you take our total, we have a total labour force on maintenance in the Corporation, of 3,892. That is total maintenance staff, not necessarily hourly-rated. We have 382 in inspection, which is one in ten. You get a very different figure if you take the shop floor at the base, where the total is a thousand hourly-rated staff in the

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base with an inspection force of 320, which is one to 3·2 approximately. Over the whole of B.E.A. maintenance, it is one in ten on inspection.

2101. The other figures that I want to get before the Committee at the outset are the number of licensed aircraft engineers that you have and, of those, the number who perform inspection or supervisory duties. We understand that B.O.A.C. employ 681 licensed aircraft engineers of which 69 are employed in signing certificates of maintenance to comply with the law for your fleet of Britannias, Comets, Boeings and Strato-cruisers. That is 69 out of 681. In the case of B.E.A., we are told that B.E.A. employs 325 and those using their licences to comply with the law and signing certificates and so on total 106. You will perhaps check those figures? —Yes, I would like to. I am not sure where you get the figures from.

2102. We got them from the A.R.B.? —I am afraid I have not got these figures ready for you.

2103. We can all understand the underlying reasons why you should have many more licensed aircraft engineers than you need purely to sign the maintenance certificates, but we would be grateful if you would state your policy in this regard. Perhaps the B.O.A.C. witness would do so?—(Mr. Abell.) As to the policy behind licensed aircraft engineers, we encourage all aircraft engineers to try to obtain licences in so far as that is possible in order to encourage training and self-training and general ability. The number required purely to sign our aircraft after maintenance is a comparatively small number of that. In other words, we really use the licence system as a training system. When we come to the Britannia, the Air Registration Board are not issuing normally licences on Britannias, so that does not affect it. They are only issuing licences to a very small number.

2104. What about B.E.A.? Is your policy the same, Mr. Milward?—(Mr. Milward.) Our policy is roughly the same. I think it differs in practice a good deal from B.O.A.C., which will also account for any differences in the number of inspection staff we have. We do a lot of our maintenance outside the base. We do a considerable amount of maintenance in the

central areas of London Airport, all of which is done without inspection and is covered by licensed engineers, their signature and authorisation. The same goes for our sub-bases in the United Kingdom—Jersey, Manchester, Renfrew—and certain points on the Continent, but very few. In general, our practice is to use licensed engineers for signing out aircraft where maintenance work is done away from the base. I do not know if Mr. Shenstone can add anything to that? (Mr. Shenstone.) All the inspectors we have are in the base. We have no inspectors outside London Airport base. All the inspection work outside London Airport bases is done by A.R.B. licensed personnel. (Mr. Milward.) We do a considerable amount of work. There are Viscounts at Renfrew. There is a regular routine method. Every night the Viscount taking up the late service to Glasgow is maintained there. That is done entirely at Renfrew without any inspection and the clearance work is done by licensed engineers.

2105. Why do you not adopt the same system at the base, Mr. Shenstone?—(Mr. Shenstone.) The answer is really the one that I gave earlier. It is not a technical but a trade union problem.

Mr. Albu.

2106. In other words, it is a custom that has grown up?—(Mr. Milward.) Yes, in many ways. It is a thing that we shall have to look at.

2107. Are you really saying that although you are in a better position than B.O.A.C. you are suffering from the same difficulties?—(Mr. Shenstone.) On the inspection side, yes, almost precisely the same difficulties. (Mr. Milward.) It is a matter of degree rather than a difference of practice.

Chairman.

2108. The difficulty arises from the custom having grown up, rather than it having proved to be difficult to adapt the custom to your wishes on the grounds of efficiency?—Yes, we are going some way, and this is a perpetual struggle. Over two and a half years ago when I was first appointed chief executive, we had a great struggle with the unions on this point of out-stations. We had to adopt an extremely firm front. The airline could have come to a stand-still over it—I am glad to say

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they did not—over this question whether out-stations were to be employed on the work of check 1's. We have maintained the position ever since that work at all out-stations will be certified by licensed engineers. Maybe one day we shall have to face up to that at the bases, but we shall go fairly slowly.

Sir Alexander Spearman.

2109. I have not read the Act as I ought to have done. Am I right in thinking that in the Act establishing the Corporations, applying equally to both there is some limitation or regulation of your dealings with the unions that does not occur in other nationalised industries?—(Mr. Milward.) I do not think so that I know of. I am not quite clear what you have in mind, I do not know if Mr. Smallpeice can help you.

2110. I had an idea that there was some sort of regulation that was laid down in the Act for your dealing with the unions?—(Mr. Smallpeice.) We have a number of restrictions which are enshrined in National Joint Council agreements. It is difficult to change the character of work without changing those agreements.

Mr. Palmer.

2111. But it is not in the Act of Parliament?—(Mr. Milward.) No, I do not think that it is in the Act of Parliament.

Chairman.

2112. The question is not really relevant to the inquiry, which does not involve an inquiry into your relationships with trade unions—it is outside the terms of reference—but it is relevant from this point of view: are you saying that there is no difference in the difficulties you meet in this regard between you, as a nationalised corporation, and one of your competitors which is not nationalised?—I think that the point being made is a real one. There is some phrasing in the Act which says, in effect, that the management of the Corporations cannot do anything without the full agreement of the trade unions. I cannot remember the exact wording, but that, basically, is what it says. Perhaps Mr. Shenstone can add to that. (Mr. Shenstone.) It is truly woven into the fabric, as it could not be—and never would be—the case with a private firm.

Mr. Albu.

2113. I seem to remember that the Section empowers the Corporation to consult. That is the case in every nationalisation Act.—(Mr. Milward.) It is more than that. It more or less requires the Corporation to get the agreement of the trade unions.

Mr. Palmer.

2114. But this machinery is just advisory?—(Mr. Smallpeice.) But, although advisory, in the implementation of it, in 1946, 1947, and 1948, job descriptions were written into the agreements which are very restrictive, and that will slow down our ability to effect improvements as compared with other industries.

2115. The fault is in the agreements rather than in the Act?—Yes.

Mr. Albu.

2116. Is that because your Corporation started the discussions very much earlier?—I do not want to go into B.E.A.'s problems, but perhaps we have indicated that we are worse than B.E.A. in relationship of inspectors to hourly-rated workers. However, our ratio of one inspector to seven hourly-rated workers referred to employees on the shop floor at base, and that compares with one inspector to three hourly-rated workers for B.E.A.

2117. Why that substantial difference between your maintenance as compared with B.E.A.? As far as I know, B.E.A. are not in the position of wishing to get rid of a very large number of maintenance engineers, whereas you are?—I do not know what B.E.A.'s wishes are on this, and it is not for me to speak for B.E.A., but we have put this down as a factor effecting comparison of costs with those of major competitors.

Sir Alexander Spearman.

2118. Is the position that B.O.A.C. started long ago with a much bigger number, and that it has, therefore, been more difficult to get on the most economical basis than it has been for B.E.A. to maintain their position, because they did not start with such a big proportion?—This, of course, goes back to long before I was with the Corporation, but my impression is that

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B.E.A. did have advantages in starting with a clean slate in 1946-47, and did not have the sort of accumulation of practice and custom that we had to contend with. (Mr. Milward.) I should like to ask Mr. Shenstone to answer this point, which is a difficult one, and may be—in our opinion, at any rate—bound up in an entirely different maintenance system for workers, and different operation of our workers; and there is the particular fact that it must now be ten years since we introduced a bonus system into our maintenance practice. (Mr. Shenstone.) Yes, that is one of the factors. I will admit quite clearly that we have a greater number of inspectors per hourly-rated staff on the floor. In my opinion, the reasons behind that are based on the bonus scheme. When you introduce a premium bonus scheme such as we have, you find you need fewer men to do the work. That was quite clearly indicated when we introduced it, because we had quite a large redundancy on the shop floor. But the same amount of work is done, and, therefore, the same amount of inspection. You do not actually get any reduction in the number of inspectors, so the ratio of inspectors to direct labour becomes worse. There are two factors of inspection, and one tends to cancel out the other. When people are working on bonus they tend, in general, to do the work a little better because they know that if they make a mistake and the thing is not passed by the inspection they have to put it right without making more money, so after a few failures the tendency is actually to have a little less inspection. On the other hand, on the bonus system, as soon as they do their work they want it inspected—then and there—and that requires more inspectors. In other words, the inspectors have to be on tap. I think that is why the ratio of inspectors to hourly-rated workers is higher than it is with B.O.A.C. (Mr. Milward.) I think one can be misguided about this ratio of inspectors to hourly-rated workers on the shop floor. It can look bad by having fewer men on the floor. If any members of this Committee who have been round our rather large base will reflect that we have only 1,016 men on the shop floor, day and night—on a three-shift basis—at the base, it will be appreciated that that is a fairly low figure, but as Mr. Shenstone has said, the checking work has to be done by a relatively large number of inspectors.

Chairman.

2119. Sir Alexander raised the point some time ago about your obligations under the Act in connection with consultation and agreements. If we do not feel like dealing with it today, perhaps you might let us have a short note on it. As far as I can see, the relevant Section of the Air Corporations Act, 1949, is Section 20, which states: "It shall be the duty of each of the corporations, except in so far as the corporations are satisfied that adequate machinery exists for achieving the purpose of this subsection, to seek consultation with any organisation appearing to the corporation to be appropriate with a view to the conclusion between the corporation and that organisation of such agreements as appear to the parties to be desirable with respect to the establishment of machinery for—(a) the settlement by negotiation of terms and conditions of employment of persons employed by the corporation . . . (b) the discussions of matters affecting the safety, health and welfare of persons employed by the corporation and of other matters of mutual interest to the corporation and such persons, including efficiency in the operation of the corporation's services." In your opinion, to what extent does that impose on you duties that are not commonly observed by the ordinary private employer? That is really the question that is important to us. We want to know if you are under obligations more stringent—and, perhaps, more rigid—than is normal in industry.—(Mr. Smallpeice.) This is an involved question, Mr. Chairman, and you have given us the opportunity of putting in a paper on it. Perhaps that might be the better thing to do, because this is, to some extent, a lawyer's matter. But, provisionally, I would say that the way in which these agreements were entered into in 1946-47—perhaps 1948—has led to a situation in which it is very difficult to make changes in the classification or description of jobs to be performed by the people affected by the agreements.

Chairman.] We can all understand that an element of rigidity may come into this business, either through the particular way in which your agreements with the trade unions are working, or as a result of some special obligation imposed on you by the Act. I do not want to go further than finding out

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which it is. We do not want, here, to pursue your relations with the trade unions—that is a matter for you—but I think that we should know whether the difficulties about which you have spoken to us on a number of occasions—what I call difficulties of rigidity—are due to something imposed upon you by an Act of Parliament. I think that we are entitled to know that, and I should like to know.

Mr. Palmer.

2120. These are what I call the standard labour relations provisions for nationalised industries, but is it not the fact—and I may be wrong, because I speak now from memory—that in the aircraft corporations, negotiations in regard to wages and salaries and joint consultation are combined in one machinery?—Yes, they are.

2121. That is unlike the other nationalised industries? — (Mr. Milward.) The particular phrase relating to efficiency does, in my opinion, impose some obligations on us, because the unions appear to require consultation on efficiency in a very wide measure, which I do not think you would find in private industry. I do not say that this is, in fact, a great limiting factor on us, but it is in the background. (Mr. Smallpeice.) To answer your question as directly as I can, Mr. Chairman, I do not think that we are prevented by the terms of the Act, as such, from making any improvements. What we are prevented by at the moment are the agreements that have emerged out of the National Joint Council's operation of the Act. If we can negotiate a change there, there is no reason why we should not be much more flexible in the future. We let ourselves get into too rigid a position in the late 'forties.

Mr. Blyton.

2122. In many of the nationalised industries there are consultations dealing solely with trying to make the industry more efficient, but wages and conditions are settled by agreements arrived at by a different method. How is it that you get the two mixed together in the aircraft industry?—The negotiations are separate, but it all comes under the umbrella of the National Joint Council.

Chairman.

2123. I think that the best way to get this settled is for you to present us with
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a short paper on the points that have been put to you today, and, perhaps, summarising how the machinery does work. We will then be able to draw our conclusions as to how that machinery, and its working, differs from the machinery in other nationalised industries.—May we put in a joint paper? *

Chairman.

2124. Yes, I was about to ask if you would kindly co-ordinate. My next question is about the degree of liaison as it is called, between the two of you in aircraft maintenance matters. From what you have said to us from time to time, your chief engineers are fairly closely in touch as to systems, and they exchange notes on how to do the job. Hitherto, you have used different aircraft, but shortly you will be using a very similar aircraft—the Comet IV and the IVb. Would we be right in assuming that in that case you would have a great deal to tell each other, and that the experiences of one would be available to the other?—Indeed, yes. (Mr. Milward.) Perhaps I may be allowed to answer that, as B.O.A.C. already have the Comet IV and B.E.A. will have the IVb by the end of the year. The answer is that we certainly shall—if I may use the phrase in front of the B.O.A.C. representatives—pick their brains for all we are worth. They will have had two years' operational experience of the aircraft, and we shall take full advantage of that both on the operational and on the maintenance side.

2125. But there is some question of the equipment that has to be bought and installed for the overhauling of these very large and complicated aeroplanes. For example, some of us paying private visits to your B.O.A.C. shops have seen what I might call the dock equipment, into which you shunt the Comet. Is it your considered opinion that when you are using practically the same equipment you should each have that equipment for the aircraft rather than one of you employing the other to maintain the aircraft for you? An example, in this case, would be for B.E.A. to employ B.O.A.C. to do the maintenance of Comets for them.—When we decided to buy the IVb we went into this with a great deal of care and, in

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the end, decided that, from our point of view, it would be better to do our own maintenance on these aircraft. We did so because—as much as for any other reason—we wanted to get experience of the maintenance of jet aircraft. To us, the Comet IVb is a new step, just as the IV was to B.O.A.C., and we felt it would make a good lead in to the 121, when it came. Another thing is that, for us, the IVb, of which we have purchased six, is an interim aircraft. We have got terms that allow us to return them to De Havilland in five years—as we receive the 121. From our point of view, we shall do the maintenance as simply as we can. I think that it is unlikely that we shall require the full maintenance facilities of B.O.A.C., who have had a very large fleet for a long period. In particular, we shall try to avoid having a dock at all. We may have a nose dock, but full facilities we shall try to avoid. We did go into the question of full maintenance with B.O.A.C., but, mainly for technical reasons, we should like to do it ourselves—but it is also because of the schedules and cycles of our work, which is a short-haul network.

2126. You have a different cycle?—Yes. (Mr. Shenstone.) Having only six of them, and wanting to use slightly more than five at a time, you have a fractional aircraft off duty. That means a bit of acrobatics, and it is a problem to cope with—and a different problem from that faced by B.O.A.C., with a much larger fleet. Therefore, in all the circumstances, we felt that we should do it ourselves.

2127. That is for the Comet, but now let me ask a question about components or instruments. There must be many instruments, say, used in the aircraft of B.O.A.C. that are the same, or almost the same as those used in the aircraft of B.E.A. It appears that you both have workshops, very near each other, and that you each have your own systems for overhauling those instruments. I can well understand that they are good reasons for having those two workshops, but what we should like to know is whether you have considered the one using the other as a sub-contractor, or contractor, for the repair of the particular types of common user instruments—and components, too.—(Mr. Abell.) Yes, Sir, we have considered, and constantly do consider the possibility of sub-contracting the repair or

maintenance of components from one to the other, and not only between us but sometimes to the industry as a whole. In each case, we try to evaluate whether the cost of the equipment will save us enough in components to pay for itself. The turn-round time of these components—as we have illustrated in our paper in the case of engines—is very important, because of the need to keep the repair “float” down to a minimum. I do not know whether B.E.A. have found the same but, generally speaking, we have found that it pays us to buy the equipment to do the overhaul of any piece of equipment in order to keep the repair “float” as low as possible.

2128. Because then you have complete control over the situation?—Yes—and it also cuts down the time. To pass components from one organisation to the other inevitably involves paper work and delay of some sort, whereas, in your own workshops, that is cut down to the minimum.

2129. Have you ever, in fact, employed B.E.A. to do anything for you?—I do not think so, although the converse is true—they have employed us. (Mr. Milward.) The classic case was the Dakota engines, which were overhauled by B.O.A.C. at Treforest, but that was exceptional. In the past, we have always decided, from the turn-round point of view, that it was more efficient to do it ourselves. Both organisations are big enough each to employ a workshop fully on instrument overhaul. If either were small, the case would be different, but the size of our own instrument overhauls—and certainly B.O.A.C.’s—makes it economical to use our own staff.

2130. Do you overhaul for any of the independent operators?—(Mr. Shenstone.) We overhaul Dakota propellers for a couple of the independent operators. (Mr. Milward.) We did a lot of maintenance work for Transair on their Viscounts. We did all their check twos for a considerable period, until they got going at Gatwick. (Mr. Abell.) We do propellers for our associated companies, and also some outside work as well.

Chairman.

2131. But not in the instrument field?—(Mr. Abell.) No, not in the instrument field specifically—at least, not to my knowledge. We also do turn-round

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work at London Airport for a number of other operators.

Sir John Barlow.

2132. B.E.A. have said that they will have six IVb Comets, and that a fraction of one will be in dock all the time. What number of Comet IVs have B.O.A.C., and what proportion of dock time have they?—(Mr. *Smallpeice*.) We shall be having nineteen. (Mr. *Abell*.) We shall have dock capacity for only one. In point of fact, the total time in the dock will be less than one aircraft all the time, so that, out of the nineteen aircraft, there will not be an aeroplane in the dock all the time. (Mr. *Milward*.) Yes, and the word "dock" is misleading. The aircraft is really undergoing overhaul. Mr. Shenstone says that we shall be having $5\frac{1}{4}$ —or five and a fraction—out of six, and for three or four mid-week-days one aircraft will be off for maintenance. That is setting the sights very high, but we hope that by then B.E.A. will have reached such perfection that we shall be able to do it.

Sir Alexander Spearman.

2133. Will the aircraft be interchangeable?—(Mr. *Shenstone*.) Well—the nose is different, the span is shorter, the tankage is different—

Chairman.

2134. The name is the same, anyhow?—(Mr. *Milward*.) Yes, the name is the same. The aircraft are quite different. They are intended for different things. Ours are short-range 'planes, with clipped wings—

Dame Irene Ward.

2135. Is the time for planning the overhaul so tight that you might find a defect almost at the time the aeroplane is ready to take off? Only recently I flew for the first time in a Britannia, and I found a tremendous amount of comment in the West Indies about the delays. Just the other day, we had a 24-hour delay because of some defect in the propeller—although I was not in that 'plane myself. The 'plane, having been held up for 24 hours, had only just taken off when it was discovered that the under-carriage would not go up, so it had to return to London Airport. That meant another considerable delay. Then the 'plane got to some place or other and the wing got caught in landing. Altogether, there

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was a delay of three days. What I want to know is whether the maintenance planning is so tight that if a defect in, say, a propeller, is found, a delay of 24 hours is inevitable.—(Mr. *Smallpeice*.) It is not that the time plan is so short for overhaul and maintenance. There is a very adequate allowance to cover all foreseeable eventualities, but I am afraid that it is only too true that electrical defects, in particular, make themselves apparent right up to the last moment before the flight. As far as I know, no method has yet been evolved for preventing electrical faults from showing themselves at the last minute. The propeller example was probably an electrical fault in the propeller.

2136. If it develops suddenly like that, what would have happened if it had occurred over the Atlantic?—(Mr. *Abell*.) I do not think that it would have been catastrophic. It would have meant that you would have lost one engine but that is all.

2137. I am merely saying that although everyone likes the Britannia very much indeed, there is a tremendous amount of adverse comment on the delays that occur—you see?—It is a difficulty that we are experiencing with the Britannia, as a type, at the moment—the unreliability of some of its components and, in particular, its electrical system. We are gradually improving the serviceability of the aeroplane, and cutting down delays, but in the earlier operations I readily admit that the annoyance of the passengers was justified.

2138. May I ask one other question? In the old days, going back perhaps to pre-war, was the testing before the machine was delivered greater and more reliable than it is today, and is there a greater strain put upon your maintenance than there was in the past? Has there been an alteration in the sort of system between the manufacturer and the Corporation taking over?—I do not think so. I think in those days, before the war, the unreliability of aeroplanes was probably even worse than it is today. I think, in general terms, the reliability of aeroplanes has improved, even though they have become very much more complicated. I think this is just a function of taking over a first aeroplane and being the first operator to do so. Pan American and American

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Airlines are now going through equally difficult times with aeroplanes like the Boeing 707 and the Electra as we have been going through for the last year or so with the Britannia. (Mr. Smallpeice.) As compared with before the war, the whole electrical system on an aircraft has become vastly more complicated. In regard to the Britannia, we have only recently, and very reluctantly, had to reach a decision to scrap about half the relays on the whole aircraft—about 300—at a cost of about £25,000 per aircraft, because they were not able to give us reliable operation.

Chairman.

2139. This is the first time we have heard about it?—Yes.

2140. Can you explain exactly what that involves? First, what is a relay?—(Mr. Abell.) A relay is a type of electrically-operated contact in an electrical system. These particular relays which were mentioned have been giving us a great deal of trouble and unreliability and we have decided that we shall have to change the type of relay. We have done everything we can to the existing type and we cannot get good enough reliability from it.

Mr. Palmer.

2141. Are these under guarantee?—No.

2142. So that is met by the Corporation?—Yes.

Dame Irene Ward.

2143. You cannot get anything back from the manufacturers?—No.

Mr. Fort.

2144. Is this due to the fact that Bristol's have not had previous experience of building civil aircraft?—No, I do not think so. This is the general level. This is not a component manufactured by Bristol. It is a component, which they fitted in good faith to the aeroplane, built in this country. I would like to reserve the name. That is about all there is to it. It is just the fact that the component is not reliable enough.

2145. I remember, when the Chairman and I visited, you mentioned that you were in considerable trouble at having to reconstruct or alter many of the details in the Britannia, but has this now assumed such a major activity, replacing

this large number of relays, that the whole of your plans for gradually altering the repair arrangement will be thrown into delay?—(Mr. Smallpeice.) No, I do not think so. We shall try to take it in our stride.

Chairman.

2146. This announcement you have suddenly made to us is rather important. Presumably, at some time or other, you will make this public, will you?—Not if we can avoid it. (Mr. Abell.) No. It is just an example. There are many other instances we could give. This is just one example, and a fairly small one.

2147. The cost of this is measured, I understood from your previous evidence, in two ways: first, in the actual cost of putting the thing in, but secondly in the hours lost or the lower utilisation of aircraft, which affects you, perhaps, even more seriously?—(Mr. Smallpeice.) Yes, and even more seriously still in loss of goodwill, to which Dame Irene referred.

2148. How long a job is this?—(Mr. Abell.) We shall do it gradually. We shall not do all the relays at once. We shall pick the circuits which are giving us the biggest trouble and do it gradually. It will probably take us about 18 months to get all the aeroplanes campaigned.

2149. This is a relay made by a particular person in this country. This fault is not common to all electrical relays, is it?—In general, I think it is.

2150. The American industry does not have the same trouble—is that what you are saying?—I think they are more highly developed. (Mr. Milward.) I have no knowledge of the Britannia situation, but I think there is a tremendous lot in the manufacturers' knowledge of civil requirements and their experience of the civil market, to which Mr. Fort has referred. I do not know whether that is so in this case, but I am sure B.O.A.C. would agree that if you go to a manufacturer who has been in the civil business for a long time, which Bristol's have not been, you tend to avoid these things. This may very largely account for our relatively cheaper engineering costs than B.O.A.C., because we have been operating with Vickers since B.E.A. began. Anyone who has remembrance of B.E.A.'s early days with the Viking, the first civil aircraft built

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by Vickers, will remember delays such as Dame Irene mentioned while Vickers were learning the business. In my opinion, Vickers today have learnt more of the civil business than any other manufacturer in this country. I cannot speak of De Havilland's, because I do not know. Certainly, Vickers have amassed enormous experience in civil aircraft, which accounts for our lower maintenance costs on the Viscount, which now forms the major proportion of our fleet. But even so—and this would apply to American or any other manufacturers—one finds that occasionally something like the relays crops up. On Viscounts, which have been in service for six years, in the past year we have spent, I estimate—it is difficult to get the right figure—about £300,000 on putting new main spars on to the early Viscount aircraft, which is a figure, I imagine, comparable with B.O.A.C. in the same sort of problem. Something crops up which nobody had thought about before. This happens in varying degree to all aircraft throughout the world. I would think that in the case of Vickers, it happens less than with any other. I know that a great deal of the troubles we have had in the Viscount have been modified and, I hope, will never be met with in the Vanguard, although probably new troubles which we have not yet thought about will be in that.

Sir Keith Joseph.

2151. I wonder whether you have direct knowledge, or reported knowledge, of whether the degree of failure of components in the aircraft supply industry is much greater than the degree of failure of components in other parts of the engineering industry?—(Mr. Abell.) I am afraid I do not have that knowledge.

2152. I am wondering whether this is outstanding or whether there must always be some failures of components, presumably, in every technological advance in industry?—Yes, indeed.

2153. Is this anything that is against the trend?—(Mr. Milward.) I think the standards in aviation are so much higher that these defects are very much more noticeable. If you have a flickering fuel gauge on your motor car, you drive along quite happily. You still go to work in it. You probably do not have it repaired, if at all, in less than six months. If a fuel gauge flickers on an aircraft, you

have a delay while the gauge is attended to and the delay might amount to an astonishing time if it is an electrical fault. There is no tolerance in aviation. (Mr. Smallpeice.) In addition, all the equipment in an aircraft has to be what is called miniaturised for going into an aircraft. That in itself gives rise to a greater risk of trouble than occurs elsewhere.

2154. Did these troubles arise retrospectively as failures of design or failures of compliance with design? If so, was the design yours or the manufacturer's, and was it approved by you?—(Mr. Abell.) It was failure of design and performance.

2155. And compliance?—Yes, and compliance with design. To a degree, it was both. The design in this particular instance was by an electrical firm. It was not Bristol's and it was not ours. The firm is approved by the Air Registration Board.

2156. The design or the firm?—The firm.

Dame Irene Ward.

2157. Did you or the manufacturers have a lot of tenders for this particular thing? Was it a case of taking the cheapest tender, or was there an attempt to try to expand the number of firms that manufacture the particular component?—The tenders, if any, would be done by Bristol Aircraft.

Chairman.

2158. We must be careful. We are getting into the field of the manufacture of the aeroplane. You were merely giving us this as an example. Having said that, I would like to know just one more thing, which occurred to me when Mr. Milward was talking to us. There are many relays in many aeroplanes?—Yes.

2159. The relays in the Viscount do not go wrong. The relays in the Britannia do go wrong. Is that right?—Yes. (Mr. Smallpeice.) I do not know about the Viscount. They do go wrong in the Britannia. (Mr. Shenstone.) They do not go wrong as often in the Viscount.

2160. The relays in the Viscount are tolerable in their performance, and in the Britannia they are intolerable. Are they made by different people, or by the

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same people?—I have no idea who makes them. (Mr. Milward.) They are very likely to be made by the same people.

2161. Is there something about the Britannia which imposes a greater strain on the relay than with the Viscount or any other aeroplane? You must have met relays before on every aeroplane you

have?—(Mr. Abell.) There are all types and sorts, of course. There is a difference in the voltages of the electrical systems.

2162. So there is a difference?—(Mr. Shenstone.) Yes.

2163. There is a special reason why some special requirements are present in this case?—(Mr. Abell.) Yes.

THURSDAY, 12TH FEBRUARY, 1959.

Members present:

Sir Toby Low, in the Chair.

Sir John Barlow.
Mr. Ernest Davies.
Mr. Fort
Mr. David Jones.

Sir Keith Joseph.
Colonel Lancaster.
Sir Alexander Spearman.
Dame Irene Ward.

Mr. M. M. V. CUSTANCE, C.B., a Deputy Secretary, and Mr. C. W. EVANS, C.B., C.B.E., an Under-Secretary, Ministry of Transport and Civil Aviation, called in and further examined.

Chairman.

2164. Mr. Custance and Mr. Evans, we are really continuing this afternoon the line of questions we were putting to you a fortnight ago. The next set of questions I would like to deal with concerns your Minister's relations with air lines generally, both the Corporations and the independents, and the first thing I would like to get clear from you is regarding his control over fares. The evidence we have had shows that he has in effect a control over the fares charged by the Corporations for their domestic routes and for their cabotage routes—that is to say, domestic routes in the case of B.E.A. and cabotage routes in the case of B.O.A.C.?—(Mr. Custance.) That is correct.

2165. Does the Minister control the fares of the independents also operating on the same routes?—Yes, Sir, he does.

2166. Does he see that they are the same, or what principles does he follow in telling these various airlines what fares they may charge?—In effect they are the same principles. For example, if the

independent operator is on an international route, then the fare that the Minister will agree to will be a fare equivalent to the one which the International Air Transport Association (I.A.T.A.) would approve for that route. He will require the independent, in other words, to subscribe to whatever fare structure is laid down by I.A.T.A. for that route. Then on cabotage routes the independent operator will be providing a different kind of service, a so-called colonial coach service of a different quality, and the fares therefore will be different from the fares authorised for the Corporation, but related to the Corporation's fares—something like 15 per cent. lower than the standard tourist fares that the Corporation provides on these routes.

2167. You will correct me if I am wrong, but I understand that in the case of one of the routes the Minister had in fact insisted that the Corporation kept their fares up; I think it was the Cyprus route?—Oh, yes, I think that is true in a sense. That is a particular and peculiar case, because there the Corporation, B.E.A., wanted to put on a night

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service at a reduced fare ; it was not the ordinary daily service ; and the Minister there said : " Well, there is an independent operator already providing a cheap service to the island. It would be unreasonable for you, B.E.A., to put on a service which would merely cut the throat of the existing one ". I suppose it is fair to say that he wanted the Corporation to keep the fare up ; but the other way round is that he was trying to maintain a fair competitive balance between the two.

2168. What is the justification for the Minister's control over fares, because there is no statutory power in the Minister, is there?—No.

2169. Then what is the justification?—I think it is two-fold. In the first place, the Minister on international fares does have a formal responsibility towards other countries. I mean, there is nearly always a clause in our agreement with other countries—

2170. I am talking about domestic and cabotage?—Well, in the first place he has to pay some attention to the relationship between the cabotage and domestic fare structure and the international one. That is particularly true on the cabotage routes ; otherwise the cabotage fares offered over these long routes could make nonsense of the almost parallel international routes ; and he has certain obligations internationally to other countries, and of course he could get into very considerable difficulties with other countries if they felt that B.O.A.C. were effectively undercutting their airlines with unreasonable competition. Secondly, I think it is simply a question that everyone likes to have an umpire or referee in the last resort, and the Minister is really the obvious person to use for that purpose.

Mr. Ernest Davies.

2171. You say that the Minister acts as a sort of referee in these cases? What line does he take? Between whom is he refereeing?—He may be refereeing between the fares structure of the Corporations on cabotage and domestic routes and that of independent operators. And effectively also he can be a referee between the fares of the Corporations on the cabotage routes and the fares which they and other people have to charge under international agreement on related routes.

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2172. What is his yardstick?—The yardstick basically is the international fares—to keep the cabotage or domestic fares more or less in step with the international fares. For example, if you had a very very cheap fare, say, from London to Singapore, that would not appear to concern anybody else except, say, in this country and Singapore ; but it could in fact very seriously affect airlines all along the route, from Tokio to London, from Australia to London, from 101 different places, which have to travel over that particular sector, because someone going from Tokio to London could go by ordinary plane as far as Singapore, then transfer to the very cheap fare offered by B.O.A.C., and the total fare from Tokio to London could then very heavily undercut the standard international fare from Tokio to London.

2173. You mean a person who was clever and wanted to avoid paying the international fare could take advantage of the cabotage route?—Yes, indeed.

2174. The Chairman mentioned the Cyprus route. As far as I understand it, when the B.E.A. wished to reduce their fares on the Cyprus route to bring it into line with the coach service, they were prevented from doing so by the Ministry. Why was that?—The coach service was originally approved at a reduced fare, with inferior aircraft and tied to a very low frequency. As the traffic developed, B.E.A. wished to mount a night service at fares which would be broadly comparable with the coach service. There was no objection to them doing that as such, but it was felt that in fairness to the existing coach service the B.E.A. fare must not be brought down to the level at which it would merely drain away all the traffic which had been built up by the existing service. In point of fact in the end a compromise was reached whereby the coach service increased its frequencies and B.E.A. on their side started their night service at a fare considerably lower than the ordinary tourist fare, but not, I agree, quite as low as they would have liked.

2175. But it took several years before that situation was arrived at, did it not?—Yes, it took quite a time.

2176. Yes. And in the meantime the coach service had introduced planes which were comparable to the planes being used on the B.E.A. service, and there were not very large differences

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between the coach service and the B.E.A., were there?—It is quite true that the differences did narrow.

2177. Yes?—And that was one of the reasons behind agreeing to the introduction of the B.E.A. night service.

2178. But why was there such a long delay before this agreement was reached concerning the B.E.A. reduction of fares? Was it not a fact that B.E.A. wanted to reduce their fares considerably before you permitted them to do so?—B.E.A. had for some time wanted to put on a night service at cheap fares. The problem, as I recall the matter now, was that the *quid pro quo* for that had always been visualised as being an increase in the frequency with which the coach service was operated, and the coach service had quite a good case for an increase; there was really a lot of traffic, there were supposed to be waiting passengers, and so on. There was some considerable difficulty in getting agreement all round about the relationship between the new night service and its fares and the increase in frequency on the part of the coach service.

2179. What is the difference between the type of service which the coach service provided and the B.E.A. provide on their night service now?—Not, I think, a very great deal. B.E.A. have the more attractive aircraft. Otherwise I think probably at the moment on that particular service there is not a great deal of difference. There is the frequency, yes. The coach service is only weekly, is it? (Mr. Evans.) During that period of two years delay the coach service was only a fortnightly service, and simultaneously the coach service frequencies were increased to once a week and B.E.A. were given their £85 night rate.

2180. But for those two years B.E.A. was prevented from reducing its fares by the Minister?—(Mr. Custance.) I think that is true, yes.

Mr. Fort.

2181. Has there ever been an occasion where the Minister has given the Corporation an instruction about fares?—Not to my knowledge, no.

2182. This has all been done by informal consultation?—Yes. The Minister's fares control is entirely a

matter of mutual agreement between him and the airlines.

2183. Does the Minister, as it were, act as "policeman" for the I.A.T.A.?—Not really, no. He does, I suppose, in this sense, that if an independent operator wishes to provide a scheduled service, then they have to apply to the Air Transport Advisory Council and make recommendations and the Minister can approve or reject those recommendations; and, if approved, part of the recommendation will be that the service is run at I.A.T.A. fares, and if the conditions of the approval are breached, then presumably the Minister would be able to withdraw the approval and stop the service. But in general the pure policeman's work of I.A.T.A. is done by the I.A.T.A. itself.

2184. Has I.A.T.A. officials in this country?—I do not think I know the answer to that question. (Mr. Evans.) I do not know where the officials reside but there are a number of I.A.T.A. officials whose duty it is to inspect and sometimes to travel on aircraft, to police them and see that the proper fares are being charged.

2185. Have you accountants and technical people to assist you in discussions with the two Airways Corporations about their fares structure?—(Mr. Custance.) Yes, we have people with that sort of experience and background knowledge, but to a large extent we naturally work upon information and even advice which is obtained from the airlines themselves.

Dame Irene Ward.

2186. Does the Minister take any action, or think that it comes under his jurisdiction, where these tourist companies charter a plane for a particular reason—to organise a trip to a particular part of the world? I mean, not a regular flight, but where they charter a plane, say, from Hunting Clan to carry out a special organised trip?—It does not come under his jurisdiction if it is a charter. I mean, a football club could charter an aeroplane from Hunting Clan to go to some point in Europe for some purpose or another, and that would be a straight forward charter, and neither Hunting Clan nor the club would need to come to the Minister. It would only come under his jurisdiction if it was a

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series of flights for holiday purposes or for other purposes, to which the public had ready access—tickets and so on. And, of course, one gets borderline cases, which we may think come within the Minister's jurisdiction but which the operator or the tourist agency may think do not, and then we would have to consider testing those, if necessary, in the courts. Does that answer your question sufficiently, Madam?

2187. I think so. Do not think I am criticising, because I am not—I think it is quite fascinating that you can get quite a lot, including a flight, from a travel company, and really one wonders how they are able to do it so cheaply, when it costs a great deal more if you fly on recognised routes. I am all for reducing fares myself?—The answer to that is that, particularly if it is a single charter where someone goes along and books an aeroplane for one journey or for two journeys to carry a specified number of people, then the operator is going to get a full aeroplane straight away.

2188. Yes?—And that enables him to quote a good deal cheaper price than the regular operator, who has to run day in and day out, and half the time with half or quarter empty aeroplanes.

Chairman.

2189. May we try to clear up one other point on the Minister's extra-statutory control over these fares. What would happen if one of the airlines, having been permitted by the Minister to charge £30 for a fare, proceeded to charge £25?—On a domestic or cabotage route?

2190. On either, yes?—I do not honestly know. I do not think there is anything the Minister could do about it, theoretically. I do not think there are any sanctions that the Minister in theory could bring to bear in such a case as that. It is just that we do not expect that sort of thing to happen.

Mr. Ernest Davies.

2191. But in the case of the B.E.A. did it not happen that on the Cyprus route they wanted to charge £85 and they were not permitted to reduce their fares to £85?—Not quite, I think. The Minister may have arguments and discussions about fares, but I think it is fair to say that there has been no instance

yet where the Corporation in the last resort has said: "No, we really are not going to do this. We are not going to be just bulldozed by you into doing it". In the last resort some sort of agreement has been achieved. In any case where the Corporation said to the Minister, notwithstanding all the Minister's arguments and persuasion that it would be reasonable to do this or to do that, "Well, we are very sorry, Minister, but we cannot agree. It would be quite unreasonable and quite unfair to do that", then I do not think the Minister would insist.

2192. But in your previous evidence you stated that the B.E.A. was held up for two years in regard to a reduction of their fares on the Cyprus route and that was entirely due to the ministerial decision?—Yes, but even so, I think it was not a question of B.E.A. accepting the decision under violent protest. It was a situation in which B.E.A. said "Such-and-such is the ideal thing for us—the thing we would really like to do", and the Minister said: "For various reasons I would prefer you to do this", and the B.E.A. said: "Well, we do not very much like doing it, but all right".

2193. Yes, but the fact remains that if B.E.A. had had a free hand, they would have reduced their fares on that route two years earlier than they were able to do?—Oh, yes, I am not denying that.

Chairman.

2194. We have had evidence from the Chairmen of the Corporations that there are frequent discussions between the Chairmen and the Minister, and I think that one can well understand that a feeling might develop whereby the Chairman of either Corporation might say: "If that is what you mean, Minister, we will do it", but I want to know whether in your opinion there is the same feeling with the Chairmen of the independent airlines? In other words, is there the same sort of sanction behind these fare controls operating on the independents as on the Corporations?—Yes, Sir, in my opinion there is, exactly the same.

Chairman.] Thank you.

Mr. Ernest Davies.

2195. On the West African service, where there are coach services operated by Air Work and Hunting Clan and also

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by B.O.A.C., after Ghana became independent a situation arose where obviously they ceased to be cabotage routes because it was an independent country, but there was an announcement in the House of Commons in June, 1957,* which stated that, Ghana having become independent, a new agreement had to be entered into, and there was an agreement whereby Air Work and Hunting Clan shared with B.O.A.C. the West African route on a 30:70 per cent. capacity basis, which was, as far as I know, quite a new departure, and it set a precedent. What I would like to ask you is this: Why was that departure from precedent entered into? That is to say, why was it decided that an independent company should enter into direct competition with B.O.A.C. and in this case share in the route with B.O.A.C., completely contrary to the undertaking which had been given that there should be no encroachment on the scheduled services of B.O.A.C.?—In the instance you quote Hunting Clan was operating a colonial coach service to the West Coast of Africa, and before Ghana became independent they were able to charge a special colonial coach fare which was designed to attract a different sort of traveller from that of B.O.A.C.'s tourist fares. Secondly, B.O.A.C.'s route to West Africa is rather different: they do not run quite parallel. The Hunting Clan route goes all round the "bulge" and B.O.A.C.'s route is a quick route across the desert. When Ghana became independent, the fares had to conform to the international standards. That meant that if Hunting Clan were to continue with this route, they had to charge the ordinary tourist fares. It was agreed by the Minister that they should not have to do that; that would have at once put them at one blow at a complete disadvantage with not only B.O.A.C. but any foreign carrier that might have been able to have carried between Europe and Ghana because they would have been tied under their old terms to out-of-date aircraft. That was all right so long as they were able to charge low fares, but the moment they were to charge the ordinary international fares it put the whole service under a severe handicap. So they were told they would charge the ordinary international fare and they would be allowed to put on the route more modern and more

competitive aircraft. So it was not intended as something new, but as trying to modify the principle of what already existed without altering at any rate materially the competitive relation between the Corporation and the independent operators.

2196. Is it not a fact that when this agreement was reached the independents ceased to be a colonial coach service and became a direct competitor with B.O.A.C., and therefore B.O.A.C. was confronted not only with competition from the international airlines but also from another independent airline—I mean, with comparable aircraft?—It was not with comparable aircraft. To some extent that might have been true, but there was a big difference, that the aircraft were still not comparable. Hunting Clan went from Vikings to Viscounts, but B.O.A.C. were putting on Britannias.

2197. Oh, no, not from the early stage; they were still competing with Yorks or Argonauts?—There may have been an overlap, but there was an expectation that Britannias were going to be brought on to B.O.A.C.'s routes, so the general pattern was Viscounts against Britannias.

2198. Would you not agree that this was a departure from the directive concerning non-competition on scheduled routes?—I do not think so, because the A.T.A.C. were asked to consider that point when the Minister asked for their advice on this very tricky situation, and their feeling was that a 30:70 split of the tourist traffic represented the *status quo*, and that if you kept that relationship in the shares of the traffic then you were merely maintaining the present *status quo*; you would not give any extra competition to B.O.A.C.

2199. Is it not a fact that B.O.A.C. protested strongly both to the A.T.A.C. and subsequently to the Ministry over this?—Yes.

2200. And the Ministry rejected that protest?—Yes.

Chairman.

2201. Mr. Davies may not have exactly the same page of the B.O.A.C. evidence open as I have, but I understand also that after protesting they did accept the arrangement as proposed by the A.T.A.C. That is Question 1682. I do not know whether that is within your recollection?—Yes, Sir, that is true.

*H.C. Deb., Vol. 572, cols. 38–40.

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Mr. Ernest Davies.

2202. They accepted the situation because they had no alternative? The Minister has the final word in regard to this, has he not?—I do not think that is quite true, no. As I was saying before, there is a point at which a Corporation can and will say: "We will not accept", and I think one can distinguish between that point and the point at which they do not like it and feel unhappy about it. And it is fair also in a matter like this to say that all sides concerned in it usually have a lot to say which is critical of the solution you propose.

Mr. David Jones.

2203. In the last analysis, particularly on an issue of this kind, the Minister still has a further card in his hand—public policy and a directive?—I am sorry, but do you mean a formal directive?

2204. Yes, a formal directive, because there is a question of public policy involved?—I do not think we ever considered whether the Minister would have power to issue a directive in a matter of that sort, and offhand I would have thought he would not have had that power.

2205. Who would decide in the last analysis whether it was for or against public policy?—The Minister, if it is within his power.

2206. And do you agree that in this instance the Minister would be entitled, having decided that it was against the public policy, to issue a directive?—I am not sure that he has the power to do that. The powers to issue directives are very tricky, and in general directives can only be issued in very narrow circumstances indeed.

2207. What are the circumstances?—Well, I think the phrase is something like "in the national interest", but it has to be interpreted very carefully.

2208. Who interprets it?—The Minister's legal advisers.

Mr. Ernest Davies.

2209. When the colonial coach services were instituted, the justification for doing so, which obviously we are not disputing, was that they generated new traffic. But when these services to Ghana became a non-cabotage route, it was not a question of generating new traffic but of normal traffic, and therefore the directive ceased

to be fulfilled. Would you agree with that?—Not entirely, I think, because the argument was that the purpose of this new arrangement was to retain for Hunting Clan the new traffic that they had generated, and that if you did not do something for them then there was this amount of traffic, 30 per cent., which they had produced as they had been asked to do, and if you did not do something for them they would have to come off the route and they would lose it.

2210. But if the normal traffic develops, under this agreement they will have 30 per cent., so that they will indefinitely share in the increase of the traffic which arises, which is not generating new traffic but the normal traffic?—Yes, certainly they will indefinitely share in any increase that arises.

2211. So they are in rather an enviable position: they are guaranteed a share in any increase in traffic, irrespective of whether it is new traffic or not?—They are not guaranteed it.

2212. Well, they are guaranteed 30 per cent. capacity?—They are entitled to take up to that amount, but it is up to them to get it.

Chairman

2213. Now may we pass to aircraft maintenance. We have had evidence from the Air Registration Board about the part that their regulations, which are issued under your authority, play in aircraft maintenance costs to these Corporations. Apart from your end responsibility for what the Air Registration Board does in this Matter, do you come in at all in the problem of deciding what requirements are placed upon the Corporations' workshops in the maintenance, inspection and clearance of aircraft?—No, I do not think we come in directly. We make, as you say, certain regulations under which the Air Registration Board work and carry out their inspections, but the direct job is done by the Air Registration Board. They draw up the maintenance requirements and so on.

2214. And you do not interfere with that?—We do not interfere with that.

2215. So that if any question arises between the Corporations and the A.R.B.—and I say "if"—you would not have anything to do with that?—Well, we could have something to do with it. If the Corporations and the A.R.B. were in disagreement over something, there is no

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reason at all why we should not be brought in by one or the other party.

2216. But in the past you have not been brought in?—To the best of my knowledge, no. (Mr. Evans.) I do not remember such a case.

Dame Irene Ward

2217. On the running of the various airports within the Commonwealth—I am really thinking about airports in the Caribbean which of course are shared by all the various airlines operating there—if the administration in the airport seems a little, I will not say unhappy, but a little ineffectual compared with other airports, if the B.O.A.C. make representations and things cannot be altered, does the Ministry of Transport take up the question, because quite recently, while flying around those airports, I did observe that there was a great deal more noise in a much smaller airport and it was very difficult for passengers to hear when a flight was being called; there were numerous people saying to each other “I was very lucky to get a particular plane”, because, of course, a great many of the voices are quite different from the voices one is used to hearing in other airports where there seems to be very strict control of passengers; in other words, people always know where they are, they always seem to go together from one plane, and there always seems to be a particular airline official shepherding passengers through? The impression I gained in the Caribbean was that they were not quite as modern in their control of their airports as is the case in other parts of the world. I did happen to mention this to one of the officials, who agreed that it has been the subject of quite a number of representations, which seem to have been quite ineffectual, and I think it was suggested that it would be welcomed if some further representations were made, because the B.O.A.C. seemed to think that they were quite incapable of getting these various airports to adopt methods which were more in use in other parts of the world. I do not know whether, if the representations were made to you, you would hand them on to the appropriate places?—(Mr. Custance.) We would not normally come into that sort of problem. That would normally be the responsibility of the colonial airport authority, and it would normally be up to the airlines, who would not be only B.O.A.C.

but there might be a considerable number of international airlines, and if they thought an airport was being run in that way, it would be up to them to make a fuss with the airport authority or the colonial government. I have not heard of any case of that sort being referred to us. If B.O.A.C., for example, felt that the conditions at a certain colonial airport were too bad to tolerate and they could not get things remedied on the spot, they might refer it to us, but we could not do a great deal, frankly. We could do little more than pass the matter on to the Colonial Office and leave it to them to take up with the colonial government.

2218. But I do feel that where you have airports in a tropic country with very little room for the passengers, who are hardly able to move, and where there is all the traffic noise going on, it is absolutely essential to have better personnel arrangements made to keep the various passengers and the planes flying together. All I can say is that there were several complaints: I heard a business community saying they would like to get on the right plane, and when I did raise this matter I was told that representations had been made but no attention had been paid to them. Of course, it is possible that they have not really seen what happens perhaps in other airports in other parts of the world. I wondered how, in fact, those complaints might possibly be remedied?—I do not think we can play much part in my Ministry in that. It is a matter chiefly for the airlines and for the local government, and it would have to be quite an abnormal state of affairs before the airlines would want to bring us in. We do have the local officials over to England at the time of the Farnborough Display and so on, but that is only indirect education.

Chairman.

2219. Another question which has been raised in the course of our discussion is this. We understand that four or five years ago there was an examination in your Ministry on the question whether the two Corporations should be merged and whether there would be any saving involved. This is a matter of ministerial policy, and if that were done it would need a new Act of Parliament, and therefore it gets a little outside our scope, but

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we have had this matter mentioned, that at various points of the Corporations' activities there are things which, though they may not compete, coincide. Can you tell us, first of all, what was the conclusion of this report, and whether this is the sort of subject that you are "keeping actively under review", or whatever the appropriate phrase is?—It is the sort of subject which people think about fairly constantly, but it would not be true to say that it is at the moment under any sort of active review. It has been returned to pretty regularly ever since 1946, and there was in particular a special look at it about four or five years ago, or something like that, and the conclusions at that time were that there would be very few advantages to be gained from a merger, and none which were comparable to the disadvantages.

2220. What were the disadvantages?—Basically that you would create an incredibly large airline; it would be quite, by far, the largest airline in the world. It would be very large and basically unwieldy.

Mr. Ernest Davies.

2221. Larger than Pan American Airways?—Yes.

Sir Keith Joseph.

2222. Measured in what terms?—Measured in terms of the number of aircraft, the size of the fleet, the number of passengers carried, and so on.

Sir Alexander Spearman.

2223. I did ask the Chairman of B.O.A.C. that point and he said the two Corporations would not be as large as Pan American Airways?—Oh.

Chairman.

2224. I think you want to look at some statistics that you have given us, because on that point I do not think you are quite correct?—I apologise if I am visualising the wrong batch of statistics, but I thought that was so.

Chairman.] Taking the Airline Operating Statistics 1957, I think on that particular point you are not correct.

Sir Keith Joseph.

2225. Do you happen to know whether the decision has been taken one way because on scale or cost it would be

necessary to maintain separate specialist departments for long-haul and short-haul?—Certainly scale has been one thing which has concerned people. It is the very large size of the combined outfit plus the fact that it would not have a homogeneous purpose. Unlike Pan American, which is purely a long-haul airline, it would be an airline divided into two specialist functions.

Sir Alexander Spearman.

2226. But is not the B.E.A. divided between long-haul and short-haul?—No, not really. It has nothing that you could really call a long-haul operation. The average length of its stages, the average fares that they charge, and so on, are all right at the other end of the scale to the average of the B.O.A.C. I think the average fare of B.O.A.C. is something like £160 or £170; the average fare of B.E.A. is about £15. The average stage length of B.O.A.C. is something like 1,100 or 1,200 miles, and for B.E.A. it is a little over 200 miles.

Mr. Ernest Davies.

2227. But is there not some advantage, if you combine the two, in that the short-haul feeds into the long-haul; and is it not a fact that K.L.M. has a great advantage from the fact that it is both a short- and a long-haul airline, and that actually it is one of the few airlines which really do make a profit?—Oh, yes, that is true; there is an advantage in that way; but it is liable, at any rate in our case in the United Kingdom, to carry countervailing disadvantages. B.E.A. are a very much bigger short-haul operator than K.L.M. and they have built up a very high percentage of European traffic and they are concentrating on it. If they were merged with B.O.A.C. it might mean that certain short-haul operations were organised primarily to feed into B.O.A.C. regardless of whether they were themselves particularly useful or economic. On the other hand, it is possible that the big specialised network would tend to shrink and the thing would tend to become primarily a feeder service. As a result of B.E.A. having this very large and successful short-haul network, they do feed into London generally a large amount of traffic which in fact does find its way to B.O.A.C., but it does not necessarily need to have two routes—feeder and trunk routes.

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2228. You have got duplication, for example, on the London—Rome route. Would a merger eliminate this overlap?—It has not been thought hitherto that a merger would eliminate anything significant in the way of overlapping, because there is comparatively little overlapping at the moment. The two Corporations unify as far as possible their overheads abroad—their station costs, sales organisations and matters of that sort; and the actual routes are not really in competition. B.O.A.C. are not very interested in carrying passengers from London to Rome; they want to carry them to Nairobi or Tokio, and they do not run always at the time of the day which suits the short-haul passengers. So the overlapping tends to be more apparent than real.

Colonel Lancaster.

2229. In this consideration which you sometimes have given to this problem, no doubt the matter of whether there is an element of competition between the Corporations arises. Now, we have been listening to evidence for some little time, and I personally find it very difficult to see where any competition in fact does arise between B.O.A.C. and B.E.A. I wonder if you would like to make any comments on whether or no your Ministry considers that two separate entities are justified purely on the matter of competition?—I do not think there is much direct commercial competition between them for passengers. I think the existence of two Corporations undoubtedly provides a sense of rivalry between them and to that extent it might be argued that having two Corporations is a good thing, that it increases keenness, self-respect and so on.

2230. If you feel that that is so, are you nevertheless satisfied that there is a free exchange of views, opinions and knowledge, a satisfactory level of interchange between the two Corporations?—Yes, I think it is pretty good. They have formal means of pooling views and so on. The two Chairmen have regular meetings. There is at least one other committee of the two Corporations at the top level which meets to discuss commercial matters, and we know that they refer to each other on specific points where one Corporation comes up against a problem that it knows the other has experience of, and so on. For example, B.E.A. are shortly taking delivery of

some Comets, and they have had discussions with B.O.A.C. on this matter at all sorts of levels because B.O.A.C. have greater experience. There is a great deal of interchange of ideas and information of that sort between the Corporations.

Sir Alexander Spearman.

2231. Is it therefore your view that the co-operation between the Corporations is so close on repairs, on buying new aeroplanes, on advertising (which is a very big factor), and on the use of reserve aircraft in an emergency, that there would be no advantage to be gained?—Yes, I think that is a fair summary of the position; and the extent to which at the moment it has not been found possible to produce a combined effort—that extent would remain in the event of a merged company because of the radically different nature of their two tasks.

2232. Only the impression I had from the evidence is that there is little co-operation—but what you say really contradicts that, and you can re-assure us about the co-operation?—I am quite sure that our feeling is that there is a very great deal of co-operation.

Chairman.

2233. I think the impression that Sir Alexander Spearman has put to you would be the impression that the whole of the Committee had, if we attach to the word “co-operation” the meaning of “working together”, or “doing things for each other”. I understand your evidence to mean that you say there is a good deal of discussion together?—Yes, Sir.

2234. We have had some evidence both ways on that point; but you are not saying that you know of any case where they actually work together?—Oh, yes.

2235. Because we would like to know, I think?—In such matters as the cutting out of double effort abroad.

2236. In sales?—Yes, in sales.

2237. But I mean in workshops?—I think probably not in workshops, because of the totally different kind of aircraft.

Mr. Ernest Davies.

2238. But it is a fact that B.E.A. does feed into B.O.A.C., is it not? They have an arrangement whereby B.E.A. do well

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further flights through B.O.A.C.? There is close co-operation there, is there not?—Indeed. The difference is that if B.E.A. were part of one airline they would automatically sell themselves first every time. If B.E.A. are a different air line from B.O.A.C., then they have to preserve a greater impartiality, and if a passenger is interested in going to another airline, they do not make too much fuss about it, but they would tend to steer passengers to B.O.A.C.

Colonel Lancaster.

2239. Pursuing the matter of the desirability or otherwise of a merger, no doubt in your consideration of this matter some thought is given to probably the most analogous example, which must be Air France. Air France operate both an internal and external and a colonial service, not very different from ours. And, proportionate to the number of people in France, they do it on about the same scale as the two Corporations do in this country. Have Air France found any disadvantages in being one complete entity, doing very similar services for France to what our two Corporations do for our country?—Not as far as I know, no.

2240. That would be a very important factor, would it not, if during their experience over a long time they have been one entity and have not found it a disadvantage?—I would have thought that part of the answer there was that Air France are not a short-haul operator on the same scale as B.E.A., and that their short-haul operations are more easily merged into one of their long-haul ones, because it is not on such a big scale as B.E.A.

2241. In what respect would you say it is not? They have a much bigger internal service than we have; they use all the latest aircraft that we use; part of their colonial empire is closer than ours; they must have a considerable short-haul service, surely?—After what I said about Pan American Airways, I must be careful here, but I am pretty sure that they do not mount in Europe on the international routes a service which is comparable with B.E.A. They probably do serve much the same capitals, but it is a question of the number of aircraft that they put on and the number of frequencies that they offer. Also, as far as the French stations in North Africa go, I have an

idea that it is not Air France alone which looks after those possessions; it is U.A.T. also.

2242. Of course, that makes the number of passengers there that they do in fact carry all the more remarkable, because proportionately to their population, France do the same as we do with our two Corporations. If they do not do short-hauls, is it suggested that the loss is on their long-hauls, because our loss is not on our long-hauls and I would be surprised if in the case of France the matter was in fact reversed?—I am afraid I do not know the answer to that.

2243. I am not trying to catch you out, but this is an important aspect of the matter, and it is more as a matter of curiosity that I am asking you this, because I think it has very considerable relevance to our own attitude towards the desirability or otherwise of merging our two Corporations?—It is one which I do not know about myself. We can easily investigate it, if the Committee would like us to.

Mr. Ernest Davies.

2244. But is not Air France subsidised? And yet it makes a far bigger loss than either of our two Corporations?—Yes, it is subsidised.

Sir Keith Joseph.

2245. You said it has often been discussed?—Yes.

2246. Has it ever been the subject of a formal internal Departmental Report?—No, there has been nothing really formal in recent years.

2247. It has not been systematically examined as a proposal?—There has been no special investigation.

Chairman.

2248. You are talking now about the last three or four years, are you?—Yes.

2249. Because we were told that there was a systematic enquiry some four or five years ago by some former occupant of your position?—(Mr. Evans.) The matter was considered in the Ministry in 1954, but it was an ordinary consideration of a particular problem.

Sir Keith Joseph.

2250. So that no systematic study has been made since the Corporations were

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founded?—(Mr. Custance.) I believe the last one would probably have been when British South American Airways were merged with B.O.A.C.

Mr. David Jones.

2251. I was wondering whether the possibility was looked at of making one Corporation out of the three?—Yes, I am sure it was.

2252. And it has not been looked at since?—Not in a strictly formal sense, no.

2253. Has anybody put on paper the merits for and against?—Yes, that has been done on a number of occasions, but there has not been a formal expert committee of investigation into it. Every time this has been looked at and people have examined it, the *prima facie* conclusions have been so heavily in favour of not merging that the matter has not been taken any further.

Chairman.

2254. Though the big questions may not arise in your dealings with the Corporations from year to year, do you ever have to consider, when you are asked to provide more capital for workshops, for example, whether some of the workshop facilities, which are very costly—particularly for new aeroplanes—ought not to be shared between the two Corporations?—(Mr. Evans.) Where we are asked for further provision of capital, we do not consider in each case whether any form of integration would be desirable, but the question of whether there should be any integration of the workshops has been considered within the Ministry, and the conclusion has been reached that on balance there would be no real advantage. In the first place, each Corporation has different kinds of aircraft; at present there are no common types. Secondly, in their organisation they do differ greatly. In the engineering workshops of B.E.A., for example, there is a bonus incentive scheme, and B.O.A.C. has no such system and has more supervision than B.E.A. and it would be extremely difficult therefore to marry these two organisations.

Sir Alexander Spearman.

2255. Do you say that there are no common engines to the Corporations?—There are no common aircraft.

2256. There are no aircraft with the same engines?—(Mr. Custance.) No, there are not, unless you include some of the Viscounts owned by B.O.A.C. subsidiaries.

Mr. Ernest Davies.

2257. Which are not serviced in London?—Which are not serviced in London, no.

Chairman.

2258. There is a further stage, of course, not only having integrated workshops. What I had in mind was this, that when you are asked for more capital by B.E.A. in order that they should increase their workshops, say, to deal with Comets, that would present you with an opportunity, would it not, to say: "This is a waste of capital resources here. We have already provided resources for the overhaul of Comets"?—I see, yes.

2259. "You must go and make arrangements next-door to get your maintenance fed in". All I want to know is whether you have considered that sort of point in the past, and the answer is manifestly "No". I wanted to know what your general comment on that would be?—(Mr. Evans.) I imagine that if B.E.A. came to us for an increase of capital for the purpose of building a workshop for the overhaul of Comets, we should certainly say "Why don't you go to B.O.A.C.", but that has not yet arisen.

Sir Alexander Spearman.] At Question 2132 we had evidence that B.E.A. had 6 Comets and B.O.A.C. had 19 Comets.

Chairman.

2260. No—were to have, I think?—Yes, B.E.A. has not yet received them.

Sir Alexander Spearman.] It is as regards co-operation in repairs; this is the same thing, because it is the future and not the past.

Chairman.

2261. I think the evidence is that they have not considered this point yet, and that would be the only point at which you could effectively persuade the Corporation to adopt a particular type?—(Mr. Custance.) Yes.

Mr. Ernest Davies.

2262. To what extent, when problems arise regarding one or other of the Corporations, do you look upon them as

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united, or do you consider them separately? Do you ever try to correlate the two Corporations?—We do, yes, but opportunities do not often arise. I mean, for example, to take the sort of point which has been made, one would be surprised if B.O.A.C., having made certain provision for hangarage and maintenance facilities for, say, Comets, if there were an awful lot of slack in hand, so that they could take over the job of looking after 6 Comets belonging to B.E.A. Usually one would expect the situation to be that the Corporation having already provided for its own needs, there would not be much possibility of grafting something of the other Corporation on to it.

2263. What I am trying to ask you is whether the Ministry looks at civil aviation as such, and you do not look upon the two Corporations as entirely separate and not to be mixed up together. I mean, do you try to co-ordinate their activities for economy reasons?—We certainly do think of them in some ways as a unit. If B.O.A.C. were in difficulty over pilot recruitment, for example, then it would occur to us automatically to say: "Well, are B.E.A. able to help you?". Or, if it were the other way round, if B.O.A.C. had surplus staff, it would automatically occur to us to say: "Can B.E.A. take some of those off your hands?"

Sir Alexander Spearman.

2264. But has that ever happened?—I am not sure that it has happened over pilots, but I think it is a possibility that could happen over pilots in the future.

Mr. David Jones.

2265. Has it happened over any staff at all?—(Mr. Evans.) I can recall three sets of subjects where an attempt has been made to co-ordinate the two Corporations. One was on the catering services, and after a lot of argument it was decided that it was impracticable. The second was over the provision of transport between London and London Airport, and very serious attempts were made then to weigh up the advantages and disadvantages and they did not prove successful. The third one I do remember: that was some 4 or 5 years ago. The Corporations decided that they would not keep staff overseas except in one or two very important places like

New York and Rome, but in most of the other stations overseas where they each had staff they would decide which of them would do the work for the other. I can recall those three cases; in two of them they did not arrive at any success, but in the third case they did and a good deal of saving was made by the integration of staffs overseas.

Sir Alexander Spearman.] Would it be possible to ask for a paper showing what instances there have been of any, not unsuccessful, but successful integration between the two Corporations?

Chairman.

2266. Integration of services. Could you do that?—Yes, certainly.*

2267. We want a statement of fact as to what has been considered, the degree of co-ordination of services that has been achieved. I do not know what your standing is on the question that Mr. David Jones asked you—on the arguments for and against the provision of one integrated transport service from London to the Airport. That is provided by the Corporations; you do not provide that?—(Mr. Custance.) No.

2268. The decision whether there should be an integrated service there is a decision taken by the Corporations on commercial management grounds?—Yes.

2269. So I think we ought to ask the Corporations for that information?—(Mr. Evans.) When I recalled those three cases, those were cases where the Corporations themselves considered it.

2270. Those are statements of fact as to what, to your knowledge, has taken place in this field over a period of years?—It would be very difficult for us to give you the arguments for and against without going to the Corporations.

Chairman.] Yes.

Sir John Barlow.

2271. May I go back to the point in Question 2132, which was raised by Sir Alexander Spearman? We were discussing the possible common use of workshops for Comets between the two Corporations, and it was said in answer that the question would only arise if they needed fresh capital to do this. Presumably conversely if they decided to have separate workshops for both Corporations for the same type of machine,

* Appendix 40.

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they could provide it out of their own moneys, and then you would have nothing to say about it at all, and no general criticism?—(Mr. Custance.) I think that is correct.

Mr. Ernest Davies.

2272. On the question of aircraft maintenance, what I would like to ask you is this. When the situation arose in B.O.A.C. that they were aware that their maintenance was deficient, that they were employing far too much manpower and that considerable economies could be made, was the Ministry conscious of this?—Do you mean, did B.O.A.C. tell us?

2273. It may be that they did, but at what stage did the Ministry become aware of the fact that the maintenance in the B.O.A.C. was deficient?—We did not know with certainty about it until B.O.A.C. had been able to make their own detailed investigation into the state of affairs. We had had before that some doubts about the situation, as no doubt the B.O.A.C. had themselves, which of course resulted in their carrying out their investigation, but it was not until B.O.A.C. carried out that investigation that we could be sure exactly what the situation was.

2274. When you had doubts, did you take any action?—I do not think we had doubts any earlier than B.O.A.C. did. As I recall, it must have been about three years ago that anybody first began to get a little suspicious about the size of the engineering staff at B.O.A.C.

2275. I think quite a bit earlier the B.O.A.C. had some doubts, but you were not conscious about it until it came to the light of day?—No, we were not conscious about it, because there was not any outward and visible rule by which we could get at that. We could only know of it through what odd people said to us here and there, and I think the first time that we would have been in a position to raise an eyebrow about B.O.A.C. on this point was when certain international statistics were published, which was in about 1956. (Mr. Evans.) Yes, the first time I.C.A.O. published any international statistics comparing the costs of the different airlines in 1955, and those were a little behind because they dealt with the year 1953, and there the engineering costs of B.O.A.C. compared fairly favourably with the other airlines. But in the 1956

publication, dealing with 1954, the B.O.A.C. costs did not compare so well, and that was really the first time that we had any figures which showed that the B.O.A.C. costs were higher than most other airlines.

2276. At that stage did the Ministry feel that it had any responsibility to inquire into the position?—We did inquire into the position and we learned that B.O.A.C. were themselves going into that problem.

2277. So you took action independently of B.O.A.C., that is to say you did draw their attention to it independently of what action they were taking?—Yes, and we found they were studying it.

Sir Alexander Spearman.

2278. Has the Minister any power to reduce the staff at B.O.A.C. if he thinks it is excessive?—(Mr. Custance.) I do not think so, no.

2279. Do you know whether the relationship between the number of engineers and the number of air miles over the last 10 years has been pretty constant, or not?—I do not know the answer to that.

2280. Could we have that answer?—Yes. (Mr. Evans.) Well, I do not think we could supply that.

Chairman.] No. B.O.A.C. could.

Sir Alexander Spearman.

2281. I am sorry. I do not know whether you have any recollection of this, but I have the impression that about 10 years ago there was a very drastic reduction which I think emanated from the Ministry?—Yes. I think in 1950, soon after Sir Miles Thomas became Chairman of B.O.A.C., an investigation was made in conjunction with the Ministry. There was a Ministry representative on a small committee which investigated the organisation of B.O.A.C. at that time and they made some very drastic changes in the form of organisation and I believe the staff was reduced by several thousand—by 2½ or 3 thousand staff.

Sir Alexander Spearman.] That was in 1949, I think.

Colonel Lancaster.

2282. I appreciate that there were no international statistics until 1956, but meanwhile the British charter companies

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[Continued.]

presumably had statistics of their own in regard to maintenance and so on. Was there any interchange of experience and knowledge between the Corporations and the charter companies, because you said that it was not until 1956 that you had any yardstick by which to formulate your opinion as to whether B.O.A.C. were overstaffed or understaffed, and surely there would have been by then a yardstick of efficiency as between the Corporations and Hunting Clan or any of the big charter companies in this country?—(Mr. Custance.) I do not think that would have helped very much because the nature and scale of the operations have been so completely different from B.O.A.C. I very much doubt if one could get any useful clue to it. One might get a better clue now with people like Hunting Clan operating Viscounts and Britannias, but in 1955 and 1956 those companies were operating Vikings and Dakotas on rather special work, mainly inclusive tours and that sort of thing, and I doubt if it would be of any value.

Sir Alexander Spearman.] I cannot quite reconcile the evidence that the Ministry have no knowledge of these things until they are brought to their notice by B.O.A.C. and the fact that in some year there was a ministerial intervention in this matter. I wondered if it would be useful to ask for some evidence as to what happened in this period between 1949 and 1951.

Chairman.

2283. Really this is relevant to the point of what the Ministry does and what their responsibilities and actions are in the event of excessive costs arising, and we are in a difficulty there, because immediately the Minister does anything we are not meant to look at it. Perhaps we can bear that question in mind. What exactly is the Minister's responsibility regarding what goes on in a maintenance workshop at London Airport? I thought it was nil?—That is correct.

2284. Is it not a fact that the Minister has the power and duty of intervention in the general efficiency of a Corporation when it comes to lending money and appointing Chairmen. It is in those two points that he must be interested in ensuring the Corporations' efficiency; so that, whereas he has no responsibility in the workshops, it is his responsibility to

make sure that the thing is being run on efficient lines?—Yes, that is entirely correct.

2285. Therefore he keeps in touch with the Chairmen, and you keep in touch and your staff through the whole hierarchy of the Corporations, and you normally find out what is going on. But when you come to testing the efficiency—and I want you to consider this point—of one of these giant bodies, as an earlier answer of yours has indicated, you have no yardstick by which to test them except by comparing them with their competitors, because you said this had not struck you until you looked at the comparative figures; and that is what you meant?—Yes, that is quite true.

2286. On the other hand you do have B.E.A. by which to test them. If the quantum of the output of the charter companies' workshops was not comparable with B.O.A.C., it is quite manifest that what was going on in B.E.A.'s workshops and their costs were comparable with what was going on in B.O.A.C., so I do not quite understand why it took you so long to find out what was going on?—(Mr. Evans.) You would not expect the engineering costs of B.E.A. to be strictly comparable with those of B.O.A.C., because B.O.A.C. has larger aircraft and has routes much more spread over the world. You would expect the B.E.A. engineering and overhaul costs to be a little more, in that they have shorter stages and smaller aircraft.

Mr. Ernest Davies.

2287. Yes, but the fact remains, does it not, that B.O.A.C. appears to have fallen down in regard to maintenance, and while one can justify a comparison between B.O.A.C. and B.E.A., the fact remains that it was generally known during the last few years that B.O.A.C.'s maintenance appeared to be at an extravagant level?—(Mr. Custance.) Yes. I think it was generally known in the Ministry as well that something was wrong there. But I think that we are in some difficulty on a matter like this in establishing exactly what is wrong. We may hear rumours and stories, we may see figures which make us doubt things, and then we ask B.O.A.C. at all sorts of levels "What is this all about? This does not look too good to us", and so on. But we are not experts on these matters and until a fairly careful and

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responsible investigation into a problem of that sort has been carried out, I do not think the Ministry is able to assure itself definitely of what sort of problem there is there and what size that problem is.

2288. When you heard these rumours what action did the Ministry take? Do they take any action?—My memory will not chase back beyond 1956, but from then onwards the action was of the kind I have described. The Ministry said to B.O.A.C.: "What is wrong here?", and B.O.A.C. said "It's all right. We too are worried, and we are setting on foot an investigation to find out". That investigation took a little time, and they produced their answer about a year ago or something like that. That was roughly the sequence of events.

2289. The Ministry was aware of the situation. What did they do to speed up the cure of the bad situation which had arisen?—(Mr. Evans.) We were constantly in touch with B.O.A.C. at that time and asking them what progress they were making in their investigation, but B.O.A.C. themselves found it an extremely complicated problem, and their investigation took a long time.

Chairman.

2290. The point you are making is that, when this was brought to your attention, what you did was to find out what B.O.A.C. were doing about it, and what they were doing about it was to have an investigation and there was nothing further that you could do about that?—(Mr. Custance.) Yes, that is the point I was trying to make.

2291. The reason why we are asking these questions is because it is manifest from the Report and Accounts which we are considering this year that the maintenance costs have played a very big part in B.O.A.C.'s difficulties and will continue to do so until they are brought down, and so what the Committee is concerned to know is, how you can prevent in the future any recurrence of what has taken place between the onset of circumstances which gave rise to the great increase in cost and the moment when that was put right?—Yes.

Mr. Ernest Davies.

2292. B.O.A.C. were apparently aware that there was something wrong with their maintenance quite a time before

they appointed this committee of investigation. Was the Ministry aware before that, and if so, did they take any action?—We were aware before the committee of investigation was actually appointed, I think; at least, I am pretty sure. Anyway, as soon as we had any inkling that something was wrong, we took the only action we could, to go to B.O.A.C. and say: "What are you doing about this?", and we kept on goading them to complete their inquiry and get the results out. Subject to what Mr. Evans may say, I do not think we have any other tools to our hand than just keeping our own eyes open for any straws in the wind as to whether things may not be as healthy as they should be, and if we see signs which do not look too good, then we tackle B.O.A.C. about it and, if necessary, go on goading them to do something about it.

Sir John Barlow.

2293. I understand from your recent answers that if you hear rumours or the figures do not compare favourably with comparable figures of other international airlines, then you take action: that is to say, if the costs seem to be materially above the other airlines. Now, do you take any action of your own initiative unless it appears that the costs of these two Corporations are materially above the costs of comparable other airlines? In other words, do you try to anticipate savings rather than looking into something which has already gone wrong?—No, Sir, we do not. We would not be in a position to do that. That is a task which only the management of the Corporation itself would be able to do. We do not know, and we are not indeed supposed to know, enough about commercial management to pass a useful judgment on how they might improve the way in which they run their functions.

2294. You are really entirely checking up the past?—Yes, the past or the present.

Chairman.

2295. Checking up the present on the evidence of the past?—Yes.

2296. I have one last point. We have had evidence about a difference of opinion between the Corporations on what has been called in public discussion the jet differential price. What view does your Ministry take when there is

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[Continued.]

a difference of opinion between the two Corporations? What view do you take in international discussions?—In a matter of that sort we would regard the problem, which is a fares problem, as essentially for the Corporations themselves, and unless there were some exceptional national interest which inclined us to favour one view rather than the other—and I cannot think of any off hand—our attitude would be, I think, limited to saying: “Well, for Goodness sake don’t try to cut each others throats or make hooligans of yourselves in public”, which is in fact quite important from our point of view, and in fact is not likely to happen. But frankly I think that is chiefly our attitude, “This is a matter which you, as airlines have to fight out with the other airlines. You must go away and do it, and of course, try to organise things so that you are not openly trying to sabotage each other.”

2297. This is not such an important point as providing capital?—This particular one—no, it is not.

Mr. Ernest Davies.

2298. Following that up, what attitude do you take when there is a dispute between the Corporations and the independents?—Much the same attitude.

2299. Because is it not a fact that at the I.A.T.A. Conference over night fares there was a difference of opinion between B.E.A. and the independents?—Yes.

2300. And what attitude did you take on that?—We took basically the same

attitude as I described rather badly just now, that if that sort of thing were to arise again, let us avoid either side taking drastic action against the other in I.A.T.A. because as a matter of government policy we do not want to damage the I.A.T.A.; we do not want to destroy or weaken its effectiveness. Therefore the last thing we want is one of our own airlines damaging or weakening I.A.T.A. by having an open or serious quarrel with another airline in public.

2301. But in that case the only people who stood out against their introduction were the independents in this country. None of the airlines stood out over night flight charges?—That is so. The independents did in fact use the veto on that particular occasion.

Chairman.

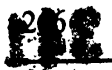
2302. In I.A.T.A. the members are airline operators and not governments?—Yes.

2303. It is an association of airline operators, not an association of governments?—That is so, yes.

2304. And therefore you have not any part to play in terms of that Association?—No part in the Conferences, but their results come to governments for approval or rejection.

2305. And you have no powers over fares, but you have a fairly good “say-so”?—We have a fairly good “say-so”, yes.

Chairman.] Thank you very much, gentlemen.



WEDNESDAY, 11TH MARCH, 1959.

Members present:

Sir Toby Low, in the Chair.

Mr. Albu.
Mr. David Jones.
Sir John Barlow.
Mr. Blyton.
Mr. Ernest Davies.
Mr. Fort.

Sir Keith Joseph.
Colonel Lancaster.
Mr. Palmer.
Sir Alexander Spearman.
Dame Irene Ward.

Sir GERARD D'ERLANGER, Chairman, Sir GEORGE CRIBBETT, Deputy Chairman, and Mr. BASIL SMALLPEICE, Managing Director, British Overseas Airways Corporation, called in and further examined.

Chairman.

2306. We are grateful for the extra material you have given us. I would like to start by just putting to you the chief thoughts that I personally have in mind, thinking back over the evidence we have had from you. It would seem that your main difficulties and shortcomings have been concentrated under two heads. Firstly a low utilisation of aircraft, and secondly your maintenance costs. Would that be the right impression for me to have from the evidence you have given us?—(Sir Gerard d'Erlanger.) On the costs I would not disagree at all. On the utilisation it depends what period we are considering. Certainly over the last two years during the introduction of new types our utilisation has been low. If we go back to an earlier period I do not think we are so open to criticism.

2307. But over the past two years you would agree?—Yes.

2308. When you last spoke to us you explained that you foresaw a steady improvement in the utilisation of aircraft. Can we take it that that improvement is going on now as you expected, or is there any new factor which has arisen which has affected it?—There is no new factor. At the moment all is going according to plan. Our big build-up of utilisation is really due to take place from the 1st April—that is when the big build-up starts with the introduction of the Comets to the Far East.

2309. And you do not want to add to or alter anything you have said to us on that point?—(Mr. Smallpeice.) No. We are in point of fact achieving better rates of utilisation, which we indicated we would achieve in this chart* that we

attached the paper submitted by us on aircraft maintenance costs. We are in fact achieving that build-up. There is no new factor since then.

Mr. Albu.

2310. We have also got a very interesting analysis of mechanical and consequential delays.† I take it the delays have had a considerable effect on utilisation?—Yes, they have had an effect, certainly. We have not allowed it to have as much effect as it might have had because we have allowed delays to have repercussions on subsequent services—that is to say, we have not allowed for the full length of possible delays in our utilisation. We have allowed for some delay.

2311. Could you explain that a little more?—If we were going to try to arrange to get punctual departures from London Airport, we should have to allow for the maximum delay that could occur down the route. We have not done that, but we have allowed for an average delay. Therefore, although these mechanical delays are higher, they have not been allowed to retard our growth of utilisation.

2312. If you do not allow in your schedule for delays, what happens when delays occur?—Then it means you get a delay on the next service out of London Airport, and we decided to accept that risk rather than reduce the rate of utilisation planned into our operations.

2313. If an aircraft is held up overseas by a delay of a mechanical sort, I take it that that hold-up is not included in the time the aircraft is non-operational?—(Sir Gerard d'Erlanger.) May I put it this way? I think there are three ways

* Appendix 37.

† Appendix 31.

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in which you can deal with foreseen delays. First of all you try to minimise the delays, naturally. Having done that, you can then have more standby aircraft to ensure punctual departure and, in consequence, less utilisation. We have sacrificed standby aircraft in this sense for the purpose of greater utilisation. (Mr. Smallpeice.) But the delays en route overseas do not count as utilisation. Utilisation only refers to flying time.

2314. So the delays overseas would be included where?—In non-utilisation.

2315. Is this rather disastrous picture improving?—Yes, it is improving now at least, I am glad to say.

Dame Irene Ward.

2316. I was wondering why you picked on the figure of three minutes when you speak here of delays incurred through engineering causes leading to an aircraft departing three minutes late or losing three minutes in the air, because to me three minutes does not seem to be any time at all. Would there have been a different picture if it had not been fixed at three minutes, and can you explain why it is three minutes?—The reason is that we have in all our statistics taken a punctual departure to mean a departure within three minutes of the advertised time, and therefore anything beyond that is a delay. That may be a wrong time to have taken but it is the one we have taken. If we had said anything is punctual if it departs within an hour of the advertised time, there would have been a different picture, but I do not think it would have affected the inferences to be drawn—the weight of delays would be shown to be very heavy still on both the Britannia types of aircraft.

2317. If I could pursue that, the point is that if the whole thing relates to three minutes, it seems rather difficult to assume that that really could be what I would count some mechanical delay. The delays one seems to hear about are either 24 hour delays or delays of a couple of days, or aircraft are two hours out and they have to go back to London Airport again. Those seem to me to be what I call mechanical delays. If an aircraft was three minutes late across the Atlantic, it might be a headwind or something like that. I cannot relate three minutes to mechanical delays?—If an aircraft is late going across the Atlantic because of

a headwind, it is not an engineering cause but an operational cause and is omitted from these charts, but we do have, I am sorry to say, a number of delays of the order of a quarter of an hour to an hour and a half of an engineering character on take off or on departure from London Airport. Last week we had five delays averaging about an hour each. Some are delays of as little as 20 minutes and some go up to two hours, but anything between that sort of order we regard as a delay.

2318. The other thing that I find difficulty in understanding is this. If you have done your maintenance right up to the last minute, how does it happen that just as the aircraft is ready to take off something quite small occurs which can delay it for even as short a time as three minutes?—It occurs in the same way that an electric light bulb goes out when you switch on the light from time to time. With electrical types of delay, which are included under the heading of "Engineering", they do occur on the operation of switches, and that happens just before you start, even though the aircraft may have been fully checked in the hangar area before being taken across to the apron.

Chairman.

2319. Is not the main value of this document the comparison in delays, comparing like with like as between the Britannias and the other four aeroplanes you have listed?—Yes.

2320. That is its main value to us, rather than the exact figures and percentages that are placed there?—Yes.

2321. While we are on this point, you have given us a good deal of evidence about the difficulties you have had with the Britannia. Have you included in that evidence statements of faults and criticisms of the Britannia which have not been made public on other occasions?—We certainly did on a question which came up at the meeting when the two Chief Engineers were here, when we referred to the necessity for changing half the relays for the aircraft. That point has not been made public.

Mr. Ernest Davies.

2322. If I may ask a very general question, the more one looks at the position the worse appears to be the utilisation of aircraft by B.O.A.C. as compared with certain other airlines. Are the disastrous

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[Continued.]

delays which have resulted from faults in the Britannia mainly responsible, or are there other causes as well? Why do you consider that your utilisation is worse than that of comparable airlines?—We certainly have been worse than comparable airlines, but we are not I think at this moment any worse than comparable airlines. As that chart shows, we have effected considerable improvements, and I do not think it can be maintained at the present time that we are worse than comparable airlines, but in so far as there have been delays and they have been allowed for in the planning they do affect the rate of utilisation to some extent. We did not allow for the full extent of the delays in our planning.

2323. You are saying, in effect, that the main cause of your worse showing is due to the delays which have resulted from failures in the aircraft you have been using?—I am not intending to say that. I think we have effected our improvements in the last year or so by better planning, better workshop management—the necessity to hold aircraft in the hangars for less periods on end, so that they have been able to get out on the routes more. There is very much more in it than delays experienced en route.

2324. That is just one of the factors?—Yes, just one of the factors.

2325. What steps are you still taking to improve utilisation?—We are re-organising our engineering department, and I think in this paper I did indicate that we have also improved the situation from the state where we had to have one aircraft in the hangar for three that were on the routes. We now have one for every four, and by the end of this year we shall have achieved a position where we shall have only one aircraft in the hangar for every five on the routes, so that is a continuous improvement being achieved at the present time.

2326. And if the maintenance had been overhauled earlier, that would have been achieved earlier?—I expect so.

Chairman.

2327. That would have helped?—Yes.

Mr. Albu.

2328. Have you any information to give us on Comet utilisation?—The

Comet utilisation we are planning this year is strictly in accordance with the chart.*

2329. How is it planning out?—Very well.

Chairman.

2330. Now, turning to maintenance costs, I would like to refer you to the paper you put in to us headed "Comparisons of costs with other operators".† That shows on the second page in the schedule of figures that the percentage of your total operating costs that goes to maintenance of flight equipment is very substantially higher than four of the other airlines. I see it is lower than Qantas, and furthermore comparing it with Pan American you have not been able to reduce that proportion of your total operating costs which went to maintenance of flight equipment since 1951 in the same way as Pan American have been able to do it. We have discussed this question of maintenance costs and I do not think any members of the Committee want to go back over that ground, but I think what they would like to know is whether you have any more up to date evidence or anything with which you would like to supplement your previous evidence, because this will be the last occasion on which we are going to see you and this is obviously most important?—(Sir Gerard d'Erlanger.) We were looking this morning at our budget for 1959/60, which of course contains not only maintenance costs but all the other costs, and the overall operating cost including maintenance expressed as per capacity ton mile shows a quite considerable reduction.

2331. That is your budget for 1959/60?—Yes. But having said that it does not take any cognisance of economies we need to institute in the manpower section, but even so the budget for 1959-60 does show reductions, mainly through greater utilisation, mainly through bigger and faster aircraft, and partly because of improvements which have already taken place in the engineering section. I have not got the budget with me, but the figures we were looking at this morning do show that 1959-60 costs are down again. 1958-59 costs were down.

* Appendix 37.

† Appendix 23.

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[Continued.]

2332. When you say 1959-60 are you talking of total operating costs, or of the part within that total which goes to maintenance?—Total and maintenance.

2333. So that not only would the total be down but the proportion of that total which goes to maintenance would also be down?—Yes. It is not down as far as we would wish to see it.

2334. Is that because you cannot be sure of manpower economies until you have completed your negotiations with the trade union side?—That is so. There is no provision made at all in the budget for manpower economies other than for what has happened or for normal wastage.

Mr. Albu.

2335. There is no provision for that at all in your budget next year?—We have deemed it wise not to include a provision.

Chairman.

2336. Pending your discussions with the trade union side?—Yes. (Mr. Smallpeice.) I happen to have these figures in my head, and I think they are of importance. We have been able to reduce our maintenance costs from 8·2d. per capacity ton mile in 1957-58 to a budgeted level of 6·6d. in the 1959-60 budget. That is a reduction of about 20 per cent. as compared with two years ago, and that is without the economies which we hope to achieve during the remainder of the year. So that in terms of this schedule,* if we take the figure in 1957 of 22·3 per cent., if we do a little mental arithmetic I think it can be said we have succeeded by 1959-60 in bringing that figure down to about 18 per cent., so it is on the way down.

2337. Just to get that clear, the 8·2d. was the actual for 1957-58?—Yes, pence per capacity ton mile.

Colonel Lancaster.

2338. Is it to be assumed that during a similar period there has been some improvement in Pan American, for example?—There may well have been.

2339. Is there a tendency for airlines to improve in that respect?—Yes, I think there is, but I do not think it would be of that order.

* Appendix 23.

2340. But there might be some improvement?—Yes, there may be. As you will appreciate, we have not seen their figures for next year yet.

Colonel Lancaster.] No, naturally.

Chairman.

2341. You have done your mental arithmetic without taking account of the point that Sir Gerard put to us that your total costs were coming down. It occurred to me that perhaps the drop in percentage may not be quite as big?—It may not be. The figure would probably work out at about 18·5 per cent.

2342. So on the evidence you have given to us earlier, your main hope of achieving the same sort of result as Pan American and K.L.M., for example, lies in your talks with the trade unions?—(Sir Gerard d'Erlanger.) On the engineering side, yes, but overall the results depend not only on that but on other things.

Chairman.] Yes. I am only dealing with the maintenance.

Sir Alexander Spearman.

2343. Could we have a percentage going back to 1949 of the variations in manpower, showing how the variations in manpower compare to variations in c.t.m.?—I should think that is quite possible to produce. Output per employee only goes back to 1954.

2344. I think there was a big cut in 1949 or 1950. You succeeded then in cutting your manpower?—Yes.

2345. I thought there was some idea that it jumped up again after that?—Is it really an extension of this graph backwards to 1949 that is being asked for? The one I am referring to is output per employee expressed in c.t.m.s.

Sir Alexander Spearman.] Yes, I think that is it.

Chairman.

2346. I agree that that would be useful. We would have to take as a qualification the point you have made to us on several occasions that just to take the output per employee by itself and to compare that with the others is dangerous because others have different arrangements than you have of subcontracting their work out?—Yes.

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[Continued.]

2347. Perhaps you would be good enough on the face of the graph to make that qualification because I think we have it in mind?—It provides a reasonable yardstick of B.O.A.C.'s own progression within itself.

Chairman.] It would be useful for that purpose, but not for comparison with other airlines.

Mr. Ernest Davies.

2348. We have had so much material on maintenance before us that it is difficult to recall exactly what has been covered and what has not, but what I am concerned with is to what extent are the excessive costs, shall we say, of maintenance of B.O.A.C. due to the difficulties which have been encountered in regard to the aircraft which they have had delivered, that is to say, taking the Britannia, with which we have been dealing, would the fact that there have had to be modifications and so on contribute substantially to the increased costs of maintenance, or not?—It is obviously part of the increased costs. To what extent you can isolate it, I do not know. (Mr. Smallpeice.) I do not know either, but it is obviously a part, and perhaps a substantial part.

2349. There is no way in which you could give us an assessment of the additional costs arising from disappointments you have had regarding the aircraft that have been delivered to you?—(Sir Gerard d'Erlanger.) I know the graph you have just been looking at was not designed for this purpose, but I would have said that that was the measure.—(Mr. Smallpeice.) I agree.

Colonel Lancaster.

2350. Now that things are settling down and the utilisation of the aircraft is improving, to what extent at this moment do you consider you are over-staffed on your maintenance side?—(Sir Gerard d'Erlanger.) I am going to ask the Managing Director to back up anything I say on this or endorse anything I say, but the investigation which the Managing Director caused to be made two years ago then showed an overstaffing of the order of 3,000 people. Since then, if 3,000 was the right figure, wastages in the engineering departments have accounted for a reduction of 500 to 600. So if 3,000 was right—and we have no reason to believe it was wrong—the over-staffing is still of the order of 2,400 to

2,500 at this moment. You cannot just overnight say we have got that number of people too many, because the whole methods and procedures have got to be altered, discussed and agreed with the trade unions, but that is the sort of measure of our surplus when related to other airlines which have been investigated.

Chairman.

2351. The item appearing immediately under "Maintenance of Flight Equipment" on this page is the item "Depreciation of Flight Equipment", and that shows that in 1957 the percentage of your total operating costs that went to depreciation was substantially lower than that of your main competitors. We have discussed depreciation earlier, of course. In the light of these figures, would you now be of opinion that your depreciation was then too low?—I think the answer overall must be yes. Had we been able to afford more depreciation we would certainly have depreciated more. In 1957 I think we just about broke even by the skin of our teeth. I think the answer is that throughout the years—and it is not only 1957 because historically I think it goes back a long way further—B.O.A.C. has only been able to depreciate to the minimum because it did not have surpluses. It would have been highly desirable and would have had a considerable bearing on current results if in the past the Corporation could have afforded more depreciation. I think that is one of the pertinent and cardinal points in comparing our accounts with our competitors. They have certainly depreciated more heavily in the past, and I think they certainly depreciated more heavily during periods when they were getting more obvious assistance from their respective countries. I think B.O.A.C. might have leant more heavily during the years of subsidy on Her Majesty's Government in order to throw a greater amount under the heading of depreciation.

2352. But during those earlier years you were still able to sell aircraft in general at above their book value when you sold them second-hand?—I think that is correct, but conversely B.O.A.C. had to pay more than the new price for second-hand aircraft.

2353. I realise that, but now with the second-hand market difficult you have to

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[Continued.]

come to a more realistic depreciation policy, and would I be right in thinking from what you have said to us that you would wish to increase your depreciation quite substantially?—Yes, if we could afford it.

2354. And when you can afford it, you will?—Yes.

Mr. *Albu.*] They were thought to be accurate at any given moment of time, but in the last two years

2355. I thought that the amount of depreciation was obviously dependent upon the actual costs, and I do not think we have ever asked you—although we have had bits of evidence on it—how far your capital costs, particularly the aircraft, are higher than those of your competitors, if they are higher. Further to that, what proportion of the capital cost is represented by the very extensive development costs to which you have drawn our attention? Do they increase the capital cost ten, twenty, thirty per cent., and does the general effect have a bearing on your capital costs compared with other airlines?—When we buy a DC7C and the Americans buy a DC7C there is obviously no difference. When we come to the British equivalent—equivalent in the sense of the work load that aircraft is capable of, or put another way capital cost per pound weight structurally—it is about equivalent to its American counterpart, but we do get a loading on top of that, and, comparing the DC7C with the Britannia we do get an overloading of our capital cost on the Britannia to the extent of our development costs, which we do not write off but capitalise and carry forward. That is pre-operational development expenditure.

2356. Have you any idea what proportion of the additional capital cost that is?—Somewhere in these papers we put down a figure for the Britannias for our pre-operational development of £4 million.

Chairman.

2357. You are referring there to the figures?—Yes. Again that is not the whole story because I would refer you again to the delay chart which we looked at just now.

* Appendix 9.

Mr. *Albu.*

2358. But that delay does not come under capital. We are now on depreciation?—(Mr. *Smallpeice.*) This is our pre-operational development. It does not come into the depreciation of capital equipment.

2359. What I am really trying to get at is to what extent development costs have raised the costs of recent aircraft and therefore increased general capitalisation and the need for depreciation?—(Sir *Gerard d'Erlanger.*) I think the straight answer is in the Appendix.

2360. That gives the pre-operational training and development costs, and these are the only costs over and above the purchase price which are capitalised?—Other than losses. If we make losses in the operation of those aircraft, in so far as we have no reserves the losses appear on the right-hand side of the balance-sheet.

2361. I was thinking of the initial capital costs. These are the only additions to the initial costs or capital costs of aircraft that are capitalised?—Yes. (Mr. *Smallpeice.*) With the exception of interest on progress payments.

2362. You have given us evidence to show that the progress payments that you make and the period over which you make them are substantially higher than most of your competitors?—(Sir *Gerard d'Erlanger.*) We did put in a paper on that.

2363. Yes, I have seen that. What order of magnitude are these? I understand that the Britannia has cost about £800,000, and the difference between the pre-operational training and development costs between that and the DC7C is about £80,000, or about 10 per cent. Are the interest charges on the progress payments very substantial or negligible in relation to those other capital costs?—I do not want to guess this answer because I believe there is a paper in somewhere, but otherwise I can give you an indication.

2364. If you think it is negligible, it does not matter?—To give you an example, on the Boeing 707 and the DC7Cs the maximum progress payments were of the order of 30 per cent. On the Britannias and Comets they go up to 90 per cent. and are paid over a longer period, so that the amount of our capital outside is greater and longer

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term. I think we put in a paper on this? (Mr. *Smallpeice*.) Yes, but I do not think we put in the exact amount of interest which was capitalised—it would be of some importance, certainly.

Mr. *Albu*.] I would like to see, if possible, a statement of the additional capital charges which are incurred by virtue of pre-operational training and development costs and also by virtue of the progress payments over and above.

Mr. *Palmer*.

2365. Why do you have to make these very high progress payments?—(Sir *Gerard d'Erlanger*.) I suppose it is really the aircraft industry here that is not getting the capital and needs the capital to finance progress.

2366. They could not do it from their own resources?—So they have always insisted.

Mr. *Ernest Davies*.

2367. But is it not a fact that the progress payments have increased substantially over recent years, by which I mean that the amount you have had to pay in advance has been far greater proportionately per aircraft in recent years than previously?—I would have said not. (Mr. *Smallpeice*.) There is a schedule on that,* and that indicates that on a Comet I 98 per cent. was paid before delivery, Hermes 94 per cent., Argonaut 72 per cent., Britannia 312 60 per cent., Britannia 102 was a special case because of alterations to the specifications as we went along: on the Comet IV it was 80 per cent. Therefore, I do not think it has got worse as we have progressed. It is about the same, but it compares with the Boeing which is only 33 per cent.

Mr. *Palmer*.

2368. Again on progress payments, if you told the manufacturers you were not prepared to make these heavy advance progress payments, they would not come to a standstill, would they? They would be able to get money from somewhere?—(Sir *Gerard d'Erlanger*.) They might be able to, but they would undoubtedly increase the price of the aircraft accordingly, and I have no doubt that the American manufacturers do include an element in the ultimate price in so far as they finance progress payments.

* Appendix 3.

2369. You think you gain by it?—I think in the end the customer is going to pay.

Chairman.] It is only a question of who provides the finance.

Mr. *Albu*.

2370. The customer would be paying more for British aircraft?—Related to wage rates?

2371. No. If the present price of American and British aircraft are roughly the same but in the event you are paying larger interest charges for progress payments, if you were not to do that but have the progress payments included in the cost, you would be paying more for British aircraft than for American ones?—There are so many yardsticks we can use. Related to pound weight of bare hull it is quite the same, American or British.

2372. Therefore, you either pay more for the British aircraft by paying higher progress payments, or you pay more in the initial price?—That is right.

Chairman.

2373. To get on the record what this shows, it shows that the total amount paid before delivery on the Britannia 102 was 34 per cent. and on the Boeing 707 33 per cent. Those may be individual cases, but it does show that you can on occasion negotiate with a British supplier on the same basis as you can negotiate with an American supplier, but it will depend on the facts in each case?—(Mr. *Smallpeice*.) With respect, the contract provided for a higher proportion of progress payments on the Britannia 102, but because of the changes in specification which took place while it was being built the amounts actually payable were very much less than the manufacturers reckoned they would have been if there had not been those changes. Those are changes that took place in the specification of the aircraft while it was being manufactured.

2374. You are saying that your document is still not strictly correct?—Our document is correct in terms of the actual passing of the money.

Mr. *Albu*.] I think the point is the difference between the contract price and the delivery cost.

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Sir John Barlow.

2375. Before leaving the finance question, I suppose the same problem faced the shipping industry in days gone by. They used to finance by bills, which were much the cheapest form of finance. Would that be applicable in this case, or not?—(Sir Gerard d'Erlanger.) I cannot see why not.

Sir John Barlow.] It is just a question of whether it is cheaper to do it that way or by a bank overdraft.

Chairman.

2376. You have referred in your memorandum to the report which you told us about earlier. I think we would like to have on record the kind of steps that you are taking as a result of that report and what benefits other than those to which you have already referred on maintenance costs you see accruing to you as a result of that report?—There is a great deal of information in that report to which I have referred; there is a great deal of detail, some of which is new, or presented in a new form, and a lot of it we were conscious of before. To try to put it very briefly, I think we were already acting on those things which we were very conscious of, and it has stimulated our thinking in other respects. It has been a very useful report, we think, and we have got some comments on it, but where we think we can usefully take advantage of it we certainly are doing so in so far as we had not already in fact acted on some aspects of the report.

2377. From the figures you have given us, the report clearly gives you some valuable comparisons between yourself and others. Are there any other points of comparison to which you think you ought to draw our attention? For example during the period 1951 to 1957 some of these airlines would have expanded more than others. Is there any point that you want to make to us on your comparative rate of expansion? You have told us already in the course of your evidence that you have been hindered by what happened to the Comet and other difficulties with aircraft, and that has affected your results in a very big way. If it is the fact that these other lines have been able to expand much faster than you have, they will of course have found it easier, will they not, to have reduced their costs?—Correct, Sir.

2378. Are there any other general points of that kind you would like to make to us? We appreciate that this report you have had is in the nature of an internal reduction for your purposes as responsible for the broad direction and management of the Airways Corporation and we would not, I think, wish to go into the report in any detail because it would be going far beyond our scope, but if there are any other facts that have come out which you think you would like to mention to us, please tell us, but if there are not we shall well understand it?—I do not think the report has brought out anything which we have not discussed here on some aspect or another. It has underlined the snag in our capital revenue ratios which we have talked about here, our maintenance costs and our utilisation ratios. There is one aspect of it which perhaps we have not fully digested, and that is the problem of load factors versus utilisation. On the whole we have tended, I think, in the past to seek high load factors as the solution to some of our problems. I think we are beginning to think that we may in fact have to increase utilisation at the expense of lowering load factors and probably derive a greater benefit from that exercise, but it is one aspect that wants a lot of consideration and research work done on it to get it right because it varies from route to route and from operation to operation.

2379. This is a matter which you will be considering and, as you have put it to us it is a new point, load factor may not be as important as utilisation?—It may not be so important as utilisation.

Mr. Albu.

2380. I take it there is no question that this is a field in which the current methods of mathematical research are very much appropriate?—None whatever, because while we may be very clear as to the ideal, everything in aviation is a compromise. We may be frustrated from lack of night flying facilities here and there and other factors from achieving the ideal.

Mr. Palmer.

2381. I would like to put a question generally on these figures. I notice that your general administrative costs, as a percentage at any rate, are as a whole a bit lower than those of other airlines, the overseas foreign airlines. Do you

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attach any significance to that, or do you think it is a good thing or a bad thing that you should apparently be rather lower on your general costs than other people in proportion?—(Mr. *Smallpeice*.) No, I think it is reasonably satisfactory that that is the position. I do not attach any great significance to it. I think this is one of the cases in which it is most difficult to be sure about whether one is comparing like with like, but we do not think our administrative expenses are higher than those of other airlines, and to that extent I think it is satisfactory.

2382. I am wondering whether perhaps they are not lower than they should be, that you are not giving enough attention to that?—I do not think so. It is one of the things we are continually trying to keep under control to prevent them growing any further. (Sir *Gerard d'Erlanger*.) If I may point out what I believe to be an arithmetical fallacy in this, if something is higher in this column it has to be lower down here.

Mr. *Palmer*.] That is what I was thinking about the figures absolutely but about them relatively, the spread of your costs.

Mr. *Ernest Davies*.

2383. There was a discussion just now on the question of utilisation and load factor. I know this is technical, and we do not want to get involved in the merits of which is the better to aim at, but is it not a fact that it would need a very small increase in the load per aircraft to enable the B.O.A.C. to break even compared to making a loss such as it made last year?—To measure that, 1 per cent. on load factor is now worth £1 million a year to us.

2384. 1 per cent. on load factor is a very small number of passengers indeed. Is that your main aim at the present time, to increase your load factor in view of that?—It is our object to increase our load factor, but having said that we must be careful that we are getting the right utilisation out of our assets and our equipment, because it might pay us better to have a lower load factor and a higher utilisation, because our operating costs, the variable costs, are relatively small out of the total standing costs. It may pay us, in fact; when we have completed this study we may find it best to increase utilisation at the risk of a lower load factor. I do

not want to prejudice this because this is the sort of thinking that is going on.

Chairman.] That is something that you are considering. On this Table you referred to flight operations, the first heading here, and you have kindly given us a paper arising out of earlier questions, typical crew complement carried by British Overseas Airways and Pan American.* We have, I think, discussed earlier the numbers of crews that you carry and the numbers that some of your competitors carry. Sir Keith Joseph has a question he would like to ask about that.

Sir *Keith Joseph*.

2385. You submitted a paper dated 4th December, 1958, showing that flying operations accounted for 22 per cent. of your total costs. Could you tell us how significant within the flying operations category is this particular crew salary cost, and after that what the implications are of this difference between the number of crew you carry and the number of crew carried by Pan American?—(Mr. *Smallpeice*): May I just refer to a copy of the Annual Report? I am answering this question just by reference to the Annual Report, and therefore it is rather off the cuff.

2386. What page are you referring to?—Page 32; but I think the answer to it is that the total of staff under flying operations in the lower half of page 32, "Staff pay, pensions and insurance, aircraft officers and other fleet operational staff", is £2,860,000, and then there is staff subsistence and other expenses, a total of £1,050,000, so the total of those two together is about £3,900,000 out of a total of £11,800,000, that is, about 33 per cent.

2387. Now, having shown that it accounts for 7 per cent. of your total cost, namely, about 30 per cent. of 22 per cent., could you tell us the implications of these larger numbers that you employ in the crew, why you employ them, and how significant it is?—As to why we employ them, basically the answer is that they are required because of the flight time limitation regulations, since our flight time regulations are more stringent than those applied by the Americans, and that causes us to carry extra crew compared with them. I cannot offhand quantify that.

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Sir Keith Joseph.] Broadly I am answered, because that presumably has implications from our point of view on safety and things like that, which I would be the last person to try and criticise.

Chairman.

2388. Which authority makes those regulations?—It is the Ministry of Transport and Civil Aviation. May I add that we accept those regulations for this country. We believe them to be reasonable in the interests of safety and efficiency. We are not disputing them.

Mr. Fort.

2389. And that is also the view of your medical staff?—Oh, yes, it is.

Chairman.

2390. You have given us a further paper on development costs,* and we have already referred to the figures which you have given us. The main difference between the pre-operational training and development costs for the two British aircraft and the American aircraft is, presumably, caused by the fact that the Britannia and Comet were new when you bought them and the 7.Cs had been flown by other airlines and had been developed out of a proved type. That is correct, is it not?—(Sir Gerard d'Erlanger): That is correct.

2391. So there is nothing very remarkable about these figures, and the same sort of figure will have had to be provided by somebody for the Boeing?—Yes.

2392. Your point is that the Boeing has been helped by the K.C.135?—Yes.

2393. Now, earlier, in fact I think on the 17th December, when Sir George Cribbitt was not here, we had some questions about subsidiaries, and in the course of the evidence at Question 1794, right at the end, Sir Gerard, I think you said: "Having said all that, the losses of the associated companies are going to be considerably greater than they were last year." You have a large investment in subsidiaries. I do not know how large that is in comparison with others of your competitors, but it does appear that you have great difficulties in making those subsidiaries

achieve profitable results. Have you got anything to say to us about the steps which you are currently taking to see that their position improves?—With your permission, Sir, I would like Sir George Cribbitt, who is specially charged with the affairs of the associated subsidiary companies, to speak on that question.

2394. Yes, thank you?—(Sir George Cribbitt.) As at this date we have an interest in thirteen subsidiaries and associates. Of those thirteen only two are now wholly owned subsidiaries, and only one other have we a controlling interest in. The remainder we have varying percentages of minority interest. Our total investment in them is of the order of £15 million, and of that sum £2½ million is invested in shares in various companies, £5 million in debentures and interest-bearing loans, and the balance of £7½ million represents aircraft and equipment which we have supplied on hire or hire-purchase terms to these different companies. Coming to the question of losses for this current year, we, as you know, have not yet reached the very end, but on the best estimates we can make at this date it looks as though, taking the companies as a whole, the aggregate loss may be £2 million. Now, the companies responsible for the bulk of that figure are Middle East Airlines, which is likely to lose £900,000, British West Indian Airways, which is likely to lose up to £700,000, Kuwait Airways, which is likely to lose £150,000, and Bahamas Airways, £100,000. Now, the sum of those four figures is about £1,850,000. In the case of Middle East Airlines, as you know, the political disturbances in the Lebanon last year practically brought their operations to a standstill for several weeks, and there is no quicker way, of course, of losing money than grounding the aircraft. In the case of British West Indian Airways the explanation is a little more complex. First of all, the traffic returns have lost their buoyancy. The Inter-Island services are inadequately subsidised by the various Governments, and to some extent the change in policy under which the Corporation took back for its own operation certain agency services which B.W.I.A. were undertaking has contributed to this result. By that I mean this, that if you reduce the scale of direct operations and

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you cannot concurrently liquidate your overheads, then quite clearly you are going to be faced with a powerful adverse balance. That, we hope, is a temporary situation, but I am bound to tell you that the B.W.I.A.'s position is affected intensely by political factors. As you know, they now have a Federal Government. They are moving towards independent Commonwealth status, which they should receive in two years' time, and they begin to think in terms, of course, of having their own airline in much the same way as Ghana and Nigeria and similar ex-Colonies. We feel that we must make concessions to that point of view. If we lost our influence with the West Indies we should undoubtedly lose considerably in the revenues which are fed into that area. That is a positive reason why for the time being at least we must continue to invest, but there is also a very powerful negative reason, and that is the interest of the foreigner in getting a foothold into airlines formerly run by ourselves. If they once get a foothold there is no doubt that they could do very serious damage to our West Atlantic operations. Now, coming to Kuwait Airways, it is an airline we did not particularly wish to operate. We were put under very considerable pressure from Her Majesty's Government to operate these services in the national interest, and the consequences at the moment is that we have incurred a bigger loss than we thought likely. Lastly, Bahamas Airways. I do not think that that company has ever contributed very much to our commercial results. It has contributed substantially to the economy of the Bahamas without a doubt, but that is not primarily our business as airline operators, and we have managed to sell out to Skyways and David Brown 80 per cent. of our interest in this company, leaving us with a 20 per cent. interest, which is sufficient to safeguard our interests. I do not know whether that is the kind of statement you want?

2395. Yes, that is very helpful. Do I understand from that that in the face of these big losses, after allowing for the stops you have taken in the Bahamas, you do not see any chance of reducing those losses? I have left out one exception, that part of the Middle East loss caused by the political situation. You do not see any chance of reducing those

losses in the current calendar year, not the financial year?—In the case of the Middle East Airlines, if I may take that first, we think that there are extremely good prospects of their retrieving their position and getting back to normal. In fact, a budget which corresponds to the calendar year, 1st January to 31st December, came under most exhaustive scrutiny, and the prospects are of a break even result, assuming, of course, that there is no renewal of the disturbances of last year. In any event, we feel that we have sunk so much money in this company, to wit, £6 million, it has a very important role to play in the Middle East, because these Arab countries are tending more and more to make it difficult for us as a Corporation to acquire traffic rights, and if we can act through the medium of a local country and a local airline we can preserve these rights. Nevertheless, if our belief in the current year's results is falsified and we find that we are facing heavy losses in yet another year, we should certainly have to reconsider our policy as to whether we should go on with participating in this company. In the case of BWIA we ourselves decided last year to institute a review, and we asked Air Commodore Powell, the late Managing Director of Silver City Airways, to undertake it on our behalf. We have seen his Report. He says it is a high cost administration which requires streamlining. He draws attention to the fact that the company has undoubtedly suffered as a result of the withdrawal of the B.O.A.C. contracts, and regards the company as needing a much more positive sales drive to achieve its revenue targets. We have every confidence in Air Commodore Powell. But I repeat, his chances of success are directly related to his ability to liquidate redundancy, which is a highly political problem in the West Indies.

2396. These losses of your subsidiaries can completely negative the financial results of the many improvements here which you have been telling us about?—That is quite true.

2397. How much control have you got, Sir George, because, you see, it is for the Board, over their policy?—Broadly speaking, we have at least two members on the Board of every company of any significance. One of these Board members is drawn from the Board of B.O.A.C. Associated Companies, which, as you

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know, is the holding company, and the other is a member of the executive staff of the Associated Companies Group. These two people attend all the Board meetings of the individual companies. The Chief Accountant carries out a thorough examination on the spot, or his deputy, of the budgets of the individual companies, and indeed supplies considerable ammunition for the Board members to criticise the budgets and their results. That, I think, sums up the position as regards direct control. I think one must have in mind that, as a matter of deliberate policy, even in the few companies in which we have a controlling interest, it has always been thought desirable that the operation and management of the company shall be left, so far as possible, to local interests. Obviously, in cases where we have a minority interest we only have the voice of such a minority interest.

2398. These associated companies are in general, of course, not long haul operators, are they, they are short haul operators?—They are fairly short haul operators.

2399. You have the remarkable situation that you have a national operator whose operations are long haul and the others are short haul, and then within one long haul operator's district are a number of short haul subsidiaries most, or some of them, making losses—not all of them—which losses negative the results of the long haul operations. That, put like that, strikes one as an Alice in Wonderland world?—May I take your first point first of all, that we are long haul operators and we have a number of these which are not. I think the answer to that must be that these companies are all located in our B.O.A.C. sphere of interest. We consider that many of them have a valuable feeder line interest which must be set off against their commercial results, assuming, of course, that these commercial results are not outrageous. Apart from that, there is another type of associate represented by Ghana Airways and Nigerian Airways in which we wish to maintain an influence which we have always had. Formerly we had a monopoly of services between this country and the various Colonies. With the granting of independence to these Colonies, they have naturally sought to advance their prestige by having a national airline. We have thought indirectly it would be to our

national advantage in trying to establish a partnership arrangement with them. It usually happens in those cases that we are not involved in any liability at all for underwriting the results of these companies. In that particular category, in fact, that is done by their local Governments.

Colonel Lancaster.

2400. With reference to your interest in Bahamas Airways, I think you said there was some loss involved?—In this last year, as far as we can estimate, it is likely to be £100,000.

2401. Why, therefore, were Skyways and the other concern prepared to buy 80 per cent. of your interest if in fact you were operating at a loss?—I think mainly because they believed that they would be more capable of getting local influence to be brought to bear on the Bahamas Government in two directions, first of all by getting an additional subsidy, and secondly in getting airstrips built, which would eliminate the need for flying boats as well as aeroplanes. During our period of control of Bahamas Airways we have tried very hard to eliminate the flying boat operations, because all our experience teaches us that flying boats and land 'planes together do not pay, but the fact remains that we have not succeeded in getting the local Government to provide these airstrips. Skyways, on the other hand, I think, can achieve that.

Chairman.

2402. Might I just follow up that point? These are two British concerns?—Yes.

2403. Generally speaking, would it be your policy, where British concerns are prepared to make an offer, to hive off your interest in those various subsidiaries, as you have done in the Bahamas?—I think we would like certainly to extend that policy, without question. (Sir Gerard d'Erlanger.) I would like to qualify that, if I may. I think it is more a question of local interests than necessarily British interests. For example, with West Indies, which is an awful problem to us because we own it 100 per cent., they think we have a bottomless purse. If we had some local shareholders in that company whose purse was also being dipped into that might help us a very great deal. If we

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merely had a British shareholder from this end it would not necessarily help us at all.

Sir Alexander Spearman.

2404. I have two questions. First, I am not quite clear why it is that you think you would be so adversely affected by foreigners getting control of airlines which we used to operate?—*(Sir George Cribbett.)* They would undoubtedly have access to traffic rights in countries which are denied to them at the moment. This whole question, I am afraid, comes back to these dreadful bilateral agreements. Ghana having got its independence would be in a position, of course, to negotiate with airlines in any country that wanted rights in Ghana. If a foreign operator got itself installed in that situation they would undoubtedly take steps to implement that policy by extending their operations, and undoubtedly this would have its impact on our operations.

2405. The other question was, why should you take such a gloomy view about the loss of business from what you call the feeders? If your service was competitive, why should not you keep it? Would it be the same answer, that it would be unfair competition?—No, I would not say unfair competition, but in the rough and tumble, for example, of international competition as we see it in the West Indian Airlines, so long as we have a company which is not necessarily owned 100 per cent. by us but is at least under our influence we can direct traffic from the more remote sources into our own Corporation services. But if we did not have that influence there is an opportunity for foreign airlines, Pan American, Argentine Airlines, the Dutch and others, whom undoubtedly we would have to compete with for this feeder line traffic.

Mr. Albu.

2406. Can you explain why it is that you believe that Skyways are likely to be more influential in the Bahamas than you are?—That is rather a difficult question to answer, really.

* * * * *

Chairman.

2407. It is not only you who have come to that view, but it is Skyways who have come to that view, because

they have put in more capital than you have?—Yes. There is one more factor, and that is that there is a temporary recession in tourist traffic from the United States to the Bahamas which they believe will recover. That is the third factor which I believe influenced them in buying in the company.

Mr. Albu.

2408. I want to follow this up also. What you say is that the Bahamas are more likely to subsidise Skyways than they are prepared to subsidise you?—That is my personal view, yes.

2409. May I ask how far your policy in regard to these subsidiaries is determined by the commercial factor of the need to maintain feeder lines, and how far they are really political considerations?—I think the answer to that is that we go into these arrangements primarily because we think they will be valuable to our commercial interests. I think later if we wish to pull out we would find that political considerations would become extremely important.

2410. May I, therefore, ask you if you think it would be practicable in cases where Her Majesty's Government in particular wish either to go in or more likely to remain in with an existing commitment, to set up a completely independent holding company, that is, for Her Majesty's Government to set up a holding company for these commitments, so that you are not involved? I am thinking here in particular of some information you gave us in your Report on Subsidies to American Airlines, where you gave the very interesting information that technical assistance from time to time subsidised airlines which are run by Pan American, I think it is, for independent companies probably in Africa. I certainly travelled in one which I am quite certain was one of those. Would you think it practicable to set up a completely separate holding company?—I think that in the case of the American Government policy this technical assistance is usually given through the medium of their chosen instrument in that area, in many cases Pan American Airways, to an existing airline, and I take as an example Turkish THY. Now, Pan American Airways supply advisers of one kind or another to that company, but the Turks do try to run their own

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airlines. In the case of the Kuwait Airlines, which is the single example I mentioned in which we have been asked to undertake the operation of this airline at Government request, we provide the service and we operate it. So, I would suggest that in a case of that kind, where we are obviously carrying out something in the national interest, the Government should be prepared to pay for it.

2411. The Middle East Airlines?—The Middle East Airlines, no, that again was an existing airline. We bought Pan American's share in it and took it over.

2412. But, for the time being, BWI?—That is a wholly owned subsidiary which we have had for many years. (Sir Gerard d'Erlanger.) If I might just answer the general question, we would welcome any assistance that Her Majesty's Government saw fit to inject into that associate group.

2413. Some of these operations are technical assistance operations, are they not, really?—(Sir George Cribbett.) Some few, yes.

Dame Irene Ward.

2414. Have you ever had a sort of general discussion on the political policy with Her Majesty's Government?—Oh, yes, if by "Her Majesty's Government" you mean our Ministry, the Ministry of Transport, yes.

2415. He reflects the general policy which emanates either from the Colonial Office or the Foreign Office?—I can assure you that this field was very carefully traversed before we undertook this responsibility of the Kuwait Airways, and not only the Minister of Transport, but also the Ministers of the political Departments, were very much involved as well.

Sir John Barlow.

2416. There are two questions I would like to put. The first relates to the subsidiary companies or companies in which you have a minority holding?—Yes.

2417. Do you find much pressure from the other shareholders to charge unremunerative rates from the political point of view?—No.

2418. Would you say that the rates are too low in these feeder companies?—Well, we carried out a review recently of the rates which are in force in the different companies, and there is a

surprising degree of uniformity actually over distances of 200 miles and upwards, in spite of the fact that costs must vary quite substantially in different parts of the world. There are some wide differences in the fares for the shorter sectors up to 200 miles; and we are, indeed, pursuing this from the standpoint of increasing our revenue and decreasing our losses.

2419. I do not know whether it would be advisable to go on the record exactly, the question of Ceylon Airways; you are talking about merging territories. You have some working arrangement, I believe with KLM, and normally they have their own line which is run by KLM?—Yes.

2420. Would it be very difficult to get that company, or is there nationalistic local feeling to prevent it?—I do not think we have really consciously tried. This business of taking on the responsibility for associates imposes a very considerable technical burden on the Corporation. Our resources are not illimitable by way of technical experts, and when we do take on the responsibility of forming a new airline, such as we have done in Ghana and Nigeria and elsewhere, the demands on our resources are pretty exacting. Now, we tried at the time KLM managed to secure the Ceylon Airways contract to get it for B.O.A.C. We did not succeed and, as far as I know, there is no disposition on their part to change their mind, and I do not know that we are particularly interested either.

Chairman.

2421. I have just got two more points, Sir Gerard. The first one relates to an earlier discussion we had and to a paper which you put in about mail subsidies, subsidies received by B.O.A.C.'s major competitors,* and you put in an earlier paper, and at Questions 1780 to 1783 on the 17th December I put to you the point that the figures, in the earlier paper seemed to indicate that far from the American airlines—Pan American—having a subsidy compared with you, you had a subsidy compared with them, and you said you were mystified with these figures, as I think we all were. You have given us some statements in this latest paper, but you have not, if I may

* Not printed.

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say so, cleared up my mystification?—(Sir Gerard d'Erlanger.) We have put in this paper with a view to pointing out how difficult it really is to pinpoint the facts. On the previous paper to which you referred there is no doubt that in the period stated Pan American's mail revenue, expressed per lb. of mail carried, was in fact lower than ours—at least, their receipts from the United States Post Office were lower than ours; their receipts from international Post Offices, obviously, are the same. But, having said that, I must draw attention to the paragraph under the heading "Mail Subsidy", which admittedly relates to the year 1955, but it shows how difficult it is to pinpoint this thing, when Pan American were arguing at that time about a payment of 23 million dollars, a supplementary payment to close their accounts. No doubt there will be similar arguments in the future.

Mr. Albu.

2422. What you are meaning is that they had not got enough out of their ordinary mail rates, so they got a subsidy at the end of the year?—They go to the Post Office and draw the Post Office's or the American Government's attention to the clause which we have quoted somewhere, if not in this paper in some other paper, that they are entitled to help to provide the good order of services which is expected of them.

Chairman.

2423. It is this claim for a bonus at the end of the year which makes the position quite different from that which the earlier paper indicated?—That is quite right. (Mr. Smallpeice.) If I might add, there are current appeals outstanding in the Federal Courts by both Pan American and TWA on this point.

2424. And, of course, these figures make all that difference; they are bound to?—Yes.

2425. The last point I have to put to you is about the jet differentiation. As I understand it from reading the newspapers, you have achieved one of your aims in the IATA?—(Sir Gerard d'Erlanger.) On the whole, yes. Our original aim was, no jet surcharge at all. It looked as though the industry was going to come apart on this issue unless there was a little give and take, and we finally agreed to a limited surcharge on

the North Atlantic only for a period of eleven months, provided that it did not affect our other jet services throughout the rest of the world, which, in fact, will be 80 per cent. of our jet services, our Far East services, which will not have any surcharge imposed on them at all. We felt it worth while giving way on that one in order to achieve unanimity, particularly as I do not think the small surcharge, which was of the order of £7 on a single fare on the North Atlantic, will probably hurt us; in fact, we will probably get £7 for nothing.

2426. I think we would all like to thank you and your colleagues, Sir Gerard, and Mr. Smallpeice in particular, and the others who have given evidence, for the way in which you have given your evidence and for your constant willingness to meet every request we have put to you for information, and if I may add, too, for the excellent way in which you have served us up with that information. I think you will appreciate that it has been quite a hard task for us. In making my closing remarks on this to you, I would like to give you an opportunity of saying to us how much extra work this has caused to you. We are quite clear that these investigations, as we said in our Report about the National Coal Board, are bound to impose a load of work on the Corporations who are being investigated. We do our best to see that the load of work will not be too great, and when you have indicated to us that something was too difficult to get we have always acceded to that request. I would like to know from you shortly if, in your opinion, in the course of these last nine months or so you have had an intolerable burden from us, or whether, rather, many of the things we have been asking for have sometimes, perhaps, even helped you, but more normally we have been asking for information about the sort of things that you were in the ordinary course of your business thinking about?—If I may answer you in this way, first of all, I would like to thank you on behalf of all of us for the very kind and tolerant manner in which you have borne with us. As to the measure of additional work which has been involved, there is no doubt that the preparation of these papers, the extraction of information which obviously existed but did not exist in exactly the form you

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wanted, has undoubtedly involved additional work; but I would say unhesitatingly, if it has helped you gentlemen and Dame Irene to understand our problems better, then it has been well

worth while and, in fact, is not extra work, it is probably on the credit side.

Chairman.] That is very nice of you. Thank you very much.

THURSDAY, 19TH MARCH, 1959.

Members present:
Sir Toby Low, in the Chair.

Sir John Barlow.
Mr. Ernest Davies.
Mr. Fort.
Mr. David Jones.

Sir Keith Joseph.
Colonel Lancaster.
Sir Alexander Spearman.

Marshal of the Royal Air Force, Lord DOUGLAS OF KIRTLESIDE, G.C.B., M.C., D.F.C. (attending by permission of the House of Lords), further examined;
Mr. A. H. MILWARD, O.B.E., called in and further examined.

Chairman.

2427. It is nearly four months since last we met and during that time we have been busy on matters concerning B.O.A.C. and partly you, too. We shall produce our Report during the early part of the summer. Today we want to bring ourselves up to date, and to have a round-up of anything which is outstanding. As it is some time since we last met, some of our questions will be designed to bring us up to date and to check whether trends and tendencies which you previously recorded are still operating or whether things have changed. The first set of questions which I should like to ask you concerns aircraft utilisation. You explained to us why, compared with some of your competitors, who have longer hauls, your utilisation figures looked low. You explained that when you had new aeroplanes entering service there were troubles and that these had their effect on aircraft utilisation. Have things improved in the course of the last four months?—(Lord Douglas.) I have the figures for utilisation for the summer of 1958, which we had not before, and which I think came out extremely well. The Viscount 806 has 2,445 hours utilisation, per annum, the Viscount 802 2,359

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hours and the Viscount 701 2,827 hours. The Pioneer has 1,690 hours. We explained why the Pioneer figures were never as striking as those for the Viscount because they are on shorter hauls and so on, but I think that to get a figure of 2,827 hours out of the Viscount 701 on our short-haul business is extremely good.

2428. We had figures previously which were hours per day. I do not know whether you could do the sum on this occasion.—(Mr. Milward.) It is just under eight hours a day, on 2,827 hours for the Viscount 701.

2429. Was that as good as you expected? You said that as you became more and more used to the new Viscounts—(Lord Douglas.) The new Viscounts have gone up from 1,427 in the winter last year to 2,445—that is the Viscount 806 for the summer last year. That is an appreciable increase. (Mr. Milward.) It is fair to say that it is about as high as it is possible to get. That is, for utilisation figures on our type of operation. It is obvious that you can get higher utilisation if you do not worry about some semblance of commercial timings or aircraft load factors, but at the load factors which we require I do

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not think that we shall greatly exceed this figure.

2430. Can you explain that? Are you implying that if you are to get high load factors you may have to sacrifice a little of the aircraft utilisation factor?—Yes. On short-haul airlines and perhaps on any airline you have to find the right compromise and balance between load factor and utilisation. You can have high utilisation with low load factor by running aircraft for the sake of running them and at all times of the day, when you cannot fill them, or you can have very high load factors by using your aircraft only at easy commercial times.

2431. Does the right balance between those two factors alter with different types of aircraft or have you found over the last five years or so that the right balance remains approximately the same?—(Lord Douglas.) It is on routes. (Mr. Milward.) On routes, not aeroplanes. (Lord Douglas.) And commercial timings. (Mr. Milward.) You could run a service to Cyprus during the night and nobody would complain very much at leaving at 11 p.m. for Cyprus or Turkey or Rome, but if you did that on the Channel Islands route and asked people to leave at midnight and to reach Jersey at 1.30 a.m. you would have high utilisation, because you would be using the aircraft, but it is doubtful whether you would have many passengers.

Sir Keith Joseph.

2432. May I be reminded whether aircraft utilisation takes into account aircraft not actually flying but under repair or overhaul?—(Lord Douglas.) Yes. These figures are the total number of hours divided by the total number of aircraft, whether they are being overhauled or repaired or not.

2433. The figure for aircraft available would be much higher than eight hours a day?—(Mr. Milward.) Much higher. The total hours divided by the total fleet is the worst figure you can get.

Mr. Ernest Davies.

2434. Can you tell us how you have achieved this improved utilisation? What is the main factor which has enabled you to achieve it?—(Lord Douglas.) The Viscount is now well bedded down. When you start to use a new type of aircraft

you know perfectly well that your utilisation figure will be smaller than when the aircraft has been running for some time and is well bedded down. We have also improved our engineering and maintenance set up. Our base at London Airport seems to be working much more smoothly than before.

2435. With this improved utilisation, have you maintained your load factor or has that been affected? I know that other matters enter into load factor?—Many other factors. The load factor has dropped since last year—dropped appreciably—but I do not think that has much connection with utilisation. (Mr. Milward.) I think the load factor change is entirely due to the trade recession. The other way in which we are filling our aircraft and maintaining utilisation is the very ingenious fare system which our commercial people have introduced and which gives rebated fares for night journeys to holiday resorts, giving great utilisation of aircraft at a time when they would not normally be filled at full fares. It is a differential fares system. That has maintained utilisation and filled aircraft.

2436. You have had regard to a number of factors in scheduling planes and making plans, with utilisation on the one hand and maintaining the load factor on the other hand?—There are three points. A reasonable fares structure must be maintained, too. The success of any airline depends on the proper balancing of those three—revenue rate per mile, load factor and aircraft utilisation. Another thing which enters into it is that it is becoming increasingly important as crew pay goes up to watch aircrew utilisation.

Chairman.

2437. There are some factors affecting utilisation where you can get improvements without affecting the load factor? Have I understood you correctly? If your repair and maintenance establishments become more efficient, that will not affect your load factors?—(Mr. Milward.) No. That means having as high a proportion of the fleet as possible available to fly. If you visited our base on Saturdays and Sundays you would be surprised to find that it was completely empty. There would be nobody in it. We work a five-day week in the base, and if we could work a four-day week it would

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be even better. On Saturday and Sunday we aim to have no aircraft on maintenance and the whole fleet available for carrying passengers.

2438. You have been achieving that recently?—Apart from damaged aircraft, or where something has gone wrong and has taken a great deal longer than expected to check and the aircraft has been late coming out. We sometimes achieve the ideal of having no aircraft on the base on a Summer Saturday and Sunday.

2439. Is that why your figures for last year were better—one reason?—Yes, indeed.

2440. Between last summer and now your maintenance arrangements have improved?—(Lord Douglas.) As you know, we have been increasing the size of our base. We are doubling its size. It is about half finished. We are using part of that. We have more room to move about—more elbow room. The workshops and the facilities for overhauling components have improved a good deal, too. (Mr. Milward.) With the very friendly and active help of the A.R.B. we are always extending the hours between overhauls, of both aeroplanes and engines, which again helps us to keep aircraft flying and out of the base.

2441. What I want to get clear is whether you see that this process of improvement in your arrangements will continue or whether for the moment you have obtained all you hoped to obtain out of it?—(Lord Douglas.) We think we are getting towards the limit now. I do not think you will see a vast improvement in our utilisation in the future. When we start with a new type, say the Comet, no doubt we shall work that figure up, but I think we have worked the figure for the Viscount up pretty well as far as we can.

2442. On passenger load factor, dealing with a point which Mr. Ernest Davies raised, on 20th November we discussed that and you explained that it had dropped in the current year. In answering question No. 1096 you said it was a sort of slump, and you said, "We have just turned the corner. For the last two months we have been doing better." Would you say that that is still so?—Yes, it is undoubtedly going on, although we had the fog, which is the

worst fog in our history, in November, December, January and part of February. In spite of that, we think that our passenger carryings have gone up by about 15 per cent. over last year. It looks as though it is continuing. I think that we are round the corner of the slump. Last year—the summer of 1958—the passenger load factor was 64.9 and the year before it was 73.9. The overall load factor last summer was 61.1 and the year before it was 66.6. That gives a measure of the fall in traffic. Our overall increase this summer over the previous summer was only about 3 per cent. During the winter it is up to about 15 per cent. over the previous year.

2443. And what of your increase in capacity? Would you say that was about the same?—(Mr. Milward.) About 14 per cent.

2444. The increase in passengers in the recent period is just about covering the increase in capacity?—Yes.

2445. The load factor has remained about the same?—Yes.

Mr. Davies.

2446. On the question of fog. In the House yesterday, in reply to a Parliamentary Question, the Minister said that the Chairman of B.E.A. had informed him that they had made no loss as a consequence of the fog. I did not understand the answer, because the fog must have affected operations?—(Lord Douglas.) Of course. I do not understand that. I have not seen this answer. I should very much like to see it.

2447. I will not pursue it?—We cancelled 1,500 services during the months of November, December, January and February and we reckon that the fog cost us £250,000. That is not just loss of revenue but loss of profit. We should have been £250,000 better off than we are today but for the fog.

Mr. Fort.

2448. Can you say how near are the improvements to F.I.D.O. or other fog dispersal devices to being operationally satisfactory, either in this country or in other countries where work on fog dispersal is being carried out?—I do not

* See Q. 2546.

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know anything about other countries because I do not know of any other country developing F.I.D.O. or a similar device. We have seen practically nothing of the experimental set-up which they have at the Marham bomber station. In fact, it hardly works yet because when they had it all set up they found that the pipes were full of earth and that it would not work. They had to take it to pieces again and clean it all out. We have had no experimental results from this experimental lay-out at Marham. All I know is that during the war, when I was Commander-in-Chief Coastal Command, we had F.I.D.O. at St. Eval, our busiest anti-U-boat station and we found it very useful. We got aircraft back which we should not otherwise have got back.

2449. Can you remember what was the cost for the operation?—In those days the cost was enormous. It was £500 a minute or something like that. Of course, we used high-grade aviation petrol in the apparatus whereas now they are developing it to use finely sprayed diesel oil which would make it a good deal cheaper. Even so, it will be expensive.

2450. Is this being done by the D.S.I.R. or by another Ministry?—By the Ministry of Supply.

2451. Are their technical departments responsible for co-operating closely with your corresponding technical people and are they co-operating?—Yes, I think I can say that they are.

2452. In view of the long delay about this work, to which you referred earlier, have you yourself as Chairman or has Mr. Milward been pressing the Ministry to speed up this development?—Yes, I have, and my flight operations people have at a lower level. We have had many discussions with the Ministry about it.

Mr. Davies.

2453. I think that it was also stated in the House that the cost of a landing by F.I.D.O. was now about £250 per landing or take-off. A Question was asked whether it would be worth-while for civil aviation Corporations to pay that in order to take off and land during fog. What is your view?—The figure which we had is not as much as £250. Probably the figure depends, on whether

you include in the computation the cost of the installation. Our view is that the installation should be put in by the Ministry of Transport and Civil Aviation but that we should pay for the cost of running it. When the sum is done in that way the answer is £100 to £150 per landing which we should have to pay on that basis. We think that that would be well worth-while from our point of view.

2454. You would be willing to make that payment for operation of the equipment, if it were of that order, in order to avoid the losses which you would otherwise incur?—Certainly.

Mr. Fort.

2455. Is that a similar financial relationship to that with the Service Ministries about the use of the navigational aids—that they pay the capital cost and you pay the operating costs?—No. We do not pay the operating costs for navigational aids. (Mr. Milward.) The Ministry pays for it all. (Lord Douglas.) They recoup themselves to some extent on landing fees.

2456. Why should F.I.D.O., which is perhaps an unusual form of landing aid but which is basically a landing aid, be treated differently from radar equipment or any other such equipment?—Of course, we should like to pay nothing, but I think we shall have to pay for the operational costs. If and when F.I.D.O. comes into operation I think we shall be expected to pay those, and I do not think that that is unreasonable, in a way, because it will ensure that it is used economically. An airline does not have it on all the time, wasting money. At a cost of the kind which I have mentioned—£150 a landing—we think that it ought to pay us. It would mean that we should not have our aircraft scattered all over the British Isles and the Continent, with the problem of getting them back in the nest the next morning for use. That is very important. (Mr. Milward.) It also has a very big psychological effect on crews. In fact it will not cost us £150 a landing because what will happen is that under marginal conditions pilots will continue their flight to London knowing that if the weather goes below the limit they can call on F.I.D.O. At the moment, when conditions are just on the margin, the crew very properly say, "We shall not continue our flight". We could have a lot

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of landings at night without using F.I.D.O. so that the cost in fact would not be as great as has been said.

Chairman.

2457. You are talking about it costing you money. It would cost the same amount of money to Air France or K.L.M. or Sabena or anyone else?—(Lord Douglas.) Yes.

Mr. Davies.

2458. There is no such installation on any of the foreign landing fields, is there?—No.

Chairman.

2459. Shall we pass from there to your domestic services, which can be dealt with shortly. We discussed at length the arguments about the Highlands and Islands services being uneconomic and something in the nature of a subsidy being involved. I do not think we need go into them again. There were other domestic services, the main trunk routes London—Edinburgh, London—Glasgow, and so on, which you said, I think, that you thought would in time turn into economic services. Do not let me say anything which looks as if I was expecting them to be making a profit by now?—(Lord Douglas.) I said “potentially profitable”.

2460. In the interval since we discussed that, has anything happened to make you change your minds?—No. In fact, Belfast is actually making a small profit now. It is the only one of the domestic routes which is. There is one other thing which has happened. As you know, we put on these cheap services at week-ends rather as an experiment for the winter—£8 return—and I have the figures of what the effect of that has been. There has been an increase in traffic of 45 per cent. at week-ends on London—Glasgow, London—Edinburgh and London—Belfast, against a mid-week increase—i.e., at normal fares—of only 4 per cent. It has resulted in a 12 per cent. increase in these routes as a whole—that is, lumping the 45 per cent. with the 4 per cent. and averaging them out. The same has happened on London—Manchester; it shows a general increase, but not so marked. The results were adversely affected by fog to a much greater extent than in previous years, but, despite this,

there is considerable improvement in revenue, as well as in traffic, as a result of the reduction in fares at week-ends. We can say, therefore, that the experiment has been a success.

2461. With those cheaper fares, taking just the week-ends by themselves, you run the aeroplanes that carry the cheap-fare passengers at a profit. The fact that you charge a cheap fare does not make that particular service uneconomic, does it?—No. But, of course, one is up against a difficulty. We put on these fares during the winter at week-ends when the traffic on these routes is low. We have increased the traffic 45 per cent. from quite a low level, so to that extent it can be said to be profitable. On the other hand, it would not pay us to do this, say, in the summer, when traffic is heavy, because we should overfill our aircraft. Indeed, we should be selling seats at cheap rates for which we could get a higher fare. It shows, however, that there is a pool of potential passengers provided that we can get the fares down, which we want to do. (Mr. Milward.) It is a very good way of filling seats at week-ends, when business men are not travelling, which otherwise would not be sold.

Colonel Lancaster.

2462. No doubt, the internal services to a certain extent go to help pay for your overheads. If, for the sake of argument, those internal services were withdrawn from B.E.A., would you find it difficult to spread those overheads over the rest of your activities?—(Lord Douglas.) I think undoubtedly we should. A lot of people try to say, “We are taking these domestic services away from you and you will be that much better off”, but it does not quite work like that because of the question of overheads. We certainly could not absorb into the overheads of the international routes the overheads of the domestic routes, or, rather, we could not take all the overheads and even them out.

2463. Have you made any rough calculation of the extent to which that would embarrass you?—Yes. I do not have it with me, but some years ago we did a paper on this showing what the effect might be. (Mr. Milward.) This is our perennial difficulty. Any airline is faced with this difficulty of how to allocate overheads between domestic and international routes. It is

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almost impossible to do it when working by a rule of thumb. Just to lose the domestic side certainly would not put us that much better, according to the loss we show on the domestic routes. Another aspect on which a great credit is available is the traffic which they feed into London and which goes into our international services. That is quite considerable.

2464. The assumption is that if you did not feed in that traffic, it would not be fed in?—It might not be fed into B.E.A. The connection Glasgow—London and then London—Athens by B.E.A. throughout is a very good one and a lot of people use it. If they had to take a train or bus or some other way of getting to London, we might lose the traffic. (Lord Douglas.) If it was another operator who was doing the service to London, they would not necessarily be fed into us. They would be bribed away by other Continental operators who wanted them fed into their network. (Mr. Milward.) To be able to walk into the Glasgow office and buy a ticket through to Madrid with a guaranteed connection at London Airport is a big inducement for Glasgow people going to Madrid.

Chairman.

2465. Are there any more questions on the internal services? Now, I would like to pass to the supply of new aircraft. Earlier evidence dealt with the preparatory stages in your choice of the D.H. 121, and when we last discussed this it seemed that it had taken some time, but it was rather difficult to pinpoint any particular cause of delay. Since then, have you signed the contract, or have there been further delays?—(Lord Douglas.) This is the D.H. 121. No, we have not yet signed the contract. We are still discussing about half a dozen points—one of particular importance is the size of the engine—with De Havilland's and Rolls Royce. We had hoped to sign the contract by the end of this month, but I do not think we shall. I think it will still take a week or two longer. This is very important both to the firm producing the aircraft and to us and we cannot be too careful about getting the specification absolutely right. That is what is holding up the contract now. It is the details of the specification. Any aircraft of this sort

would take somewhere about a year before one can get to the point of finalising the specification and placing the contract. There is nothing exceptional in taking so long. I am having a meeting with Rolls Royce next week, when I hope to tie up the final details. We ought then, with any luck, to be able to sign a contract within the next two or three weeks.

2466. Perhaps you can refresh our memories. Suppose that the contract is signed sometime in April. How long will the period have been since the time when you made up your minds that this was the aircraft you wanted?—About a year. (Mr. Milward.) It is a year in March since we finalised. (Lord Douglas.) Do not be under the impression that this is holding everything up. It may be holding up some details of the work, but the work is going ahead at full speed in De Havilland's and Rolls Royce in their design shops. The fact that the contract has taken a long time to sign does not mean that that amount of time has been lost in the cycle of introduction of the aircraft.

2467. Some things can be settled and drawn and designed, can they, even though you have not got the size of the engines fixed?—(Mr. Milward.) The delivery date has not been affected at all. We are still expecting to have our first aircraft delivered in July, 1963.

Mr. Ernest Davies.

2468. As far as the contract itself is concerned, the Ministry does not come into this at this stage now? The Ministry does not have to approve your contract?—(Lord Douglas.) No.

2469. Not even the total cost?—That is a point, certainly, because we were allocated so much money by the Ministry of Transport and Civil Aviation and the Treasury, and there are signs now that De Havilland's will want to charge us rather more than their original quotation. If that is thought reasonable and we agree to it, that will mean going back to the Ministry and the Treasury for permission to spend more money. I hope, however, that it will not happen.

2470. If it did happen, all that would be necessary would be to justify the higher cost?—Yes. De Havilland's have to justify it to us first.

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[Continued.]

2471. In that case, you would not be able to sign a contract until you had got that settled?—We would have to clear the financial side, certainly, with the Treasury.

2472. Not with the Ministry?—We work with the Treasury through the Ministry. We should consult the Ministry and they would consult the Treasury, but they do not interfere with the details of the Specification. That is entirely up to us.

Chairman.

2473. You have mentioned this higher cost. We had better get it on the record as we have a mention of it. When you say that De Havilland's have to justify this to you, that would mean that they were improving the specification and, therefore, it was reasonable for you to pay a little more for it?—Not necessarily that. It may be that their previous calculations were a bit on the low side, wages have gone up, and various other things, and they may want to put a higher price on certain parts of the aircraft. But certainly, if we put more weight into the aircraft by putting in a heavier engine, that would also affect the cost. (Mr. Milward.) It might also mean that Rolls Royce put up their price of the power plant.

2474. The other aircraft which we have had mentioned in our evidence here from you is the Rotodyne. We have seen a good deal of statements in the newspapers about this. Could you bring us up to date on the Rotodyne for you?—(Lord Douglas.) The Rotodyne has, in effect, increased in size and capacity by the use of a different engine. We gave a letter of intent to Fairey's saying that we would buy six Rotodynes of the improved, enlarged version, because it is much more economic than the present one that is flying, which is appreciably smaller and has less capacity and, therefore, a greater cost per seat mile. The result of that has not been so good as I hoped it would be, because the fact that we have picked on this revised version of the Rotodyne has meant that Fairey's have had to revise their calculations with a view to building the larger version. It means a good many changes in the aircraft, a new rotor head, and so on, and that has to some extent delayed matters. If we had said that we would have the original small version, the thing

would have gone ahead much more quickly. We are in the position now that our engineers and Fairey's are engaged in agreeing figures of the new enlarged version of the Rotodyne, because unless we have those figures we cannot sign a contract until we have the performance figures agreed, nor can we work out the commercial possibilities of the aircraft. If we are to work out whether we will make a profit, we must know precisely what the performance of the aircraft is. The speed, for instance, makes a considerable difference to economics. That is the exercise we are going through now. Until we have these figures crystallised, we really are not in a position to place an order. Of course, we have the, I think, rather unfair business of the Minister of Supply saying that he will only give Fairey's £4 million for the development of this aircraft if B.E.A. signs an order, which puts us on a spot.

2475. But there is nothing new about that principle, is there?—I have never known it done before.

2476. The principle being that the Ministry of Supply does not place definite orders for civil aircraft unless it knows of a use for it. I thought that was a principle which had been stated?—I do not think that is the principle involved in it. (Mr. Milward.) This is an entirely revolutionary type of transport. It is not just an aeroplane.

2477. I see your case. I was only making the point.—This is something quite new and, as Lord Douglas says, it will take a long time to work out the costs based on certain operating specifications which we cannot be certain will be fulfilled.

2478. While we are on helicopters, you told us that you were considering a helicopter service to the Scillies. Have you got any further with that? Somebody, at least, told us this?—(Lord Douglas.) We have certainly made a study about it, but I do not think the figures look very favourable. They only look favourable if the Ministry of Transport give us as a subsidy what they would have spent on the aerodromes at St. Just and in the Scillies. They spend about £34,000 a year, I think, on those two aerodromes and if they gave it to us as a subsidy, because we would not want an aerodrome, we could make the scheme

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"wash its face", but I do not think we will succeed in that.

2479. That is where the matter stands at the moment?—Yes.

Mr. Ernest Davies.

2480. May I refer to the Rotodyne? On the question of the Ministry of Supply making a contribution towards development costs provided that B.E.A. placed an order, was the B.E.A. consulted concerning that? Have you had discussion with the Ministry of Supply to ascertain whether you were likely to place an order?—Yes, there was a conference at which we were represented.

2481. It was made clear to the Ministry of Supply that it was still very much problematical and undecided?—"Problematical" is perhaps a strong word. I think we are bound to order this aircraft ultimately, but we cannot simply draw up a contract and sign our names on the dotted line until we have the performance figures worked out.

2482. And the development cost would only be concluded when the contract was signed? The signing of the contract would be required before the development cost could be concluded?—Here, again, we shall not be able to sign the contract for the Rotodyne for a year, but we can write what is called an I.T.P., which is a somewhat stronger letter of intent, which is as far as we could go. The contract for the Rotodyne will be more complicated to draw up than for the D.H.121.

2483. Would you recall that where the Ministry of Supply has contributed to development costs, as it did at one time, that would generally occur when it was known that orders would be placed by either the military or the civil corporations?—No, I have never known of a case like this. I very much dislike being put on a spot like this by somebody saying "Unless you place an order, we are not giving these people £4 million to develop this aircraft." I can see the Minister's motive in this, but it puts B.E.A. and myself in a rather difficult position.

2484. What I was trying to get at was to know of a case where the Ministry of Supply has made a grant towards the cost before an order had been placed?—I should think it has often

happened; yes. (Mr. Milward.) All the Brabazon aircraft were financed long before there was an order. In fact, for many of them there was no order. In the case of the Viscount, I think it was done before an order was placed. Certainly, in that case, the Ministry got all their money back. Otherwise we might as well finance it ourselves if we had to put the order down before anyone else financed it. This is also a question of Fairey's not wanting to put any more of their money in until they have an order from B.E.A.

Chairman.

2485. We have evidence from the Ministry of Supply on that procedure, so we can clear this up. In any words I used, I certainly did not mean to imply that in the past they had waited until an actual firm order had been placed. I thought the position was, as far as I recollect it, that they usually did not invest money unless they thought they were reasonably assured of a civil use for the aircraft. In the case of the Viscount, I think, even if there was not an order, there was a sort of intention to proceed, at least at one time?—(Lord Douglas.) Only an interest—

2486. An interest shown, yes?—because at one time we turned the Viscount down in the course of our history. (Mr. Milward.) We should make the point that the Rotodyne is really not on all fours with the fixed-wing aircraft. It is of such a revolutionary character, for an entirely different sort of trade, that we must go much more carefully. It could cost a great deal of money.

2487. I think the Committee got that point. In that way, you are arguing that it is different from what has happened before. Whatever may have happened before, this is different?—Yes.

2488. Now, I would like to ask you something about amortisation. We have discussed the general principle governing your amortisation. Have you found that the second-hand market has dropped considerably in the last six months?—Yes, it has.

2489. Does that affect your views about depreciation rates on aircraft?—I do not think so, because although we are writing these aircraft down over seven years with a 25 per cent. residual

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value, in actual fact the operational lives of the aircraft are longer than seven years; so that I do not look forward, at the end of seven years, to having to sell these aircraft. I should expect to run them for at least another three years, which would see off the 25 per cent. residual value. That is what we are planning to do. In the case of the Viscount 700, we are actually proposing to lengthen the amortisation period because we are converting them to high-density seating, doing a lot of modifications on them, and we look forward to using them, as we have explained before, as a D.C.3 replacement, for another ten years. We are not sticking ten years on to the amortisation life, but we are proposing to our auditors—these things all have to be approved by the auditors—that we can convert these aircraft to increase their life by six years with a 20 per cent. residual value at the end of six years. We think we are justified in doing that as we expect to use them for ten years.

2490. What do Air France and K.L.M. do?—Most airlines go on seven years with a 25 per cent. residual value. It is a sort of recognised figure. Indeed, I.A.T.A. have accepted it for calculation purposes when they are doing their sums on the economics of air transport. That is the sort of figure they use.

Mr. Ernest Davies.

2491. Would it not be true to say that it is not only a question of whether the life of the aircraft is prolonged, but of whether the aircraft is still one which you desire to use—that is to say, whether it might not become out of date, although its life could still be prolonged?—Yes, that is true. But when I say that we prolong the life of these aircraft—for example, the Viscount 700—we intend ourselves to use them for another ten years, not to use them for five years and then sell them with a five years' life. (Mr. Milward.) It is the commercial life, not the technical life.

2492. But it is your own commercial life, as it were. If the second-hand market was bad although the aeroplane was perfectly good, you would not be able to dispose of it at a reasonable price to other operators?—No. We hardly take that into account. What we do take into account is how long we foresee ourselves using the aircraft.

2493. If I recall rightly, in your previous evidence when we have discussed the replacement of aircraft by more modern types, and so on, the impression was conveyed—perhaps much more so by B.O.A.C. than by yourselves—that many of the aircraft now in service would be out of date before their life had expired, or had nearly reached expiry. Is that so?—(Lord Douglas.) No, I do not think that is true of B.E.A. We have never given you that impression. We do not think we shall want to sell any of our aircraft before their life is up. Indeed, that is one reason why we have taken the Comet on for only five years on a returnable basis. In that case, we did see that we might want to get rid of the Comet after that period, and so we have this special arrangement with De Havilland's. (Mr. Milward.) The Elizabethans came fairly near the position after about seven years. We have put them up for disposal, but, of course, they were outdated in some ways by the Viscount, which in a way accelerated their replacement.

2494. Did you succeed in disposing of all your Elizabethans?—No. Some of them are for sale now. We have sold six out of nineteen.

Chairman.

2495. You are finding it difficult to sell the other thirteen?—(Lord Douglas.) Yes, we are. (Mr. Milward.) The difficulty about the Elizabethans is that only twenty were built, of which we had them all, and no others are coming along. The spare parts position is good, but people are always chary of buying an aircraft of which only eighteen are left in the world today.

2496. The point is that because of the modern nature of the Viscount and the fact that there is no great advance on that aircraft for short haul known to you at the moment, you can see a longer commercial life for that aeroplane than you could, for example, for the Elizabethan or the Viscount 700?—(Lord Douglas.) Yes, I think so. As I say, we are really turning the Viscount 700 into a different aeroplane for a different purpose. That is what it boils down to. (Mr. Milward.) We are rebuilding it into a high-density form for entirely new routes—in fact, the internal routes, for which we can certainly see a life of six years, and much more likely ten years.

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Mr. Ernest Davies.

2497. That shows the advantage of having a unified fleet, as it were, and a proven aircraft?—Very much so.

Chairman.

2498. I have one point on your maintenance staff. On 20th November, you told us, Lord Douglas, that you felt you were rather short of maintenance personnel and you were then taking on more people. Are you still short?—(Lord Douglas.) We are taking on more people gradually, but with these new types coming in—we have the Vanguard and the Comet coming along—our engineering and maintenance staff undoubtedly will have to rise. We are trying to keep it down as much as possible because we do not want to get into the position that we have too many engineers and we have to make them redundant. We are keeping a careful eye on the position. But, undoubtedly, the Chief Engineer requires slowly and gradually to increase his maintenance staff.

2499. Are you concerting that with B.O.A.C.?—Yes, we are.

2500. Who appear to have too many?—We have a scheme for accepting B.O.A.C. engineers under certain conditions.

2501. My last question—other members of the Committee may have others—is about the jet differential. Since we last met, the I.A.T.A. has had another meeting and it appears that there has been some agreement about a jet differential for Atlantic work?—That is true. It does not affect us. We would have liked to have a jet differential in Europe, but we were a voice crying in the wilderness on that, so as there is a unanimity rule in I.A.T.A. we gracefully gave way and agreed that there should be no jet differential in Europe. Of course, we accepted the differential on the Atlantic, but it really does not affect us in any way.

2502. Is it your intention in the future, when jets are employed on European services, to re-raise the matter, or have you surrendered?—I think we shall probably raise it, but without very much expectation of success. (Mr. Milward.) The Atlantic basis of jet differential would make a difference of only £2 on a London—Nice return flight, so we do

not think it would be very worth fighting hard for it.

Mr. Ernest Davies.

2503. Also, at the I.A.T.A. conference, you raised the question of economy fares in Europe and a working party was set up. Has any progress been made there, or is it still in abeyance?—(Lord Douglas.) They met and discussed with this working party, but the matter is not immediately urgent because fares cannot be altered until next September, and next September we shall have to go into bat on these questions of economy class fares. We have worked out ourselves a rather elaborate scheme for introducing cheaper fares in Europe varying from route to route and from the time of the day to the time of the day, and weekend to mid-week and so on, and those we shall have to try to sell to our opposite numbers at the next traffic conference in September.

2504. By and large, your fares policy of bringing them down in accordance with the traffic being offered at the different periods stands and you are pressing on with that?—Yes, we are pressing on with that. I know we shall get some success. For instance, we made this pool recently with Air France and they have accepted this idea of cheap fares from London to Paris and London to Nice. (Mr. Milward.) They will not apply now, but from the spring of 1960.

2505. Those would have to be approved by I.A.T.A.?—(Lord Douglas.) If two reciprocating operators agree I.A.T.A. will almost certainly accept them. If Air France and ourselves agree “We want the fares to be so and so” other people do not barge in normally. It is normally accepted. We shall undoubtedly have some fights on this and we may not get all we want.

2506. Your policy of lowering fares and adjusting them according to the traffic offered is aimed to bring about a lower fare basis, generally speaking, on mass travel?—If we get all we want on this scheme that we have drawn up and if we get everything asked for the average fare in Europe would come down about 17 per cent.

2507. How would that compare with rail travel?—It varies a good deal in different places. In all cases I think it would be less than first-class and in

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some cases it would be down to second-class. (Mr. Milward.) It is very close to second-class levels if you take into account tips, meals and porters and such things that you pay on rail journeys, but we do not do it across the board. We want to have a differential fare system so that we lower the fares where the demand is elastic, where we shall recoup it, with mass travel. On some routes it would be little advantage in reducing the fares. It is mainly business travel and it is doubtful whether that would increase enough to enable us to make a reduction in fares.

2508. Since we last met one of the independents has been endeavouring to introduce new services with a very substantially reduced fare to Malta and Gibraltar. How do you consider it is possible to operate at such low fares?—In some cases it is even less than half of yours?—(Lord Douglas.) They propose to operate D.C.-6Cs at infrequent intervals, say once a week or once a fortnight, on these low fares, and they are aiming to get a load factor of about 80 per cent. I think they need about 80 per cent. for the break-even load factor. I do not think that they can achieve these low fares and make a profit. I think that before very long they would come along and ask for the fares to be put up—not to the same levels as ours but appreciably put up. Anyone could produce a cheaper fare than our ordinary fare by putting on a service of that type, putting on a very big aircraft at infrequent intervals, but of course it does not meet the traffic demand. Take, for instance, Cyprus which they have applied for but which is off now. A D.C.-6C going into Cyprus once a week would not satisfy the customers at all. They want to have a service every day and they want their mail, newspapers and freight facilities every day. (Mr. Milward.) Day and night, summer and winter. There is nothing very new about this. This is the pirate bus all over again. We could operate a bus at a profit if we took an old bus and operated it in the morning during the rush hours, sent the driver off in the middle of the day and hired him again in the evening and operated during the evening rush hour, and shut up on Saturday and Sunday, but it would not provide London with what it wants,

which is a bus service operating day and night all the year round. There is nothing very clever in doing that with aeroplanes. If B.E.A. could operate a once-weekly service to Cyprus with a large and full aircraft we could make it pay.

2509. Do you think this syphoning off would create new traffic?—(Lord Douglas.) I do not think so. (Mr. Milward.) Some people would say "I will wait till Wednesday when the Eagle service operates and take the cheap fare." It would fill the aircraft and there would be a demand for another one.

2510. It has not been decided yet by the Advisory Council, has it?—No.

Chairman.

2511. If you found that that sort of thing was economic within your own circumstances, if you found it was worth while putting a big aeroplane on one of your routes once a week at low fares, could you do that or would somebody stop you?—(Lord Douglas.) Yes, on fares, we would be inhibited by I.A.T.A.

2512. I meant on a domestic route?—I think the Ministry would demand to be consulted on it certainly. As we have explained before, the Minister, although he has not the executive power to settle our domestic affairs, does insist on having a voice in what we do. Provided we get over that difficulty, there would be nothing to prevent us doing it, except I do not think the public would stand for it. These advisory councils would get cracking. The Scottish Advisory Council would say, "This is not good enough. We do not want one or two services a week to Scotland".

2513. I have not made myself plain. I have assumed you would keep your existing service and superimpose something like the Eagle D.C.-6C on it?—Yes, we have done that.

2514. This is only a hypothetical question?—We could do that, and in a sense we have done it on our trunk routes Glasgow—Edinburgh—Belfast with these week-end fares.

2515. That is what the week-end fare amounts to?—It is the same sort of idea. (Mr. Milward.) It would be a dangerous thing to do on a route like Cyprus. If you write "British European Airways" on an aircraft it denotes a standard of safety and comfort and the passengers would all pile up and wait

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for the cheap service. It would be difficult to do that without damaging the rest of our services on which the island virtually exists. If I might draw a parallel, it would be easy for B.E.A. to reduce the losses on the Highlands and Islands services enormously if you could divide or reduce to a quarter the number of aircraft we operate from around the islands, providing a service once or twice a week and filling the aircraft up very full, but we should have an absolute howl from the Highlands and Islands who would say they were not getting the service they require. That is very close to the Eagle application on Cyprus.

Colonel Lancaster.

2516. You may have noticed that we had some discussion a short while ago with B.O.A.C. on the matter of the merger of B.O.A.C. and B.E.A. as to whether it had advantages or disadvantages. I think the general sense of the reply was that it had been considered at some length some years ago but not of recent months. I wondered if you would care to make a short expression of opinion on that problem?—(Lord Douglas.) I think it would be a bad thing. My main reason is that the tasks of B.O.A.C. and B.E.A. are so entirely different. You need different aircraft, different techniques of operation, and I cannot help thinking that our side of the business, the short-haul side, would have been—I do not say neglected but would not have had the attention which we have been able to give to it. We are a specialist short-haul airline operator. If we were mixed up with long-haul operations, which are in some cases more potentially profitable than short-haul operations, I do not think we would have had the Viscount to start with. I do not think we should have developed these techniques of operating a short-haul airline in the way that we have. Our operations would be overshadowed by the larger and more spectacular work of flying long distances, particularly over the Atlantic, and the time of our technicians, and administrative staff would have been much more absorbed in that work than in this narrower focus of work which we have indulged in. To my mind, that is the main reason. The other thing is that I do not think it would save anything very much in the way of costs. You would have to have very much the same organisation as we have

got in B.E.A. which would probably be called a division of B.O.A.C. operating Viscounts and operating these short routes. I do not think you would be able to dispense with anything much in the way of personnel. You would need the same number of engineers. You would need the same number of traffic staff to look after your passengers. There might be a little saving there. You would have a little bit of overlap perhaps but I think the actual savings in money and bodies would be very small indeed.

2517. In this regard we instanced an air jet of Air France on the assumption that they have something of the same problem, in regard to short-hauls and equally they do a lot of long-hauls as well?—Yes.

2518. We wondered in their case whether they had found a disadvantage in being Air France, a comprehensive unit for both types of work, and if given another chance they would have broken up and become two separate entities or if, in fact, you were aware that they were satisfied with what they were doing was on the whole a sensible arrangement?—The disadvantage, not only for Air France, but for all the major European operators, is that their short-haul services in Europe do not pay and they do not expect them to pay. They use them as feeder lines and expect to make their money out of their long-haul services. I think this country is fortunate in that we have a short-haul airline which does pay running round Europe. I do not think any long-haul operator makes a profit at all on the European operations.—(Mr. Milward.) B.E.A. today is about the only short-haul operator—I do not speak for the American domestics—which makes money today. (Lord Douglas.) There is Australia. (Mr. Milward.) Yes, well, they just about break even. I do not think that it is a coincidence that we are the only short-haul operator specialising in this business. It is a purely specialised business. Things like the maintenance methods that we employ are entirely different for a short-haul operator: Our bonus system of payment, our ability to get an aircraft in at night and get it out at 6 o'clock the next morning. I have just been round the world looking at the airlines, and I came back with a feeling that you could never combine the two. You could never satisfy the requirements for a short-haul route with a long-haul

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route operator flying it. I do not think my Chairman will mind me telling you that for an unhappy short while that test was made. We operated the London-Lisbon route as a terminating service. B.O.A.C. took it over from us with our agreement and operated it as part of their South American service. It is not the fault of B.O.A.C., but it is the inescapable fact that while we were operating it as a terminating route with Vikings—

Chairman.

2519. Vikings?—Yes, Vikings. I have not got the figures with me, but I think we were carrying about 60 per cent. of the Anglo-Portuguese traffic. When B.O.A.C. had been operating for two years as a long-haul carrier the British proportion of the traffic dropped to something like 30 per cent. from 60 per cent. We became the minor carrier because an aircraft which starts in South America somewhere the other side of the Andes will be two or three or four hours late by the time it arrives on this last sector, which is a good illustration of the different functions which the long-haul and the short-haul carrier performs. A man who wants to go from Lisbon to London will not be prepared to wait all that time.

2520. It is not inherent in the point that Colonel Lancaster was putting to you namely that the two Corporations might be merged, that the type of aircraft or indeed the type of service now operating on European routes should be changed at all. His point was this. He was dealing with the administrative and maintenance integration of the two Corporations. One could well conceive one Corporation carrying on exactly the same services with the same type of aircraft and crew as there are at present and saving perhaps only in administrative staff and having only one Chairman instead of two. That is conceivable. I am not arguing the merits of it. I am reminding you that the point you have made does not necessarily knock down Colonel Lancaster's point?—(Lord Douglas.) It is conceivable but I think it is unlikely. I go back to the point that I made before. We by force of circumstances have been compelled to specialise on this particular aspect of transport and bend our wits to it. We made a loss for many years and we have managed now to get into a profit, and there I hope we shall stay. We would not have done

it if we had been part of a larger organisation. It is merely by virtue of the fact that this problem has been squarely in front of us. That to my mind is the biggest point of all. Savings would not have been appreciable, I do not think. You mentioned maintenance. I do not think we would save a single engineer. You would need exactly the same number of engineers and inspectors to inspect and maintain our 60 Viscounts wherever they were, whether inside another organisation or separate.—(Mr. Milward.) I did not intend by my by my illustration to knock down Colonel Lancaster's argument, but I wanted to show that you would immediately have to reform a vast British airways organisation into two operating divisions almost entirely autonomous. You might save a Chairman, or some doctors. (Lord Douglas.) Or a Chief Executive. We would probably both be redundant, but it would be very little in relation to the rest.

Sir Alexander Spearman.

2521. There are some people who, because they know so very little about it, feel that without merging savings could be achieved by more co-operation. I suppose your reasons against merging would be the same against more co-operation? To the layman or the person who knows little about it, it seems strange that there could not be great savings in repairs where you have presumably to have machinery and plant and some very highly skilled people on tap, by doing it on a bigger scale or by dividing it up, or some saving in advertising. In one case, Lord Douglas, you took one page in the telephone book and they took another. That is a good thing. Why do you want to stop that? It is so much more advertising. (Mr. Milward.) If we had a merger we should probably take both pages.

2522. I would have thought that on many occasions you could have got a large percentage of the advantages by sharing a page?—This depends on whether you believe very large organisations are necessarily better than just large organisations. I have not asked my Chairman whether he agrees with this. I believe there is a size of organisation which is sufficiently large, and if you get beyond it you get positive diseconomies. Speaking for myself, I think I am fully stretched trying to

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perform my duties in B.E.A. I am doing our budget which is a phenomenal task, and if it is to be done properly I think it has to be done by me in person for presentation and it cannot be done by anybody else. To do a budget for 35 stations and £33 million of revenue is a very big task. If you put it into an even bigger organisation I believe your specialist activities would get blurred and forgotten and the organisation would then pass out of the hands of a few people who are running it. I do not believe—this is my personal view—that the very big organisations are necessarily efficient.

Sir Keith Joseph.

2523. I recognise these dangers very fully. As the Chairman said, one is not committed because one asks questions. I recognise also that the chief engineer of an airline has to have direct control over his spare parts, replacements and things like that. But is it not true that although you and other airlines have different aircraft, you use the same instruments? You have to have instruments which are surplus to use to allow for overhaul, maintenance and that sort of thing. Would there be considerable economies if you had common instrument repair facilities or any other common facilities that would reduce the number of standby bits of equipment?—(Lord Douglas.) I think you can envisage small savings that way, but really radio instruments in aircraft have very little in common. Most of the B.O.A.C. radio, for instance, is American equipment, and ours is not. I quite agree that theoretically, at any rate, it might be that a marginal saving could be made by having a certain number of the same instruments being overhauled by one party of men, but I think the savings would be very small and you cannot get away from the fact that the chief engineer of B.E.A. or of the short-haul division of the amalgamated corporation in the nature of things does like to feel that he has got the control of overhaul and of everything, his instruments, the flow into the workshops and out of the workshops, in his own hands. It is difficult to break down and I am not sure it is a good thing to try. (Mr. Milward.) I am not sure that it is a good thing to pick out individual items where certain economies could be made. There are so many

things which could be pooled if we were not trying to do a different job. Even in things like motor transport there might be savings.

2524. May I pursue Sir Alexander's point? Have the maximum practical economies been made in merging overseas offices?—(Lord Douglas.) I think so. As you know, we look after B.O.A.C. sales on the Continent and they look after ours everywhere else in the world. In one or two places in London in particular we each have our own sales office in the same place, but that is quite justified, I think. I think B.O.A.C. will extend that a little. They intend to put their own office in Frankfurt, I think, and perhaps Rome. Where the sales and the business generally are large enough I think probably two offices are justified.

Mr. David Jones.

2525. How far do you get common services now between the two?—What sort of service have you in mind?

2526. Are there any services common to both operations where you have got one organisation for both operations?—Yes, I think so—

Chairman.

2527. I can perhaps help the Committee. Mr. David Jones may not have in his mind that we have a paper which you, Lord Douglas, have approved, from the Ministry of Transport and Civil Aviation which sets out the detailed common services and the difficulties about each which I think I am right in saying we ought to get Lord Douglas to confirm. He and Mr. Milward have seen and approved them?—(Mr. Milward.) Yes. (Lord Douglas.) Yes, very much so. (Mr. Milward.) The biggest common service is sales. We act as B.O.A.C.'s general sales agent in our territory, and they act in theirs. That is a very big common saving.

Mr. David Jones.

2528. What is the case for separate transport services from the centre of London to the airport?—We tried a common bus service many years ago when I first came to B.E.A. We gave it up. B.O.A.C. said it was not economic and they could do it cheaper themselves. We, on the other hand, said no, we wanted to stick to the system, which was

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[Continued.]

that we bought the vehicles and handed them over to London Transport who ran them for us, which is our present system. We parted company on that. Since then B.O.A.C. have run their own buses and we continue to use the L.T.E. to run our buses for us. We think on our figures that our system is cheaper. B.O.A.C. would probably say that their system was cheaper.

Mr. Fort.

2529. You can run them jointly in Manchester?—Yes, that is a common service, too. We both start from different places in London, which your Committee might want to query, and we have already queried it, and we finish up at two different destinations on different sides of London Airport. We feel we could not give up our present system because it is so profitable. During the bus strike, of course, it cost us a substantial amount of money.

2530. There is a case for reducing the congestion. There does not seem to me to be anything sound in a B.O.A.C. bus three parts full and a B.E.A. bus half full following each other along.—(Lord Douglas.) We match the bus to a service. It would be difficult to make an arrangement by which the B.O.A.C. bus service half empty brought our passengers out from London, or vice versa, because apart from what Mr. Milward said about starting and stopping in different places, it would be very difficult to do that. We put the passengers for the Paris service on a bus and bring them along, and B.O.A.C. do the same. The muddles and troubles which would occur if we carried each other's passengers out would be very big. (Mr. Milward.) I think it would end by our having to take B.O.A.C. passengers out, because we carry about six passengers to every one of B.O.A.C. That has been considered, and we tried to persuade B.O.A.C. to come with us into a common London terminal, which would make this possible. It is impossible today. It would be possible with a common London terminal, but B.O.A.C., for their own reasons, want to remain at Victoria.

Mr. Ernest Davies.

2531. I was surprised that the Board on Common Services considered that catering could not be a common service

at London Airport. What is the complication about making some economies through a common service in that regard? It is stated that the requirements are somewhat different for long-haul and short-haul. If so, there might be a case for more co-operation there?—(Lord Douglas.) The case would be stronger if we were both in the same place. (Mr. Milward.) We are still apart. We have to cater from right beside our aircraft if we are to hope to serve hot meals. There could be an argument for a small saving, but we have a very economic-sized kitchen already. There is nothing small about it, and it is producing, for the mass service we cater for, an entirely different type of service. We do 59 meals at a time for the Paris route, of a very different standard from B.O.A.C. It is not quite so luxurious. They have a much larger sum in their fare from which to pay for their meals, and also more first-class passengers. It might be done if we operated from the same terminal, but we do not.

2532. Do you cater for some other air lines?—Yes, most of those for which we have the agency in London; most European airlines.

2533. I want to ask you about one matter of detail and one general matter. The matter of detail is about the Moscow service. What is the position about that? It seems to have been hanging fire for a long time?—(Lord Douglas.) I think the Minister will be making a statement about that in the House tomorrow. The whole thing turns on the question whether the T.U. 104 is acceptable at London Airport, from the point of view of noise. So far the Minister has not been satisfied, but I think he has now pretty well reached an agreement with the Russians on this point.

2534. It must have been a disadvantage to B.E.A. not being able to start this service earlier, in view of the fact that other corporations have started?—It has been. We made our agreement to run a service between London and Moscow a year ago, and other people, like K.L.M. and Air France, came later with their agreements to run services. What annoyed me was that they used the agreement which I made with Marshal Zighasev as a pattern for the agreement made with the other foreign operators.

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2535. That is really tough luck?—We think now that we shall be starting in about the middle of May. We think it has got to that stage, but it is not finally confirmed.

2536. Now my general question. I wonder if Lord Douglas could give us his views as to the future. To what extent does he see the possibility of B.E.A. expanding, not only from the point of view of taking an increasing share in the increased traffic (if that is possible) but in the expansion of routes, and the like, particularly in relation to the competition which is evolving at present?—That is a wide question. Naturally we look forward to going on to better things. I do not think we shall increase our routes by very many, or very quickly, but I think we shall increase their frequency, and the capacity, by virtue of the larger aircraft. There is this question of the cheap fares policy which we have to get agreed, which we think will have a considerable effect on the expansion of our traffic. (Mr. Milward.) There are not many routes for us to open without treading on other people's toes.

2537. To what extent is competition increasing from foreign lines, and equally from the independents?—In the last twelve or twenty-four months some smaller companies seem to have started up, such as Austrian Air Lines, and so on. Is more competition being experienced on the international routes?—(Lord Douglas.) It is true that competition is increasing through the organisation of these smaller air lines, such as Austrian Air Lines, Olympic Air Lines, and some in the Persian Gulf, Kuwait and the Middle East airlines running to London, and Turkey is to start running services. It is true to say that the competition is more severe, but we hope to be able to cope with it by better aircraft and better services.

Sir Keith Joseph.

2538. The market is growing the whole time?—The market is growing the whole time, but we want to get our share of it.

Mr. Ernest Davies.

2539. B.E.A. was proposing to expand in the matter of the all-inclusive fares. Have you succeeded in doing that?—

We have had inclusive fares approved by the I.A.T.A. Conference a week or two ago. We are going ahead on those, and we shall undoubtedly expand in future years.

2540. The last figures we had show that the effect of this matter upon you was quite serious, but you say that the position is being righted to some extent by your expansion?—Yes. I think so, certainly. Again, much larger aircraft will help. (Mr. Milward.) We have gone into this inclusive tours market to a great extent, and we are very heavily booked on it, with these new low night fares. We are operating at very high load factors. It is cheap traffic and not terribly profitable, but it will improve our position, and I am sure we shall do very well with it. Competition is steadily increasing, but we also see vague signs that some people are not being able to stand the strain. But as each new country is formed there is a tendency to set up an air line as a national instrument.

2541. Is there any desire for increasing co-operation between the different air lines?—(Lord Douglas.) Yes, a great desire, and there is this Common Market, which will undoubtedly effect a good deal of co-operation. There is an arrangement between S.A.S. and Swissair by which they buy one set of aircraft and fly them alternately, with each company. That is quite sound. As regards pooling, we are in the pool with most European air lines, including all those in the Common Market.

2542. Therefore the co-operation between those air lines does not worry you?—Not so much as it would if we were not in the pool, because any improved results they get in traffic will be reflected in our share.

Sir Keith Joseph.

2543. And vice versa?—And vice versa.

2544. It is not a one-way traffic?—No. (Mr. Milward.) I think the Common Market air line, about which there is so much talk, is based on self-preservation. There is this increasing competition of the smaller airways of Europe, who have not got large populations at their backs to support their air lines. We are fortunate to have 52 million people in this country who

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[Continued.]

are basically travellers, and are becoming travellers to an increasing extent. These other air lines, faced with buying aircraft at £1 million apiece, when they are already making losses on the European routes, are being forced into some Common Market air line to pool their resources. It is a question of self-preservation rather than an attack on B.E.A., as the newspapers are rather inclined to represent.

Mr. Ernest Davies.

2545. But looking ahead, you have reasonable confidence that B.E.A. will hold its own?—(Lord Douglas.) Yes.

2546. I want to correct a question I put earlier, when I asked about fog dispersal. I said that the Minister had said that the Chairman of B.E.A. had informed him that they had made no loss. What the Minister actually said was, "I am informed that B.E.A. estimates that it lost about £200,000 this winter because of bad weather. B.O.A.C. thinks its losses through fog were negligible." It was B.O.A.C. whose losses were negligible. I apologise for misleading the Committee?—(Mr. Milward.) That is a splendid illustration of the difference between the two air lines. Short-haul air lines lose traffic if they cannot lift their passengers within a couple of hours after the scheduled times, but the long-haul air lines can send the passengers away and tell them to come back tomorrow or, if necessary, even the day after, and the passengers are still all there.

Chairman.

2547. That brings us to the last question we want to ask you for this session. We would all like to thank you, but before I conclude I want to ask you a question which we have made a practice of asking those who have given evidence before us. We realise that we necessarily impose a burden upon you through this inquiry. Will you please tell us, quite frankly (and you will be helping us if you are frank) whether, in your opinion, we have placed an inordinately large burden on your administrative staff and, indeed, on yourself and your Chief Executive?—(Lord Douglas.) No, I do not think so. I rather enjoy this method of discussion and I have not found it burdensome, although we have had to rake up a good deal of stuff for you. That has done us good. It has cleared our minds with regard to a number of problems. It has done nothing but good. As to the usefulness of the Committee's deliberations, I shall await your report with interest.

2548. That is very fair. I would close by thanking you and Mr. Milward and asking you to thank the others on your staff who have come before us, and all your staff who have played a part in presenting the excellent and lucid papers which you have given. We are all very grateful to you and would like you to know that it has made our somewhat difficult task (because it is a difficult business) not only easier but more pleasant?—Thank you very much. I thank you for your equanimity and kindness.

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APPENDIX 1

AUTHORISATION OF AIRCRAFT PURCHASES

Memorandum by the Treasury

This note is submitted in response to the request of the Committee for information about the questions to which the Treasury would have regard on the occasion of the placing of major orders for new aircraft by the Aircraft Corporations.

Before the Treasury could undertake to lend or guarantee the money that would be required for such an order, they would want the case made that there was a requirement for a new major purchase and that what was proposed would meet the requirement on acceptable conditions. This would involve their being satisfied that the following aspects had been fully examined:

(1) *Traffic Prospects*

This involves the routes on which the aircraft is likely to be in use at the relevant period, and assumptions about the rate of increase in the number of passengers then likely to be coming forward.

(2) *Fares and Charges*

Possible changes in the fare structure would have to be taken into account: e.g. the possibility of a greater differentiation in charges in order to cater for new traffic at lower fares and in less comfort.

(3) *Prospects for the proposed Aircraft*

The case would be made that an aircraft of a given performance and operating costs was necessary for the airlines to maintain its international competitive position, that it had a fair prospect of its being at least the equal of aircraft likely to be produced elsewhere and flown by other operators at the time, and that it could reasonably be expected to remain up-to-date in comparison with its competitors for some years after it came into service. This would, of course, involve not only consideration of what was being projected in this country, but also what was known of the plans of manufacturers and operators abroad.

(4) *Timing of Order*

On general grounds (and also more particularly at a time of financial stringency when there is pressure on investment resources) the Treasury has a special interest in asking what would be the financial outcome if an order were delayed for a given period of time: i.e. what would be the expected effect of delay on the profit-and-loss account of the Corporation.

(5) *Size of Order*

The size of the order should be in keeping with the reasonable requirements of the Aircraft Corporation, having regard to the various factors mentioned above.

(6) *Financial Position of Manufacturer*

Assuming no unforeseen technical difficulties, the manufacturer undertaking the development of a new aircraft as a private venture must be in a position to show that he is financially reasonably placed to be able to carry the order through, and the Treasury and the Ministry of Transport will want to be assured that the financial position is covered. The position here has recently changed somewhat in two respects in that: (a) in 1956 the power to subsidise the Corporations lapsed and accordingly the responsibility falling on the Corporations to operate commercially increased, and (b) the Minister of Supply has redefined Government policy by saying that, although individual applications for development assistance will be considered on their merits, "the Government consider that, provided the necessary reorganisation is carried out, the industry should,

in general, be able increasingly to finance the development of new civil projects without Government assistance".* The financial risk of developing new types of aircraft for civil use will therefore in the normal way have to be carried out by the manufacturer as a private venture. This must naturally affect the risk borne by the customer. It will be appreciated that any Government risk arises at one remove through its interest in the Air Corporation.

(7) Foreign Purchases

In the normal way the Air Corporations are expected to fly aircraft of British manufacture. Sometimes this requirement has proved impracticable if a competitive position is not to be seriously undermined. In such circumstances the Corporations have as an exception been allowed to place orders in North America. In these cases further matters have to be taken into account, such as foreign exchange and balance of payments considerations, the method by which the purchase is to be financed, import duties, and special conditions to be attached to the use of such aircraft.

* O.R. 13th May, 1958, col. 229.

APPENDIX 2

ORDERING OF VISCOUNT AND BRITANNIA AIRCRAFT

Memorandum by the Ministry of Transport and Civil Aviation

In approving the placing by the Airways Corporations of an order for aircraft the Ministry of Transport and Civil Aviation is concerned to ensure that the use to be made of the capital which must be provided is a reasonable one. The total amount involved is also related to the annual reviews of investment within the nationalised industries. The Ministry therefore considers whether the number of aircraft to be ordered is in accordance with the likely requirements of the rôle they are intended to fulfil. Negotiations for purchase are a matter of commercial judgment in which the Corporations exercise their own financial responsibility, although the Ministry is kept informed of any significant modifications in the specification which might affect the approval or the number required.

A list of the approvals given by the Ministry for the ordering by B.E.A. of the various Marks of Viscount aircraft is given in the attached statement, which also includes the increase in the approved expenditure on account of escalation or modifications which was considered likely at the time the approval was given. The list also shows the final cost of the aircraft.

The Britannia is a special case in that the design and specification of the aircraft were not fixed but evolved over a period of 7 or 8 years from the time that approval was first given to the project. As a result of this continued development the basic price of the aircraft could not be agreed for some time after the order had been approved and the method of approving the provision of the necessary capital could not follow the normal pattern. The history of the development is briefly as follows.

Shortly after the war, when a medium range aircraft of British manufacture was required for the Empire routes the Bristol 175 was chosen by B.O.A.C. as the most suitable. From the original concept of a comparatively small and inexpensive aircraft there have developed the two main versions now in service with B.O.A.C., the Britannia 102 and the 312, both of which have a far better performance and far greater carrying capacity than the original concept. This increase in the characteristics of the aircraft and the long period of development led to a corresponding increase in the cost. The basic approval for the commencement of negotiations for the acquisition of 25 of the type 175 was given in June, 1949, when the total cost was expected to be £13,000,000. By 1953, when the two distinct versions were emerging, the Minister concurred in an alteration of the order to one for 15 of the 100 series at an approximate basic cost of £700,000 per aircraft and 10 of the 300 (long range) series, the basic cost of which was then under discussion. In 1954 the Ministry gave approval for the ordering of a further 8 aircraft of the 300 series, the basic cost of which was then expected to be approximately £900,000.

The final price of the 102's was settled in April, 1955, taking into account escalation and the various interim agreements in changes in specification, at £768,000 per aircraft, and the final figures for the long range aircraft work out at an average of about £1 m., each making a total cost for the 33 aircraft of about £30,000,000.

ANNEX TO APPENDIX 2
B.E.A. VISCOUNT AIRCRAFT

Date of Approval	Number of aircraft	Amount approved		Date of delivery	Actual cost	
		Total	Per aircraft		Total	Per aircraft
May, 1950 ...	20 701's	£ 4,000,000 including escalation.	£ 172,000 basic plus escalation to 200,000.	January, 1953–October, 1954 ...	£ 3,780,000	£ 189,000
December, 1951 ...	6 701's	1,242,000 basic* ...	207,000 basic ...	November, 1954–July, 1956 ...	1,368,000	228,000
February, 1953 ...	12 802's	3,240,000 including escalation.	251,000 basic plus escalation to 270,000.	February, 1957–April, 1957 ...	For 22 7,106,000	323,000
April, 1955 ...	10 802's	3,135,000 including escalation.	251,000 basic plus escalation to 313,500.	June, 1957–September, 1957 ...		
December, 1955 ...	6 802's	1,920,000 basic* ...	320,000 basic ...	October, 1957 to date (only 2 aircraft bought, remainder taken as 806's).	For 2 656,000	328,000
December, 1955 ...	10 806's	3,500,000 basic* ...	350,000 basic ...	October, 1957 to date (14 bought including 4 mentioned above).	For 14 5,208,000	372,000

* Escalation would be extra according to the terms of the contract.

APPENDIX 3

AIRCRAFT ACQUISITION

Part of a Memorandum by British Overseas Airways Corporation

1. In considering Contracts for purchase of aircraft a distinction must be drawn between—

- (a) Aircraft which are developments of previous and successful aircraft types, and which are ordered more or less “off the shelf” (e.g. Argonauts, DC7C’s).
- (b) Aircraft which are adaptations of new types which have been partially or wholly developed in military operations (e.g. Hermes, Boeing 707’s).
- (c) Aircraft which are completely new in conception and which have been ordered “off the drawing board” (e.g. Comets, Britannias, VC.10’s).

In the case of (a) there is a reliable yardstick by which to measure the cost and economic characteristics of the new aircraft. Moreover, the manufacturer’s specification of the aircraft and its performance is not susceptible to much in the way of amendment to meet the requirements of the purchaser, except in relatively minor matters. This is true to a lesser degree of category (b), whereas in category (c) the manufacturer’s original design study may be no more than a basis for discussion between the manufacturer and the first purchaser, from which may be developed an aircraft substantially different from that of the original design study.

2. A manufacturer’s design study or specification is subjected to critical analysis by technical experts to establish operating characteristics and performance. These are then evaluated by economic experts so as to arrive at a “formula cost” over selected routes or sectors. In the evaluation of the aircraft to arrive at a formula cost, all relevant characteristics are taken into account, such as the capital cost of the aircraft, its fuel consumption, its landing and take off performances, payload, etc., but certain basic assumptions have to be made as to aircraft utilisation, general price levels, etc., which assumptions may not apply at the time of eventual operation. Cross checks are applied where possible, such as a comparison of the manufacturing cost per pound of all up weight.

It should be noted in passing that an addition of 10 per cent. to the capital cost of an aircraft has an effect of only about $1\frac{1}{2}$ per cent. on its operating cost. In certain cases, therefore, an increase in capital cost can be accepted in order to obtain performance benefits which would outweigh in operating cost the effect of the increase in capital cost.

3. As a result of such an exhaustive study over a long period the decision is taken either to accept the manufacturer’s specification or to modify it until an acceptable specification is reached.

4. The specification is then embodied in a contract with the manufacturer. Apart from cost escalation provisions which are a feature of British aircraft contracts, the specification can be altered only by “Change Orders” (see 5 below), and the manufacturer is under contractual obligation to deliver the aircraft as specified with stated tolerances, on specified delivery dates (again with tolerances) under penalty of damages.

5. The specification can be amended only by “Change Orders” or re-negotiation of the contract. Change Orders may arise as a result of changes in the customer’s requirements (e.g. whether to fit “bunks”, or alterations in the toilet accommodation) and such changes may as a result of weight penalties, affect the specified performance of the aircraft as well as its capital cost. They may also arise as a result of suggestions by the manufacturer for maintaining or improving the performance. All such change orders are subjected to the same technical and economic evaluation as the original specification.

6. In the case of the Britannia, however, the changes between the original concept and the eventual aircraft were so substantial that the contract was, in

fact, re-negotiated 5 times. The following is an indication of the changes which took place:—

	First Specification	As delivered	
		B.102	B.312
All up weight	103,000 lbs	155,000 lbs	180,000 lbs
Span	130 feet	142 feet 3½ inches	142 feet 3½ inches
Length	115 feet	114 feet	124 feet 3 inches
Engines	Centaurus 663	Proteus 705	Proteus 755
Payload	12,702 lbs	24,150 lbs	26,600 lbs
Seating	42/48	100	114

The aircraft which were eventually delivered were, therefore, completely different aircraft from the original concept.

7. In the case of the Britannia, therefore, it is virtually impossible and unrealistic to attempt a comparison of the operating costs between the time it was decided to buy and the time the aircraft was put into operation. Similarly, although perhaps to a lesser extent, such cost comparisons are not valid for other aircraft types.

The assumptions made at the time of the decision to buy cannot apply precisely at the time of eventual operation. Such basic factors as aircraft utilisation, general price levels and the basic characteristics of the aircraft will vary. Often the time between decision to buy, and introduction into operations, extends to several years. During this period technical progress permits the improvement of the aircraft, airline requirements in such things as passenger accommodation change, safety provisions may well vary, and the manufacturer will doubtless have desires, if not needs, to modify his original specifications. Largely, by reason of the rate of technical progress, and the time taken to produce an aircraft, it is essential that the initial concept of an aircraft for commercial application should remain as fluid as possible, although this does not mean that it must be inferior. It is most unlikely that an operator will, in fact, put an aircraft on to exactly the same routes, with the same frequency, and in the same configurations as envisaged at the time of ordering. Nor is it unlikely that in the intervening time between order and delivery the operator's way of looking at things will change; there will be changes in general levels of efficiency, and organisational and commercial structure.

Thus, returning to the Britannia—in comparison with the aircraft originally envisaged:—

- it is well over half as heavy again,
- it is bigger overall,
- it is now a long range aircraft,
- it has turbine in lieu of piston engines,
- it has about twice the payload capacity,
- it has up to three times the number of seats,

and during the period between ordering and operation—

- wage levels have increased about 1½rds times,
- material prices are half as high again.

So-called "high density" seat pitch has fallen from 42" to 34"; the capacity ton mile yardstick has in consequence shortened.

There has been improvement in the operating efficiency of the Corporation.

8. The contracts for Comet I and Hermes aircraft were not, in fact, negotiated by the Corporation but by the Ministry of Supply. In the case of the Hermes, the price of the aircraft was stated in the Instructions to proceed to be £100,000 provisionally; this price was altered on several occasions subsequently as follows:—

- 19.10.49 £180,000 (provisional).
- 21. 2.50 £180,000 (on signing contract, but still stated to be "provisional").
- 10. 8.50 £190,000 (provisional).
- 20. 9.50 £220,000 (final price—fixed after delivery of first aircraft).

APPENDIX 4
DH.121 PROGRESS PAYMENTS
Memorandum by British European Airways

Stage	Payment date	Percentage of contract price of each aircraft	Estimated amount to be paid (assuming price of £1,050,000 per aircraft)
		Per cent.	£
1. On signature of contract	—	1	252,000
2. Three months after signature	By 28th February, 1959	9	2,268,000
3. On 30th September, 1959	30th September, 1959	7½	1,890,000
4. On 1st April, 1960	1st April, 1960	7½	1,890,000
5. On 30th September, 1960	30th September, 1960	7½	1,890,000
6. On 31st March, 1961	31st March, 1961	7½	1,890,000
7. When fuselage out of jig	1st April, 1961/15th December, 1964*	10	2,520,000
8. When inner main planes completed	1st April, 1961/15th February, 1965*	6	1,512,000
9. When fin-tail planes completed	1st April, 1961/15th February, 1965*	1	252,000
10. When main nose and chassis completed	1st April, 1961/15th June, 1965*	1	252,000
11. When engines received at works	1st April, 1961/15th June, 1965*	10	2,520,000
12. When power-plants completed	30th April, 1961/15th October, 1965*	4	1,008,000
13. When outer main planes completed	1st April, 1961/15th February, 1965*	6	1,512,000
14. When ailerons and flaps completed	1st April, 1961/15th February, 1965*	1	252,000
15. When elevators and rudders completed	1st April, 1961/15th June, 1965*	1	252,000
16. When aircraft complete to engine test	30th June, 1961/15th December, 1965*	10	2,520,000
17. On completion and acceptance	1963/1966	10	2,520,000
		100	£25,200,000

* Provisional estimates.

APPENDIX 5
VISCOUNT 701 AIRCRAFT
Memorandum by British European Airways

	First Aircraft	Total for fleet (27)	Average for fleet
<i>Basic contract price</i>	£ 172,800	£ 4,954,000	£ 183,500 (Note 1)
<i>Wage awards prior to delivery</i>		383,000	14,200
<i>Alterations prior to delivery</i>		173,000	6,400
<i>Radio, navigational equipment passenger seats and furnishings, etc.</i>		334,000	12,400
		5,844,000	216,500
<i>Modifications:</i>			
<i>Mandatory—</i>			
Anti-corrosion		131,000	
Engines (including up-rating)		141,000	
Other		104,000	
		376,000	14,000
<i>Non-mandatory—</i>			
Brakes		13,000	
Seat rails and all up weight		13,000	
Other		43,000	
		69,000	2,500
		£6,289,000	£233,000

Notes:—

(1) The "basic" price for the 21st to 27th aircraft was increased as compared with the first 20 and part of the increase was due to wage awards since the first contract was signed.

(2) The total cost to B.E.A. of the first Viscount 701 was £223,000, that of the last was £269,000.

APPENDIX 6

VISCOUNT 802 AIRCRAFT

Memorandum by British European Airways

	First Aircraft	Total for fleet (24)	Average for fleet
	£	£	£
<i>Basic contract price</i>	242,500	6,162,000	256,600 (Note 1)
<i>Ministry of Supply levy</i>		120,000	5,000
<i>Wage awards prior to delivery</i>		1,043,000	43,600
<i>Alterations prior to delivery (including abortive expenditure)</i>		536,000	22,300
<i>Radio, navigational equipment, passenger seats and furnishings, etc.</i>		295,000	12,300
		8,156,000	339,800
<i>Modifications:</i>			
<i>Mandatory—</i>			
Radio		33,000	
Second A.D.F.		33,000	
Engines		30,000	
		96,000	4,000
<i>Non-mandatory—</i>			
Seating... ..		66,000	
Other		12,000	
		78,000	3,200
		£8,330,000	£347,000

Notes:

(1) The "basic" price for the 13th to 24th aircraft was increased as compared with the first 12 and part of the increase was due to wage awards since the first contract was signed.

(2) The total cost to B.E.A. of the first Viscount 802 was £332,000 and that of the last was £366,000.

APPENDIX 7

DEVELOPMENT FLYING—I

Memorandum by British Overseas Airways Corporation

" A "	" B "	" C "	" D "	" E "	" F "
Aircraft and Engine Type	Hours flown prior to C. of A.	Development hours prior to Passenger Service	Total hours flown to date	Cost of " B " paid by	Cost of " C " paid by
Britannia 102 ...	3,000	3,956	57,830	B.A.L. B.O.A.C. M.O.S.	B.O.A.C.
Proteus 705 ... *	12,000			B.A.L. B.O.A.C. M.O.S.	
Britannia 312 ...	1,108	330	6,358	B.A.L. M.O.S.	B.O.A.C.
Proteus 755 ...	4,432	1,320		B.A.L. M.O.S.	B.O.A.C.
Comet I ...	890	791	** 36,508	D.H. B.O.A.C. M.O.S.	B.O.A.C.
Comet II ...	327		* 13,329	D.H. M.O.S.	
Comet IIE ...	130	3,870	4,000	D.H. M.O.S.	B.O.A.C. M.O.S.
Comet III ...	920			D.H. M.O.S.	
Comet IV ...	*** 122			D.H.	C. of A. not yet issued.
Avon 524 ...	*** 7,772			B.O.A.C. M.O.S.	
KC. 135 ...	700		22,000 Approx.		
Boeing 707 ...	1,300 Prototypes			Boeing	
Conway 505 ...	10,000 Estimated				

* Includes flying by R.A.F. Transport Command.

** Includes flying by R.C.A.F. re-inforced Comet I.

*** Hours completed to 27.6.58.

22nd July 1958.

APPENDIX-8

DEVELOPMENT FLYING—II

Memorandum by British Overseas Airways Corporation

(This memorandum is submitted in amplification of the information which has been submitted to the Committee, and is printed as Appendix 7.)

It cannot, as a general precept, be said that the American Industry receives more Government support in testing of aircraft before entering service than does ours, although this would be true in the case of certain firms at certain times in their history and in respect of a particular project.

It should be remembered that during and subsequent to the war, admittedly greatly assisted by the volume of military contracts, American aircraft constructors, as exemplified by Boeing and Douglas, built up their production, research and test facilities to an extent that one such firm alone can now offer production and development capacity greater than the whole British Industry put together.

It is probably true to say that the size of orders received influences the development effort that can be supported. In the case of Boeings, the Government order for the KC.135 is believed to be for about 400 aircraft, while airline orders for the 707 family of civil aircraft totals over 180 aircraft. A further gauge of potential and capacity is the rate of production—Boeings, even after a cut-back on KC.135 orders and a slowing down of the production line, are turning out a combined (KC.135 and 707) total of 15 aircraft a month. Their production *potential* has authoritatively been stated as three times this figure.

The Airways Corporations when buying British aircraft, are in the invidious position in relation to their competitors, of being the first and initially the only customer for a new aircraft. It is seldom until after the development period and after a period of passenger service, that other potential customers place firm orders. When buying on the American market, the number of customers may invariably be numbered in tens rather than in units and the Corporation is unlikely to be among the first to order; a double benefit therefore accrues—firstly the initial passenger service experiences and developments are spread over a number of different operators and secondly the Corporation stands to benefit from the outcome of these experiences and developments.

Government support either directly or in the form of a military order has not been a prerequisite for the initiation and development of a design in the American industry. To cite the case of Boeing, it was only after a jet transport prototype had been designed, built and flown as a private venture that military interest was fostered and resulted in substantial orders of the KC.135—the military tanker/transport version of what started out as a civil transport design. The timing of orders, the existing development and production capacity and the known and previously proven ability rapidly to expand these capacities, meant that a number of KC.135 would be completed and flying before their civil transport counterparts with resultant benefit to the airline customers.

Recent experience in the U.K.—*vide* Britannia and Comet—has been that no military orders have been forthcoming until *after* a new aircraft has been in airline service. Furthermore, the numbers of aircraft ordered—both civil and military—are in total so small compared with the size of orders enjoyed by the major American aircraft constructors that, as above suggested, it is impossible for the British constructor to support a development effort comparable to his American counterpart without direct and generous Government subsidy.

APPENDIX 9

DEVELOPMENT COSTS

Memorandum by British Overseas Airways Corporation

The paper* previously submitted to the Select Committee shows the hours flown on Development before C. of A. (column B) and after C. of A. (column C). It also states who pays the cost of "B" but not what proportion each pays. We have considered trying to show these proportions but it is not possible to do so as the manufacturers' costs are not known to us nor do we know how much development expenditure is specifically included in the price charged for the aircraft.

Whilst it is informative to know the hours of development flying before and after C. of A., there seems little to be gained in attempting to split the Corporation's Development Costs this way (i.e. between columns E and F).

It is important to note that much more than the direct flying costs are involved in development expenditure. Development costs are not necessarily proportional to the hours flown; *time* taken on development is an equally significant factor. The important thing is the Corporation's *total* expenditure on Development prior to full-scale revenue operations.

The part played by the Corporation in development is as follows. Some time before the new aircraft type is ready for delivery, the nucleus of the Operations Flight is formed. This nucleus, together with certain other development staff, is occupied in the early stages in liaising with the manufacturers on design problems and becoming familiar with the technicalities of the type; in certain cases (e.g. Britannia 102) extra flying staff have been added to the nucleus to do some of the test flying. As and when the aircraft are delivered, the Corporation's training and development flying is done, preparatory to revenue operations. The amount that is necessary depends on what is experienced during this time; for example, in the case of the Britannia 102 the development flying stage was extended by engine icing troubles. Costs mount up where there are delays, even if there is no extra flying done. For example, if revenue operations are held up due to late delivery, or snags involving modifications after delivery, salaries and wages of staff allocated to the Flight (including those of partly trained crews) continue.

All expenditure on aircraft and the associated flying and ground personnel up to the time when they are employed on regular service operations is treated as part of pre-operational training and development costs. The Corporation's experience has shown that longer pre-operational periods—as well as extra flying—has involved the Corporation in more expenditure (per aircraft) for British types than for American types. The Annex to this memorandum itemises these costs.

The following extract from a Prospectus issued by the Boeing Airplane Company on 15th July, 1958, illustrates the way in which at least one American manufacturer has received assistance from its Government, enabling the production of a highly developed aircraft to the advantage of the operator:—

"The prototype made its first flight in July 1954, and shortly thereafter the Company was awarded a contract by the United States Air Force for the production of a military jet tanker-transport aircraft, designated the KC-135. The first production model of the KC-135 was delivered to the Government in January 1957.

"The Company's experience with the design, construction and flight testing of the four-engine jet tanker-transport prototype previously mentioned enabled it to offer a commercial jet transport aircraft to the commercial airlines based on actual flight performance of a prototype aircraft. In 1955 the Company obtained from the Government the right to use on a rental

* Appendix 7.

basis in the construction of commercial jet aircraft certain Government-owned land, buildings and general purpose machinery and equipment which are used by the Company in its other operations. The Company also obtained from the Government the right to use for the same purpose certain Government-owned jigs, dies, fixtures, special test equipment and other special tooling used by the Company in its KC-135 project, subject to the payment to the Government of an agreed portion of the estimated cost of such special tooling based upon the usage made thereof by the Company in the production of commercial aircraft."

ANNEX TO APPENDIX 9

PRE-OPERATIONAL TRAINING AND DEVELOPMENT COSTS

	Britannia (33 aircraft)	Seven Seas (10 aircraft)	Comet 4 (19 aircraft) (including Budgeted expenditure for 1959-60)
	£	£	£
Engineering Expense	1,099,296	97,750	148,935
Flying Expense:			
Maintenance Costs	507,282	57,120	260,309
Engine Overhauls, etc.	555,982	50,281	155,765
Insurance	306,345	43,323	301,968
Fuel and Oil	377,256	62,235	515,950
Landing and Handling	117,090	23,170	111,215
Staff Emoluments and Expenses:			
Instructors and Trainees on Flight	1,432,065	303,407	921,771
Consequential Training:			
Surplus crews and conversion			
flying costs, etc., on other flights	317,692	55,544	367,431
Ground Training	273,140	43,146	175,672
Administration Costs	103,936	26,794	14,797
Miscellaneous costs and recoveries	-9,403	158	-455
Staff based with B.A.C.	81,662	—	—
Pre-delivery flying for B.A.C.	4,533	—	—
Charge by B.A.C. for pre-C. of A.			
development flying	285,000	—	—
Comet 2E capital cost	—	—	646,325
Interest on Capital	332,205	50,498	254,714
	5,784,081	813,426	3,874,397
Less:			
Contribution by M.o.S.	—	—	517,549
	5,784,081	813,426	3,356,848
Cost per aircraft	£175,275	£81,343	£176,676



APPENDIX 10

GOVERNMENTAL ASSISTANCE TO CIVIL AIRCRAFT INDUSTRIES

*Memorandum by the Ministry of Supply***Introduction**

1. Owing to the variety of methods which appear to have been adopted by different Governments in supporting either directly or indirectly their aircraft industries, it is convenient to consider the major civil aircraft-producing countries separately. Except in the case of France, no reference has been made to any assistance which aircraft industries may receive as a result of

- (a) tariff or import licensing practices which give them a measure of protection from outside competition, or
- (b) assistance which stems from other policies which apply to all the manufacturing industries of the country concerned, e.g. concealed export subsidies, special financial measures to encourage the industry in particular areas within any one country or tax concessions in respect of capital re-equipment.

United States of America

2. As in the United Kingdom, basic aeronautical research is supported by government funds; this support is mainly given through the National Aeronautics and Space Administration (which incorporates the former National Advisory Committee for Aeronautics). In addition very large sums of money are spent in industries on aeronautical research and development by the three fighting services.

3. As regards development of civil aircraft, i.e. designing and proving a particular aircraft to go into production, we have no record of direct government financial support being given. On the other hand the American civil aircraft industry derives valuable indirect assistance from the Government through the massive orders for transport aircraft placed on behalf of the service air forces; the following examples from the histories of existing American civil aircraft, showing the number of military orders, demonstrate the extent of this support:—

Boeing Stratocruiser—over 850.

Boeing 707 Tanker version—over 400.

Douglas DC6 series—over 200.

Lockheed Constellation series—about 250.

Convair series—over 300.

Lockheed Electra—The U.S. Navy has placed a 2 million dollar research and development contract for a reconnaissance version. Orders for about 200 aircraft may result.

These figures, taken from an aviation journal, can be contrasted with R.A.F. Transport Command orders for 13 Comet II's and 20 Britannia 253's.

4. Where the civil version followed the military requirement (as in the case of the Boeing aircraft and the Lockheed Constellation series) it is clear that it must have benefited from the fact that the military would have borne the brunt of the proving flying and the detection of the initial difficulties which beset any new aircraft in service, as well as the brunt of the development, jigging and tooling and high initial production costs. In cases where a limited civil requirement initiated the design the subsequent large military interest meant that inevitably a major part of the development and production costs would have fallen to the military.

5. This indirect assistance is of great value in fostering exports. Airlines are reluctant to order aircraft that have not been ordered in the countries of their origin either by domestic airlines or by the Government. In the case of all the aircraft referred to above the initial orders came either from the Services or a domestic airline, and orders from these sources facilitated the establishment of a major foothold in world markets.

6. Large military orders provide American manufacturers with a considerable income which assists them to bear the financial burden of the heavy production programme arising out of the present airline re-equipment programme. Consequently, manufacturers are able to make their terms more attractive (and hence more competitive) to customers, e.g. by offering to accept back old aircraft in part payment for new sales.

7. The American aircraft industry's export potential has always been favoured by the readiness of the Export-Import Bank to make credit available under its normal procedures for periods up to 7 years in the case of purchase of American large turbo-jet aircraft. Since the beginning of November, 1958, however, the United Kingdom Export Credits Guarantee Department has been able to consider, under certain conditions, extending the period of 5 years normally underwritten to 7 years in the case of large aircraft.

Russia

8. Russia appears to pay increasing regard to the prestige value of civil aviation, both manufacturing and operational. And it may be that it is not at present a prime consideration of the Russians whether their civil aircraft activities are fully economic. Although Russian competition has not yet been felt in the free world, it seems that the first tentative approaches are already beginning. Ilyushin turboprops have been offered to the Austrians and we believe that Panair do Brasil did at one time consider buying TU-104 turbojets. It is possible that commercial interest may be aroused by the aircraft which the Russians are operating on services to Western countries (e.g. France, Belgium, the Netherlands and Scandinavia) or by demonstration visits, such as the visit of a TU-104 to the Vancouver Air Show in 1958. Reports have stated that the Ilyushin IL-18 turboprop has been quoted at £680,000 for Western customers, which is cheaper than any comparable Western aircraft.

France

9. The French aircraft industry includes both nationalised and private companies. Basic research is conducted at government expense through the Service Technique Aéronautique (a branch of the Direction Technique et Industrielle de l'Aéronautique, which is the body responsible directly to the Secretary of State for Air for the research, development and supply of aircraft) and the Office National d'Etudes et de Recherches Aéronautiques. As far as production is concerned it is understood that Sud-Aviation (one of the nationalised firms) have received State loans, as well as guarantees of any other loans contracted, to help with the production of the Caravelle jet airliner. The first orders for this aircraft came from France's nationalised airline, Air France. Now it must rank as France's major contender in the world market, and by July last year had already attracted export orders totalling 21.

10. In common with other French manufacturers, an aircraft manufacturer has to face a heavy bill for fuel, power, materials and wages (including social security costs which are 30-40 per cent. of their total wages bill) as well as the "taxe à la valeur ajoutée", a tax levied on the amount by which a manufacturer increases the value of material passing through his factory. The "taxe à la valeur ajoutée" is remitted on exports, we believe, but it is considered to be comparable to the purchase tax remissions from which United Kingdom exporters benefit. There are three bodies, both Government and industry sponsored, which are charged with the furthering of aircraft exports (the Comité National de l'Expansion de l'Industrie Aéronautique Française, the Centre National de l'Expansion de l'Industrie Aéronautique Française, and the Office Française pour l'Exportation de Matériel Aéronautique).

Netherlands

11. Netherlands exports in the civil aircraft market are concentrated on the Fokker Friendship, a medium-sized short-to-medium-range airliner with Rolls-Royce Dart engines.

39410

N 3

The Netherlands Board for Aircraft Development was set up after the war to assist in the future development of aircraft in the Netherlands and, as part of this, to finance and give orders for the construction of prototype aircraft. Information, often quoted in publications and presumably stemming from Fokker themselves, states that the Netherlands Government, through this body, financed the Friendship to the extent of 27M Guilders (£2½m.). This money, which should have covered a major part of the design, development and tooling costs since the engines and much of the equipment are of United Kingdom origin, was lent interest-free in the early design stages and will be repaid as a levy on production deliveries.

The first order for this aircraft came from the Netherlands' nationalised airline, K.L.M., although it is now understood that this order (for two aircraft) was later cancelled. However, export orders for this aircraft now total 57.

Italy

12. Reports suggest that the Italian industry is hampered by lack of money and that it needs government help. One report states that the Ministry of Industry and Commerce proposed some time ago to provide a sum of 30,000m. lire (£170m.) over a period of ten years to assist the Italian aircraft industry; the report went on to say that this proposal failed to win the approval of the Ministry of Finance and was dropped. Another report states that the Italian Government has paid a considerable proportion of the development cost of the Agusta AZ-8, a 26-seat civil transport aircraft which is intended primarily for commercial use as a feeder-liner, and is the only recent Italian aircraft to enter the civil transport field. It is said to be possible that Agusta will be awarded a contract for a small batch for the Italian Air Force to enable a production line to be started.

Japan

13. According to a Board of Trade paper on Aviation in Japan, prepared at the beginning of 1958 and available through the Board of Trade Special Register Information Service (ref. COM/14381) the Japanese Aircraft Industry only recommenced operations in 1952 under close Government control, and is entirely dependent on defence orders. The paper also referred to a bill to be presented by the Ministry of International Trade and Industry to the National Diet which would provide for Government loans to companies manufacturing both civil and military aircraft and for the establishment of a company for the production of medium-sized transport aircraft.

The Japanese are planning to produce a medium-sized transport airliner in the Friendship/Herald class, powered by Rolls Royce Dart engines, for internal use and possibly for export, and, according to press reports, the Japanese Government has made a preliminary grant of \$330,000 (£120,000) to cover initial design work to the consortium of six firms (virtually the whole Japanese aircraft industry) which is undertaking the project.

Conclusion

14. From the limited and not always substantiated information at our disposal it would appear that the Governments of the major aircraft producing countries support basic aeronautical research which has both civil and military application, and that some sort of financial support is given to the development of civil aircraft. In most countries civil aircraft design and manufacture reap extensive benefits from the defence contracts placed on the industry by Governments; and, in the particular case of the United States, civil transport aircraft manufacturers obtain valuable assistance in the proving of types and the writing off of development costs from the orders for transport aircraft received from the military, and from the very magnitude of these orders.

APPENDIX 11

UNITED KINGDOM ACTION ON I.A.T.A. RECOMMENDATIONS
ON FARES

Memorandum submitted by the Ministry of Transport and Civil Aviation

The Committee has asked for a list of the cases, during the last five years, in which the United Kingdom Government has disapproved recommendations of the International Air Transport Association (I.A.T.A.).

2. The background to Her Majesty's Government's attitude towards I.A.T.A. recommendations is that there is a continuing exchange of views between the Ministry of Transport and Civil Aviation and the airlines on fares policy. Before each I.A.T.A. Conference there are consultations between the Ministry on the one hand the Corporations and independent airlines on the other, when the major issues likely to arise at the Conference are discussed. The airlines are able to explain the policies they wish to pursue and the Ministry is able to give its views from the standpoint of Government policy and public interest. Generally, full agreement is reached.

3. This arrangement has strengthened the position of the airlines within I.A.T.A. and has also led to the recommendations of I.A.T.A. being on the whole acceptable to the Ministry. During the last five years I.A.T.A. has made recommendations to governments affecting many thousands of fares throughout the world, and in only seven cases has the U.K. Government found it necessary to disapprove a recommendation or to defer approval in a way amounting to disapproval. In all cases the decision was reached after consultation with the Corporations or the independent airlines concerned. Details of such cases, together with the reasons for disapproval or deferment, and the results of the U.K. action, are given below :—

- (1) At the September, 1953, Conference, I.A.T.A. proposed reductions of up to 15 per cent. in certain regional fares in Central Africa. This was a purely local matter not affecting trunk routes. The Central African Air Transport Authority, representing the Federation of Rhodesia and Nyasaland, had only recently approved increases in domestic fares within Central Africa. The Authority considered that the present reduction in regional international fares was inconsistent with the increase in domestic fares, and requested Her Majesty's Government to disapprove the proposals on behalf of the Colonial Governments concerned. As a result of this action the international fares concerned remained at their previous level.
- (2) At the same Conference a proposal was made to introduce excursion fares at a low level on a number of routes in South-East Asia. The situation in South-East Asia is complicated. A number of local airlines there are not members of I.A.T.A. They operate with obsolescent aircraft and have felt the need to charge lower fares than those recommended by I.A.T.A. This state of affairs had led to rivalries between I.A.T.A. and non-I.A.T.A. airlines. I.A.T.A.'s proposal to introduce excursion fares, at a level lower than the fares of the non-I.A.T.A. airlines, seemed likely to exacerbate this situation and to lead to a further deterioration in the relations between the airlines. Her Majesty's Government deferred its approval of this proposal in order to enable the two groups of airlines to discuss the problems together. This they did and they were able to reach a working agreement which, however, did not provide for the proposed excursion fares.
- (3) The September, 1955, Conference produced a resolution embracing fares between Europe and the Far East on polar routes and on routes via North America. As it is possible to travel to a point the other side of the world by going eastwards or westwards, there is competition between east-about and west-about fares. By tradition, fares between Europe and Japan via India are considerably cheaper (to take account of the shorter distance)

than the fares from Europe to Japan via North America, which are based on trans-Atlantic and trans-Pacific fares. The inauguration of a Polar route introduced a new factor into this situation. The Polar route is approximately the same length as that via India and the Polar route operators wished to match the fares via India. Operators of the routes via North America were only prepared to agree to this on condition that they also could later match the via India fares. This would have entailed upsetting the accepted relationship between east-about and west-about fares. Her Majesty's Government (and the U.S. Government also) deferred approval of this proposal to prevent a rate warfare which would have had disastrous results for the airlines. At the next I.A.T.A. Conference (in May, 1956) the airlines were able to reach agreement which resulted in Polar route operators matching the fares via India, but left the fares via North America unchanged.

- (4) The September, 1955, Conference also proposed to increase fares on services of U.K. independent airlines on short cross-Channel routes. These proposals were disapproved. The independent airlines concerned were not members of I.A.T.A. and had no voice in the proposals. They were opposed to the increase in fares. Her Majesty's Government discussed the subject with the foreign governments concerned and obtained agreement to a satisfactory level of fares.
- (5) The members of I.A.T.A. agreed at an emergency Conference in March, 1957, to an increase of 5 per cent. in European fares, to take effect on 1st May. This increase was justified by an unexpected rise in costs. The increase included, however, increases in the fares on U.K. independent airlines' services between the U.K. and the Continent. The independent airlines concerned were not members of I.A.T.A., they objected to the increase, and their services did not compete directly with those of I.A.T.A. members. Her Majesty's Government agreed with the foreign governments concerned that the independent airlines' fares should remain unchanged. In connection with this increase, Her Majesty's Government warned I.A.T.A. of its dislike of fare increases being introduced at short notice with passengers who had already booked being surcharged for the increase. This warning appears to have had the desired effect.
- (6) In July, 1957, I.A.T.A. proposed by Mail Vote (a special procedure for amending fares between Conferences) to increase first-class fares between Europe and Africa by 10 per cent. and tourist fares by 5 per cent. The most important fares affected were the cabotage fares between the U.K. and West African Colonies, but fares between European countries and West Africa were also concerned. Her Majesty's Government approved the increase in first-class fares but disapproved the increase in tourist fares. Her Majesty's Government's examination of the proposals indicated:—

- (a) there appeared to be no change in circumstances since the fares had been fixed at the previous Conference;
- (b) airline financial results were poor on these services and others in the Eastern hemisphere, but this was due largely to the provision of full length reclining seats on first-class services at the standard fare. These seats take up much more room than normal first-class seats, and the seating capacity and revenue earning potential of aircraft were accordingly reduced;
- (c) on the evidence available tourist services on this route were making satisfactory profits at existing fares;
- (d) it would be unreasonable to expect tourist passengers to make good some of the losses incurred through granting luxury accommodation to first-class passengers.

Her Majesty's Government approved the increase in first-class fares as being a step in the direction of making these fares economic in relation to the standard of accommodation granted.

The Governments of the Colonies concerned supported Her Majesty's Government in disapproving the increase in tourist fares.

- (7) Among the recommendations of the September, 1957, Conference was one for a large increase in cargo rates on the cross-Channel services of a U.K. independent airline. The increase, which was excessive in relation to the increases in other European cargo rates, was opposed by the independent airline concerned, which was, however, prepared to accept the same increase as in other rates. Her Majesty's Government disapproved the proposal and agreed with the foreign government concerned that the smaller increase should be approved.

APPENDIX 12

RELATIONSHIP BETWEEN CLASSES OF TRAVEL

Memorandum by British Overseas Airways Corporation

The area per passenger seat varies with individual aircraft, the fuselage width, insofar as this determines numbers abreast, etc. However, taking broad averages the areas per seat available in the seating cabins (i.e., excluding toilets, galleys, etc.) are in the following ratios (Tourist = 100):—

De Luxe	...	...	...	...	...	...	200
First Class	...	...	...	...	...	...	125
Tourist Class	...	...	...	...	...	...	100
High Density	...	...	...	...	...	...	85

It is only on Atlantic Routes that "De Luxe" class accommodation is offered at a higher fare level than First Class accommodation. On eastern and African Routes First Class fare paying passengers receive the same accommodation as De Luxe passengers on Atlantic Routes.

There are, however, other factors to be taken into account before arriving at a "True Ratio" for the different classes of travel (e.g., reduced gangway space in Tourist and Economy Classes, reduced free baggage allowance, etc.). A more representative Cost-Ratio is as follows:—

De Luxe	...	...	...	...	...	...	170
First Class	...	...	...	...	...	...	130
Tourist Class	...	...	...	...	...	...	100
Economy Class	...	...	...	...	...	...	90

Representative fare levels are as follows:—

<i>London–New York</i>						£	s.	d.			Ratio
De Luxe	...	...	...	...	...	173	5	0	...	...	154
First Class	...	...	...	...	...	155	8	0	...	...	138
Tourist Class	...	...	...	...	...	112	10	0	...	...	100
Economy Class	...	...	...	...	...	90	0	0	...	...	80
<i>London–Sydney (via India)</i>											
First Class	...	...	...	...	...	345	0	0	...	...	137
Tourist Class	...	...	...	...	...	251	0	0	...	...	100
<i>London–Tokyo (via India)</i>											
First Class	...	...	...	...	...	368	0	0	...	...	147
Tourist Class	...	...	...	...	...	250	0	0	...	...	100
<i>London–Johannesburg</i>											
First Class	...	...	...	...	...	224	0	0	...	...	148
Tourist Class	...	...	...	...	...	152	0	0	...	...	100

The proportions of capacity offered for each class are:—

					First Per cent.	Tourist Per cent.	Economy Per cent.
<i>North Atlantic</i>							
B.O.A.C.	...	...	...	...	29	18	53
Other Operators	...	...	...	...	22	19	59
<i>Far East</i>							
B.O.A.C.	...	...	...	...	47	53	
Other Operators	...	...	...	...	34	66	
<i>Africa</i>							
B.O.A.C.	...	...	...	...	39	61	
Other Operators	...	...	...	...	31	69	

APPENDIX 13

WEST AFRICAN ROUTE—RELATIONSHIP BETWEEN
FIRST CLASS AND TOURIST CLASS FARES

Memorandum by British Overseas Airways Corporation

Representative fares are as follows:—

<i>London-Lagos:</i>					£	s.	d.			Ratio
First Class	...	...	...	...	158	0	0	...	...	152
Tourist Class	...	...	...	...	104	0	0	...	...	100
<i>London-Accra:</i>										
First Class	...	...	...	...	158	0	0	...	...	152
Tourist Class	...	...	...	...	104	0	0	...	...	100

APPENDIX 14
TRANS-ATLANTIC "DE LUXE" SEAT UTILISATION
(1st August, 1958–31st January, 1959 inclusive)
Memorandum by British Overseas Airways Corporation

	Westbound			Eastbound			Total		
	Seats	Passengers	Load Factor	Seats	Passengers	Load Factor	Seats	Passengers	Load Factor
U.K.–U.S.A. (East) ...	5,591	3,672	Per cent. 65·7	5,611	3,564	Per cent. 63·5	11,202	7,236	Per cent. 64·6
U.K.–U.S.A. (West) ...	608	482	79·3	596	437	73·3	1,204	919	76·3
U.K.–Canada and U.S.A. (Mid West)	992	665	67·0	991	621	62·7	1,983	1,286	64·9
TOTAL	7,191	4,819	67·0	7,198	4,622	64·2	14,389	9,441	65·6

NOTE: We do not provide sleepers on our Comet de Luxe trans-Atlantic services. We do, however, provide sleepers on the Britannia 312s. For instance, on the U.K./Canada/U.S.A. Mid-West and West Coast routes, the rear compartment is fitted with twelve de Luxe seats, above which are four sleepers.

Further information is annexed to this Appendix.

ANNEX TO APPENDIX 14

SLEEPING BERTHS ON TRANSATLANTIC ROUTE

On the U.K.-U.S.A. (East) route, there were 2,648 sleepers, of which 2,321 were utilised ; thus making a load factor of 87·6 per cent.

On the U.K.-U.S.A. (West) route, 360 berths were on offer, 199 were taken up ; this makes a load factor of 52·1 per cent.

On the U.K. to Canada and U.S.A. (Mid-West) route 1,904 berths were available, and 477 were used. This makes a load factor of 25 per cent.

The total, then, makes 4,912 sleepers available, 2,997 utilised, and a total load factor of 61 per cent.

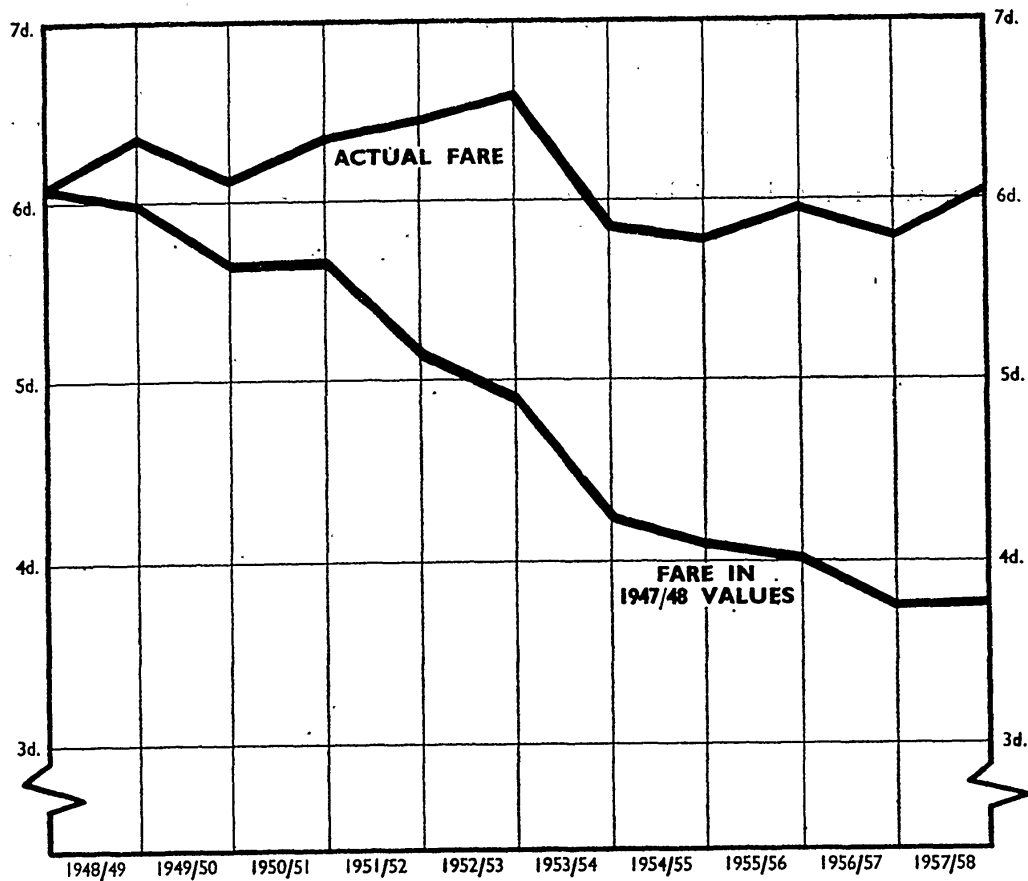
The reason for the low load factor on the Canadian route is that the berths in question are upper berths, which do not affect the other seats ; they are, in other words, pure additional revenue. Discounting them, the overall load factor is 84 per cent.

APPENDIX 15

B.E.A. FARES

(Rate Per Passenger Mile)

Graph by British European Airways



APPENDIX 16

CABOTAGE FARES

Memorandum by the Ministry of Transport and Civil Aviation

To supplement the evidence given on the question of the "control" by the Minister over cabotage fares, it may be useful to summarise the views of the Ministry as follows.

2. Although there is no statutory authority for the Minister to control cabotage fares, it has been found desirable to arrange that such fares shall be submitted to him for approval by the Corporations and Independent Operators. This arrangement has been reached by general agreement. The main reasons for it are that it is desirable, in order to avoid conflict with other Governments, that the fares on cabotage stages should conform to the general I.A.T.A. international structure and it is desirable also that there should be a reasonable relationship between the fares of the Corporations and of the Independent Operators on parallel routes. If the Minister did not carry out this function, it would be necessary for someone else to do it.

3. In performing this function the Ministry has sometimes had to decide between conflicting points of view and interests, but generally the decisions have been amicably accepted. The only case where it can be said that an operator was dissatisfied was that of the fares to Cyprus.

4. On Cyprus the difference of view concerned a period of two years from September, 1956, during which B.E.A. wanted a cheap night fare, partly for operational reasons and partly to meet the competition of the Colonial Coach service operated by an Independent Operator. The competition was small, however, because the Colonial Coach service operated only once a fortnight against an almost daily service by B.E.A. The Colonial Coach operator claimed that, his service being only fortnightly and therefore unattractive, he would be run off the route and deprived of the traffic he had built up if B.E.A.'s cheap night fare was granted. B.E.A. feared however that the Colonial Coach frequencies would be increased, in which case the competition would become substantial. The Ministry promised B.E.A. in February, 1957, that if and when the Colonial Coach frequencies were increased, they would reconsider the question of a night fare. The Ministry carried out this promise for in October, 1958, when Colonial Coach services were increased to a weekly frequency, B.E.A. were granted their cheap night fare. In this difficult and knotty problem, it is hard to see what fairer decisions could have been reached.

5. In the view of the Ministry the arrangement, made by mutual consent, under which cabotage fares are submitted to the Minister for approval appears to work to the general advantage of all concerned and even in this one case where some feeling was aroused, it was not very serious.

APPENDIX 17
SUMMARISED ROUTE RESULTS
Memorandum by British European Airways

Losses on Total Cost
1956-57
£
264,000

103,000
148,000
32,000

283,000

318,000

120,000

<i>Highlands and Islands</i>	...	...	...	...	...	...	...
<i>Domestic Trunk Routes</i>							
London/Edinburgh	...	...	...	...	...	...	...
London/Glasgow	...	...	...	...	...	...	...
London/Belfast	...	...	...	...	...	...	...
<i>Irish Sea Routes</i>	...	...	...	...	...	...	...
<i>Channel Islands</i>	...	...	...	...	...	...	...

Losses on Total Cost
1957-58
£
365,000

96,000
108,000
+ 26,000 (profit)

178,000

446,000

219,000

ROUTE RESULTS 1956-57 AND 1957-58

	Highlands and Islands (including Ambulance)				Domestic Trunk Routes												Channel Islands			
					London-Scotland				London-Belfast				Total Domestic Trunk Routes							
	1956-57		1957-58		1956-57		1957-58		1956-57		1957-58		1956-57		1957-58		1956-57		1957-58	
		Per cent. of Total Cost		Per cent. of Total Cost		Per cent. of Total Cost		Per cent. of Total Cost		Per cent. of Total Cost		Per cent. of Total Cost		Per cent. of Total Cost		Per cent. of Total Cost		Per cent. of Total Cost		Per cent. of Total Cost
REVENUE £'000	403		455		1,233		1,533		714		776		1,947		2,309		1,533		1,831	
COST £'000																				
Variable	225	34	257	31	559	38	617	35	288	39	270	36	847	38	887	36	434	26	529	26
Allocated and Apportioned	368	55	466	57	761	51	914	53	376	50	391	52	1,137	51	1,305	52	1,036	63	1,278	62
Overheads	74	11	97	12	164	11	206	12	82	11	89	12	246	11	295	12	183	11	243	12
TOTAL COST	667	100	820	100	1,484	100	1,737	100	746	100	750	100	2,230	100	2,487	100	1,653	100	2,050	100
PROFIT (+) OR LOSS (-) ON V.A.A. COST £'000	-190		-268		- 87		+ 2		+ 50		+115		- 37		+117		+ 63		+ 24	
PROFIT (+) OR LOSS (-) ON TOTAL COST £'000	-264		-365		-251		-204		- 32		+ 26		-283		-178		-120		-219	

ANNEX to Appendix 17

NOTES ON THE ROUTE RESULTS

1. Allocation of overheads

For the year 1956/57, overheads represent *11 per cent.* of the total cost charged to domestic routes whilst for 1957/58 the figure is *12 per cent.*

This comparatively small proportion of total cost is not considered a significant factor in reviewing the operating results of the routes.

2. Allocation of Costs to Groups of Routes

Costs are charged to groups of routes under three main headings:—

1. Variable costs

These are costs which vary directly with changes in flying hours or services operated, such as landing fees, fuel and oil, overhaul of components, etc.

Such costs were approximately 31 per cent. of the total cost in 1957/58 of the Highlands and Islands, Domestic trunk and Channel Island routes.

2. Allocated and Apportioned Costs

Allocated costs are those which can be charged direct to a group of routes (such as amortisation of aircraft used on the group routes, aircrew costs for each Flight, etc.) whilst apportioned costs are those which have to be spread over several groups, such as the bulk of station costs. Allocated and Apportioned Costs represented approximately 57 per cent. of the total cost of the three groups referred to under 1 above.

3. Overheads

"Overheads" embrace all the costs not specified under 1 and 2 above and include the following main items:—

Departmental Administration Units (normally Department Head and possibly Deputy, and secretaries)
Public Relations
Medical Services
Head Office Passenger and Cargo Sales
Tariffs, Commercial, Reservations and Traffic Branches
Flight Operations Requirements
Ground Communications
Project and Development
Accounting
Stationery and Printing
Industrial Relations
Training and Welfare
Accommodation and Equipment Costs

Overheads are allocated to groups of routes in the ratio of the total of variable, allocated and apportioned costs and in respect of 1957/58 represent 12 per cent. of the total cost of the groups referred to under 1 above.

If these routes were not operated by B.E.A., it is unlikely that total overheads could be reduced by an amount equivalent to the proportion charged to these routes.

3. The feeding-in of traffic to B.E.A.'s main international network from domestic routes.

The domestic traffic fed into B.E.A. international network (1957/58):

Passenger	...	...	...	...	...	...	£760,000
Freight	...	...	...	...	...	...	£30,000
							<hr/> £790,000 <hr/>



APPENDIX 18

ARGUMENTS FOR GOVERNMENT SUBSIDY ON HIGHLANDS AND ISLANDS ROUTES

Memorandum by British European Airways

1. (a) In order to provide minimum social service frequencies (for mail, newspapers and passenger requirements) B.E.A. in no case offers less than a service on 6 weekdays (except Barra/Tiree) between the mainland and the islands. A loss of 37 per cent. of variable allocated and apportioned costs (£268,000) and 45 per cent. of Total Costs (£365,000) is involved as a result of providing this frequency of operation.
- (b) Winter passenger load factors for the group are 48 per cent. against B.E.A. average of over 60 per cent. in 1957/58.
- (c) Other operators in the area are MacBrayne, who provide some 18 weekly round trips between the mainland and the Hebrides and who also get a subsidy. The North of Scotland, Orkney and Shetland Shipping Company, provide 6 weekly services to Orkney on the short sea crossing and 3 weekly on the long sea crossing (from Aberdeen) and also get a subsidy.
- (d) S.A.S. also obtain a subsidy for their Domestic routes; so do Air France and U.S. operators.
2. In 1955 B.E.A. and B.O.A.C. were asked to submit to the Minister of Transport and Civil Aviation their views on revision of the Air Corporations Act, 1949. The following recommendations were contained in the joint submission regarding "Social Services".
 - (a) The Minister to be given power to make revenue payments to B.E.A. for periods up to ten years to cover the operation of the so-called "Social Services" on the same general principles as the MacBrayne Agreement. These services are, of course, operated to meet a social need and it is widely agreed that they cannot be operated without a subsidy. (While this problem is at present peculiar to B.E.A., B.O.A.C. consider that the principle of the MacBrayne Agreement should be available to be applied to B.O.A.C., if, later, that should be desirable.)
 - (b) Exemption from fuel tax on scheduled air services or, failing this, a grant to cover the cost of the fuel tax incurred by the Corporation on such services. The fuel tax at present costs B.E.A. rather more than £400,000 a year.

APPENDIX 19

PAYMENT OF SUBSIDY FOR OPERATION OF SOCIAL SERVICES

Memorandum by the Ministry of Transport and Civil Aviation

In order to supplement the evidence on this subject and to summarise the views of the Ministry, the following note may be useful.

The Minister has no statutory power to pay subsidy to the Air Corporations and any proposals to that effect would be a matter of Government policy and would need legislation.

The matter has, however, been considered from time to time. The conclusion reached is that the balance of argument is against the introduction of subsidy.

The main argument for subsidy is that the present system is unfair on travellers on the Corporations' other routes. It is also said that the MacBrayne contract for sea and road services in the west of Scotland is a precedent for such a subsidy.

The argument against a subsidy is that it is a common principle that industries which are afforded protection from competition "take the rough with the smooth" and are willing to perform some uneconomic services for the public good in exchange for that protection.

In the realm of transport alone bus services afford an example. Most rural and some urban bus services are uneconomic. The continued operation of these uneconomic services is due mainly to a licensing system which gives operators some degree of protection on the routes they operate, and thus enables them to pay for their unremunerative services from the profits on their other routes.

The Ministry considers that the MacBrayne contract does not really provide a parallel to the case of B.E.A. The agreement between the Minister and the Company lays down a set of sea and road services to be operated in the west of Scotland in return for a stated annual subsidy. These services are admittedly uneconomic and although the Company is free to operate services other than those stated in the agreement it does not in fact do so and in any case would have no protection in operating them.

The North of Scotland, Orkney and Shetland Shipping Company which operates sea services between the mainland and the Orkney and Shetland Islands, is not in receipt of any Government subsidy.

APPENDIX 20
COMPARATIVE STATISTICS FOR FINANCIAL YEARS 1957-58 AND 1956-57
Memorandum by British European Airways

		1957-58	1956-57	Variation	Remarks
1. C.T.M.	millions	160	139	Per cent. +15.2	
2. Total revenue	£ millions	28	24	+18.3	
3. L.T.M.: Total	millions	102	90	+13.8	
Passenger and excess baggage ...		88	77	+15.2	
Mail		4	4	- 0.6	
Freight		10	9	+ 7.6	
4. Overall Load Factor	Per cent.	63.7	64.5	- 1.3	Traffic fall-off Winter 1957-58 (Recession).
5. Available Seat Miles	millions	1,365	1,151	+18.6	
6. Passenger Miles flown	millions	936	809	+15.7	
7. Passenger Load Factor	Per cent.	68.5	70.3	- 2.6	Traffic fall-off Winter 1957-58 (Recession).
8. Passengers carried	number	2,756,591	2,461,065	+12.4	
9. No. of employees (average)		11,011	10,501	+ 4.9	M.T.C.A. figures round these numbers to 11,000 and 10,000, which is misleading for purposes of comparison.
10. Operating cost per C.T.M.... ..	pence	39.6	39.7	- 0.3	
11. Utilisation of Aircraft	hours per day	4.74	5.11	- 7.3	M.T.C.A. 1956-57 figure of 5.18 is incorrect. Reduction in utilisation in 1957-58 due to (a) phasing-out of Elizabethan (b) phasing in of Viscount 800 (c) drop in Pionair
12. C.T.Ms per employee	number	14,557	13,244	+ 9.9	
13. Ratio between capital employed and traffic revenue	Capital=1.0 Revenue=	1.2	1.3	- 7.5	M.T.C.A. ratio for 1957-58 (1.1) is incorrect. Revenue low in Winter as a result of recession. This ratio is additional to those given in the M.T.C.A. Statements.
13A. Ratio between <i>average</i> capital employed throughout the year and traffic revenue. (Item 13 compares traffic revenue with capital employed <i>on last day of the year</i>).	Capital=1.0 Revenue=	1.7	1.4	+22	
14. Profit or Loss	£ millions	+ 2.1	+ 0.91	+131	
15. Item 14 as percentage of item 2	Per cent.	7.5	3.8	+97	

Note: All figures are as given on the M.T.C.A. statements to the Select Committee,* unless otherwise stated.

* Printed as Appendices A and B to the Report.

APPENDIX 21

COMPARISON OF MEAN STAGE LENGTH
(STATUTE MILES)*Memorandum by British European Airways*

B.E.A. Domestic	...	...	...	...	...	153
B.E.A. International	...	...	...	...	...	382
B.E.A. Total	...	...	...	...	...	263
B.O.A.C.*	...	...	...	...	...	1,048
Swissair	...	...	...	...	...	660
Air France	...	...	...	...	...	937
Pan American	...	...	...	...	...	1,440

Figures not available for K.L.M., S.A.S., T.W.A.

* Scheduled services only—M.T.C.A. statistics.

APPENDIX 22

BREAKDOWN OF OPERATING COSTS PER CAPACITY TON MILE

Memorandum by British Overseas Airways Corporation

	Expenditure, 1957-58	Percentage of Total	Pence per c.t.m.
Aircraft standing charges	4,598,464	8.6	3.4
Aircraft maintenance	13,759,325	25.6	10.0
Flying operations	11,854,637	22.1	8.6
Charter of aircraft and crews	4,682,574	8.7	3.4
Passenger service	3,622,889	6.8	2.6
Stations and traffic costs	3,561,377	6.6	2.6
Commission on traffic revenue	2,590,348	4.8	1.9
Sales, advertising and publicity	5,595,846	10.4	4.1
Technical training and development	1,067,723	2.0	0.8
General supplies	179,702	0.3	0.1
Central administration	2,188,041	4.1	1.6
	53,691,926	100.0	39.1
Deduct incidental revenue	494,884		0.4
NET TOTAL	£53,197,042		38.7

APPENDIX 23

COMPARISON OF COSTS WITH OTHER OPERATORS

Memorandum by British Overseas Airways Corporation

1. In Q. 1704-1705 of the meeting of the Select Committee on 17th December, 1958, Sir Gerard d'Erlanger referred to an outside investigation into comparative costs of B.O.A.C. and other International operators. He stated that a report on that investigation was shortly expected and that he would report to the Committee in due course.

2. That report was received only recently. It is a voluminous document running into 165 pages of closely typed matter and tables. It is obviously impracticable to summarise in a short space all the valuable information which that report contains, nor has there been time to study and appreciate all that the report contains and its implications.

3. Nevertheless, the figures on the attached sheet taken from that report do confirm the conclusion that the Corporation had itself reached earlier, that it is principally though not exclusively on maintenance costs that the Corporation's cost levels are higher than those of its principal competitors.

4. The figures quoted for 1957 in that report are not markedly dissimilar from those quoted by this Corporation for 1958 in a paper previously submitted to the Committee*. There are, however, different classifications of expenditure which the outside investigators have found it necessary to make in order to make B.O.A.C.'s figures comparable with those of other operators.

ANALYSIS OF OPERATING COSTS EXPRESSED AS A PERCENTAGE OF TOTAL COST

International Operations only

	B.O.A.C.	P.A.A. (Atlantic)	T.W.A. (Intl.)	K.L.M.	S.A.S.	Q.E.A.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Flight Operations:						
1951	29.9	26.6	29.1	31.3	23.6	n.a.
1957	31.1	30.5	32.9	29.7	26.4	29.4
Maintenance of Flight Equipment:						
1951	25.0	20.6	15.6	17.5	17.9	21.7
1957	22.3	14.5	13.3	14.8	18.3	26.7
Depreciation of Flight Equipment:						
1951	7.4	10.4	9.4	11.7	6.4	8.0
1957	7.3	10.9	8.3	11.8	9.7	10.0
Station and Ground Expenses:						
1951	13.8	13.1	13.1	10.7	17.4	n.a.
1957	12.3	13.7	14.8	9.5	14.3	7.9
Passenger Services:						
1951	5.9	6.6	5.7	5.9	5.2	n.a.
1957	6.9	7.7	5.9	7.7	6.5	8.3
Ticketing, Sales and Promotion:						
1951	11.7	14.5	18.0	17.5	19.0	n.a.
1957	15.6	16.0	18.7	22.8	19.9	n.a.
General and Adminis- trative:						
1951	6.3	8.2	9.1	5.4	8.5	n.a.
1957	4.5	6.7	6.1	3.7	4.9	n.a.

* Appendix 22

APPENDIX 24

RELATIONSHIP BETWEEN CATERING COST AND
TOTAL PASSENGER COST*Memorandum by British Overseas Airways Corporation*

On average, the cost of meals and drinks supplied to passengers is as follows:—

De Luxe and First Class	...	...	...	£1·25 per 1,000 passenger miles.
Tourist Class	...	...	...	£1·18 per 1,000 passenger miles.
Economy Class	...	...	...	£0·33 per 1,000 passenger miles.

Expressed as a percentage of total cost, the cost of meals and drinks is as follows:—

De Luxe and First Class	...	...	...	...	2·5 per cent.
Tourist Class	...	...	...	...	3·1 per cent.

There is a wide variation from flight to flight, particularly between short day-time flights and longer flights with a night sector. The above figures are thought to be representative. There are no all-Economy class flights on which to base any figures of percentage to total cost.

Example: On a single De Luxe Class journey from London to New York, for which the fare is £173 5s. 0d., the total cost of meals and drinks is approximately £4 per passenger.

APPENDIX 25

BREAKDOWN OF CORPORATION STRENGTH

Memorandum by British Overseas Airways Corporation

	March, 1957	March, 1958	November, 1958	Proportion of Salaries and Wages (1957-58)
				Per cent.
1. <i>Flight Operations Department:</i>				
(a) <i>Operational:</i>				
(1) Flight Deck	1,255	1,324	1,373	} 18
Flight Deck Trainees	115	197	137	
(2) Cabin Crews	753	893	932	
Cabin Crew Trainees	41	31	26	} 4
(b) <i>Non-Operational</i>	827	1,033	1,003	
Sub-total Flight Operations Department ...	2,991	3,478	3,471	26
2. <i>Engineering Department:</i>				
Hourly-rated	4,302	3,992	3,831	
Supervisory	1,208	1,243	1,204	
Supplies	1,222	1,194	1,129	
Technical Administration...	680	672	626	
Apprentices... ..	289	276	216	
Sub-total Engineering Department	7,701	7,377	7,006	38
3. <i>Routes Organisation (excluding Sales):</i>				
U.K.... ..	1,271	1,431	1,476	
Overseas	3,804	3,905	3,884	
Sub-total Routes Organisation	5,075	5,336	5,360	15
4. <i>Selling</i>	577	672	691	11
5. <i>Finance and Properties:</i>				
Finance and Accounts ...	1,039	1,081	1,045	
Properties and Services ...	706	725	682	
Sub-total Finance and Property	1,745	1,806	1,727	6
6. <i>Non-Departmental</i>	957	922	885	4
GRAND TOTAL	19,046	19,591	19,140	100
<i>Note: Non-Departmental includes Secretary and Legal, Press and Information, Personnel, Restaurants and Canteens, Medical.</i>				

APPENDIX 26

RATIO BETWEEN CAPITAL EMPLOYED AND TRAFFIC REVENUE

Memorandum by British Overseas Airways Corporation

The Committee asked for an explanation of why the ratio of Traffic Revenue to capital employed as shown in statistics submitted by M.T.C.A. was lower for B.O.A.C. than for other operators.

There are four main reasons—

- (1) The price paid for aircraft, and the length of time they have been in service at the time a comparison is made.
- (2) Training and development costs of future aircraft.
- (3) Funds temporarily surplus to requirements.
- (4) Policy as to ownership or leasing of land, buildings and equipment, and operation of ancillary services by sub-contractors, such as transport services, engine overhaul, etc.

1. B.O.A.C.'s aircraft earn more revenue per unit of capacity offered than those of its principal competitors.

B.O.A.C.	...	...	...	...	...	63·9 pence
P.A.A.	...	...	...	...	...	52·9 pence
K.L.M.	...	...	...	...	...	51·3 pence

It is therefore the Capital Cost of the aircraft which is responsible for B.O.A.C.'s low proportion of traffic revenue to Capital Cost. At the time of the comparison made in the M.T.C.A. statistics, B.O.A.C. had only recently acquired secondhand Constellations and Stratocruisers for which it had been obliged to pay an inflated price. Similar aircraft in operation by its competitors had not only cost less when originally purchased, but had been substantially depreciated.

2. B.O.A.C. has been involved in substantial development costs in connection with new British aircraft types.

3. In relation to the ratio of traffic revenue to total capital employed, it is relevant to note that B.O.A.C. paid more substantial sums on account of progress payments for new British aircraft than its competitors paid in respect of their new fleets on order. The percentage of Capital employed used on progress payments is:—

	Per cent.						
B.O.A.C.	32
B.E.A.	24
K.L.M.	17
T.W.A.	13
P.A.A.	11
Air France	10
Swissair	Nil

APPENDIX 27

TYPICAL CREW COMPLEMENT CARRIED BY B.O.A.C.
AND BY P.A.A.*Memorandum by British Overseas Airways Corporation*

LONDON-TOKYO—EASTBOUND ROUTE			
B.O.A.C.		P.A.A.	
Aircraft Type	Crew	Aircraft Type	Crew
Britannia: London– Karachi.	2 Pilots 1 Flight Engineer 1 Navigator	D.C.6B ... D.C.7C ...	2 Pilots 1 Flight Engineer
Britannia: Karachi– Singapore. (See Note (a))	3 Pilots 2 Flight Engineers 1 Navigator		
NORTH ATLANTIC			
B.O.A.C.		P.A.A.	
Aircraft Type	Crew	Aircraft Type	Crew
Britannia ... D.C.7C ...	3 Pilots 1 Flight Engineer 1 Navigator	Boeing 707 ... D.C.7C* ...	3 Pilots (one acting as Navigator) 1 Flight Engineer
Comet 4 ...	2 Pilots 1 Flight Engineer 1 Navigator	*See Note (b)	

Notes:

(a) Extra flying staff are based in Singapore, as we have to carry two extra crew members Karachi–Singapore, in case we exceed flight time limitations. American flight time limitations are less stringent than ours.

(b) On occasions when Pan American D.C.7C schedules exceed a flight time of 12 hours, they are obliged by legislation to carry an extra engineer, so that their crew on D.C.7Cs on these occasions is 3 Pilots and 2 Flight Engineers.

APPENDIX 28

ANALYSIS OF AIRCRAFT "AT BASE BUT NOT ON ROSTER"

Memorandum by British Overseas Airways Corporation

In amplification of the answers to Questions 1373-4, the following information is submitted:—

SUMMARY ANALYSIS

Average Number "Not on Roster" at:—

	31st March, 1956	31st March, 1957	31st March, 1958	31st January, 1959
Not yet Operational (a) ...	3.5	0.3	5.6	0.8
Under Modification (b) ...	2.6	1.1	1.8	1.7
Awaiting Disposal (c)...	Nil	7.3	8.6	19.9
Total	6.1	8.7	16.0	22.4

ANALYSIS BY AIRCRAFT TYPE

Argonaut	(b) 0.9	(c) 0.5	(c) 2.0	(c) 11.9
Britannia 102	(a) 3.5	(a) 0.3	(b) 1.3	(b) 0.7
Britannia 312	n.a.	n.a.	(a) 5.6	(a) 0.3 (b) 1.0
Constellation 749	(b) 1.7	(c) 6.8	(c) 6.6	(c) 8.0
Comet IV	n.a.	n.a.	n.a.	(a) 0.5
D.C. Seven Seas	n.a.	n.a.	(b) 0.5	Nil
Stratocruiser	Nil	(b) 1.1	Nil	Nil

APPENDIX 29

COMPARISON OF WAGE LEVELS—B.O.A.C., P.A.A., AND K.L.M.

Memorandum by British Overseas Airways Corporation

A skilled mechanic in United Kingdom, United States of America and Holland would be paid as follows:—

	U.K.	U.S.A.	Holland
Weekly Wages	£11 14s. 2d.*	£35 17s. 2d.	£8 16s. 0d.
Working Week (hours)	44	40	48
Rate per Hour	5s. 4d.	17s. 11d.	3s. 8d.

These relationships would obviously be affected by other conditions such as shift pay, overtime, long service payments, leave entitlements, etc.

It is difficult to ensure that other occupations are reasonably comparable, but it is felt that the rate for engineering staff probably gives a reasonable indication of wage levels.

* B.E.A. evidence (Q. 1040-2) qualifies these figures.

APPENDIX 30

WAGE RATES—SWITZERLAND

Memorandum by British European Airways

It is not possible to make a direct comparison of Swiss wage rates as rates vary according to the age of the staff member concerned and his marital status, e.g.—

(i) Average total earnings per month:

Age	Swiss Francs
21	627
30	772
42	973

(ii) Cost of Living Bonus:

Single man	125–300 francs
Married man	300–600 francs

An average of these figures is a figure of 800 francs per month quoted by the Swiss Embassy in London. The use of this figure expressed in sterling gives the following result:—

Switzerland					
Weekly wage ... ..	...	...	...	...	Approx. £15 0s. 0d.
Working week... ..	...	...	...	...	46 to 48 hours.
Rate per Hour ... ..	...	...	...	...	6s. 5d.

The above figures must be used with care because they cannot be regarded as a direct comparison with the U.K. figures as the whole basis of payment in Switzerland is entirely different from that used in the U.K.

APPENDIX 31

MECHANICAL AND CONSEQUENTIAL DELAYS

*Memorandum by British Overseas Airways Corporation**

1. The following Table gives the time lost per hundred hours of scheduled time, for a number of different types of B.O.A.C. aircraft. The figures refer to the period 20th July, 1958–3rd January, 1959.

2. A delay is incurred whenever, through Engineering causes, an aircraft departs more than 3 minutes late or loses more than 3 minutes while in the air, as compared with the published timetables.

3. The Comet 4 has not been included in this analysis owing to its restricted operation and the limited period thereof.

Aircraft	Time (in hours) lost per 100 hours of schedule time
Britannia 102	19
Britannia 312	12·5
Stratocruiser	7·5
DC Seven Seas	6·3
Argonaut	6·8
Constellation	4

* This information was presented to the Committee in graph form.

APPENDIX 32

AIRCRAFT MAINTENANCE EXPENDITURE

Memorandum by British Overseas Airways Corporation

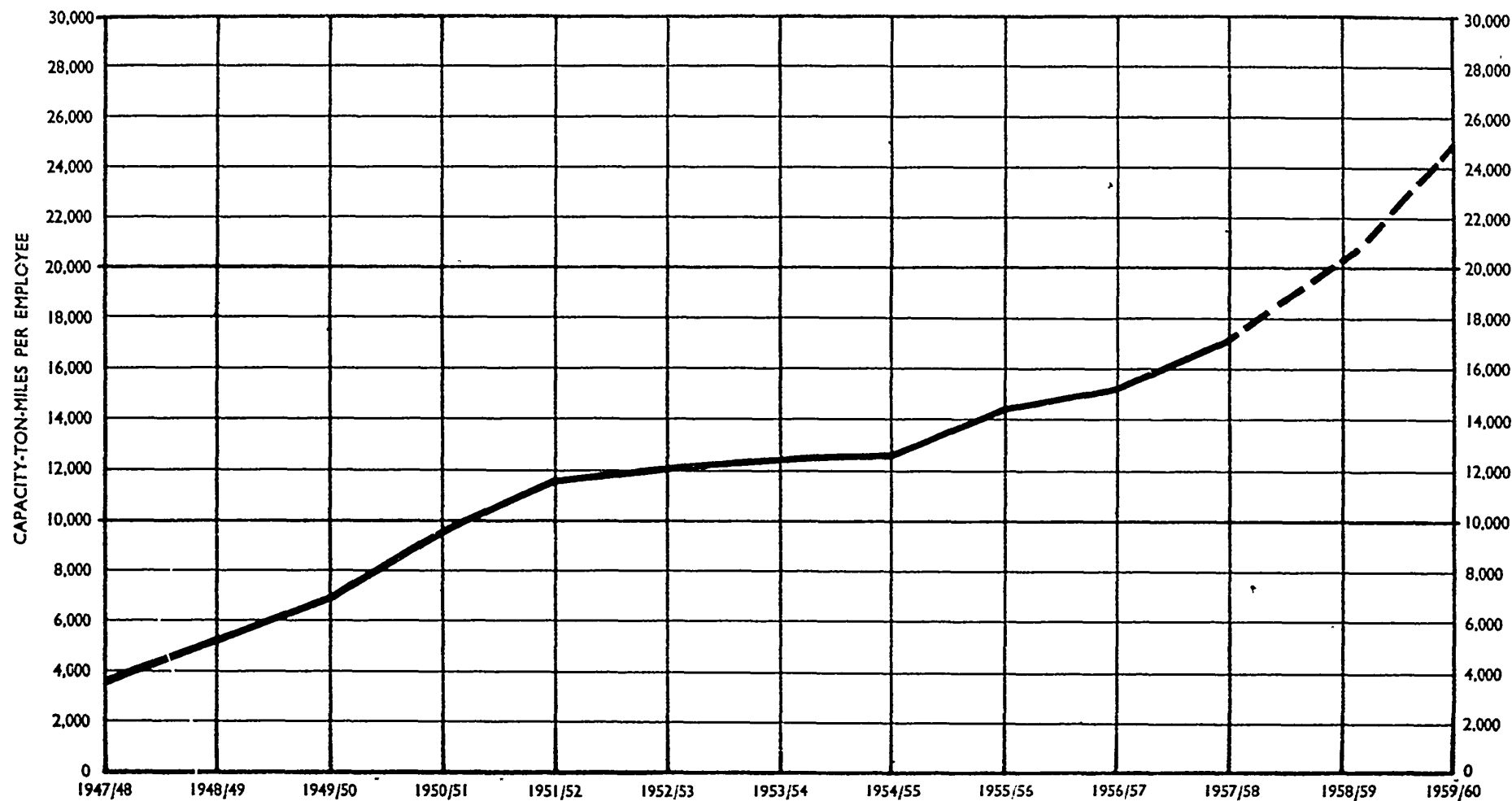
Aircraft Maintenance Expenditure, expressed as a percentage of Traffic Revenue was as follows in 1956 or 1956/57:

								per cent.
B.O.A.C.	...	...	...	...	...	...	...	23·7
B.E.A.	...	...	...	...	...	...	...	18·7
AIR FRANCE	...	...	...	...	...	...	...	28·0
P.A.A.	...	...	...	...	...	...	...	17·0
T.W.A.	...	...	...	...	...	...	...	16·6
K.L.M.	...	...	...	...	...	...	...	14·0
S.A.S.	...	...	...	...	...	...	...	14·5
SWISSAIR	...	...	...	...	...	...	...	18·5

APPENDIX 33
OUTPUT PER EMPLOYEE
(Capacity—Ton-Miles)

MOVING ANNUAL TREND

Graph Submitted by British Overseas Airways Corporation



APPENDIX 34

APPORTIONMENT OF COST OF HANGARS AT LONDON AIRPORT
BETWEEN ENGINEERING AND ADMINISTRATIVE BUILDINGS

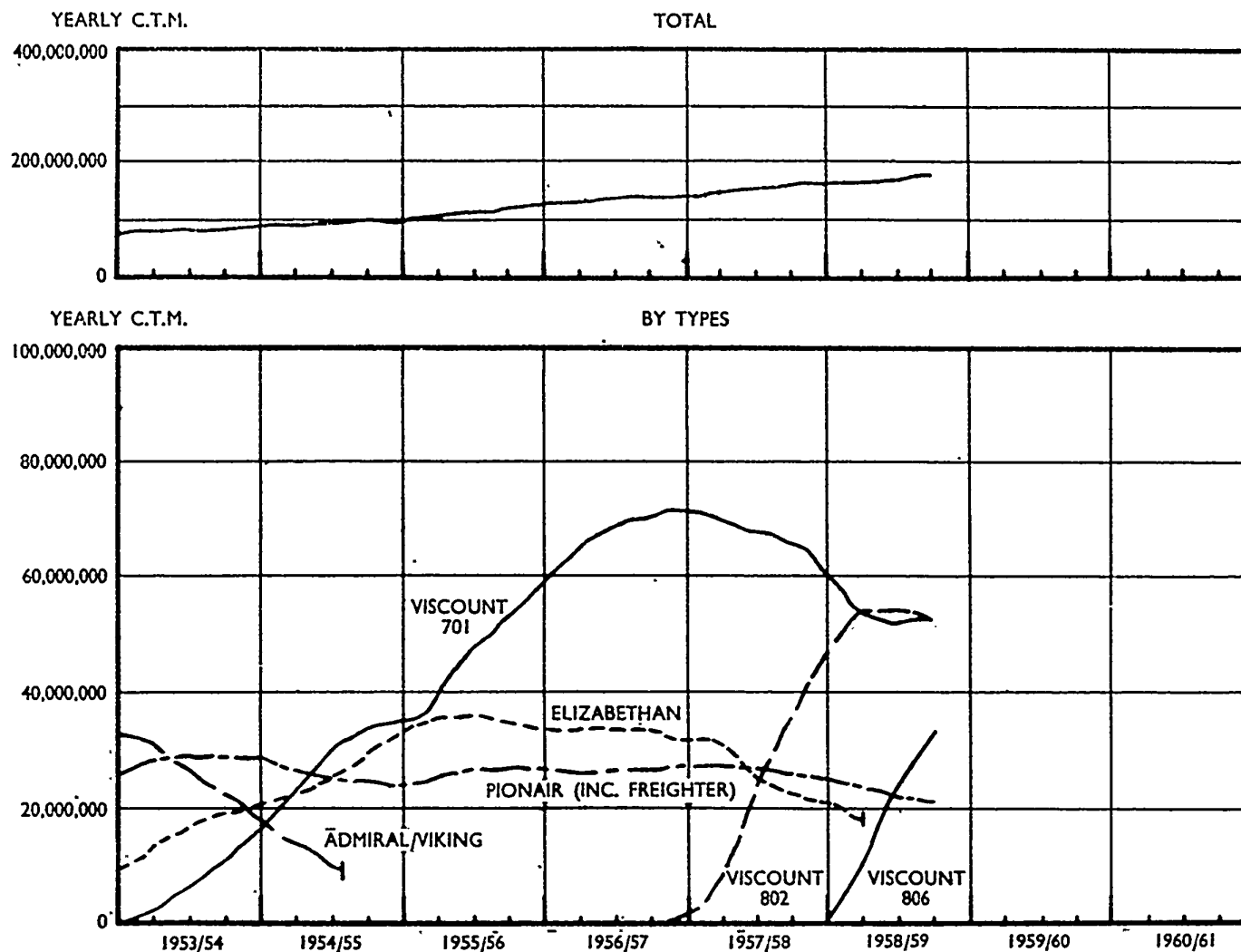
Memorandum by British Overseas Airways Corporation

	Total Capitalised Cost	Apportionment	
		Engineering— Aircraft, etc.	Admin. etc.
	£	£	£
Headquarters Building	4,870,234	4,330,234	540,000
Headquarters Annexe—Offices and Catering	581,048	256,048	325,000
Fire Post	8,491	8,491	—
Inflammable Stores	14,394	14,394	—
Refuse Disposal Building	6,240	6,240	—
Staff Recruitment Building	8,185	8,185	—
Wing Hangars	1,173,116	1,173,116	—
Medical/Catering Training (under con- struction)	110,800	73,800	37,000
	£6,772,508	£5,870,508	£902,000

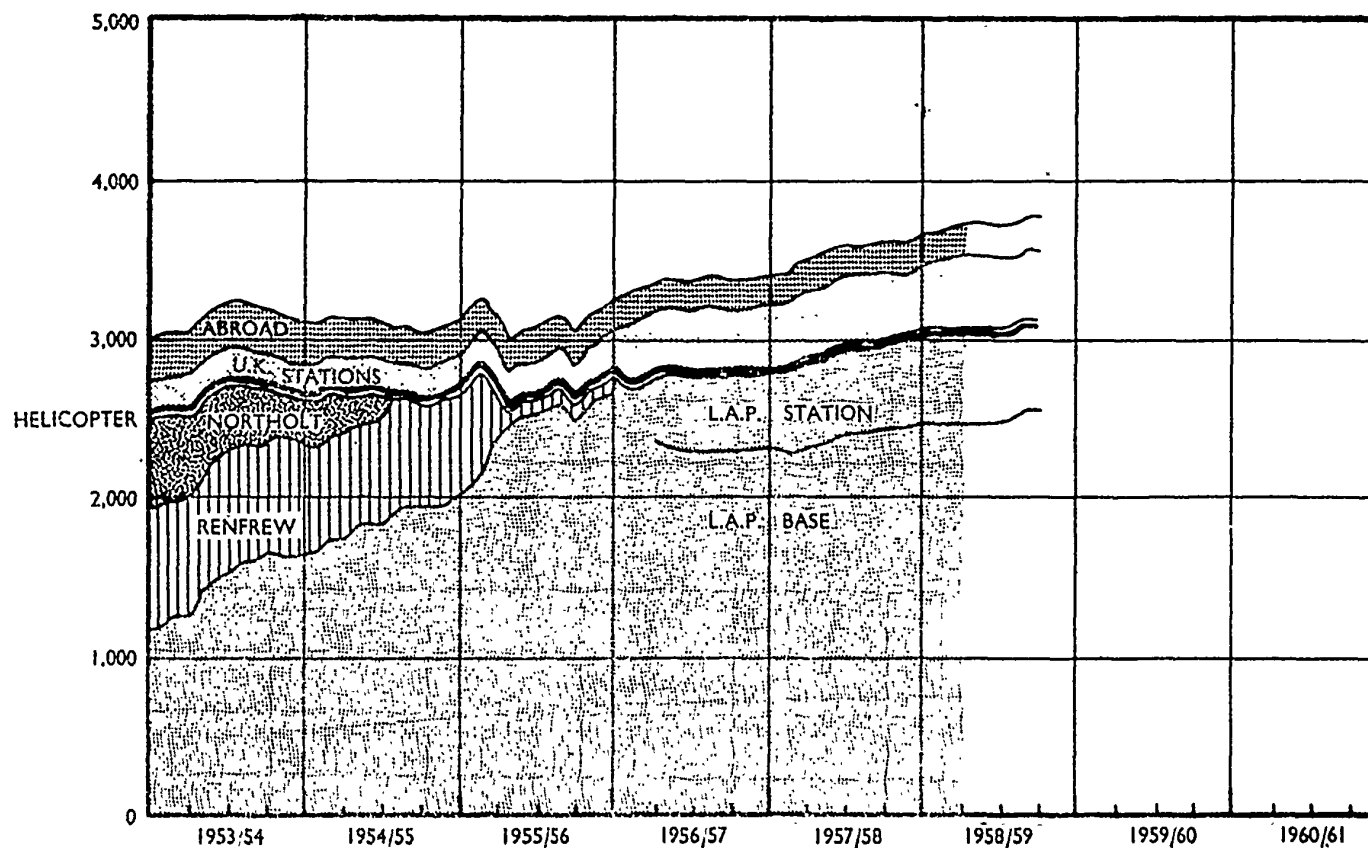
The following Hangars and Premises are leased:—

Lease Area	No. 2—B.1 Hangars.
	No. 3—Workshops, Offices, etc.
	No. 4—B.1 Hangars.
	No. 8—Stores Hangar.
Bonded Stores Area	Office Huts.
Airport North	Traffic Premises.

APPENDIX 35
I. B.E.A.
(Capacity—Ton-Miles)



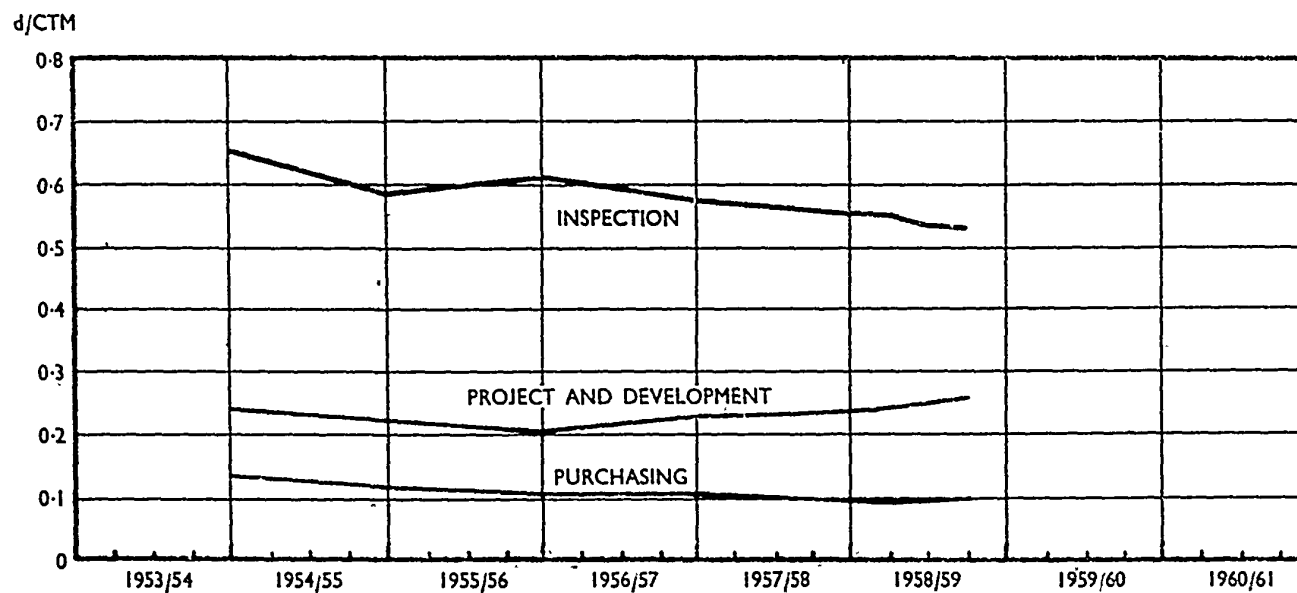
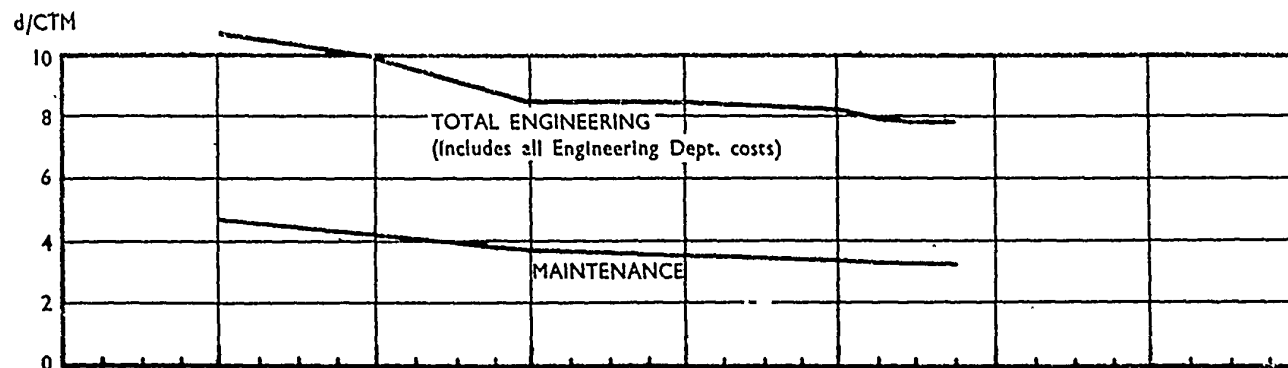
II. B.E.A. STAFF NUMBERS



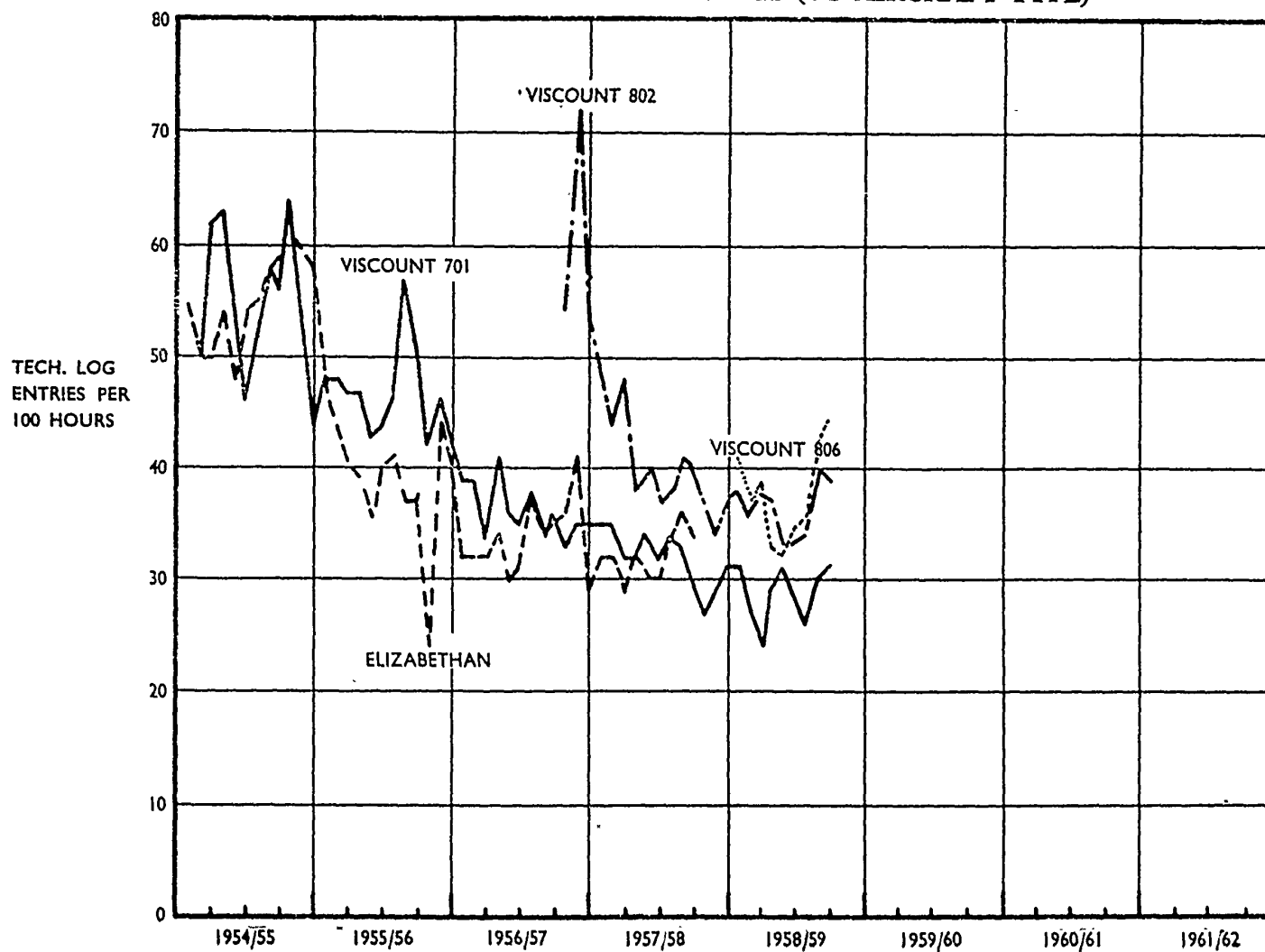
39410

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III. B.E.A. ENGINEERING BRANCH COSTS



IV. B.E.A. REPORTED DEFECTS (BY AIRCRAFT TYPE)



APPENDIX 36

LICENSED AIRCRAFT ENGINEERS

Memorandum by the Air Registration Board

Total number of current licences at 31st December, 1958—3,563.

Employed by B.O.A.C. (All categories)	...	...	...	681
Employed by B.E.A. (All categories)	...	...	...	325
				<u>1,006</u>

Of the 681 employed by B.O.A.C., those with "A" and/or "C" licenses who sign Certificates of Maintenance number as follows:—

Britannia	...	...	...	...	...	...	...	13
Comet	...	...	...	...	...	...	...	15
DC-7C	...	...	...	...	...	...	...	14
Stratocruiser	...	...	...	...	...	...	...	27
Total	...	...	...	...	...	...	...	<u>69</u>

Of the 325 employed by B.E.A., those with "A" and/or "C" licenses who sign Certificates of Maintenance number 106 made up as follows:—

London Airport	...	...	...	...	...	...	...	40
Outside Stations where Check I's are undertaken	...	...	...	...	...	...	...	66
Total	...	...	...	...	...	...	...	<u>106</u>

Hunting Clan:—

Engineers "A" and/or "C"	...	...	...	...	...	...	...	18
Category "X" (Electrical)	...	...	...	...	...	...	...	1
Total	...	...	...	...	...	...	...	<u>19</u>

APPENDIX 37

AIRCRAFT MAINTENANCE COSTS

Memorandum by British Overseas Airways Corporation

As a result of the efforts made by the Engineering Management to achieve higher productivity of B.O.A.C.'s fleet at lower cost, the following improvements have already been effected:—

- (1) Whereas up to 1957 approximately one in three of the Corporation's aircraft was undergoing overhaul or maintenance at base at any given time, in 1958/59 this figure was reduced to one in four.

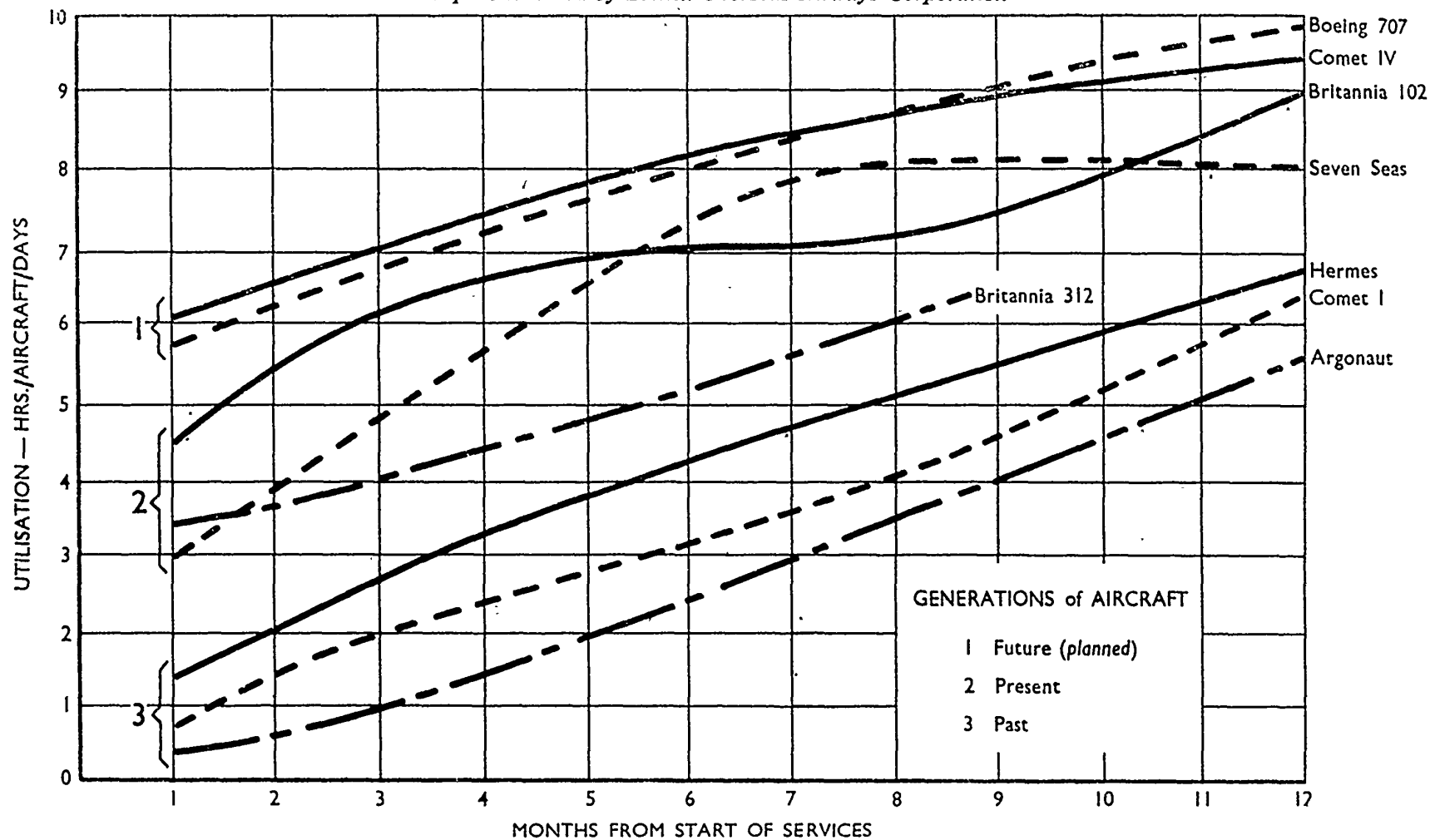
It is expected that it will be reduced still further to one in five during 1959/60.

- (2) The rate of build up of aircraft utilisation during the first twelve months operations by any type of aircraft has been improved substantially and is shown on the attached chart, together with an indication of the rate of build up planned for Comet 4 and the Boeing 707. This has already produced an increase of 10/15 per cent. in the potential capacity of the B.O.A.C. fleet.
- (3) On the basis of 1957 practice, hangar accommodation for twenty-three aircraft would have been required for a total fleet of seventy. On the assumption that the proportion undergoing overhaul or maintenance can be reduced to one in five, the amount of hangar accommodation required at base can be reduced to space for fourteen aircraft. This is the capacity of our present buildings, and if this rate is achieved it would enable us to avoid the cost of providing a second wing hangar, which was originally thought to be necessary, at an expenditure of more than two million pounds.
- (4) Up to 1955 our estimated requirements for spare engines to cover overhaul were based on an overhaul time of 7/8 weeks. In 1956 and 1957 the overhaul time was reduced to four weeks; subsequently this has been reduced still further to three weeks.

On the basis of this improvement we are able to reduce our requirements for spare engine cover for the Comet 4 and Boeing 707 proportionately. This results in a saving of approximately one million pounds in capital outlay.

- (5) Since April, 1958, when the current re-organisation of the Engineering Department at London Airport was started, staff reductions of some 616 have already been achieved, representing savings at the rate of £463,000 per annum. If our former organisation pattern had been continued, the numbers of staff employed would have had to be increased, so that the real economies are larger than the figures quoted above. These economies arise in respect of Phase I only of the re-organisation; greater economies are expected from Phase II.

APPENDIX 38
UTILISATION BUILD-UP
FIRST 12 MONTHS OPERATIONS
Graph Submitted by British Overseas Airways Corporation



APPENDIX 39

NATIONAL JOINT COUNCIL PROCEDURE

*Memorandum submitted jointly by British European Airways Corporation and
British Overseas Airways Corporation*

Section 19 of the Civil Aviation Act, 1946, re-enacted by Section 20 of the Air Corporations Act, 1949, provides as follows:—

“It shall be the duty of each of the corporations except in so far as the corporation are satisfied that adequate machinery exists for achieving the purposes of this subsection, to seek consultation with any organisation appearing to the corporation to be appropriate with a view to the conclusion between the corporation and that organisation of such agreements as appear to the parties to be desirable with respect to the establishment and maintenance of machinery for—

- (a) the settlement by negotiation of terms and conditions of employment of persons employed by the corporation, with provision for reference to arbitration in default of such settlement in such cases as may be determined by or under the agreements; and
- (b) the discussion of matters affecting the safety, health and welfare of persons employed by the corporation, and of other matters of mutual interest to the corporation and such persons, including efficiency in the operation of the corporation's services.”

In accordance with the above enactment and with the advice of the Ministry of Labour and National Service, the National Joint Council for Civil Air Transport was established in 1946, and this Council provides the machinery required by subsections 1 (a) and (b) of the section of the Act referred to above.

Membership of the National Joint Council was originally, on the Employers side the Air Corporations, and on the Trade Union side ten Unions who at that time had established membership within the Industry. In subsequent years a number of independent airline operators have joined the employers' side of the Council and additional Unions have joined the Trade Union side. There are today 17 organisations on the Employers side of the Council and 17 on the Trade Union side.

The National Joint Council deals with matters of overall concern to employees within the Industry and twelve National Sectional Panels have been established with plenary powers to negotiate and settle terms and conditions of employment of peculiar interest to the group of employees covered by the Sectional Panel.

Section 20 of the Air Corporations Act is in very similar terms to sections contained in other Nationalisation Acts, and therefore the other nationalised industries have almost identical obligations in regard to negotiation of terms and conditions for staff and joint consultation. In the other nationalised industries the negotiating machinery which has been set up is on somewhat different lines from the National Joint Council for Civil Air Transport in that it is not usual to find one Council covering all employees in the industry, e.g. in Electricity and Gas there are separate National Joint Councils dealing with various grades of staff, and the number of such Councils is very much smaller than the number of National Sectional Panels established within the National Joint Council for Civil Air Transport as a medium for the negotiation of terms and conditions of employment.

The number and variety of National Sectional Panels within the National Joint Council for Civil Air Transport tends to produce a complex pattern of terms and conditions of employment, but does not otherwise impose any more limitation or regulation on our dealings with the Trade Unions than occurs in other nationalised industries.

However, over the years in the course of negotiation in the various National Sectional Panels, agreements have been concluded covering the basis of remuneration for varied categories of employment, together with "job descriptions" as a guide to identification of posts. A background of "custom and practice" has thereby been established which necessitates detailed explanation and discussion before organisation changes are introduced.

To meet the requirements of sub-section (b) of the section of the Air Corporations Act referred to above, Panel Committees have been set up in local establishments so as to enable consultation between Management and representatives of the staff to take place. The constitution of these local Panel Committees makes provision in the event of differences of opinion occurring for the matters in dispute to be referred to the appropriate National Sectional Panel. It therefore happens that from time to time matters on which consultation has taken place between the local Management and Union representatives have become a subject for consideration by the National Sectional Panel whose normal function is to deal with negotiation of terms and conditions of employment. It is as a result of this provision that consultation and negotiation have become mixed together in this industry, and National Panels, whose main function is to deal with negotiation on wages and conditions, attempt to secure "agreements" on matters which are properly for consultation between Management and staff representatives and ultimate Management decision.

It will be realised from the above that the provisions of Section 20 of the Air Corporations Act do not of themselves impose limitations on Management action, but the machinery of the National Joint Council, which has been developed in fulfilment of the obligations placed upon the Corporations by the Act, has tended to impose such limitations.

It may be that other nationalised industries, although having similar obligations to meet in regard to negotiation and consultation, have avoided these difficulties by the separation of the machinery of negotiation and consultation. Certainly, in the case of private employers even where National Joint Councils exist, e.g. the Chemical Industry, their principal concern is with the negotiations of terms and conditions of employment and the well-being of the Industry generally. They do not become involved in the day to day Management/Employee relations on those matters which the Act covers under the heading of "discussion".

APPENDIX 40

CO-OPERATION BETWEEN THE AIR CORPORATIONS

*Letter from Ministry of Transport and Civil Aviation*BERKELEY SQUARE HOUSE,
LONDON, W.1.

5th March, 1959.

DEAR PRING,

At their meeting on 12th February, the Select Committee on Nationalised Industries asked Custance and me to collaborate with B.E.A. and B.O.A.C. in producing a paper setting out the consideration which has been given to co-ordination of common services in the Air Corporations. I have discussed this with B.E.A. and B.O.A.C. and they have produced the attached joint paper which we hope will be helpful to the Committee.

My Ministry endorses the policy outlined in the paper and would have nothing to add except that I understand from you that the Committee would be interested to know the extent to which the Ministry has been associated with the consideration of these matters.

Since the formation of the Corporations in 1946 there has been frequent exchange of views on this subject with the Ministry, both formal and informal and at both Minister-Chairman and at official level.

In 1946 there was a good deal of consultation between the Ministry and the Corporations on the forms of organisation which should be set up and the extent to which co-operation was desirable. In 1948 a special investigation initiated by the Minister recommended a number of subjects on which collaboration should be investigated. In 1949-50 officers of the Ministry took part in two investigations into means of securing economies in B.O.A.C. and B.E.A. and as a result some of the considerations on co-operation outlined in the joint B.E.A.-B.O.A.C. paper were started. In December, 1954, at a meeting between the Minister and the two Chairmen, the whole matter of common services and the machinery for securing the maximum co-operation was discussed.

In the last resort the question of common services is for the commercial judgment of the Corporations. I am sure they are alive to it themselves, but we do keep in touch with them on it from time to time. On the whole we think they work well together, that they have considered all the services on which co-operation would be possible and where they have decided against them, there have been good reasons for doing so.

I hope that the joint paper and this letter provide what the Committee needs, but if you want any point elaborated I shall be pleased to try.

Yours sincerely,
C. W. EVANS.

D. A. M. PRING, Esq., M.C.,
Clerk to the Select Committee on Nationalised Industries,
House of Commons, S.W.1.

ANNEX I TO APPENDIX 40

CO-OPERATION BETWEEN THE AIR CORPORATIONS

*Joint Memorandum by B.E.A. and B.O.A.C. for the Select Committee on
Nationalised Industries (Reports and Accounts)*

Policy Co-ordination

- (a) The Airline Chairmen's Committee is the forum where problems common to both B.E.A. and B.O.A.C. are discussed. The Committee, which is attended by the Chairman, Deputy Chairman and Chief Executive of each Corporation, meets regularly each month. Each Chairman acts as chairman of the Committee for a year.

- (b) Matters coming before this Committee include such items as major industrial relations problems, pensions, traffic rights where overlapping of interest arises, joint training, handling at stations used by both Corporations, affairs of associated companies in which both Corporations have held shares.
- (c) The Airline Chairmen's Committee calls in executives from the two Corporations to discuss agenda items for which they are responsible, and from time to time appoints sub-committees of these executives, sometimes including the Chief Executives, to work out special problems.
- (d) Quite apart from the more formalised consultation outlined above, discussion between the Corporations at all levels on matters of common interest is continuous.

Co-ordination of Common Services

(a) *Repair and Overhaul and Maintenance of Aircraft*

In 1946 at the time of the passage of the Civil Aviation Bill, the suggestion for a central overhaul organisation common to the three proposed Corporations was considered by the Minister in consultation with the three Chairmen-designate, whose concerted view was expressed as follows:—

“In conclusion it is stressed that the multitudinous variables in airline operation make it imperative that each airline should carry out its overhauls under its own separate control. The variety of modes of operation of a particular aircraft/engine combination are in the modern aircraft so debatable that it is most important that the result of such operation should be easily discernible during overhaul period. Obviously even engines of a similar type operated under entirely different conditions should not be pooled for overhaul purposes. Similarly with aircraft propellers and components, the conditions under which they operate and the relative stresses and strains applied by different airlines make it desirable that they should be segregated during overhaul. In any case, overhaul is one of the most vital factors in airline operation and the responsibility for the airline therefore necessarily includes responsibility for overhaul.”

This view was accepted by the then Minister. We believe the same considerations still apply. The full text of the Memorandum of February, 1946, on this subject by the three Chairmen-designate is attached hereto (Annex 2).

(b) *Engine Overhaul*

Normal practice, as mentioned in para. 8 of the attached Memorandum, is for airlines either to employ the engine manufacturers to overhaul their engines or to do it themselves. The Corporations follow this general rule except in the case of B.E.A.'s Pratt and Whitney engines for Dakota aircraft which have for many years been overhauled by B.O.A.C. at their Treforest factory. The reason for this exception is that these engine manufacturers have no overhaul facilities in the United Kingdom, and until recently B.E.A. did not have its own engine overhaul organisation.

Any proposal for a common engine overhaul organisation would be inadvisable for the reasons quoted in paragraph (a) above.

(c) *Instrument Overhaul*

Aircraft radio equipment and instruments vary not only between British and American aircraft, but also in British types and there is therefore little, if any, standardisation of this equipment and instruments between B.O.A.C. and B.E.A. Both Corporations have their own instrument workshops tailored to the size of the overhaul task. Taking into account that some of the work is sub-contracted to the manufacturers, a common instrument overhaul organisation would not therefore be likely to result in any improvement in technical efficiency, or staffing or other economies.

(d) Industrial Relations

The National Joint Council for Civil Air Transport was set up in 1946 and comprises representatives of each of the Corporations (and the Independent Operators) and of the Trade Unions. Industrial matters are dealt with as common problems.

Consultation on labour relations between the Corporations at executive level is constantly taking place.

(e) Traffic Handling

B.E.A. represents B.O.A.C. for traffic handling in Europe at Rome and Frankfurt.

At Barcelona, whilst B.E.A. act as General Agents for B.O.A.C., the traffic handling of B.O.A.C.'s services is dealt with by the national airline, Iberia.

At Zurich the traffic handling is dealt with by Swissair on behalf of both Corporations.

B.E.A. also act as B.O.A.C.'s traffic handling Agents at Manchester.

(f) Overseas Sales

B.E.A. act as General Sales Agents for B.O.A.C. in Europe, and B.O.A.C. act similarly for B.E.A. elsewhere throughout the world with one or two minor exceptions.

(g) Advertising

Where possible the Corporations co-operate in their joint advertising campaigns with a "fly British" theme which also supports the British aircraft industry. The traffic potential for both Corporations is for the most part different, e.g. B.E.A. sells to a market which requires low fare traffic within the continent of Europe, and B.O.A.C. caters for high fare traffic to the rest of the world. Where the Corporations' routes overlap one generally acts as agent for the other, and advertising is conducted through the local office on an agency basis.

(h) Parallel Routes

Co-operation between the Corporations is reflected in an agreement reached on operation of routes where one Corporation parallels another. As a result of an agreement reached in 1957, B.O.A.C. carries traffic to or through points on the continent of Europe, and B.O.A.C. made reciprocal concessions in favour of B.E.A. A report on the Agreement by the Airline Chairmen dated 23rd December, 1957, is attached (Annex 3).

(i) Catering

At some European stations B.E.A. supervises aircraft passenger requirements (including catering) for B.O.A.C. Merger of catering arrangements at London Airport is not considered practicable because the catering requirements differ as between long and short-haul operators, and it is not believed that a merger would result in greater economy.

Discussion of the common problems of the two Corporations takes place at regular weekly meetings between the two Catering Managers.

(j) Air Mail Policy

The Corporations co-ordinate their policy through the Airline Chairmen's Committee with the advice of an Air Mail Adviser employed jointly by B.O.A.C. and B.E.A.

(k) General Training

Joint training facilities do not exist because the aircraft and operations of both Corporations are almost entirely different. This applies particularly to the training of flying staff, cabin staff and engineers. The setting up of a joint B.O.A.C./B.E.A. Cadet Pilot Scheme for primary training is now under consideration and is an example of joint action originating in the Airline Chairmen's Committee.

(l) Aircraft Purchase and Disposals

Co-ordination of the two Corporations' future fleet policy is achieved through the medium of the Transport Aircraft Requirements Committee of the Ministry of Supply, on which both Corporations are represented. An advantage of this co-ordination is that a wider national interest plays its part in the deliberations.

At the end of 1958 the Airline Chairmen considered a proposal to establish a joint organisation for selling surplus aircraft. In January 1959 it was decided not to pursue this proposal because it was felt that there would be no advantage to the Corporations in doing so. In fact, a joint selling organisation might invite conflicts of interest. The executives of the Corporations do, however, exchange relevant information.

(m) Co-ordinated Coach Service

In 1949 the Airline Chairmen decided that the Airport coach services in the London area should be co-ordinated as an economy measure. The existing fleet of airport coaches continued to be owned by B.E.A. and B.O.A.C., but were to be operated under contract by the London Transport Executive. After a trial period of nine months the scheme was terminated as B.O.A.C. considered that better services were obtained when the coaches were driven by their own uniformed personnel. Furthermore, the expected economies had not materialised. However, B.E.A. continues with the arrangement whereby the L.T.E. operates the Corporation's coaches.

(n) Pensions

The Airways Corporations Joint Pension Scheme was set up by the Minister to provide pensions for the staff of both Corporations. It is administered by Trustees appointed by each Corporation and by the staff.

(o) Medical Services

The medical requirements of the two Corporations differ, but in any event, as there is no overlapping of the medical services of B.E.A. and B.O.A.C., merging of the two services would not result in a saving in staff numbers, and no financial gain would result.

*ANNEX 2 TO APPENDIX 40**Memorandum by Operators on Integral Relationship between Repair, Overhaul and Maintenance of Aircraft*

To a great extent the economical and efficient airline operation depends on the maximum use of each aircraft. It follows that an economic and flexible maintenance and overhaul organisation is absolutely vital. We have in this respect much leeway to make up. Some American domestic airlines fly each of their aircraft for nearly 4,000 hours a year. Our average figure is approximately half this for the same type of aircraft (mainly, it is true, because our operations are at present necessarily carried out in relatively unfavourable conditions).

2. It is clearly impossible to impose on operators any directions as to the manner in which they shall carry out day to day maintenance except for general safety regulations. And, as they are responsible for the safety and efficiency of their operations, they must be responsible for carrying out maintenance. This is generally agreed. We are asked to agree, however, that directions should be issued as regards overhaul and repair.

3. By overhaul presumably is meant annual Certificate of Air-worthiness overhauls on airframes and "complete" overhauls of engines.

4. As regards airframe overhauls, it must first of all be emphasised that these must take as little time and be as economical as possible. There are two methods.

5. The first method is that used in this country, particularly on small aircraft, before the war whereby once a year an aircraft was taken off service and completely dismantled. There might be some argument for giving such work to the manufacturers if time and money could be saved, but only on these grounds. Only the operator is competent to adjudicate on this. As regards the arguments that the manufacturers should keep in touch with their products in operation, it is equally true that the operator also requires this knowledge for the efficient planning of operations, maintenance and stores acquisitions, and, conversely, through his experience from day to day maintenance and operation he will have more knowledge of what troubles to expect in overhaul. The manufacturer can more easily learn his lessons by liaison with the operator than vice versa. The other argument is that our aircraft manufacturing potential will be maintained. But by whomever the work is done an overhaul organisation will be kept in being which will be of the greatest value in war, for in another war the importance of air transport is not likely to diminish.

6. The system of airframe overhaul mentioned in the preceding paragraph is, however, obsolete in air transport. The modern method is to do what is called a "progressive C. of A. overhaul". Under this scheme when a large aircraft comes in for day to day maintenance the opportunity is at intervals taken to carry out a complete overhaul of one part of it. Thus, in the course of a year, the whole airframe is overhauled. Obviously this procedure cannot possibly be disassociated from day to day maintenance and can only be done by the operator.

7. It is essential that the operator's engineering staff be fully conversant with all faults and defects found on repair and overhaul, as maintenance must be directly related to the knowledge of the actual condition of the unit overhauled.

8. As regards the complete overhaul of engines, it is now normal practice to return the engines to the manufacturers, with whom the operators keep very close liaison. Considerable knowledge is gained by the operators from examination of dismantled engines removed after service and especially if they are taken out due to some defect. Thus it is most unwise to attempt to force operators to adhere entirely to the system of complete overhaul of engines being carried out by manufacturers. They must always be free to decide on the most efficient and economical method in the light of their needs.

9. As to repairs—it is difficult to know what is meant by this word. Is a bent wing tip a repair? No one would suggest asking the manufacturer to put this right. Or a badly twisted fuselage? If the accident took place in England possibly the manufacturer might be asked to do the work. But perhaps not if it happened in India. In short, again only the operator can decide.

10. M.A.P.'s proposal is unacceptable, as the basis of sound airline operation is the operator's freedom to organise his own maintenance, overhaul and repair arrangements in the most efficient and economical manner, and to keep his staff technically up to date.

11. Past experience has shown the difficulty in obtaining firm delivery dates for the completion of overhauls of engines or the repair of aircraft by manufacturers, and the only possible safeguard would be a "penalty" clause in the contract, and even this has not always been successful. The operator can only plan his services when he can also plan and control his maintenance and overhaul.

12. Direct contact between manufacturers and the operators is essential in order that faults located during maintenance and overhaul may be immediately investigated, both from an operational and a design standpoint, to check any possible effect on the safety of future operations. In this matter speed is essential.

13. It is significant that all large American airline operators, who attach the greatest importance to maximum utilisation, carry out their own major repairs and overhauls. It is difficult to understand how an operator can be held responsible for the efficient and economical running of any airline if he is unable to control the cost of major repairs and overhauls.

14. In conclusion it is stressed that the multitudinous variables in airline operation make it imperative that each airline should carry out its overhauls under its own separate control. The variety of modes of operation of a particular aircraft engine combination are in the modern aircraft so debatable that it is most important that the result of such operation should be easily discernible during overhaul period. Obviously even engines of a similar type operated under entirely different conditions should not be pooled for overhaul purposes. Similarly with aircraft propellers and components, the conditions under which they operate and the relative stresses and strains applied by different airlines make it desirable that they should be segregated during overhaul. In any case, overhaul is one of the most vital factors in airline operation and the responsibility for the airline therefore necessarily includes responsibility for overhaul.

(Sgd.) H. HARTLEY.

(Sgd.) KNOLLYS.

(Sgd.) J. W. BOOTH.

14th February, 1946.

ANNEX 3 TO APPENDIX 40

Report by Sir Gerard d'Erlanger, Chairman of the Airline Chairmen's Committee, to the Minister of Transport and Civil Aviation dated 23rd December, 1957

I am writing on behalf of Sholto Douglas and myself to confirm what I told you orally, that is that our two Corporations have now reached a full agreement on the difficult question of our parallel routes in Europe. This agreement is based on the principle that the aim of both Corporations is to secure the maximum revenue in competition with other international carriers and that competition between the Corporations should be obviated, while recognising the requirements of B.O.A.C. to operate services through points in Europe in order to attract European traffic to its long distance routes and of B.E.A. to extend its services to certain points in the Middle East which are strictly speaking outside its sphere of influence.

Under this agreement between the two operators, B.O.A.C. has the right, after consultation with B.E.A., to make any calls in Europe that it may require on its routes between the United Kingdom and points East and South, and also to extend its trans-Atlantic services beyond London to points in Europe, subject to agreement in each case with B.E.A. Such operations would of course be dependent upon the traffic rights available to United Kingdom operators and in cases where there is any limitation of frequency or other restriction imposed by a foreign country, we have agreed to consider *ad hoc* arrangements under which B.O.A.C. may operate through the country concerned.

B.O.A.C. recognises B.E.A.'s primary interest in intra-European traffic and has therefore agreed to pay over to B.E.A. a proportion of the revenue it earns from the carriage on its services of all types of traffic which originates in one European point and off-loads at another European point.

On the part of B.E.A., they now have an agreement to operate services in their own name to Israel, the Lebanon and Egypt, and into Libya, if their present arrangements with Malta Airlines cease to be effective, all such services to make at least one stop in Europe. It has also been agreed that they may operate services to the Persian Gulf on behalf of Cyprus Airways. In the case of such services, B.O.A.C. has not asked for compensation in respect of traffic carried to and from points outside Europe in consideration for B.E.A.'s agreement that B.O.A.C. may extend Atlantic services into Europe.

I need hardly say how delighted we both are that it has been possible to solve this knotty problem in a way that fully satisfies the aspirations of both Corporations. The agreement has already led to a greatly improved relationship at working levels and I feel confident that there is now nothing in the way of full co-operation between us in our common interest of promoting the cause of British civil aviation.

I should be grateful if Lord Terrington could be advised of this agreement.

APPENDIX 41

AIR FREIGHT

*Memorandum by British Overseas Airways Corporation*1. *Carriage of Cargo in Passenger Aircraft*

Developments in aircraft design and, in particular, the increasing width of the fuselage have resulted in substantially more freight capacity becoming available on each aircraft. In some aircraft, under-floor freight compartments are supplemented by freight holds elsewhere in the aircraft. Additionally, arrangements can be made for the accommodation of freight in the passenger cabin itself, behind movable bulkheads.

2. *Operation of All-freight Services with Specially Designed or Adapted Aircraft*

Bulky loads cannot be carried in the under-floor compartments of passenger aircraft and the structural floor strengths of passenger aircraft are not normally adequate for the concentrated loads imposed by the carriage of freight. Therefore if an aircraft is to be used specifically for the carriage of freight it is usually necessary to adapt the aircraft if it has previously been used on passenger service by fitting wider cargo doors and also by increasing the structural strength of the floor. The amount of work involved in such modifications is substantial.

A few long-range aircraft have been designed by the manufacturers for the carriage of freight, for example, the Douglas DC6A and Britannia 250.

It is believed that, except under specially favourable conditions, the operation of all-freight services is a marginal financial venture by itself. This view is supported by the lack of success of the trans-Atlantic freight service formerly operated by Airwork. Further corroboration is afforded by the independent review which was made with the assistance of outside consultants in 1953. One of the main conclusions of that review was that, except in the case of precious cargoes such as gold or radioactive materials, freight rates would have to be reduced by some 80-90 per cent. below then current rates if normal shipments of goods, as distinct from special or emergency shipments, were to be attracted to the air. Examples of reductions that would be required were as follows:—

	London/Bombay per cent.	London/Sydney per cent.
Antibiotics	90	95
Cathode Ray Tubes	78	87
Clocks	83	91

All-freight services can, however, be operated not as a separate venture but in support of scheduled passenger services on which freight is carried as "fill-up" load. In this role they are of particular value in enabling the carrier to conduct an all-out sales campaign with the object of filling the cargo holds of his passenger aircraft safe in the knowledge that any backlog of freight can be carried on the supporting freighter services. The carrier is also able to accept loads which are too bulky to be accommodated on the passenger aircraft.

The Corporation operates one such supporting all-freight service, namely the service between London and Singapore connecting with a Qantas Empire Airways service to Sydney. The operation of all-freight services to Singapore is reserved to the Corporation in the terms of reference of the Air Transport Advisory Council. All-freight services to other destinations may be applied for either by the Air Corporations or by Independent Operators. It will, however, be recalled that it was Government policy in 1952 to afford the Independent Operators a first opportunity of inaugurating new all-freight services and the Minister of Transport and Civil Aviation requested the Corporation not to apply for permission to operate new all-freight services for a period of one year from July, 1952. It was during the currency of this ban that Airwork applied for and were awarded permission to operate as an associate of the Corporation on the North Atlantic route.

The North Atlantic route is the only route other than the London/Singapore route on which, at the present time, a supporting all-freight service should, in the Corporation's view, be justifiable.

Areas whose main exports consist of raw materials afford a very limited potential for the development of air freight. Air cargo services to such areas may be well supported, but services in the opposite direction tend to attract poor loads. It follows that the development of all-cargo services between highly industrialised areas such as Europe and the United States, where there is a high level of traffic in both directions, is much more rewarding than the operation of such services between, for example, the United Kingdom and Africa or the United Kingdom and most eastern destinations.

3. *Commercial Considerations and Cargo Tariff Policy*

Since the war, the Corporation's policy has been aimed at the continuous development of new air cargo. The method basically used has been to set General Cargo Rates for high grade and urgent shipments at a reasonably economic level so as to permit the offering of specially low developmental rates for selected commodities which could be induced to move by air if the rates were attractive enough. In this way entirely new traffic has been created for air carriage.

This basic policy has been followed successfully and in fact has been progressively adopted by the I.A.T.A. Traffic Conferences as the industry tariff policy of the airlines as a whole. To facilitate negotiation of stable tariff agreements each year, flexibility has been achieved by bringing in additional developmental rates through joint airline Commodity Rates Boards functioning within the I.A.T.A. Conference machinery since 1949.

The Corporation has had under constant review (particularly over the past seven or eight years), ways and means of improving its cargo traffic and the service offered to the public by the operation of all-cargo flights, parallel to its passenger-cum-freight operations. The Corporation has currently under review the proper timing for the introduction of separate cargo services, particularly for the North Atlantic route.

Any decision on this step will necessarily be related to the overall total cargo capacity offered, both by the Corporation's own combination aircraft and by those of parallel competitors.

Present indications are that the total cargo capacity on most air routes, and particularly on the North Atlantic routes will, for the next few years, far exceed the volume of freight which could conceivably be developed by air carriers at anything near economic rates if costs are calculated separately for freighter operations only. Using residual capacity on passenger-cum-cargo aircraft, it is possible to get rates low enough to produce extra volume. These lower developmental rates can only be achieved by maintaining the normal rates for high grade general cargo.

4. *Future Policy*

There has been a steady growth in freight tons carried in the period 1955 to 1958. Between 1959 and 1960, however, there will be a sharp increase in capacity available, and in preparation for this increase the Corporation is currently reviewing its organisation for selling cargo space.

The outside consultants have been requested to bring their 1953 Report on air freighting up-to-date, and it is expected that the Corporation will be in a position to complete its policy review by the end of this year.

APPENDIX 42

ALL-FREIGHT SERVICES

Memorandum by British Overseas Airways Corporation

The Corporation submitted a paper* dated 9th October, 1958, on its policy and plans for the development of air freight. The paper was concluded by a brief note on future policy on air freighting, with particular reference to an

* Appendix 41.

up-to-date report to be submitted by consultants. This report has now been submitted to the Corporation.

The consultants were asked to see whether the conclusions they reached in their earlier report of 1953 needed any radical alteration, with particular reference to the North Atlantic. The main conclusion of the earlier review was that normal consignments of goods as distinct from so-called emergency shipments would be attracted to air transport in volume only by heavy reductions in freight rates of as much as 80 per cent. and more. The current study was therefore to take into account all possible economies that might accrue from the use of air freight such as savings on insurance, cheaper packaging, faster transit times, and also the less easily quantifiable savings resulting from improved sales, use of machinery at earlier dates, goodwill etc.

The conclusions of this second study by outside consultants do not show any major change from those reached previously. Whilst there has been a marked increase in the quantity of air freight on the North Atlantic in 1958 as compared with 1952, this increase is still largely confined to abnormal shipments where some element of emergency arises. It is accepted that these emergency shipments provide a greater potential than was originally envisaged in the earlier study, but even after allowance for all the advantages of air freight there is still a very heavy difference in favour of sea carriage for the movement of normal flows of goods.

The study embraced a selected list of commodities being shipped across the North Atlantic both by air and by sea, and an investigation was made of what might be a likely result of a 50 per cent. reduction in air freight rates. This showed that in half the cases investigated there would either be no overall revenue increase or, in fact, a reduction in revenue at reduced rates.

The consultants' investigation consequently gives only limited encouragement to the development of freight by heavy reductions in rates beyond 50 per cent. of the existing level, and confirms the earlier review that rate reductions down to sea freightage, that is to say by as much as 80 or 90 per cent., are required if air is to make any considerable impression on the normal flow of goods.

The report sees a steady growth in air freight, especially for those products which are more elastic in their response to rate reductions.

When the Corporation has its fleet of Boeing 707 aircraft in full operation across the North Atlantic in 1961 it expects to have $2\frac{1}{2}$ to 3 times the volume of freight capacity which it now has, and by flexible use especially of Britannia aircraft at that time, the volume can be heavily increased. It is therefore the Corporation's view that by using residual capacity on passenger aircraft it will be able adequately to meet the needs of the market on the North Atlantic in the next few years.

On its routes to the Far East, the Corporation proposes to continue the operation in conjunction with its partners, Qantas Empire Airways, of a freighter service between London and Singapore. In pursuance of this policy the Corporation now has under study the possibility of supporting its passenger-cum-freight services to Hong Kong and Tokyo with an all-freight service since the freight loads on its passenger aircraft now need the support of the additional capacity such a freighter service would provide. If and when it is decided to operate this service it will be necessary for the Corporation to apply for permission to the Air Transport Advisory Council, as the route to Hong Kong for an all-freight service is not at present reserved to the Corporation.

In conclusion, it can be seen that the Corporation is carrying out its policy to support its passenger-cum-freight services with all-freight operations as and when the build-up of its freight traffic requires it. This method has been applied to the Singapore and Australian routes, may well be applied to the Hong Kong and Tokyo route in the near future, and the Corporation will keep under constant review the freight requirements of the North Atlantic route should similar all-freight support be required there at some future date.

APPENDIX 43

LANDING FEES—HELICOPTERS

Memorandum by British European Airways

The existing rates at United Kingdom airports are:—

<i>Training and test flying</i>	...	...	25 per cent. of standard rate for fixed-wing aircraft.
<i>Other flying</i>	...	...	50 per cent. of standard rate for fixed-wing aircraft.

In relation to the limited use of airport facilities involved, the rate for commercial flying, at least, appears excessive.

APPENDIX 44

COMPARISON OF ACCIDENT RATES ON SCHEDULED SERVICES—1952 TO 1956 INCLUSIVE

Memorandum by British European Airways

	Number of Accidents involving passenger fatalities	Passenger fatalities per 100 million Passenger Miles
United Kingdom	7	2.31 (B.E.A.—0.84) (B.O.A.C.—3.39)
Switzerland	1	0.23
Scandinavia	1	0.03
Netherlands	3	1.74
France	7	1.70
United States of America	26	0.52
Belgium	4	4.75

Source: I.C.A.O. Returns and Airline Annual Reports.

APPENDIX 45

COMPARATIVE FIGURES

Memorandum by British European Airways

1. SAFETY

5-year trend 1953–57:

	<i>Scheduled Services</i> <i>Passenger Fatalities</i> <i>per 100 million</i> <i>passenger miles</i>	<i>Passenger</i> <i>Fatalities per</i> <i>million passengers</i>
All World's Airlines (I.C.A.O.) ...	1.13	6.5
U.S. Domestic	0.44	2.6
B.E.A.	1.14	3.6
(B.E.A. five years ended October, 1958)	(1.10)	(3.6)

2. NUMBERS OF LANDINGS AND STAGE LENGTHS

Year 1957:

	<i>Number of</i> <i>landings</i>	<i>Mean stage length</i> <i>(statute miles)</i>
B.E.A. Domestic	64,458	153
B.E.A. International	59,718	382
B.E.A. Total	124,176	263
B.O.A.C.*	38,163	1,048
Swissair	27,430	660
Air France	53,707	937
Pan American	66,000	1,440

Figures not available for K.L.M., S.A.S., T.W.A.

* Scheduled services only—M.T.C.A. statistics.

APPENDIX 46

GOVERNMENTAL ASSISTANCE TO NATIONAL AIRLINES

Memorandum by British European Airways

There is a widely-held belief that most of the international airlines receive some form of Government aid from their own Governments. The published accounts of the airlines do not, however, reveal in most cases the extent of this aid as it is a subject which apparently is not considered desirable to publicise. The form which the aid takes varies from operator to operator but the known practices can be listed as follows:—

- (a) Direct subsidy.
- (b) Special payments for mail carriage.
- (c) Contributions towards cost of aircraft.
- (d) Payment of development costs.
- (e) Payment of pilot training costs.
- (f) Exemption from or special rebates on landing fees.
- (g) Exemption from taxation or preferential treatment.
- (h) Special contributions towards routes which can be classified as of strategic importance or providing social services.
- (i) Interest-free loans.

A statement is annexed, giving information extracted from the last published accounts of a number of airlines and it indicates that the subsidies in certain cases can be very substantial. It is believed, however, that even more material aid is given in forms which are not disclosed by the published accounts of the airlines receiving the aid.

ANNEX TO APPENDIX 46

Airline Subsidies—A summary of available information relating to some leading international carriers

Latest year for which subsidy known to be paid	Airline	Amount		Details
		Currency	Sterling equivalent	
1956	Panair do Brasil	115,265,398 Br. Cr.	647,558	Direct subsidy.
1956	Air France	4,757,640,000 Fr. F.	4,839,919	This sum appears to include direct subsidy for domestic operations, reimbursement of training costs and costs of Breguet aircraft. Possibly also "commercial" payments by French Government Departments.
1956-57	Japan Airlines	905,361 U.S. \$	324,793	Details not known.
1956	T.A.P.	10,855,234 Escudos	135,606	Direct subsidy.
1955-56	S.A.S.	947,000 S. Kr.	65,519	Direct subsidy (partly, if not all, in respect of domestic services).
1956	Swissair	500,000 Sw. Fr.	40,846	Direct subsidy.
1956	Braniff (international operations)	1,035,599 U.S. \$	371,765	Direct subsidy.
1957	P.A.A.	—	—	
1956	P.A.A.	7,249,081 U.S. \$	2,602,318	Direct subsidy.

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