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ANNUAL REPORT AND STATEMENT OF ACCOUNTS

OF THE

BRITISH OVERSEAS AIRWAYS CORPORATION

for the year ended 31st March

1947

Presented to Parliament in pursuance of Sections (21) 5 and (22) 2 of the Civil Aviation Act, 1946

Ordered by The House of Commons to be Printed

18th December 1947

LONDON HIS MAJESTY'S STATIONERY OFFICE

NINEPENCE NET

BRITISH OVERSEAS AIRWAYS CORPORATION

AIRWAYS HOUSE 20 BERKELEY SQUARE LONDON, W.1

7th November 1947

The Rt. Hon. Lord Nathan of Churt, T.D., D.L., J.P., Minister of Civil Aviation,

Ariel House, Strand, London, W.C.2.

My Lord,

I am instructed to send to you, in compliance with Sections 21 and 22 of the Civil Aviation Act, 1946, the Statement of Accounts of the British Overseas Airways Corporation for the year ended 31st March 1947, and the Report dealing with the operations of the Corporation during that year.

I have the honour to be,

My Lord,

Your Lordship's obedient servant,

D. S. S. MACDOWALL Secretary.

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BRITISH OVERSEAS AIRWAYS CORPORATION

Members

Sir Harold Hartley, K.C.V.O., C.B.E., M.C., F.R.S., Chairman.

Sir Harold Howitt, G.B.E., D.S.O., M.C., Deputy Chairman.

Whitney W. Straight, C.B.E., M.C., D.F.C., Managing Director (Chief Executive).

Major J. R. McCrindle, O.B.E., M.C., Managing Director (External Affairs).

Lord Burghley, K.C.M.G.

Lord Trefgarne

Major R. H. Thornton, M.C. Sir Clement Jones, C.B. Lord Rothschild, G.M., Ph.D.

H. L. Newlands, M.B.E.

Viscount Knollys, K.C.M.G., M.B.E., D.F.C., who had been Chairman of the Corporation since 26th May 1943, retired on 30th June 1947, and the following appointments were made with effect from 1st July 1947:—

Sir Harold Hartley, K.C.V.O., C.B.E., M.C., F.R.S., to be a Member and Chairman.

Whitney W. Straight, C.B.E., M.C., D.F.C., to be a Member.

The Board have appointed Mr. Whitney W. Straight as Managing Director (Chief Executive) and Major J. R. McCrindle as Managing Director (External Affairs) from 1st July 1947.

DEFINITIONS OF TERMS USED IN THE REPORT

[&]quot;CAPACITY TON MILES" is capacity in tons available for passengers, mail or cargo multiplied by the distance flown.

[&]quot;LOAD TON MILES" is the weight in tons of the loads carried multiplied by the distance flown.

[&]quot;LOAD FACTOR" is the ratio of load ton miles carried to capacity ton miles offered.

[&]quot;PASSENGER MILES" is the total number of passengers multiplied by the number of miles they travelled.

[&]quot;SERVICE AIRCRAFT MILES" is the total amount of revenue mileage flown, excluding "dead" mileage such as training, positioning and test flights.

[&]quot;NET ROUTE MILEAGE" is the total mileage of all routes, counting once only stages common to more than one route.

Report for the year ended 31st March 1947

INTRODUCTION AND SUMMARY

- I. The year under review opened a new chapter in the life of the Corporation. It had been formed in 1940 in time to make a great contribution in a war in which air transport was a dominant factor. It had now to face the problems of becoming a commercial airline and holding its own against rapidly growing international competition. The Report gives an account of its main activities during the year, the adjustments that were made from war to peace, the replacement at overseas stations of the services previously provided by the Royal Air Force, the opening of new routes, and a still closer association with its Commonwealth partners.
- 2. The overseas regions in which the Corporation had been organised during the war were superseded by Divisions based at home. The section of the Report dealing with the work of the Divisions describes the establishment of a network of routes to meet the peacetime needs of the United Kingdom and the Commonwealth. The record of the Atlantic Division merits special study, as the most highly competitive air routes of the world are across the North Atlantic.
- 3. The close of the artificial war conditions brought considerable changes in the nature and flow of traffic. The rapid fall in the heavy wartime loads of passengers and freight to the East was partly set off by new traffic to Australia and South Africa, which was shared with our Commonwealth partners. The staff adapted themselves quickly to the new situation, and one of the most promising features of the year was the freely expressed recognition by the public of the high standards of safety, regularity, and passenger service, which were maintained under difficult conditions. Together these constitute a great commercial asset of the Corporation, both now and for the future.
- 4. The operating conditions of the year are reviewed in the Report in the light of the essential requirements of a commercial airline, showing the disadvantages in which the Corporation was placed as regards its fleet of uneconomical aircraft, maintenance facilities and route organisation, and the consequent high costs of operation.
- 5. The process of readjustment and the constant changes of plans threw a heavy burden on the Central Departments—Staff, Medical, Supplies, Technical Development and Training—and the main tasks of each are outlined in the Section dealing with the work of the Departments.
- 6. The end of the war saw the development of many airline interests in the Dominions, in the Colonies, and in the countries along our trunk routes. These have a great significance for the Corporation in the future, both in linking local airlines with our trunk services and in the prospect of their becoming our agents at airports overseas. The Report describes the various ways in which the Corporation has shared in these developments by means of joint operations, or associated companies, or by assistance with technical and administrative staff.

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- 7. The Accounts show a deficit of £8,076,844 on the year's working, in contrast with a notional profit of £1,500,000 in 1944-45, and a notional loss of £518,706 in 1945-46, after the accounts for those years had been adjusted for the estimated value of the services given and received by the Corporation for which no charges were made. The Report shows why the estimated financial results for those years are not in fact comparable with actual results for 1946-47, and explains the main causes of this large deficit. These are briefly:—
 - (i) The multiplicity of types of uneconomical aircraft which the Corporation had to use.
 - (ii) The delay in the delivery of Tudors, and the consequent changes of plans, with their financial repercussions.
 - (iii) The scattered and improvised maintenance bases which the Corporation had to use.
 - (iv) The deficiencies in route organisation.
 - (v) The development work carried out by the Corporation during the year.
 - (vi) The programme of services in which commercial considerations were often subordinated to the national interest.

All these causes contributed to the losses, but the outstanding fact is that with the present types of aircraft, even with a high load factor, receipts barely covered direct operating costs. On many routes little or no contribution was made to indirect costs and overheads, and consequently increased services merely meant an increased deficit.

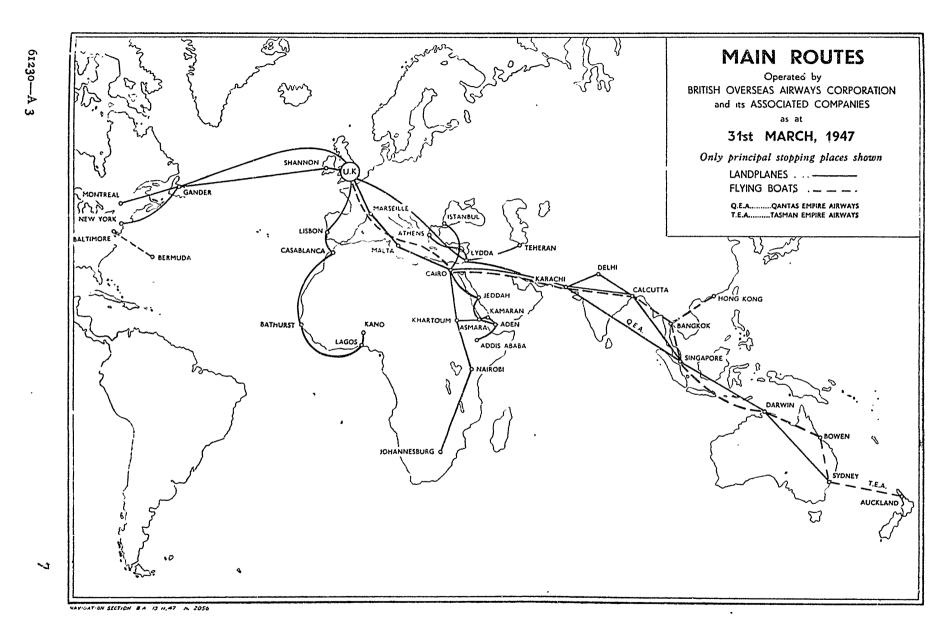
There is only one conclusion. Heavy deficits will inevitably continue until the Corporation has the aircraft and facilities to make it financially selfsupporting in a highly competitive international business.

THE ACTIVITIES OF THE CORPORATION

From the date of its establishment on 1st April 1940, until 24th April 1945, the Corporation operated under the direction of the Secretary of State for Air by virtue of the provisions of the British Overseas Airways Act, 1939, relating to war or national emergency. The Minister of Civil Aviation inherited these powers under the Ministry of Civil Aviation Act on 25th April 1945, and the whole of the Corporation's undertaking remained at the disposal of the Government during the year 1946–47.

During the war years, and in the immediately succeeding period, the bulk of the Corporation's traffic in passengers, mail and cargo was on Government account, no payment being received for these services. On the other hand, it received from Government sources free provision of aircraft, spares and other equipment, as well as receiving from the Royal Air Force—and supplying to the Royal Air Force—both services and supplies. These arrangements for the reciprocal waiver of financial adjustments ceased with effect from 1st April 1946, and the Corporation then became responsible for its revenue and expenditure. But owing to the many adjustments required during the transition from war to peace (the Japanese war had ended unexpectedly early in August 1945) and to its national responsibilities and obligations, the Corporation was operating under abnormal conditions very different from those of a commercial airline.

The Corporation's first duty in 1946-47, as in the war years, was the expansion and development of essential air services along the main trunk routes of the Commonwealth and across the North Atlantic, together with many local services, notably in the Middle East. Some of these services were operated not because they were commercially attractive, but because they were required for reasons of Government policy. Instructions were received by the Corpora-



tion early in the year to expand its services so as to help demobilisation in Transport Command.

The great contribution made by the Corporation since 1940 to the development of air transport is shown by the progressive increase in route mileage:—

•		1940/41	1945/46	1946/47
Net route miles	• • •	25,465	49,585	53,998

The Operations and Traffic statistics will be found in Appendix A.

At a number of points along the routes the Royal Air Force staging posts and facilities, which had hitherto been provided by R.A.F. Transport Command, had to be taken over. The manning and organisation of these stations with their passenger operations, maintenance and medical services, and the provision of additional signals stations was a considerable undertaking. The converted military types of aircraft in use, which included both flying boats and landplanes, and the lack of night-flying facilities at many points made it necessary to retain in use a large number of staging posts, and to improve the passenger accommodation at the night-stops along the routes. On 31st March 1947 B.O.A.C. personnel were employed at 47 overseas bases and stations. All this involved heavy expenditure.

In addition to the North Atlantic and Commonwealth routes, the Corporation operated a number of European services until the latter were handed over to the sister Corporation, British European Airways, which came into operation under the Civil Aviation Act on 1st August 1946.

The operation of certain trunk routes in partnership with other Commonwealth airlines was a notable feature of the year. During the war, except for a break of 17 months in 1942–43, the U.K./Australia route was operated in partnership with Qantas Empire Airways on a wartime basis, under which Q.E.A. were responsible for certain sectors. On re-opening the route via Singapore in May 1946 the operations were placed on a commercial footing. A landplane service to South Africa was developed in partnership with South African Airways, which both B.O.A.C. and S.A.A. operated in parallel throughout the route.

The Corporation, as a nominee of the United Kingdom, was associated with Australia and New Zealand through holding stock in the tripartite British Commonwealth Pacific Airways, operating services from Australia and New Zealand to the U.S.A. and Canada. It was already a partner with these Dominions in a similar organisation—Tasman Empire Airways—which operated services across the Tasman Sea.

During the year the Corporation gave increasing assistance to the development of Colonial airlines. This took the form of advice and guidance, and secondment of trained staff to local companies. The development of Colonial air communications is of the utmost importance not only to the Colonies themselves, but also to the Corporation. These Companies are building up networks of local services which will feed the Commonwealth trunk routes and they will also serve as the Corporation's agents in their areas, to the advantage of all.

Under the agreement made in 1945 the Corporation continued to act as technical advisers to Iraqi Airways. Arrangements were completed for the purchase of a new fleet of British aircraft. The delivery of these has now begun and a number of Iraqi Airways staff are undergoing courses of instruction with the Corporation. Similar assistance is available to other airlines if they desire it.

The work of the Corporation cannot thus be measured olely in terms of the extension of its routes, the opening of new services or the ton miles flown. There is too the service it has given to companies overseas, and notably to British charter companies by handling their aircraft and passengers at stations along its routes. More important still, the Corporation has maintained the standard of safety and re-established the tradition of service which it inherited from Imperial Airways and British Airways. The Corporation's record implies team work of a high order, and on this the late Chairman, Lord Knollys, concentrated his untiring efforts. From 1943 to 1947, he flew over 200,000 miles on the B.O.A.C. routes and not only studied for himself the working conditions at all B.O.A.C. stations at home and overseas, but, more important, strove to know and be known by the men and women who have done so much to maintain the prestige of Britain in the air.

WORK OF THE DIVISIONS

During the early months of 1947, the wartime organisation of the Corporation in five Regions was superseded gradually by a new organisation consisting of three Divisions. The five overseas Regional Headquarters were withdrawn and the Atlantic Division, African and Middle East Division and the Eastern Division took their place. The European Division which had been formed in January 1946 was taken over by British European Airways on 1st August 1946.

The primary purpose of this change in organisation was to simplify the control of Operations and Administration by concentrating responsibility for the execution of services over the entire length of the routes in each of the three geographical areas in the hands of a single home based organisation, with the exception of the Atlantic Division, which is temporarily based in North America.

For the sake of simplicity the operations of the year are summarised under the headings of the Divisions of which they now form part.

Atlantic Division

In the year under review the Atlantic Division consolidated into a commercial service the great experience of Atlantic operations which B.O.A.C. crews and ground personnel had gained during the war on converted bombers and flying boats. In January 1946 authority was given to the Corporation by His Majesty's Government to purchase five Constellation Model 49 aircraft. These were converted from the military to the civil version and delivery began in May. In three months ground crews and flying staff had completed specially planned conversion courses and, after proving flights over the Atlantic in June, the New York/London service was started on 1st July, the date which had been planned in January of the same year.

This was a remarkable achievement considering the peculiar difficulties of the Atlantic Route both as regards operation and organisation. It could not have been attained without, firstly, the nucleus of the North Atlantic trained crews which had been built up during the war, including seventeen Atlantic Captains each of whom had completed over a hundred crossings; secondly, the ground base overhaul equipment and hangar accommodation at Dorval near Montreal which was vacated by No. 45 Group R.A.F. Transport Command and leased to the Corporation by the Canadian Government; thirdly, the British engineering personnel transferred from the Corporation's Baltimore base to work with the Canadian staff at Dorval, many of whom had been in R.A.F. and B.O.A.C. service on the Return Ferry route throughout the war.

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Apart from the advantages offered by Dorval, no suitable base was available in the United Kingdom, a fact which has been confirmed by subsequent examination. The importance of a well-equipped base for efficient and economical air operations cannot be over-emphasised. It is a vital factor both in regularity of service and in the high utilisation of aircraft. This is well illustrated by the fact that the five aircraft on the Atlantic route, in spite of temporary grounding by the United States and British authorities during August, were operating four services a week by the end of November 1946, and since that date have reached a service utilisation of more than eight services per week, the equivalent of 3,000 hours per annum, or more than eight hours per day per aircraft. High utilisation is essential for the economical use of costly modern aircraft and the figure for the Atlantic Division compares well with those of its most efficient competitors.

But for the acquisition of the Constellations and their introduction into service by 1st July, the British commercial service across the North Atlantic would have ceased in the autumn of 1946.

The development of the Constellation service brought to an end in September the famous Return Ferry Service, which had maintained an unbroken record across the North Atlantic summer and winter for more than five war years. The converted Liberator bombers of the R.F.S. still continue to fly between Montreal and London to train crews and to carry freight, staff passengers and mail. They are thus serving a valuable purpose in building up further Atlantic crew experience.

The Boeing flying boats were withdrawn from the Atlantic service in March 1946, and concentrated on the Baltimore/Bermuda service, where their high standard of comfort attracted good payloads.

Eastern Division

At the beginning of the year the Eastern Division operated six flying boat services a week in and out of Poole and five landplane services a week based on Hurn.

The six flying boat services were carried out by Hythes (a development of the Short Sunderland III), which at first flew three times a week to Calcutta and three times a week to Singapore. Early in 1946 the Calcutta service was withdrawn and the Singapore service reduced to twice a week to enable a service to be operated between the United Kingdom and Sydney three times a week. The Singapore frequency was later reduced to once a week and a weekly service introduced between the United Kingdom and Hongkong, with a weekly shuttle service between Hongkong and Singapore.

On the landplane services, Lancastrians operated an "express" service to Sydney three times a week with a 63-hour schedule, and Yorks operated twice a week to Calcutta, the frequency being doubled during the year.

. The Hythe and Lancastrian services to Sydney were flown in partnership with Qantas Empire Airways who were responsible for handling and operating the common-user aircraft between Singapore and Sydney. They also provided the crews for the Hythes between Singapore and Sydney and the Lancastrians between Karachi and Sydney.

African and Middle East Division

The African and Middle East Division took over the home-based Dakota services to the Middle East and West Africa, the Halton service to the Middle

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East, and the Cairo-based local services in the Middle East. This Division was responsible in the early weeks of 1947 for winding up the operations of the Durban-based "Empire" flying boats which, in the earlier stages of the war, had operated on the famous Horseshoe Route, first between Durban and Sydney and, after the fall of Singapore, between Durban and Calcutta via Kisumu, Cairo and the Persian Gulf, in addition to services via the Congo to West Africa to link with the United Kingdom, and to Madagascar.

The Division also became responsible for the York services twice a week to Cairo and twice a week to Johannesburg, the latter rising to six a week by March 1947. This York service between United Kingdom and Johannesburg, known as the Springbok service, was a joint operation in partnership with South African Airways. In addition, the Division took over the service between Poole and Rod-el-Farag on the Nile at Cairo, operated by the "Golden Hind", the last of the "G" Class flying boats built for Imperial Airways just before the war.

The Dakotas were based at Whitchurch and were mainly employed in providing services to West Africa at a frequency of three to four services a week, to Cairo at a frequency varying from three to fourteen services a week, and once weekly to Palestine and the Lebanon from the United Kingdom. An internal service in Nigeria was operated with Dakotas on charter to the Nigerian Government. This linked Port Harcourt, Jos, Kano and other centres with Lagos, the capital of the colony. The Dakota service to Lagos from the United Kingdom provided essential links between the Gambia, Sierra Leone, Gold Coast and Nigeria.

The local Middle East services controlled by the Division were operated by Lockheed Lodestars based on Cairo, to the directions of the Middle East Air Transport Board. Regular services radiated from Cairo to Nairobi, Istanbul, Basra, Port Sudan, Aden, Addis Ababa, and to Karachi via the Hadramaut Coast. Services were operated also between Cairo and Athens and between Athens and Teheran, the latter, in conjunction with the British European Airways service to Athens, forming a direct link between the United Kingdom and Arab and Iranian capitals, which was a Foreign Office requirement.

TRAFFIC

The capacity ton miles, passenger load factor and overall load factor for the year are shown below compared with 1945-46 and with 1940-41, the Corporation's first year of operation:—

•	I940–4I	1945–40	1940–47
Capacity ton miles (C.T.M.)	8,375,290	67,352,983	59,258,901
Passenger load factor, percentage	66*	72*	74·I
Overall load factor, percentage	75·I	74.5	64.7

* Estimated.

In the year 1945-46 traffic reached a wartime peak, consisting largely of military loads, and 1946-47 saw a rapid change in its nature and flow. There was a sharp decline in the traffic on the routes from the United Kingdom to the East, on which military traffic—personnel, troop mail and war cargoes—had been predominant. On the U.K./India/Malaya service alone there was a drop of over 11½ million capacity ton miles compared with the previous year. This was more than balanced by the increased capacity offered on the Australian and South African routes, but as these were shared with Q.E.A. and S.A.A. half of the capacity offered, or nearly 12 million capacity ton miles, do not appear in B.O.A.C.'s figures. Even so the increase of capacity ton miles on B.O.A.C.'s share of the services on these routes was considerable:—

	1945–46	1946–47
	2,050,623	7,334,013
United Kingdom-South Africa (C.T.M.)	. 679,132	4,801,123

There was a gap in the commercial Atlantic service from 7th March 1946, when the Boeing flying boats were transferred to the Baltimore/Bermuda service until 1st July, 1946, when the Constellation service began. The service was, however, suspended from 10th July until 30th August, 1946, while the aircraft were grounded. In spite of this service operating little more than six months of the year the total capacity ton miles amounted to 4,457,737 compared with 4,093,932 for the previous year's operations with Boeing flying boats.

Passenger load ton miles dropped from 29,121,100 to 26,381,217, a fall of 9.4%, while excess baggage showed a steep drop of 57.8% due to a substantial increase in the free baggage allowance. Passenger revenue amounted to £6,465,605, or 56% of the total revenue, while the passenger ton miles comprised 69% of the total load miles. A total of 129,928 passengers were carried during the year for an average distance of 2,127 miles for each passenger.

It was expected that the end of the war would bring a marked decline in passenger traffic to the Middle East, and it was therefore encouraging that the traffic on the U.K./Middle East service remained constant, 14,533 passengers being carried in 1946-47 as against 14,689 in 1945-46.

Mail ton miles increased by 3.4% to 5,985,364, and mail revenue amounted to £3,403,225 or 30% of the total traffic receipts.

Commercial freight showed a striking drop of 68.5% compared with the previous year, from 11,418,814 to 3,598,384 load ton miles, due to the inclusion in the earlier year of war cargoes. Commercial freight revenue amounted to only £553,824 or barely 5% of the total revenue.

For some time before the beginning of the year preparations were being made for the time when the Corporation would return to commercial operation, when its aircraft would no longer be filled by Government priority traffic, and the Corporation would have to sell its services in what was certain to be a highly competitive market.

The relaxation of Government control was in fact less rapid than had been expected, and at the end of the year most services were still subject to some degree of priority control. This inevitably handicapped commercial development of the routes.

Considerable progress was made in improving the technique of booking, documentation, and the traffic handling of both passengers and cargo. A new problem appeared with the formation of numerous British charter companies which relied largely on the Corporation for handling their services at its overseas stations.

The prestige of the Corporation depends to a large extent on its reputation for "service to the passenger", from the time he books to his arrival at his destination. Individual attention plays a large part in a passenger's comfort on an air journey, and it is satisfactory to record a growing volume of appreciation by passengers both at home and overseas of the high quality of the Corporation's services.

REVIEW OF OPERATING CONDITIONS

Certain requirements are essential to the efficient and economical operation of a civil airline:—

(1) Aircraft with economical characteristics competitive with those of other operators.

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- (2) A standardised fleet of aircraft of not more than two or three main types suited to the operating and traffic requirements of the routes.
- (3) A network of routes sufficiently large and adequate in traffic potentials to permit a high utilisation of the aircraft.
- (4) A well developed route organisation.
- (5) A high standard of aircraft maintenance and well equipped maintenance bases.
- (6) A high standard of aircrew and ground crew training.

The Corporation's position as regards these essentials is set out below.

Aircraft.

On 1st April 1946 the Corporation's fleet strength, including aircraft used for training and under development, was 207, and the main operating fleet comprised nine different types. At the end of the year the fleet totalled 175 aircraft, but there was no reduction of types in the main operating fleet. The majority of the Corporation's fleet in 1946–47, with the exception of the five Constellations which came into service in July, was composed of obsolescent aircraft, nearly all being military conversions. They were of relatively small capacity, needing a large number of aircrews, and, with the limitations imposed by the length of the stages on the Corporation's routes, their payloads were small in contrast to their high operating costs.

The number of different types in the fleet made the planning of operations both complex and costly. In addition it required the multiple training of air and ground crews, it necessitated the holding of a large assortment of spares both at bases and along the routes, and a much larger number of accounting, administrative and maintenance staff than would have been required with a unified fleet of economical aircraft.

The York aircraft provided for the Corporation were equipped with a limited number of seats and large cargo capacity intended for Transport Command operation. They were an early series and needed extensive modifications, including strengthening of undercarriages, strengthening of engine bearers and complete electrical re-wiring. Furnishing and modifications of these aircraft took several weeks, and their operating costs were high.

During the war the Corporation was given a number of military Sunderland Mark III flying boats, completely unfurnished. Their operating costs were extremely high, while their conversion for civil use cost some £6,000 per aircraft, and kept them out of service for many weeks.

A large proportion of the fleet consisted of Pakotas. All those delivered to the Corporation were of military type without furnishing or seating. Their conversion to modest civil standards cost about £5,000 per aircraft and took about three months for each.

When the Corporation agreed to use twelve converted Halifax bombers, renamed Haltons, to help fill the gap of twelve to fourteen months before the postponed introduction of the Tudor II, it was stipulated that the aircraft should be delivered between May and June 1946, complete in all details for operation on the Empire routes. The first six aircraft were delivered without de-icing equipment, and the promised spares were not forthcoming. At Bovingdon, the base provided for these aircraft, the hangars were unheated and no living accommodation was available at the station. Despite these handicaps, a limited service was started in September 1946, but after six weeks the aircraft had to be grounded for failures in the hydraulic system. The aircraft were returned to the manufacturers for fitting of de-icing equipment and did not operate again in the year under review. The maintenance of the

base with approximately 400 personnel for nearly twelve months was therefore almost completely unproductive. Its cost was £193.120 for approximately 1,000 aircraft hours on service during the year.

The foregoing paragraphs describe some of the handicaps from which the Corporation suffered in respect of its aircraft during the year. The outstanding factor however affecting the financial results was that with the existing types of aircraft, even with a high load factor, the revenue on most routes was barely equal to the direct operating costs and thus made little or no contribution to the indirect operating costs (station charges and route administration). The deficit therefore grew with increased services.

The indirect operating costs of the flying boat services are particularly high. B.O.A.C. is the only major user of flying boats and has had to provide its own marine airports, whereas aerodromes and aerodrome facilities are normally provided by the Government concerned on payment of a landing fee. This situation involves the Corporation in the abnormal expense of providing marine craft, moorings and essential services and the duplication of staffs at stations where the Corporation also use land airports. Moreover, the provision of accommodation for passengers at night stops on the flying boat services is costly and the night stops reduce the utilisation of the aircraft. While the flying boat services are popular with the public because of their comfort, their use involves the provision of marine airports and accommodation at a cost to the Corporation of roughly £1,150,000 per annum.

A summary of aircraft will be found in appendix B.

Route Organisation

The Corporation operates one of the largest networks of routes in the world and there is little doubt that it could be operated economically with suitable aircraft and good route organisation. By this is meant provision of adequate aerodromes for day and night flying, their proper equipment with navigational aids, including bad weather approach and landing aids, and the provision along the routes of efficient meteorological and signals services. All of these are necessary for safe and regular operation, and are essential if high utilisation of aircraft is to be achieved. But the provision of none of them is controlled by the Corporation, which is entirely dependent on Foreign, Dominion and Colonial Administrations for the route organisation overseas.

With the exception of the Atlantic route, facilities on the Corporation's routes during the year were far below minimum requirements, resulting in great difficulty in adhering to operational schedules, in reduced aircraft utilisation and payloads and in restriction of the types of aircraft which could be used. The service on one route had to be completely withdrawn and another suspended for some weeks due to the inability of the civil authorities to provide meteorological facilities previously provided by the R.A.F. Demobilisation of the R.A.F. also restricted the route facilities on the North African Coast to daylight hours only and the Dakota service between the United Kingdom and Middle East, which had previously operated direct, with refuelling stops only, had to be operated to a slow schedule with a rightstop each way.

It is not suggested that these deficiencies might all have been avoided. They were, for the most part, the aftermath of a world war. But for a civil airline they meant irregular services, uneconomical operations and high costs.

Maintenance and Maintenance Bases

There remains the all important question of maintenance, which is the essential basis of safe and regular airline operations and a high utilisation of aircraft.

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The first requirement is a well-equipped maintenance base at or near to the main terminal aerodrome. At the end of the war there were few buildings available at the aerodromes designated for civil use. Maintenance therefore had to be carried on either in the open air or in hangars and workshops which were for the most part unheated and widely dispersed. London Airport was opened for operations in May 1946, but as there were no hangars or workshops available to the Corporation, the landplanes based in the United Kingdom had to be maintained elsewhere, Lancastrians and Yorks at Hurn in Hampshire. Dakotas at Whitchurch in Somerset and Haltons at Bovingdon in Hertfordshire, involving high costs for dead flying. In order to ensure that aircraft would be in position for scheduled departures, they often had to be positioned the evening before departure, especially during the bad weather months, resulting in reduced utilisation and higher costs of flying crews. The same situation existed with the flying boats based at Hythe and operated from Poole. During the year the Corporation was obliged to use eight maintenance bases which meant multiplication of administrative staffs, capital equipment and various ancillary services.

Inadequate maintenance facilities and the lack of spares were major factors in the low average utilisation of the Corporation's aircraft during the year. This was reflected in high costs.

As an illustration of this, the Hythe flying boats operating from a pre-war civil base have achieved on long Empire routes and despite their slow schedule and night-stops a utilisation of some 2,100 hours per annum per aircraft, coupled with a figure of 4.5 manpower hours per flying hour, on direct maintenance. On the other hand, York aircraft of similar size, operating from a widely dispersed wartime R.A.F. base at Hurn, have achieved only 1,350 hours utilisation per annum, with a maintenance figure of 10 manpower hours per flying hour.

Accidents

Unfortunately the Corporation's remarkable record of freedom from fatal accidents to passengers since 29th November 1944 ended with an accident at Stowting, Kent, when four passengers lost their lives. There were two other accidents in which passengers were injured. During the year the Corporation's aircraft flew 276,000,000 passenger miles, and the accident ratio therefore shows a good record of safety. This has been achieved by the skill and experience of its pilots, aircrews, and maintenance staff, and by the extensive programme of training development and proving flights on which aircraft flew over three million miles. The Corporation regrets that there were three fatal accidents on these flights, in which twelve members of its aircrews lost their lives.

Details of the accidents are given in Appendix D.

WORK OF THE DEPARTMENTS

Staff

The total number of staff on the strength of the Corporation at 31st March 1947 was 24,464, an increase of 1,515 compared with March 1946. Of this total, British contract staff represented 1,236 overseas and 1,536 in the United Kingdom: comparable figures for March 1946 were 1,431 and 670 respectively. The remainder, numbering 21,692, were engaged locally, 30% of these being nationals of the countries overseas in which they were employed, mainly on low category tasks.

Comparisons are often seen of the number of staff employed by airlines for each aircraft operated. This may give an entirely false impression as the

number will vary with the type of aircraft, with local conditions and responsibilities, and with the amount of work put out to contract. As the business of airlines is the production of capacity ton miles and their sale to the public, this forms a better standard of comparison as regards the number of staff, provided all the factors are taken into consideration. In 1946–47 the Corporation as a whole produced 2,422 capacity ton miles per employee, while the Atlantic Division with a staff of 1,493, equipped with fourteen aircraft (five Constellations, three Boeing 314's and six Liberators), operating with high utilisation from well equipped bases at Dorval and Baltimore, produced 6,493 capacity ton miles per employee.

A considerable number of the staff carried on the Corporation's strength were, in fact, engaged on work for other operators. In the case of the Central Training School all the staff are carried on the B.O.A.C. strength while only 55% of the personnel trained were for B.O.A.C. The proportion of B.O.A.C. services handled at many major stations was relatively small, and at Airways Terminal 79% of the services handled in the March quarter of 1947 were for other operators.

Good progress was made during the year in the concentration of the staff previously scattered in wartime accommodation in London and Bristol, with an increase in efficiency and economy. For this purpose the Corporation bought Simmond's Aerocessories Factory on the Great West Road, Brentford, within seven miles of London Airport. Staff were transferred there gradually as the necessary alterations were made, and a considerable amount of accommodation elsewhere was released.

National Joint Council for Civil Air Transport

Under the provisions of Section 19 of the Civil Aviation Act 1946, the Corporation is responsible for ensuring that adequate machinery exists for the settlement by negotiations of terms and conditions of service of the staff and for the discussion of other matters of mutual interest to the Corporation and members of its staff. Accordingly, following discussions between representatives of the three Corporations and of the Trade Unions concerned under the aegis of the Ministry of Labour, the constitution of a National Joint Council was drawn up and approved in November 1946.

Ten Sectional Panels have been set up by the Council in order to cover all sections of the staff, joint meetings of which are held to discuss subjects affecting more than one panel. Ad hoc sub-committees have been formed when required to deal with special matters, and there is a standing Joint Committee to ensure that all major problems are dealt with quickly.

The subjects dealt with have covered almost the whole range of the Corporation's activities, specific agreements have already been concluded on nine major issues and in only one case has it been necessary to refer a question to the Industrial Court, owing to failure to reach an agreement. It can therefore be said that the National Joint Council for Civil Aviation is one of the most successful examples of its kind, and unlike most others covers all sections of staff. It is the first example of the application of national joint machinery to an industry which is composed largely of Government Corporations.

Medical

The Medical Department was re-organised during the year to meet the requirements of the Corporation on a peacetime footing. The major problem has been to provide alternative sources for the numerous specialist services afforded to the Corporation by the Fighting Services at all stations at home and overseas, particularly in the fields of clinical medicine, hygiene and aviation medicine.

These services were withdrawn at the end of the war and their replacement involved considerable new expenditure but, as medicine plays such an important part in civil aviation and in the efficiency of the Corporation, this was unavoidable.

In each Division there is a Medical Superintendent in charge of the medical arrangements on the routes. At home there are sick bays at each station, factory and base to provide for the supervision of the health and fitness of aircrew and ground staff, their preparation for overseas service, medical records and statistics, hygiene services and first aid to passengers and staff. At stations abroad similar provision is made, including medical treatment for the Corporation's overseas staff.

In aviation medicine progress has been made in applying the lessons learnt during the war to the comfort of passengers and the medical supervision of aircrews. Special studies have been made of oxygen equipment, air sickness, diet, aircrew fatigue and passenger seating. The three Corporations have set up a Medical Sub-Committee for the exchange of information about their common problems and to secure the maximum co-operation of their medical services. They now have a joint representative on the Flying Personnel Research Committee of the Air Ministry.

The subject of international quarantine has assumed increasing importance in air travel and the Corporation is taking an active part in the effort to simplify quarantine regulations affecting the Corporation's passengers and aircrew.

Supplies

Upon the efficiency of the supplies organisation depends in large measure the efficiency of aircraft maintenance. Although considerable progress has been made in the conversion to peacetime procedure, serious difficulties have still to be overcome. The most prominent of these is the necessity to maintain a very wide range of spares on account of the number of different types of aircraft to be serviced. Other problems, which are not unique to civil aviation, include the actual shortage of the spares themselves and the difficulties of shipping and transport generally.

Technical Development

The scale of the Corporation's post-war re-equipment programme, and the many radical changes of technique which had taken place during the war years, made it necessary for part of the Corporation's resources on the technical side to be concentrated upon the future, and separated from the many current technical problems of the post-war period. A Technical Development Department was therefore established. It included, on the one hand, the Project Branch, which deals with new aircraft and equipment from the specification stage through design, development and construction of the prototypes, and, on the other, the Development Flight, whose function is to test new aircraft or equipment before they are put into service. The two are complementary to each other and work in close collaboration. A considerable number of tests was made by the Development Flight at the request of the Ministries and all its work has been done with their approval under the joint arrangements which were in force during this period. Continuous and close working contact is maintained between the Technical Development Department and Current Operations, so that the Corporation's accumulated experience is applied by the Project Branch to the design of new aircraft.

The Corporation's Technical Development Department carried out development and pre-service testing of certain new aircraft and engines for all three national Corporations and for the Ministry of Supply.

Repair Division

The Repair Division of the Corporation was formed on 1st October 1946 by the combination of the Repair Base at Croydon and the factories of the Propellor and Engine Repair Auxiliary at Treforest. The object of the formation of the Division was to give greater economy and increased technical efficiency by the concentration of repair and overhaul in one organization. During the year the Treforest Base overhauled 1,000 engines and 736 propellors. The Croydon Base was mainly engaged in major overhauls and conversions of Dakota, York and Lancastrian types of aircraft, of which forty-two were overhauled and returned to service during the first half year of the Repair Division's existence. Large numbers of aircraft components and accessories, received as unserviceable from the operating lines, were repaired and returned to service.

Training

The Corporation has always insisted on high standards of training as a vital factor in the development of safe and regular operation of its services.

During the war aircrews had been recruited by secondment from the R.A.F. for a period of only eighteen months. The effect of this was felt after the war as many of the seconded R.A.F. aircrew wanted to return to their peacetime occupations, whilst others were unsuitable owing to age or other reasons for permanent employment in the Corporation. Consequently fresh aircrews had to be recruited and trained for some months before they could fly on the routes. Full civil licences had also to be obtained by ex-R.A.F. aircrew who had flown with provisional licences during the war. The same applied to ground engineers. The new types of aircraft also involved an extensive programme of aircrew and ground engineering training.

In March 1946 a Central Training School was opened at Aldermaston for landplane pilots, navigation, radio and engineer officers. Aldermaston was the only aerodrome available within easy reach, but as the buildings were widely dispersed, in poor condition and unsuited to instructional purposes, the cost to the Corporation was necessarily high. This was increased by frequent changes in training requirements, due largely to the delays in delivery of Tudor aircraft and the consequent sudden need to introduce other types, such as Haltons and Plymouths, or to increase the number of crews for Yorks, Lancastrians, Hythes and Dakotas. All of these, owing to their limited capacity, needed a larger number of crews than would have been required for aircraft of larger capacity.

A total of 847 aircrew were trained at Aldermaston during the year. In addition there were training schools overseas at Almaza and at Montreal and an engineering school at White Waltham. At the latter 1,701 engineers were trained between May 1946 and August 1947.

INTERNATIONAL AGREEMENTS

There have been considerable developments in international air transport policy. The Corporation has provided advisers to United Kingdom delegations at international meetings, and has been consulted by the Ministry in the course of the negotiation of a number of bilateral agreements with Dominion and Foreign Governments. These bilateral agreements are of vital importance to the Corporation, as they provide the commercial consents in overseas territories in which the Corporation operates.

The increasing activities of I.A.T.A. have aided the resumption of close relations between the operators which played so important a part in the industry before the war. The Corporation, as the largest British operator, took a leading part in the work of the Association.

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ASSOCIATED AND SUBSIDIARY COMPANIES

During the year there have been several changes in the Corporation's investments in associated enterprises. The shareholding in Qantas Empire Airways Ltd. was disposed of to the Australian Government. Under the proposed arrangements for the raising of fresh capital by Tasman Empire Airways, the Corporation's holding of 38% will be reduced to 20%, New Zealand and Australia holding 50% and 30% respectively.

A new company, British Commonwealth Pacific Airlines Ltd., has been formed, the Australian Government subscribing 50% and New Zealand 30% of the capital, while the Corporation held 20% as nominee of the United Kingdom Government. This company is responsible for the trans-Pacific services between the Pacific Dominions and North America, and until it has its own aircraft the service is being operated by Australian National Airways under a short term contract.

The Corporation acquired a 10% holding in the Irish company, Aer Lingus, The three British Corporations took the initiative in forming a company called International Aeradio Ltd. Although the Corporations are at present the main shareholders, it is hoped that the airlines of other countries will participate in order to broaden its basis and make it a truly international company. The company was formed for the purpose of helping countries in need of assistance in providing communications, flying control and navigational facilities for civil aviation. The company, whose operations are conducted on a non-profit-making basis, has already made a good beginning and it should

AIRLINE CHAIRMEN'S COMMITTEE

prove of the greatest value to the users of the routes it serves.

In order to provide a regular channel for consultation between the Corporations and to secure a co-ordinated policy between them, a Chairmen's Committee was formed in January 1946, with Sub-Committees dealing with Staff, Pensions, Traffic and Medical Services. Regular meetings are held for the discussion of common problems and interchange of information. These have led to an agreed policy on a number of major issues and have avoided any wasteful overlapping of effort.

STATEMENT OF ACCOUNTS

The Balance Sheet of the Corporation as at 31st March 1947, with the report of the Auditors thereon, and the Operating Account and Surplus and Deficiency Account for the year ended 31st March 1947 are submitted herewith, in the form directed by the Minister. The Operating Account is summarised to show the distinction between the provision of air transport facilities upon scheduled journeys, and the provision of air transport facilities otherwise than upon such journeys, in accordance with Section 21 (i) of the Civil Aviation Act 1946; no aerial work was conducted during the year which does not consist of the provision of air transport facilities.

The figures are shown for the previous year for record purposes, although they are of no comparative value because of the waiver arrangements with the Ministry of Civil Aviation which were in force that year. Under these arrangements, the greater part of the revenue earned by the Corporation in that year was not receivable from the Government Departments concerned, while on the other hand aircraft, supplies, services and facilities were provided free of charge to the Corporation by Government Departments. During the year to 31st March 1947, however, all expenditure has been fully provided for and revenue included for all traffic carried on the Corporation's services,

with the exception of a short period on the Atlantic Liberator service when passengers and cargo were, at the direction of the Ministry, carried without payment; the notional revenue attributable to such carriage amounted to approximately £117,000. It will thus be seen that any comparison of figures with the previous year will be misleading, not only in the case of direct operating costs, but even for administration overheads, where accommodation, personnel, equipment and facilities were provided free of charge.

The Corporation Reports for the years 1944-45 and 1945-46 contained estimates of the financial results of its operations based on notional assessments of the uncredited revenue and unpaid expenditure under the waiver arrangements referred to above. After inclusion of these assessments, there was an estimated profit of £1,500,000 in 1945-45, and an estimated loss of £519,000 in 1945-46. By contrast, the accounts for 1946-47, based on actual earnings and expenditure, as forecast in the Reports of the two previous years and in the Civil Aviation Act of 1946, show a considerable deficit amounting to £8,076,844.

Operating Account

The deficit for the year on the operation of scheduled services amounted to £7,271,051, while a profit of £12,861 was made on non-scheduled services resulting in a net deficit on the provision of air transport facilities of £7,258,190.

Non-scheduled services represents flights operated on charter to the public and regular services operated on a charter basis for certain associated companies who operate local or feeder services. The profit shown for these services has been earned mainly on the charter flights to the public, for which the fees are computed, in line with other operators, on the basis of full loads.

Traffic Revenue

Traffic revenue for the carriage of passengers, mail, diplomatic and commercial freight and for charters amounted to £11,459,734. The actual revenue receivable in the previous year was £6,173,955 while the estimated total including the notional value of traffic carried free of charge would have been £15,762,955. The total revenue has decreased as a result of a substantial lowering of the general level of fares and the loss of two-thirds of the abnormal quantities of cargo and diplomatic mail carried during wartime. The reductions of fares were made partly by international agreement through I.A.T.A. and partly by direct negotiation with other operators.

The average rate earned for mail during the war was as high as 211d. per load ton mile, due to the large quantities and relatively small weight of troop mail, whereas the rate for 1946-47 has dropped to 136d. per load ton mile.

Mail revenue for the year to 31st March 1947, amounting to £3,403,225, consists mainly of a sum remitted by the Ministry of Civil Aviation representing the Ministry's assessment of the mail revenue that would have been earned by the Corporation had commercial arrangements operated throughout the year. The introduction of conveyance rates on the Corporation's routes generally took effect from 1st April 1947 when the Empire Air Mail Scheme ended.

Operating Expenditure

The total expenditure on Operating Account for the year was £18,805,703. The actual expenditure for the previous year was £11,565,548 or on an assessed basis £15,883,548 including the notional value of free services, facilities and supplies.

The primary cause of the high rate of expenditure was the necessity of operating a number of types of uneconomic aircraft from a number of widely

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dispersed and improvised maintenance bases. In addition the Corporation had to assume responsibility for previously indeterminate expenditure both at home and overseas which was masked under the wartime arrangements. Expenditure under all heads rose inevitably with the increased costs of labour and materials.

The plans which the Corporation had prepared for 1946-47 involved a considerable increase in the year's operations based largely on the use of Tudor I and Tudor II, which were due to come into service. Ground organisation, staff and equipment were expanded to meet these plans and their postponement involved the Corporation in serious unproductive expenditure and increased overheads. New plans had to be drawn up and these, in turn, had to be changed from time to time, owing to delays in delivery of other aircraft. Moreover, the Tudor II would, on the basis of its specification, have given a better financial return than the aircraft of smaller capacity which had to be flown on the Empire routes.

During the year the Corporation has no control over the prices charged for most supplies of aircraft and engine spares or for much overhaul work carried out under contract, as control in these respects is exercised by the Ministry of Supply, who place the contracts, and by the Ministry of Civil Aviation.

Station Costs reflect the higher cost of providing facilities with civil standards at stations where services were previously handled by the R.A.F. and of providing higher standards at all stations now that wartime austerity standards can be relaxed. The provision of both fixing boat and landplane facilities on the major Empire routes involves disproportionate station costs which could have been avoided had suitable landplanes and airports been available. Station costs include the cost of certain facilities, such as the provision of ground radio, which would normally be the responsibility of the local authority or of the Ministry of Civil Aviation, where the local authority is unwilling to provide them.

Charges to other airline and charter operators for handling their services have been increased since the end of the year, so as to recover from them their fair share of the cost of the work.

Divisional administration represents the cost of local administration, mainly in overseas areas. It includes the costs of the Headquarters of each operating Line, responsible for supervision and control of operations throughout the routes served by the Line; of Area Headquarters, responsible for the administration of stations and all services within the area (including area central stores from which supplies for all stations in the area are provisioned); and, during the later months of the year, of Divisional Headquarters.

Training expenditure is high because an exceptionally large number of crews had to be recruited and trained to replace aircrews seconded from the R.A.F. during the war. The introduction of new aircraft types also involved extensive training of existing aircrews and engineering staff.

The costs of Central Supplies organisation have previously been shown under the Head Office Administration.

Head Office Administration and General Services, the cost of which is £1,313,010, includes the cost of all the centralised services (other than Supplies)—Medical, Technical, Statistics, United Kingdom Sales, Transport and Works Services—as well as the cost of Head Office management.

The ratio of indirect costs to total expenditure is considerably lower than that shown by the available accounts of other operators concerned with a world-wide net work of routes of comparable length and complexity. For this purpose indirect costs comprise Head Office and Divisional administration,

central supplies, technical training, sales and publicity, station costs and certain engineering base overheads. Although it is difficult to be certain in such a matter, it is believed that the figures taken are strictly comparable.

Ancillary Undertakings

A separate account is submitted of activities which have been undertaken at the request of the Ministry of Civil Aviation and which are outside the normal work of an airline operator.

Bermuda Marine Airport is managed by the Corporation on behalf of the Bermuda Government, by arrangement with the Ministry. The appropriate charges for the Corporation's own services have been included in the Operating Account and in the Airport Management revenue. The deficit is reimbursed by the Ministry and represents the excess cost over normal airport charges of running the marine airport.

The Development Flight, whose programme is subject to approval by the Ministry of Civil Aviation and the Ministry of Supply, carried out tests of new aircraft and equipment under operating conditions.

Surplus and Deficiency Account

The deficiency for the year amounts to £8,076,844 and has been carried to Ministry of Civil Aviation—Deficiency Grant Account. This includes provision for the redemption of Airways Stock of £301,389 made in accordance with the regulations. As a result the accounts for the year are debited both with full obsolescence of assets and with the year's provision for the amortization of the whole of the capital.

The contribution of £24,953 to an associated undertaking in respect of operating losses on air services is a provision for the deficit incurred by Qantas Empire Airways on the Karachi/Sydney sector of the U.K./Australia route operated by them until 12th May 1946, when the Kangaroo service was started in parallel with them. The deficit on the operations is reimbursed to Qantas Empire Airways in accordance with arrangements approved by the Ministry of Civil Aviation.

Provision for a loss of £15,000 has been made in respect of estimated losses on operations of Aer Lingus to 31st March 1947. Audited accounts have not yet been seen and the provision has been made on such information as is available.

Balance Sheet

An issue of capital was made on 1st June 1946, when £5,750,000 $2\frac{1}{2}\%$ Airways Stock 1971/76 was issued at 99, bringing the total issued capital to £10,000,000. Further capital of £10,000,000 bringing the issued capital up to £20,000,000 was obtained on 24th January 1947, by the issue at $101\frac{1}{2}$ of $2\frac{1}{2}\%$ Airways Stock 1977/82. This sum would have been required over the next few months for the purchase of new aircraft had they been delivered in accordance with the programme anticipated at the date of issue. Owing to the delay this capital is surplus to immediate needs and the greater part has been placed on deposit with the Corporation's bankers. In the following year part of this surplus capital has been lent to British European Airways.

Aircraft provided free of charge during the war period were bought from the Ministry of Civil Aviation as at 1st April 1946, together with aircraft and engine spares and specialised equipment. Five Constellation aircraft were bought during the year for use on the Atlantic route. In addition twelve Haltons were acquired through the Ministry of Civil Aviation and the Ministry of Supply and the first of the Plymouth flying boats for use on the Far East service was also received during the year.

Aircraft and engine spares have been valued at cost in all cases where the spares have been purchased direct from the manufacturer. Spares held at 1st April 1946 were bought from Ministry of Civil Aviation at a figure based on a broadly assessed estimate of the value of the spares after taking into account the remaining operational life of each type. They were taken on charge at valuation representing the assessed original cost for each item, and the difference between this valuation and the price paid to the Ministry was credited to a reserve account. This reserve has been deducted from the cost valuation of stocks on hand at 31st March 1947, so as to reduce that figure to cost or under. Spares acquired since 1st April 1946 through the Ministry of Supply have been valued at assessed prices, in the absence of any detailed invoices from the suppliers or the Ministry of Supply. The preparation of the Accounts was seriously complicated and delayed by this lack of prices for supplies and engine overhauls.

The provision for obsolescence on airframe and engine spares is high in proportion to that on aircraft and spare engines because stocks of spares on hand at 1st April 1946 were not sufficient for the remainder of the life of the various aircraft types, and substantial purchases of spares had to be made during the current year. Provision for obsolescence on these new stocks has to be provided over the short remaining operational life of the aircraft types instead of over the full operational life. Further, the provisions for obsolescence on aircraft and spare engines is abnormally low because some of the aircraft types in operation have already been operating longer than was originally anticipated and they therefore stand in the books at only a nominal figure.

Freehold and leasehold land and premises, at a cost of £1,378,139, consist mainly of the three major properties owned by the Corporation in the United Kingdom, namely Airways Terminal at Victoria, B.O.A.C. Building at Brentford and the flying boat base at Hythe. The building at Brentford was acquired during the year from Simmonds Aerocessories Ltd.

Amounts due by associated companies included in current assets represent balances owing by the various companies in which the Corporation owns shares, as set out in the Appendix to the Balance Sheet. The other associated undertakings by whom amounts are shown to be due are companies in which no shares are held by the Corporation but which are associates as defined in Section 14 (4) of the Civil Aviation Act 1946.

The balance of consideration for the acquisition of vendor undertakings, which had stood at £465,595 for some years, has been written down to £356,648 by the application of the profit on the sale to the Commonwealth Government of Australia of the shares in Qantas Empire Airways. This shareholding had been taken over from Imperial Airways on the acquisition of that undertaking.

CONCLUSION

The Report describes the work of the Corporation in a year of adjustment from war to peace conditions. This would have been difficult in any case, but was made much harder for the reasons set out above. Moreover the adjustment is far from complete.

The Corporation was formed in wartime, when performance and not cost was the yardstick of efficiency. Cost accounting, an essential tool of management, was impossible under the waiver arrangements. In this year the Corporation began to operate as a commercial airline for the first time, with all the readjustments of individual outlook that were involved. Actual expenditure began to be known, and could be attacked in detail. That attack is being pursued with vigour, but it would be wishful thinking to suggest that administrative economy alone will solve the Corporation's financial problem.

The Report records the progress made in establishing, in co-operation with our Commonwealth partners, a peacetime network of air communications between the United Kingdom and the Continents of North America, Asia, Africa and Australasia. Such a network is indispensable to the political and commercial well-being of the United Kingdom and the Commonwealth, and vital to our export market. In judging the ultimate effect of the Corporation's operations on the national expenditure, account must be taken of its primary responsibility for providing Commonwealth and Imperial communications under circumstances in which the commercial character of the service must often be subordinate to the national interest.

Thanks to the skill and devotion of the aircrews and staff, the standards of safety, regularity and passenger service on our routes have earned the freely expressed satisfaction of the public both at home and abroad.

All this could only be accomplished under existing conditions at a heavy cost. A large financial deficit has been incurred, which the taxpayer must regard as a considerable burden. The main causes of that deficit are briefly:—

- (i) The multiplicity of types of uneconomical aircraft which the Corporation had to use.
- (ii) The delay in the delivery of Tudors and the consequent changes of plans with their financial repercussions.
- (iii) The scattered and improvised maintenance bases which the Corporation had to use.
- (iv) The deficiencies in route organisation.
- (v) The development work carried out by the Corporation during the year.
- (vi) The programme of services in which commercial considerations were often subordinate to the national interest.

All these causes contributed to the losses, but the outstanding fact is that with the present types of aircraft, even with a high load factor, receipts barely covered direct operating costs. On many routes little or no contribution was made to indirect costs and overheads, and consequently increased services merely meant an increased deficit.

There is only one conclusion. Heavy deficits will inevitably continue until the Corporation has the aircraft and facilities to make it financially selfsupporting in a highly competitive international business.

H. HARTLEY
Chairman

7th November 1947

ACCOUNTS

BRITISH OVERSEAS AIRWAYS CORPORATION

BALANCE SHEET AS

		DALARCE	SHEET AS
1946	LIABILITIES		
£	MAXIMUM BORROWING POWERS (by issue of stock and by temporary loans) under Section 10 (3) of the Civil Aviation Act, 1946 50,000,000	£	£
4,250,000	Capital Issued Stock:— 3% Airways Stock 1960-70 2½% Airways Stock 1971-76 2½% Airways Stock 1977-82 guaranteed by H.M. Treasury. Loan:—	4,250;000 5,750,000 10,000,000	20,000,000
2,000,000	Barclays Bank Ltd guaranteed by H.M. Treasury		_
8 5 0,000	CAPITAL REDEMPTION FUND (see investments per contra): 3% Airways Stock 1960-70 2½% Airways Stock 1971-76	991,667 159,722	
1,113,048 1,530,491 56,186 3,303 44,843 734,822 ———————————————————————————————————	Current Liabilities and Provisions Amounts due for aircraft and engines under construction	1,004,802 411,417 5,728,828 —————————————————————————————————	1,151,389 8,546,660
£10,582,693	Carried forward		£29,698,049

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ACCOUNTS FOR YEAR ENDED 31st MARCH, 1947 AT 31st MARCH, 1947

1946	ASSETS			
£	OPERATING EQUIPMENT AND PROPERTY	£	£ Provision for	£
	FLEET	Cost	obsolescence and depreciation	
14,761	Aircraft and spare engines Aircraft and engine spares (at cost or	3,395,547	1,148,928	2,246,619
86 ₂ 1,344,534	lower valuation) Aircraft and engines under construction	2,464,676 2,461,450	951,703	1,512,973 2,461,450
1,360,157	Freehold and Leasehold Land and	8,321,673	2,100,631	6,221,042
392,901 85,041	PREMISES Expenditure on uncompleted contracts OTHER EQUIPMENT	1,378,139 180,243	241,011	1,137,128 180,243
316,668 237,913	Operating ground equipment Office and commercial equipment	1,058,652 443,865	490,649 166,720	568,003 277,145
£2,392,680		£11,382,572	£2,999,011	8,383,561
283,300 570,151	INVESTMENTS AND ADVANCES CAPITAL REDEMPTION FUND INVESTMENTS £283,300 3% Savings Bonds 1955-65 £637,500 3% Savings Bonds 1960-70 (Market value at 31st March, 1947,	283,300 645,510		
853,451	£968,848) Barclays Bank Ltd.—deposit account		928,810 222,579	`1
853,451	SUBSIDIARY COMPANIES		1,151,389	
50,000 22,185	Investments Advances			
72,185	Associated Companies			
307,356	Investments at cost less provisions for lo	osses	124,328	
£1,232,992	Note:— There is a contingent liability of £4,500 of partly paid shares included above.	o in respect		1,275,717
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	MINISTRY OF CIVIL AVIATION—DEFICIEN	ICY GRANT		, ,,,,
236,874 6,049,584	ACCOUNT Balance due at 1st April, 1946 Excess of expenditure over revenue for year	 ar	1,833,080 8,076,844	_
6,286,458 4,453,378	Less: advances on account of grants		9,909,924 4,810,000	
£1,833,080				5,099,924
146,998 98,275 16,239 46,731 3,288,538	Current Assets General stores and work in progress at cost Deposits and payments in advance Amounts due by associated companies Amounts due by other associated undertal Debtors and claims (less reserves) Bank balances and cash (including £7 deposit account)	 cings	469,885 97,373 34,906 593,002 4,714,715 8,532,481	
£4,440,410		•		14,442,362
£9,899,162	Car	ried forward		£29,201,56

1946	LIABILITIES	1
10,582,693	Brought forward	29,698,049
	H. HARTLEY, Chairman.	
	H. G. Howitt, Deputy Chairman.	
!	WHITNEY STRAIGHT, Chief Executive.	
	R. C. ATHERTON, Chief Accountant.	
		•
	·	
£10,582,693		£29,698,049

Report of the Auditors Appointed by the Minister of Civil Aviation, Pursuant to Section 21 (3) of the Civil Aviation Act, 1946:—

London, 30th October, 1947.

We report that we have audited the above Balance Sheet and the accompanying Statements of Accounts with the books of the Corporation at Head Office in which have been incorporated the returns from overseas offices certified by local auditors, and we have obtained all the informa-

1946	ASSETS	, 1	,
9,899,162°	Brought forward	£	29,201,564
465,595 	INTANGIBLE ASSETS Balance of consideration for acquisition of £ vendor undertakings 465,595 Less: profit on sale of an investment in an associated company 108,947	•	·
465,595		356,648	
212,500 5,436	Discount on 3% Airways Stock 1960—70 and 2½% Airways Stock 1971—76 270,000 Less: premium on 2½% Airways Stock 1977—82 150,000 Stamp duty on issues of Airways Stock	120,000 19,837 —	
£683,531			496,485
£10,582,693	lge.		£29,698,049

tion and explanations we have required. In our opinion such Balance Sheet and the accompanying Statements of Accounts are properly drawn up so as to exhibit a true and correct view of the state of the Corporation's affairs at 31st March, 1947, and the result of its operations for the year ended on that date, according to the best of our information and the explanations given to us and as shown by the books of the Corporation and the said returns.

WHINNEY, SMITH AND WHINNEY, Chartered Accountants.

OPERATING ACCOUNT

YEAR ENDED 31ST MARCH, 1947

	1		1947		······································	
1945–46						,
£ 75	REVENUE				£	£
000	TRAFFIC REVENUE					_
4,824,588 155,909	Passenger Excess baggage	•••	•••	• • • •	6,465,605 220,061	Į
133,909	7.4.1	•••	•••		3,403,225	
929,566	Diplomatic freight	•••	•••		673,844	
231,628	Commercial freight	•••	•••		553,824	1
32,264	Charters	•••	•••		143,175	
6,173,955						11,459,734
26,392	Incidental Revenue					87,779
£6,200,347	TOTAL REVENUE	• • •	•••			£11,547,513
	Expenditure					
	AIRCRAFT STANDING CHARGES			Į	,	ļ
	Fleet obsolescence:		£	Ì		
,	Aircraft and spare engines	•••	997,	55x		
	Aircraft and engine spares		1,044,	100	2,041,820	
	Hire of aircraft				5,400	
49,118	Fleet insurance and uninsured losses	·			132,279	
(10.779				ľ		
£49,118-						2,179,499
****	AIRGRAFT MAINTENANCE AND OVERHA	UL				
	Direct			1		
656,514	Labour	• • •	703,			
509,342· 244,879 ·	Materials Outside contractors		825,			
	Catside contractors		1,152,	334		
£1,410,735				l	2,680,977	
	T			İ		
	Indirect Engineering Base Overheads					
!	Pay, allowances, pension fund co	on-				
1,160,329	tributions and other staff costs		1,417,			
166,897	Accommodation	•••	356,			
117,228	Stores charges Other indirect expenses (includ	ing	210,	573		
	mtce. and depn. plant, aircr					
253,600	licences and telephones)		385,	735		
- 6-0						
1,698,054	Less: charges to other operat	ors	2,370,	330		
87,744	and other revenue		297,0	005		
£1,610,310				ļ	2,073,325	
3,021,045				i	4,754,302	
,-	Add: increase in provision	for				
734,822	overhauls	•••		ļ	295,480,	
				ľ		5,049,782
£3,755,867	FLYING OPERATIONS					3,049,702
1,309,717	Aircraft fuel and oil				1,543,702	
	Aircraft officers:			ļ		
-66	pay, allowances and pension fund				r 160 600	
763,206 252,017	contributions subsistence and other expenses	•••	•••		1,169,600 399,925	
30,143	T and imm form	•••	•••		104,738	
				ŀ		
£2,355,083				- [3,217,965
£6,160,068		Carried	l forwa	rd		£10,447,246

			711
6,160,068	Brought forward	£	10,447,246
£151,286	Charter of Aircraft and Crews		321,799
140,180 152,133 119,132	Passenger Service Meals and accommodation Outside hotels and restaurants 181,409 Rest houses 122,829 Meals in aircraft 145,100		. •
411,445 185,705 79,130	Transport and insurance Stewards' pay and allowances	449,338 107,457 105,571	
£676,280			662,366
1,363,951 125,874 295 ,731 37,068 129,869	STATION COSTS Pay, allowances, pension fund contributions and other staff costs Accommodation Marine transport and other ground operational costs Other costs (incl. printing and stationery, telephones and cables) Handling charges from other operators	2,148,111 244,552 511,350 113,854 175,616	
1,952,493	Less: service charges to other operators and other	3,193,483	-
96,851	revenue	457,242	
£1,855,642			2,736,241
88,483 24,678	Sales and Publicity Commissions payable Advertising and other publicity	167,930 239,426	407,356
1,210,367 117,301 206,626	Divisional Administration Pay, allowances, pension fund contributions and other staff costs Accommodation Other costs (incl. printing and stationery, telephones and cables and professional charges)	1,309,126 129,183 276,363	
1,534,294 26,714	Less: commissions and other revenue	1,714,672 95,611	
£1,507,580	TECHNICAL TRAINING Aircraft costs Pay, allowances, pension fund contributions and other staff costs—	492,415	1,619,061
121,866 38,116 3,302	School staff	283,468 209,816 89,275	
3,784	telephones)	20,325	
268,647	Less: recoveries from other operators and other revenue	1,095,299 60,290	
f261,723 Included in Head Office	CENTRAL SUPPLIES ORGANISATION Pay, allowances, pension fund contributions and other staff costs	44.582 4,007	1,035,609
Admin.	customs duties, labour on handling and packing)	215,026	263,615
£10,725,740	Carried forward		£17,492,693

ſ	1	l £	ı
£ 10,725,740	· Brought forward	Σ.	17,492,693
., .	HEAD OFFICE ADMINISTRATION AND GENERAL SERVICES		
10,918	Remuneration of Members employed by the Corporation other than as Members thereof	5,243	
646,085	Staff pay, allowances, pension fund contributions and other costs	1,004,920	
70,627	Accommodation	1,004,920	
5,807	Auditors' remuneration including local auditors overseas	8,981	
132:348	Other costs (incl. printing and stationery, telephones, cables and postage)	173,946	
	casies and postage,		
865,785	Less: fees for general services to other operators and	1,344,460	
25,977	other revenue	31,450	
£839,808	_		1,313,010
£11,565,548	TOTAL EXPENDITURE		£18,805,703
11,565,548	Total Expenditure as above		18,805,703
6,200,347	Total Revenue as above	•	11,547,513
£5,365,201	Deficiency on Operating Account	•••	£7,258,190
,	Note: (1) This account includes, in the aggregate, depr	egiation on	
	operating equipment and property, other th	an fleet, as	
31,687	Freehold and leasehold land and premises	·	43,015
73,575 38,062	Operating and ground equipment Office and commercial equipment		185,004 42,409
£143,324		,	£270,428
	(2) The remuneration of Members in their capacis shown in the Surplus and Deficiency Acco		

SUMMARY OF OPERATING ACCOUNT SHOWING SCHEDULED AND OTHER SERVICES . YEAR ENDED 31ST MARCH, 1947

		Air Transport Facilities			
1945/46		Scheduled Services	Other than Scheduled Services	Other Aerial Work	Total
£	Revenue	£	£	£	£
6,173,955 26,392	Traffic revenue Incidental revenue	11,316,559 87,779	143,175		11,459,734 87,779
£6,200,347		£11,404,338	£143,175		£11,547,513
	Expenditure				
49,118 3,755,867	Aircraft standing charges Aircraft maintenance and overhaul	2,154,160 4,993,588	25,339 56,194		2,179,499 5,049,782
2,355,083 151,286	Flying operations Charter of aircraft and crews	3,183,139 319,424	34,826 2,375		3,217,965 321,799
676,280 1,855,642 113,161 1,507,580 261,723	Passenger service Station costs Sales and publicity Divisional administration Technical training	658,591 2,730,781 407,356 1,617,766 1,035,009	3,775 5,460 — 1,295		662,366 2,736,241 407,356 1,619,061 1,035,009
839,808	Central supplies organization Head Office administration and general services	263,615 1,311,960	1,050		263,615 1,313,010
£11,565,548		£18,675,389	£130,314		£18,805,703
	Surplus	_	£12,861		
	Deficiency	£7,271,051			
£5,365,201	NET DEFICIENCY carried to Surplus and Deficiency Account				£7,258,190

Direct operating costs have been allocated to Other than Scheduled Services on the basis of the appropriate aircraft type costs. The allocation of the remaining items of expenditure has been based on assessments of the proportions under each heading deemed to be appropriately chargeable to such services.

EXPENDITURE ON ANCILLARY UNDERTAKINGS YEAR ENDED 31ST MARCH 1947

1945/46			
· £	Bermuda Airport Management	£	£
39;699 13,041 21,286	Pay, allowances, pension fund contributions and other staff costs Accommodation Ground operations Other expenditure (incl. printing, stationery and	27,823 4,043 12,338	±
2,467	telephones)	1,582	
.76,493 11,116	Less: revenue	45,786 8,243	
£65,377			37,543
 12,281 28,682 4,940 6,931	Development Flight Aircraft standing charges Aircraft maintenance and overhaul and operating costs Pay, allowances, pension fund contributions and other staff costs Accommodation Other expenditure (incl. stores charges and landing fees)	20,544 48,596 56,832 30,061 20,461	
£52,834			176,494
£118,211			£214,037

SURPLUS AND DEFICIENCY ACCOUNT YEAR ENDED 31ST MARCH 1947

	~		
1945/46 £ 5,365,201	Deficiency on: Scheduled services Less: Surplus on other than scheduled services	£ 7,271,051 12,861	£
118,211	Expenditure on ancillary undertakings Remuneration of Chairman, Deputy Chairman and	214,037	7,258,190
9,631 127,500 50,000	Members in their capacity as such Interest on Airways Stock Interest on Bank Loan	17,810 292,497 10,744	-
1,898	Other interest payable Contribution to an associated undertaking in respect of	1,943	
293,242	operating losses on air services Provision for loss of an associated company	24,953 15,000	-
£600,482			576,984
5,965,683	Deduct:	,	7,835,174
1,193 5,276 19,861 22,262	Dividends from subsidiary companies Dividends from associated companies Miscellaneous interest receivable Interest on Capital Redemption Fund investments Profit on retirement of fleet and other operating	3,724 21,616 26,560	
9,174	equipment	7,819	
£57,766			59,719
£5,907,917			7,775,455
£141,667	Add: Provision for redemption of Airways Stock		301 ,3 89
£6,049,584	Deficiency for year carried to Ministry of Civil Aviation Account	·	£8,076,844°.

SUBSIDIARY AND ASSOCIATED COMPANIES YEAR ENDED 31ST MARCH 1947

		Investments	Advances
Associated Companies	£	£.	£
Aer Lingus Teoranta	~	~	~
39,500 shares of £1 each fully paid	39,500	,	
Less provision for losses	15,000		
Airgraphs Ltd.		24,500	
100 shares of no par value		2,329	
British Commonwealth Pacific Airlines Ltd. 2 shares of £A.1,000 each fully paid		1,600	
Elders Colonial Airways Ltd.			
12,500 shares of £1 each fully paid	12,500		
Less provision for losses	9,750	2,750	
Palestine Air Transport Ltd.		2,/50	
3,050 shares of £1 each fully paid		3,050	
Railway Air Services Ltd.			
400 shares of £1 each fully paid		400	
Sociedade Portuguesa de Cooperacao Aerea Lda.			
Esc. 500,000 10 per cent. paid		454	
Tasman Empire Airways Ltd. 114,001 shares of £NZ.1 each fully paid		91,200	
		126,283	
Deduct: reserve		1,955	
as Balance Sheet		£124,328	

The Corporation's investments in three subsidiary Companies have been written off in previous years. All these Companies have ceased to trade and have no assets.

British South American Airways Ltd. was a subsidiary of the Corporation until 31st July 1946 at which date the shares in that company were transferred to the British South American Airways Corporation when the latter came into being with the passing of the Civil Aviation Act 1946. The results of the Company for the four months to 31st July 1946 are being incorporated in the accounts of the British South American Airways Corporation and the accounts for the period are being annexed to the accounts of that Corporation.

APPENDIX A
Operational and Traffic Statistics

	Schedul	ed Services	Non-Schedi	ıled Services	Total	1946–47	Total 1945-46
Capacity Ton Miles Offered	•	58,61,9,768		639,133		59,258,901	67,352,983
Load Ton Miles—							
Passenger	•	26,381,217					29,121,100
Excess Baggage	•	888,334					2,103,904
Mail	•	5,985,364					5,790,101
Diplomatic Freight	•	1,053,072			``		1,748,562
Commercial Freight	•	3,598,384					11,418,814
Total Load Ton Miles	•	37,906,371		639,133	,	38,545,504	50,182,481
Load Factor, per cent	•	64.7	•				74.5
Seat Utilisation, per cent	•	, 74·I					72.0
Number of Passengers	•	129,178		750		129,928	144,090
Passenger Miles	•	275,044,940		1,370,369		276,415,309	310,836,095
Aircraft Miles—							
Service	••	22,838,349		347,438		23,185,787	25,749,024
Positioning flights between mainter ance bases and Operating Termin		•	15,666		619,581		
Carriage of Corporation's Staff an	d				•		
Stores	373,372	•			373,372		
9	. 2,872,697				2,872,697		
Tests and other "dead" mileage .	482,479	4,332,463	3,933	19,599	486,412	4,352,062	3,326,644
Total Aircraft Miles	•	27,170,812		367,037	,	27,537,849	29,075,668
₩ Net Route Mileage as at 31st March .	••	53,998		_			49,585

APPENDIX B

Fleet AIRCRAFT OWNED BY B.O.A.C.

AIRCRAFT OWNED BY B.O.A.C.								
Aircraft Ty	rþe		As at 31/3/46	Additions	Disposals	As at 31/3/47		
FLYING BOATS				*				
Hythe	•••	•••	20		I	19		
"C" Class (S		•••	10	******	10			
"C" Class (S		•••	2		2	Augusta 100		
"C" Class (S	.33)	•••	, I		I			
Boeing	•••		3			3		
"G" Class		• • •	I			I		
Plymouth	•••	•••		I	***************************************	I		
TOTAL FLYING BO	OATS		37	I,	14	24		
Landplanes								
Dakota	•••		61	7	29	. 39		
York	•••		30			30		
Lancastrian	•••		20		6	14		
Lodestar			6		-	6		
Liberator	•••		10		4	6 .		
Ensign	•••		8		8			
Halton	•••			8		8		
Constellation				5		. 5		
Dominie	•••	•••		I		I		
					· · · · · · · · · · · · · · · · · · ·			
Total Landplan	ES		135	21	47	109		
TOTAL	•••	∴. _	172	22	61	133		
	Aircr	AFT (ON LOAN FR	om the Air	Ministry			
FLYING BOATS								
Sunderland.	•••	•••	4	2	2	4		
TOTAL FLYING BO	DATS	•••	4	2	2	4		
Landplanes		-						
Lodestar	•••	•••	13	يستيس	2	II		
Anson	•••	•••	4		2:	2		
Oxford	•••	•••	10		3	7		
Halifax		•••	2	7	ı	8		
Viking	•••	•••		9	entablikana.	9		
Lancaster	•••		I	weeking	I			
Proctor	•••			I		r		
Beechcraft	•••	•••	I		r			
TOTAL LANDPLAN	ES		31	`i7	10	38		
GRAND TOTALS	•••		207	41	73	175		
•								

3

B.O.A.C. AIRCRAFT WRITTEN OFF

FLYING BOATS

Hythe-G-AGHV seriously damaged by gale at Cairo, 9th March 1946awaiting disposal at 31st March 1946.

- "C" Class (S.23) 10 aircraft retired from service during the year. "C" Class (S.30) 2 aircraft retired from service during the year. "C" Class (S.33) 1 aircraft retired from service during the year.

LANDPLANES

Dakota—G-AGIY damaged on landing at El Adem, 23rd March 1946, awaiting disposal instructions at 31st March 1946.

Dakota-G-AGHK force-landed at Oviedo (Northern Spain) on 17th April 1946.

Dakota—G-AGHT crashed on landing at Malta, 14th August 1946 (Training).

Dakota—G-AGKD damaged by gale at Malta on 23rd December 1946.

Dakota—G-AGJU starboard undercarriage collapsed on landing at Whitchurch on 3rd January 1947 (Training).

Dakota—G-AGIX crashed at Stowting (Kent) on 11th January 1947.

DAKOTAS—Twenty-one were transferred to British European Airways Corporation on its formation, 1st August 1946.

Dakotas—G-AJAZ returned to R.A.F.

Lancastrian—G-AGMC seriously damaged on landing at Sydney, 2nd May 1946 (Training).

Lancastrian—G-AGMH port undercarriage collapsed on landing at Karachi on 17th May 1946.

Lancastrian—G-AGLU seriously damaged at Hurn on 15th August 1946, when undercarriage collapsed on take-off (Training).

Lancastrian-G-AGMF crashed landed near Rouen on 20th August 1946, whilst on training flight (Training).

Lancastrian—G-AGLF were disposed of to Skyways Ltd. G-AGLV

forced landed . Heathfield (Scotland), 13th Liberator AL507—G-AHYC November 1946 (Training).

Liberators—AL614 AL625 retired during the year. AL627—G-AHYI J

Ensign Class-eight of these aircraft were retired during the year.

APPENDIX C

Services

The following table summarises the services operated by the Corporation as at 31st March 1947.

Service		Type o Aircraj	f	F	Weekly requenc			
FLYING BOATS								
Hythe Base Operations								
U.K.—Cairo		•••	" G " C	lass		• • •	I	
U.K.—Singapore		•••	Hythe	• • •	• • •	•••	I	
Singapore—Hongkong	• • •		Hythe	• • •	• • •	•••	I	
U.K.—Hongkong	• • •	•••	Hythe	• • •		• • •	I	
*U.K.—Sydney	• • •	· • • •	Hythe	• • •	•••	• • •	3	
Baltimore Base Operation	ns							
Baltimore—Bermuda	•••	•••	Boeing	•••	• • •		3	

^{*} Operated in conjunction with Qantas Empire Airways.

Servio Landplanes		ype of ircraft		Weekly Frequency							
Whitchurch Base Operations											
	-	ons		Dalasta				6			
U.K.—Cairo	•••	•••	•••	Dakota	•••	•••	•••	_			
U.K.—Beirut	•••	•••	• • •	Dakota	•••	•••	•••	I			
U.K.—Lagos	•••	•••	•••	Dakota	•••	•••	•••	3			
Lagos—Kano	•••	•••	• • •	Dakota	•••	•••	• • •	2			
Hurn Base Operat	ions										
U.K.—Cairo				York		•••		2			
U.K.—Calcutta		•••		York		•••		4			
*U.K.—Sydney				Lancastria	n	•••		3			
†U.K.—Johanne	sburg		•••	York	•••	•••		6			
London Airport Bo	ise Ope	rations									
U.K.—Karachi				York (Sky	ways)		• • •	r			
†U.K.—Johanne	sburg	•••	•••	Skymaster	•••	•••	•••	3 monthly			
Montreal Base Op	eration	s									
U.K.—New Yo	rk via	Prestw	vick	Constellati	on			3			
U.K.—New Yo	rk via	Rinea	nna	Constellati	on			3			
U.K.—Montreal				Liberator	•••			2			
Cairo Base Operat Middle East Air T	Transp	ort Serv	vices	.							
Cairo—Nairobi	•••	•••	•••	Lodestar	•••	•••	•••	4			
Cairo—Istanbul		• • •	•••	,,	•••	•••	•••	3			
	•••	•••	• • •	**	• • •	•••	•••	1			
Athens—Tehera		• • •	•••	,,	•••	•••	• • •	I			
	1. 1	•••	•••	,,	•••	• • •	•••	2			
Cairo—Addis A	.baba	•••	•••	,,	•••	•••	•••	2			

On 1st August 1946 all the European services of the Corporation became the responsibility of British European Airways Corporation.

FLYING BOATS

During the year the "C" Class flying boats were progressively withdrawn from the Horseshoe Route, the last service between Durban and Cairo operating on 2nd March 1947.

On the 12th May 1946 a Hythe service between United Kingdom and Australia began to operate in conjunction with Qantas Empire Airways Ltd., and the United Kingdom—Calcutta service had to be withdrawn.

A Hythe service to Hongkong began on the 24th August 1946.

A flying boat service using "C" Class aircraft began to operate United Kingdom—Cairo in May 1946, this service being taken over by the "Golden Hind" after completion of modifications in September 1946.

LANDPLANES

The United Kingdom—Australia service using Lancastrian aircraft was operated in conjunction with Qantas Empire Airways Ltd. with effect from 12th May 1946. Until then the Corporation was responsible for the United Kingdom—Karachi sector only.

A United Kingdom—Johannesburg service using Skymaster aircraft began in July 1946, this service being operated by South African Airways on behalf of the joint pool.

A York service United Kingdom—Cairo and a Dakota service United Kingdom—Lydda were started in April 1946.

^{*} Operated in conjunction with Qantas Empire Airways.

† " South African Airways.

Owing to the withdrawal of meteorological facilities, the United Kingdom—West Africa—Cairo services were withdrawn during June 1946, being resumed as far as West Africa at the beginning of July.

The Return Ferry Service was demilitarised in September 1946 and the carriage of commercial passengers was not permitted by the Certificate of Airworthiness of Liberator aircraft.

A United Kingdom—New York Constellation service began in July 1946, but was suspended for six weeks due to the grounding of this type by the U.S. Civil Aeronautics Board. It was resumed on 31st August with a thrice weekly frequency.

The following services operated for the Middle East Air Transport Board were withdrawn:—

```
      Cairo—Khartoum
      ...
      ...
      ...
      30/4/46

      Cairo—Karachi
      ...
      ...
      ...
      29/1/47

      Cairo—Port Sudan
      ...
      ...
      ...
      30/1/47
```

APPENDIX D

Accidents

The following accidents occurred during the year in scheduled Passenger Flights.

I. FATAL ACCIDENTS

11th January 1947

A Dakota aircraft on a London to Bordeaux flight was unable to land safely in France in low visibility, returned to United Kingdom and crashed in Kent while attempting a forced landing when its fuel was exhausted.

The following casualties occurred:—

```
Killed ... ... ... 4 crew, 4 passengers Injured ... ... 1 crew, 7 passengers
```

This was the first fatal accident in scheduled Passenger Flights since 29th November 1944.

2. ACCIDENTS INVOLVING INJURY

```
17th April 1946
```

A Dakota aircraft on the West African service, while endeavouring to carry out an emergency landing, due to one engine having failed, overshot the landing strip at an aerodrome in Northern Spain. One passenger was injured.

```
18th October 1946
```

A Hythe flying boat suffered damage through a heavy alighting at Calcutta. Two passengers and two crew were slightly injured.

3. Accidents incurred during Training and Development

```
14th August 1946
```

A Dakota aircraft on route training between United Kingdom and Cairo, was forced to carry out an emergency landing at Luqa, Malta, due to one engine failure. The aircraft undershot the landing strip, was extensively damaged and caught fire. The Radio Operator was fatally injured.

```
14th August 1946
```

A Dove aircraft, under development trials with a crew from the Corporation's Development Flight at Hurn, crashed shortly after take-off from that place, resulting in the death of a pilot, a Technical Officer and a Technical Assistant.

```
20th August 1946
```

A Lancastrian aircraft on route training between Lydda and United Kingdom crashed in France near Rouen for reasons which have not been established. Eight of the crew were killed and one crew member injured.

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(61230) Wt. 1256-L 280 12/47 D. L.
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LONDON
PRINTED AND PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE
To be purchased directly from H.M. Stationery Office at the following addresses;
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