

AIR MINISTRY

THE APPROACH TOWARDS A SYSTEM OF IMPERIAL AIR COMMUNICATIONS

MEMORANDUM by the Secretary of State for Air, laid before the Imperial Conference, 1926, together with the REPORT of the Imperial Air Communications Special Sub-Committee.



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PREFATORY NOTE.

So much interest has been aroused by the discussions on the development of civil aviation within the Empire which took place at the Imperial Conference, that a demand has arisen for the memorandum circulated by the Air Ministry to the Conference to be made available to the general public.

This memorandum has accordingly been reprinted together with the report of the Imperial Air Communications Special Sub-Committee and the statement on Imperial Air Communications with which the discussions were opened.

No one who studies these documents can fail to be impressed with the great future which awaits civil aviation in the British Empire, and with the benefits both political and commercial which should follow on the development of a complete system of Imperial air routes.

SAMUEL HOARE.

IMPERIAL CONFERENCE, 1926.

IMPERIAL AIR COMMUNICATIONS SPECIAL SUB-COMMITTEE.

REPORT.

In pursuance of a decision taken at the opening Meeting of the Imperial Conference on 19th October, 1926, the Imperial Air Communications Special Sub-Committee was set up to consider the subject of Imperial Air Communications and to report to the Conference thereon.

The Sub-Committee was constituted as follows :—

Great Britain.

The Right Hon. Sir SAMUEL HOARE, Bart., C.M.G., M.P., Secretary of State for Air (*Chairman*).

Major Sir PHILIP A. G. D. SASSOON, Bart., G.B.E., C.M.G., M.P., Under-Secretary of State for Air.

Air Vice-Marshal Sir W. G. H. SALMOND, K.C.B., K.C.M.G., D.S.O., Air Ministry.

Air Vice-Marshal Sir W. SEFTON-BRANCKER, K.C.B., A.F.C., Air Ministry.

Mr. G. G. WHISKARD, C.B., Dominions Office.

Brigadier-General F. H. WILLIAMSON, C.B., C.B.E., General Post Office.

Mr. H. E. FASS, O.B.E., Treasury.

Commonwealth of Australia.

The Hon. Sir NEVILLE HOWSE, V.C., K.C.B., K.C.M.G., Minister of Defence and Health.

Union of South Africa.

The Hon. N. C. HAVENGA, Minister of Finance.

Sir WILLIAM HOY, K.C.B., General Manager of Railways.

Colonel Sir PIERRE VAN RYNEVELD, K.B.E., D.S.O., Director of Air Services.

Newfoundland.

The Hon. W. S. MONROE, Prime Minister.

Canada.

Major-General J. H. MACBRIEN, C.I.C.M.G., D.S.O., Chief of the General Staff.

Commodore W. HOSE, C.B.E., R.C.N. Director of Naval Service.

New Zealand.

The Right Hon. J. G. COATES, M.C. Prime Minister.

Irish Free State.

Mr. P. MCGILLIGAN, T.D., Minister of Industry and Commerce.

India.

The Right Hon. EARL WINTERTON, M.L. Parliamentary Under-Secretary of State for India.

The MAHARAJA OF BURDWAN, G.C.I.E. K.C.S.I., I.O.M.

Colonies and Protectorates.

Sir JOHN E. SHUCKBURGH, K.C.M.G., C.B., Assistant Under-Secretary of State.

Mr. F. G. L. BERTRAM, C.B.E. (Air Ministry)	} <i>Joint Secretaries.</i>
Mr. L. G. S. REYNOLDS, O.B.E. (Air Ministry)	
Mr. J. S. HUNTER (New Zealand Delegation)	

The Sub-Committee heard evidence from various experts of the Air Ministry in London in regard to certain matters discussed, including the technical aspects of airship development and the meteorological organisation required for the purpose of experimental flights with a view to the subsequent operation of regular airship services.

The Sub-Committee, having reviewed the present state of air communications in the Empire in the light of the comprehensive information supplied to the Imperial Conference by the Secretary of State for Air, have considered what concrete steps can be taken to further the development of Imperial air services in the immediate future ; and, as a result of their deliberations, submit the following report :—

I.—The Sub-Committee are convinced that the development of Imperial air communications, both by airship and aeroplane, is of sufficient importance to merit the early and continuous attention of the Governments of the several parts of the Empire.

II.—Accordingly, the Sub-Committee recommend that the Imperial Conference should place on record the following resolutions :—

The Imperial Conference, being impressed with the great benefits, both political and commercial, to be derived from the speeding up of Imperial communications by air—

(1) Takes note with satisfaction—

- (a) Of the prospective opening of a regular air service between Cairo and Karachi and an experimental service between Khartoum and Kisumu ;
- (b) Of the decisions of His Majesty's Governments in Great Britain and in the Union of South Africa to carry out a series of experimental flights to connect so far as possible with this latter service ; and
- (c) Of the decision of His Majesty's Government in Australia to arrange for flights by the Royal Australian Air Force from Australia towards Singapore to link up with similar flights of the Royal Air Force from Singapore towards Australia.

(2) Recommends that the development of other air services should receive the early consideration of the Governments concerned ; and that in this connection particular attention should be paid to the maintenance of existing and the construction of new aerodromes so far as local resources permit with a view to the ultimate creation of a complete system of Empire air routes.

(3) In view of—

- (a) The great potentialities of the airship ; and
- (b) The present lack of constructional and other facilities which must prove a serious obstacle to the early development of regular airship services—

recommends that the Governments of the Dominions concerned and of India should examine the possibility of erecting nucleus mooring mast bases to be available for demonstration flights in 1928–29 by the two airships now under construction, and of instituting such preliminary meteorological investigations as may be necessary to facilitate these demonstration flights ; and that His Majesty's Government in Great Britain should consider the erection of a second shed at the Royal Airship Works at Cardington.

(4) Recommends that an Imperial Air Conference should be held in 1928 or 1929—the precise date to be determined later—at some suitable Imperial centre, to report progress and to consider what further action can be taken for the development

of Imperial air communications ; and takes note with appreciation of the invitation of the Dominion of Canada that this Conference should take place in Canada.

III.—Finally, the Sub-Committee are of opinion that the present system of communicating information in regard to civil aeronautics should be continued and recommend that, with a view to ensuring still closer co-ordination throughout the Empire, exchanges should be effected from time to time between the Civil Aviation officials of Great Britain and the Dominions and India so far as limitations of staff and local considerations permit.

Signed on behalf of the Sub-Committee,

SAMUEL HOARE, *Chairman.*

2, Whitehall Gardens, S.W.1.

17th November, 1926.

NOTE.—The recommendations made in the report of the Sub-Committee were unanimously adopted by the Imperial Conference at its Fifteenth Meeting on 19th November, 1926.

STATEMENT ON IMPERIAL AIR COMMUNICATIONS MADE TO THE IMPERIAL CONFERENCE, 1926,

BY THE

SECRETARY OF STATE FOR AIR.

The subject for discussion is the question of Imperial air communications. I propose, with the approval of the Conference, to deal with it from the civil as distinct from the military point of view. I would, however, desire to point out at the very beginning of my remarks that the civil and military aspects are inextricably connected, and that the development of Imperial air lines, whether by aeroplane or airship, is a vital factor in the problem of Empire defence.

I start by stating two broad propositions that I believe will be accepted without argument or even discussion. Firstly, the Empire is in urgent need of better communications. Secondly, if the communications are to be improved, a sustained and united effort will be required.

At the very moment when better communications are urgently needed, improvements in sea and land transport are being made almost prohibitive by their increased cost. The Prime Ministers of Australia and New Zealand have still to spend over 60 days each upon the journey that they make to and from the Imperial Conference, and unless a sustained effort is now made to introduce new methods and to apply the results of invention and discovery, they are likely to continue to take over 60 days for many conferences to come. It is because the history of the development of transport is one long record of doubts and delays and difficulties that I venture to emphasise at the opening of my remarks the importance of a resolute insistence upon the need for new and improved methods. Let us take warning from the events of a little more than a century ago, when, upon the eve of the great railway development, a well-known author in the "Edinburgh Review" wrote:—"What can be more palpably absurd and ridiculous than the prospect held out of locomotives travelling twice as fast as stage coaches," and demanded that "Parliament shall in all railways, where sanctioned, limit the speed to 8 or 9 miles an hour," and when the use of steamships was officially discouraged "as calculated to strike a fatal blow at the naval supremacy of the Empire."

I am here to-day to press upon your attention a new method of transport that, although it has only been organised for seven years, is one of the most effective instruments for stopping the waste of time that is now weakening the vitality and retarding the development of Empire intercourse.

We have now reached a turning point, a most important turning point, in the development of airways and air communications. If we look back over the 23 years of flight, indeed if we only look back as far as the last Imperial Conference in 1923, we must be struck by the speed and the extent of the progress that has already been made. You will see in the comprehensive memorandum entitled "The approach towards a system of Imperial Air Communications" that I have circulated, a picture of civil air transport as it is to-day. You will note that wider and wider use is being made of it. Since the last conference the mileage covered by the regular air routes of the world has more than doubled. You will note the technical improvement that has been made with machines, engines, wireless and meteorology. Machines have become more powerful, more dependable, and, as I think the members of the Conference who made flights at Croydon last Saturday will admit, more comfortable.

As to safety, what better record could there be than the 5,000,000 miles flown by British services for four fatal accidents, and the million miles flown in Australia for a single fatal accident ?

Let me remind you in comparison with this record that the Press in 1845 commented with grim irony that "the largest item in railway returns bids fair to be the list of the killed," and even seven years later, in 1852, declared that "railway accidents are the staple of our newspaper reading."

What better proof could there be of the regularity of the services than the fact that to-day freight insurance premiums per £100 are by air less than half the premiums charged for surface transport ? What more conspicuous illustration could there be of the practicability of Empire air routes than the successive journeys of Sir Alan Cobham, and the series of long distance flights carried out by units of the British and Australian Air Forces ?

These results seem to me to show that after years of research and experiment and adventure we have reached a definite stage in the development of flying, from which we can in the near future make progress altogether out of proportion to anything that has been achieved during the last few years. There is to-day no technical or operational reason why by aeroplane or airship London should not be brought within a fortnight of the furthest cities and territories of the Empire. There is no technical reason why the journey to Canada should not be reduced to two and a half days, the journey to India five days, to Cape Town six days, to Australia eleven days, to New Zealand 13 days. These claims I can, of course, support by detailed and expert evidence at the Imperial Air Communications Sub-Committee meeting this afternoon. This morning I do nothing more than state them for the purpose of illustrating to the Conference the power of the new instrument that is now within our reach.

Having, then, stated these propositions, let me suggest to the Conference certain ways in which we can make fuller use of this new instrument in the near future. If I speak mainly of British policy and British services, it is not because I do not fully appreciate the remarkable progress that has been made with the air routes in Australia, or with air survey work in Canada. I deal chiefly with British routes and British policy because I am for the moment taking London as the terminus of the principal Empire air routes.

Hitherto, whilst certain European services have been safely and punctually operated for several years, there has been no civil air service plying between one part of the Empire and another. In the Middle East an air route between Egypt and Iraq has been regularly flown by military machines carrying mails and official passengers for five years. The route, 866 miles in length, has been methodically equipped with landing grounds and refuelling stations, and over it for five years have passed mails and official passengers in as many hours as it would have taken them days by pre-war transport. It was over this route that the Secretary of State for the Colonies and I made our journey to Iraq eighteen months ago, and it was by means of air transport that we were able to visit in the space of the short Parliamentary Easter recess almost every important point from Cairo to the Anglo-Persian oil fields.

You will see in my memorandum that we now propose to substitute in place of this military service a regular civil line for the carriage of freight and passengers, not only between Cairo and Baghdad, but between Cairo and Karachi. My wife and I propose to make the opening journey on this route at the end of the year, and already time-tables have been issued and passage booked for the subsequent flights. The service will in itself be of great interest, for it will enable us to test the demand for the saving of seven or eight days in the journey between England and India. Since there is as yet no air route between England and Egypt, a passenger will go by land and sea to Cairo or Gaza, and there change into one of the new three-engined aeroplanes. But the essential importance of the route greatly

transcends the saving of seven or eight days that will be made in the journey between England and India. Its real significance lies in the fact that it is the first section of the great Empire air route to the Far East. It is for us to consider whether the other sections could not be completed and a through air route created of incalculable importance for both military and civil communications. I do not wish at this stage to overburden the conference with details. The Sub-Committee upon Imperial Air Communications will have an opportunity of fully investigating the possibility of the project that I am now discussing. May I, however, in passing, offer certain suggestions for carrying this proposal into effect that the representatives of the Dominions may desire to consider at their leisure.

Would it be possible for the Government of India to consider the question of extending the service across India from Karachi to Bombay and Calcutta? Would it be possible for the Government of Burma to consider the possibility of carrying it a stage further, to Rangoon? Might it not then be practicable to link with the civil line experimental flights of the Air Force Flying boats that it is intended to station in the Far East, and might they not again join up with occasional service flights of the Royal Australian Air Force from Australia? I do not expect answers to these questions at a moment's notice. I do, however, hope that we shall be able to consider them in some detail at the Sub-Committee. If in the not remote future links can be inserted in some such way as I have suggested, a long chain of great tensile power will have been forged across the Empire's framework.

So also with Africa. Just as there must be an Empire air route to the Far East stretching to Australia and New Zealand, so there must be an Empire air route from London to the Cape, with branches diverging to the West African Dependencies. Here again a beginning, I admit a small beginning, is being made during the next few months. An enterprising pioneer, with the help of the Governments of Kenya, Uganda and the Sudan, has organised an experimental service covering 1,400 miles between Khartoum and Kisumu. As the route follows the course of the White Nile the machines will be hydroplanes. If this service is successful, from ten days to a fortnight will be saved in the journey between Khartoum and Uganda, and eight days between Khartoum and East Africa. Why should not the Northern and Southern links be forged in this African chain, and a through aeroplane service run at least experimentally between Egypt and Cape Town? This would mean the addition of the Northern link between Egypt and Khartoum and the Southern link between Kisumu and Cape Town. I am prepared to say that we will attempt in the course of the training programme of the Royal Air Force to arrange for a certain number of flights, carrying mails and official passengers, to link up with the civil machines at Khartoum. Would it be possible for the South African Government to consider whether the South African Air Force could not make a certain number of flights, linking up with the route in Kenya?

The first great African flight was brilliantly carried out by a famous South African pilot, whom we welcome here this morning. Whilst it would be impertinent for me to press unduly the South African Government, I hope that I may be allowed to say how greatly we should value the co-operation of the South African Air Force in the pioneer work of organising the route that has already been rendered illustrious by the flights of Sir Pierre Van Ryneveld, Sir Alan Cobham and Wing-Commander Pulford.

In the meanwhile we in Great Britain should be interesting ourselves in forging the link between London and Egypt. Already we have made considerable progress with the development of flying boats that will be suitable for the passage of the Mediterranean, and attention is being constantly given to the difficulties that have hitherto blocked the way to an England-Egypt service.

You will see from what I have just said that I am proposing for your consideration the creation of these two long distance air routes—the first to the Far East

and Australia and the second to Cape Town—upon what I will call a mosaic plan. We are all too hard up for any one of us to undertake the heavy cost of an air route to Singapore or an air route to Cape Town. If, then, we are to form these routes, we must each of us insert our particular stone in the design. I have suggested a way in which we might each take our share, and in which, what is no less important, military and civil aviation might co-operate at least for the pioneer work. If the Royal Air Force undertakes a certain number of service flights in conjunction with the civil lines, and the Governments of South Africa and Australia allow their Air Forces to co-operate with us, not only shall we be obtaining valuable military training for our service units, but we shall also be making possible the experimental transport of mails and passengers over a large section of the British Empire. My proposal, as you see, involves no subsidy, it involves nothing more than co-operation between one Government and another, and between military and civil flying. If a certain number of pioneer flights can be successfully carried out in this way, I am certain that the formation of regular civil lines will follow as inevitably as the Cairo-Karachi service has followed the military mail across the desert.

There is another very important field where we need the co-operation of the Governments of the Dominions and the Dependencies in whatever part of the world they may be situated. If these routes are to be created and safely maintained, it is essential that landing grounds should be formed at the proper intervals, and that these landing grounds should be kept in good order. I cannot too strongly emphasise this need for good landing grounds, kept in proper condition. After each of his great flights, Sir Alan Cobham has declared that good landing grounds are a first condition of success. Will the Governments of the Empire, whether of the Dominions or Dependencies, take their share in providing suitable landing grounds upon the great Empire routes, and in keeping them in good order? I propose at the Sub-Committee to go further into this question and to provide the Members with a list of the principal landing grounds required upon the great Empire air routes, with a view to seeing whether each Government could not undertake the responsibility of keeping in order those within its territory.

I have now dealt in outline with the two main aeroplane routes, the route to the Far East and the route to Cape Town. Whilst I have purposely concentrated my attention on these two great trunk lines, I do not wish it to be thought that there are not wide opportunities for starting branch and internal lines. Australia has already pointed the way by her successful development of at least three long distant regular services. There are great opportunities for air communication in the West Indies; judging from Belgian experience in the Congo, almost incredible saving of time can be achieved by internal air lines in Africa; whilst nearer at home, with a comparatively short service, the Irish Free State could link Ireland with the great air routes of the Empire and the world.

I pass, however, without further comment upon the Empire aeroplane routes to the Empire airship routes, and to a field of research, experiment and trial that we have been extensively exploring since the last Imperial Conference. Certain of the delegates to whom this field of flying development may be less familiar than the field of the aeroplane, may harbour in their minds two grave doubts about the machine that is lighter than air. Why, they may ask themselves or me, should the Empire require both airship and aeroplane routes, and how can airships be ever immune from the catastrophies that destroyed the R.38, the "Dixmude" and the "Shenandoah"? Let me try in a sentence or two to give the answer to both these questions.

As to the first, airships will carry out the long distance non-stop air journeys of the future. The two airships that we are building should, with a normal load of freight and one hundred passengers, be able to fly without refuelling in good weather a distance of some 4,000 miles. The airship, being of great size and practically silent,

will be much more comfortable than the aeroplane for long distance journeys. How comfortable it can be made is illustrated by a model that I have had erected for the Sub-committee at the Air Ministry. The representatives at the Conference will find that accommodation is being planned for one hundred passengers, promenade decks, outside cabins, and ample smoking and dining rooms. The aeroplane and the airship are really complementary to each other, and it is necessary, in my view, to organise both aeroplane and airship lines, the long distance aeroplane lines being invaluable for short stage traffic and for strategic as well as civil purposes, and being particularly needed at the present time when our airship programme is still in an experimental stage.

Then there is the objection, and a very serious objection, raised on the ground of danger. There is the danger inherent in so large and fragile a structure; there is the danger of storms of unexpected and incredible ferocity; there is the danger of conflagration in a ship composed of highly inflammable material. How can dangers such as these be ever surmounted? I would like the Conference or the Committee to examine my experts as fully as possible upon all these points. I need not tell you that, being a very cautious person myself, I have examined them again and again upon them. They and I are very far from being reckless optimists. Indeed, our attitude towards this great problem has been well described by a well-known Cambridge scientist as an attitude of "healthy cold feet." What I would say without fear of contradiction is that great progress has been made both on the theoretical and practical side during the last two years, and that we can claim to have made the fullest possible use of scientific theory, of full-scale and model experiment, of the testing of materials, and, by no means least important, of the study of meteorology. We believe that we have discovered many of the weaknesses and surmounted many of the difficulties that occasioned the failures in the past. I will give you two or three instances of what I mean. The structure of both the airships that are being built will be incomparably stronger in the matter of material than the structure of any airship that has been built in the past. I hope that the members of the Conference will find time to visit our construction shed at Cardington, where they will see for themselves the great advance that has been made both in design and material over anything that has been previously attempted. As to weather, the pages of my memorandum describe in great detail the intensive study that the Meteorological department has made of the conditions of the air over these shores and on the route to India. You will find on pages 18 and the following a series of most interesting maps showing the scale and detail to which the study of weather conditions has been carried. Accurate climate and weather reports are quite essential to the development of airship routes, and not only from the point of view of safety; for it should be remembered that whilst from the point of view of safety it is essential that the airship should be able to avoid storms by means of weather warnings, it is no less necessary in the interests of speed and economy that the airship should make the fullest possible use of the prevailing winds upon the various routes.

There is another way in which the danger of sudden wind currents has been met. Representatives of the Conference will see at Cardington the newest type of mooring mast. The mooring mast is a post-war invention of great importance from the fact that it enables the airship to be easily moored without the risk involved of pulling a structure 700 feet long into a shed.

Then, again, we have tried to meet the danger of conflagration. The airship that is being built at Cardington will be equipped not with petrol but with heavy oil engines. This change shows a great advance in the way of safety, and particularly in the case of airships operating in tropical climates.

In all these directions, then, we have made a serious and scientific effort to avail ourselves of the lessons of the past, and to avoid the dangers that have hitherto been so formidable. Slowly but surely our programme has been developing. In a year's

time the two great airships should be completed. It is then proposed to carry out adequate home trials and subsequently to fly at least one of the airships regularly to and from India for a full period of trial in tropical conditions. When these trials are completed, it is hoped, if the Dominions so desire, to make demonstration flights to the capitals of the Empire. The details of this programme I hope to discuss fully at the Sub-Committee. To-day I desire only to emphasise one very important feature of it. If the demonstration flights are to take place to Australia and New Zealand, to Canada and South Africa, the co-operation of the Dominion Governments is essential. We cannot fly the two airships to the Dominions even for demonstration flights unless two conditions are satisfied. Firstly, there must be mooring masts to which the airships can be attached at the end of their journey. Secondly, there must be meteorological data upon which the choice of dates for the flight can be based, and a meteorological organisation for keeping the airship supplied with the necessary weather intelligence. These two conditions are vital to the programme and, what is more, they are very urgent. Although the expense need not be heavy, the provision of masts and meteorological organisations takes a considerable time to complete. I am advised that this provision will take as long as two years to carry into effect. You will at once see the bearing of this fact. If the programme of demonstration flights is to be carried out without delay, the orders for the mooring masts ought to be given immediately, and arrangements made without delay for the meteorological organisations. I have with me the estimates of cost for the masts and meteorology, and I am prepared to discuss them either at the Conference or at the Committee, according as is most convenient. I will now only say that the provision of both masts and meteorology does not involve any very large sums—the masts and their equipment may cost £70,000 apiece, and meteorology should not entail more than a relatively insignificant expenditure. I much hope, therefore, that the Dominions concerned will examine as sympathetically as they can my request that they should, by ordering without delay the masts and by organising the necessary meteorological services, enable us to carry out without check or hindrance a series of demonstration flights that may mean a revolution in the means of Empire communications.

There is a further and no less important side of airship development that I desire to discuss in detail at the Committee—the question of developing this stage of airship experiment into the further stage of commercial airship operation. I wish to see a commercial airship line started at the earliest possible moment between Great Britain and the various Dominions. When it can be started and how it can be started are questions that I suggest that we should discuss at the Committee. It may be that we shall find that the question must be kept under the closest attention during the remainder of the experimental period, and that further conferences are necessary between the Dominions and ourselves before the normal date of the next Imperial Conference. Will it be possible to hold some time between now and the next Imperial Conference an Imperial Air Conference at some suitable centre in the Empire, where we could discuss the quick developments that are constantly taking place, and in particular give our attention to the question of forming a commercial company or companies for operating airship lines? I am most anxious that we should not lose any opportunity for starting these lines. At present we are ahead of any other nation in the development of airships, and we have the chance of founding within the Empire an airship industry and the first airship lines. Let us hope that an experiment that means so much to the life of the Empire will prove successful, and let us lose no opportunity for co-operation in starting the airship lines.

There, then, I fear at very great length, is a picture of the Empire air route programme upon which I ask for your advice and co-operation. I do not believe that I am either a fanatic or a visionary in asking your support for these schemes. If they prove successful they may give a physical unity to the Empire that it has

never possessed before. Hitherto the invention of flying has brought more harm than good to the Empire and to the world. The aeroplane, the symbol of the terrible methods of modern warfare, has made these shores for the first time for centuries vulnerable to foreign attack. It has added to the budget of national expenditure, it has complicated almost every problem of defence. Let us try to redress this balance by insisting that the aeroplane shall be used not only for the purposes of destruction, but also for the objects of peace and goodwill. Hitherto the air has been the scene of glorious though terrible conflicts ; it has been the background from which death and destruction have been hurled upon camps and cities. The purest of the elements was not intended for the destruction of civilisation by high explosive or poison gas. The invention of the flying machine, which the pioneers of successive centuries strove to achieve, was meant for something better than an instrument of concentrated frightfulness. With the horror of the last war in our memories and the limitless terrors of any future war in our minds, let us make the air a highway of peace, and the aeroplane an instrument, not for severing nations and destroying civilised life, but for making closer and more constant the unity of Imperial thought, Imperial intercourse, and Imperial ideals.

MEMORANDUM
LAI D BEFORE
THE
IMPERIAL CONFERENCE,
1926.

NOTE

BY THE

SECRETARY OF STATE FOR AIR.

The following memorandum deals so comprehensively with the question of Imperial air communications that I need only add a few lines to underline certain of its outstanding features. It seemed to me that the members of the Conference would desire to have in their hands a complete picture of the present position of this important question. I hope that the memorandum will provide them with what they require. It will at least show them that substantial progress has been made in many directions since the last Conference. The first section of the England-India aeroplane route is to be opened in January, when my wife and I are to make the first journey upon it; a series of long distance Empire air flights, military and civil, have proved the practicability of the great Empire airways; intensive concentration upon technical research and development, and upon the study of meteorology has greatly strengthened the foundations upon which future progress can be achieved. Particularly noticeable is the advance that has been obtained in the field of airship development. The following pages give a detailed account of the wide field of research, experiment and trial that has been covered during the last two years. I would venture to ask the representatives of the Conference to give their special attention to this description of our airship programme. I believe that a stage has now been reached in which the co-operation of the Dominions can be safely given, whether it be by the provision of mooring masts and meteorological facilities, or by the consideration of schemes for the development of future airship lines. I hope to develop these conclusions in greater detail during the course of the Conference.

S. H.

AIR MINISTRY.

**THE APPROACH TOWARDS A SYSTEM OF IMPERIAL
AIR COMMUNICATIONS.**

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