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POST-WAR CIVIL AVIATION IN GREAT BRITAIN

THE debate in the House of Commons upon the policy of the Government towards the future of civil aviation, which took place on December 17, made public facts that are disturbing. They should be given much more attention than the complacency of the Air Ministry representative's reply suggests that they will receive. Indeed, the relatively small amount of comment which has been published shows that the matter is in danger of being put aside as of little importance except in connexion with plans for reconstruction, a topic which is still unfortunately regarded by many as too speculative to be of immediate importance.

There was a certain lack of perspective in the debate in that an unduly large proportion of the time was taken up in the airing of minor matters concerning the internal management of British Overseas Airways, the company that now exercises a monopoly control over civil aviation under British jurisdiction. Such matters as disciplinary troubles with the staff, and the fact that the Prime Minister's recent flights have been made in charge of pilots not of British nationality were discussed at considerable length. The Joint Under-Secretary of State, Captain Harold Balfour, in his reply, made it quite clear that the Air Ministry does not feel disposed to interfere in such cases, maintaining that, in effect, although these several mismanagements are admitted, they are not sufficiently serious to call for such a drastic step as the removal of the company's Board or even an individual member of it, which is the only real power that the country has in return for paying a subsidy of several million pounds a year.

The much wider and more far-reaching question which arose was that of the Government's attitude towards the present-day development of civil aviation, from the point of view of the situation that will arise in the immediate post-war period. An inter-departmental committee issued an interim report about eleven months ago, in the form of a series of policy questions to the Cabinet. Nothing further appears to have been done since, as until these questions of policy are settled, the committee obviously cannot continue to function on its details.

Meanwhile the gradual absorption of the world's air routes by the American companies is proceeding, sometimes by arrangement with Great Britain, more often because they are the only competitors in the field, but always because we, through lack of an organization and equipment, are not in a position to cater for the demand where it exists.

American air lines have a monopoly in the Pacific and the South Atlantic; in the North Atlantic they are two to one (our one is run by a British air line but with American machines), in Africa civil air transport is being operated by Americans, and it is reported there will shortly be American air lines operating from Aden and India. This position of inferiority is due partly to the initial lead of the United States in matters of air transport in pre-war days, but it is aggravated by the war-time arrange-

ment that British policy has been to concentrate on the design and production of the smaller aircraft, leaving the larger ones to the United States. This is logical from the delivery point of view, as the large long-range machine can be sent over to the various war centres under its own power, while the small fighter or medium bomber would absorb shipping space and be under greater risk of loss by submarine attack. It is unfortunate, however, in that the large machine is the type that is required for civil air transport, and thus the United States is able to divert a proportion of her output to civil purposes as required, and is gaining experience, and already using it, to design and produce newer and larger transport machines.

Nor does the discrepancy end with this. An air transport concern having a constant supply of newly designed machines and engines must not only be functioning with the utmost efficiency, but also be able to train the personnel in the use of these, and thus build up an organization of skilled staff. British Overseas Airways has no such advantages. Nearly half its equipment is earlier American, the rest being partly obsolete British civil transport machines, or the more modern of them are R.A.F. rejected types, designed for war purposes and converted so far as practicable to civil transport needs. Several of these are fitted with American engines. Actually there are seventeen types of aircraft with fourteen types of engines. The inefficiency, from the point of view of cost and man-hours involved in maintaining such a collection, must be staggering. Also no experience in the use of the more modern machines is being gained, a loss both from their own operational point of view, and that it will not be available to designers of civil aircraft and engines for the post-war period. This is the present position and, so far as is known, the Ministry of Aircraft Production has no plans in hand, nor has it placed any orders for either aircraft or engines specifically designed for civil air transport.

A concrete suggestion for the immediate improvement of this state of affairs, based on partial and rumoured promises, was put forward by Mr. Perkins in the course of the debate. It was that twenty "York" aircraft (a large bomber with a body redesigned for air transport purposes) or else a similar number of another machine outcast by the R.A.F., which he called the "W", together with ten "Sunderland" flying boats, be handed over at once to British Overseas Airways and also the American "Lodestars" now in our possession under the Lend-Lease Act. These should be fitted with the best of the modern developments in variable-pitch airscrews in order to promote safety and maximum efficiency in operation. Financially it would probably be an economy, as it would allow of the scrapping of an equivalent accommodation in old and obsolete aircraft which must now be operating inefficiently, and the reduction in the number of types would economize on maintenance costs. It would give the staffs experience in handling more up-to-date equipment, would help to bridge over the period when inevitably no new civil aircraft will be forthcoming, and would enable us,

when the necessity arises, to approach the problem of coming to an arrangement with the United States on more equitable terms.

For the future, the long-term policy advocated was to take civil aviation away from the Air Ministry, the principal interest of which, quite rightly, is to develop and maintain the standard of the R.A.F. equipment. A committee should be set up to survey the whole question of civil aviation—not only air transport—with instructions to report quickly, say in three months time. The present monopoly given to one concern only should be abolished, and a healthy sense of competition allowed to function. This could be controlled, giving certain fields to specialist firms to avoid overlapping, without giving complete monopoly to any one. The Government should at once initiate the commencement of the design of three aircraft and three engines definitely suited to three broad types of civil air transport work.

In this respect it is interesting to note the report of the American Maritime Commission, published nearly five years ago. Although not a body primarily interested in aviation, the Committee expressed the opinion that large aircraft are already capable of superseding luxury liners of the *Queen Mary* type. It envisaged a large flying boat, to-day a technical possibility, six of which could carry per year more passengers on the Atlantic crossing than did the *Queen Mary*, and moreover the trip would take ten hours or less instead of five days. The standard of comfort need be no less than we expect upon a night 'sleeper' on the London-Scotland railways.

From the political aspect, the possession of a large air transport organization would be of the greatest help. Rapid travel would expedite that personal contact between the really big executives that will be needed when the question of rearranging the democratic government of the world has to be faced. Many speakers during the debate hoped for the possibility of the establishment of the freedom of the air when that time comes. This 'open sky' policy should follow the lines of the accepted freedom of the seas. Free and unrestricted flight to all points should be given. No small nations should be allowed to obstruct by prohibiting flights over their territory. Unrestricted use of airports, these maintained with an agreed standard of equipment, lighting for night flying, and other such safety devices, must be provided by all nations. At the end of this War, with the Great Powers in a position to dictate, in a benevolent way, to the smaller States, the psychological moment for such an innovation would seem to have arrived.

The reply of Capt. Balfour, on behalf of the Government, was far from reassuring. Apart from answers to the several minor criticisms that were outside the question of broad policy, his speech was mainly a defence of having put the whole of our effort into R.A.F. equipment, concentrating on "first things first", and consequently our inability to get "more than a pint out of a pint pot". He welcomed the taking over of the British African air route by Pan-American Airways, disguised as part of

the U.S. Army Air Transport Command, on the grounds that it is helping in our combined war effort. Exactly what the situation will be when the War ends, if the proposed freedom of the air is adopted, he did not mention. Pan-American Airways will have a complete monopoly of this, and possibly other Middle Eastern air routes, with machines, equipment, and personnel suited to the conditions as discovered by their experience. Apart from sentiment, Great Britain cannot show any claim to replace them. Without an alteration in our present policy, we shall certainly not be able to offer to the localities a better or even so good a service, lacking, as we shall, both experience and specially developed equipment.

The crux of the whole matter of policy appears to be that of the proportion of the aeronautical effort in Great Britain which is allowed to be devoted to civil aviation, particularly that part of it which is directed towards the long-range view of post-war requirements. The British allocation during 1942 was £5,000,000 given to one monopoly company, and a promise of a very small number of converted bombers and flying boats, none of which was conceived or designed as a commercial air transport machine, in the problematic future. Incidentally, £5,000,000, which Capt. Balfour described as "not such dusty crumbs", is the equivalent of about one day's expenditure upon war machines "at the rich man's table". Compared with this, the U.S. Aeronautical Chamber of Commerce stated recently that at present one fifth of the multi-engined production of aeroplanes in that country is devoted to cargo aircraft and that it is expected to rise to one third in 1943. In Great Britain we have British Overseas Airways as the only operating company. In the United States there are seventeen air lines operating under the direction of the Government authorities, but retaining their own individualities and spheres of influence. We have not one firm producing or even designing civil transport machines, whereas in the United States three of the largest concerns are producing cargo-carrying planes, while a fourth is just going into production on the world's largest passenger-carrying aeroplane, an 80,000 lb. monoplane, the "Constellation".

Any country's work in connexion with a total war must obviously be a balance between the production of direct war requirements and the many subsidiaries necessary to maintain national life. Aeronautics, as one branch of this, must be governed by similar laws. We may not be able to get more than a pint out of Capt. Balfour's pint pot, but the dregs allotted to civil aviation from the British pint would appear to compare very unfavourably with the gill that American aviation is getting from their pot. It is obvious that there are many facets to a political situation of this kind, and that it needs extremely delicate handling, but to the ordinary man it must appear that, in the world of aeronautics, Great Britain has either blundered or allowed itself to be jockeyed, which is really the same thing, into a position of bearing a little more than a fair share of the burden.

HYDRO-ELECTRIC DEVELOPMENTS AND RECONSTRUCTION

THE report of the Cooper Committee on "Hydro-electric Development in Scotland" (see p. 187), the main recommendations of which have now been accepted by the Government and embodied in the Hydro-Electric Development (Scotland) Bill presented to Parliament, is a reconstruction paper which will require the early attention of whatever planning authority may be entrusted with the responsibilities recommended by the Barlow Commission or the Scott Committee. The report formulates a programme or policy without attempting to work out its practical implications to the last detail, but in doing so it promotes an admirable appreciation of the position of hydro-electric development in Scotland and supplement to the report on the Highlands and islands of Scotland issued by the Scottish Economic Committee in 1938.

The broad conclusion which emerges from the survey of existing electrical development is that the northern area of Scotland differs fundamentally from all the electricity areas of Great Britain and calls for an exceptional development policy, practice and outlook. In that area there is abundant water-power but no coal; there are no substantial industrial concentrations, and the population is very sparse and widely dispersed. Water-power as a source of energy has different economic and financial characteristics from those of coal-fired steam stations. That portion of the area popularly designated the Highlands has for long been a depressed area and will remain so unless vigorous and far-sighted remedial action is taken in hand without delay.

The Committee considers in some detail the two main theories of the future of the Northern Area, on which most of the proposals laid before it were based. One view, that any attempt to introduce modern industries and industrial methods is foredoomed to failure, since the Highlander cannot and should not be separated from his croft or his boat, however meagre the existence they are capable of yielding, is emphatically rejected. The other view, that the real test of the validity of any electrical project is the promise it holds of attracting new industries, proceeds upon the sound and only possible principle of treating the Northern Area as a whole, developing the more advanced districts as fully as possible, establishing new centres of development at selected sites throughout the area, and trusting to the gradual diffusion of prosperity from these focuses of development into the surrounding districts, including thecrofting areas.

In regard to this view it should be remembered, as the Committee comments, that the provision of cheap and abundant electricity is only one, though a very important, factor in any programme directed towards the expansion of existing centres of industry and the creation of new ones. Secondly, the types of industry to which under the Committee's proposals the Northern Area could offer a very special inducement are those such as the electro-chemical and