

concerned, be based upon close co-operation between the mother country and the dominions, and consequently, anything which will assist to hasten the full appreciation of what aviation has to offer cannot fail to work towards a closer collaboration. It would be difficult to imagine anything more likely to attain that end than the splendid flight which has just been brought to a successful conclusion. During his flight Cobham has visited all manner of remote outposts of Empire, many of them with but the faintest knowledge of flying, and he has thus given thousands who had not previously seen a modern British aeroplane a much needed and much appreciated opportunity to inspect at close quarters a specimen of one of the latest examples of the vehicle of the future.

As regards the effect of the flight on other nations, this cannot fail to have been of inestimable value in raising British prestige abroad, and, in view of the statement of the Air Minister that aircraft manufacturers should, during the next year, make an effort to secure more orders from abroad so as to make up in some measure for the reduction in home orders which, unfortunately, the Air Estimates contemplate, Cobham's flight should be of very direct benefit, not only to the firms immediately concerned in the flight, but to the British aircraft industry in general.

The Technical Aspect

As regards technical lessons of the London-Cape Town-London flight, there are several. For instance, Cobham has stated that large sections of the route over which he flew are admirably suited to be operated commercially—some of them appearing to be more especially seaplane routes. This applies particularly over the northern section of Africa. In South Africa, on the other hand, long distances are found over which the landplane could fly with perfect safety, the country being flat and abounding in landing grounds. In this connection we cannot refrain from referring to a subject that has been widely discussed in aviation circles, and which has also recently been brought up in the House of Commons. We refer to the decision of the South African Government to subsidise a German aircraft firm for the operation of air services. The experimental air mail service proved perfectly feasible, from a technical point of view. That it did not pay could have been foreseen. That the South African Government should, after abandoning the experimental service, have turned to a foreign nation for the equipment of an air route can only be described as regrettable, and it is to be hoped that among the many other benefits which Cobham's flight may be expected to give, it will have shown South Africa that there is no need to go abroad for flying equipment. From that point of view it would appear that Cobham's visit was a most timely one, and it will be interesting to see what effect it has when the next agreement with the S. A. Government comes to be considered.

Concerning the machine used, the de Havilland 50J, it is of interest to note that this is of the form of construction often described as composite, *i.e.*, with wooden main structure members and sheet steel fittings. We had no opportunity of inspecting the machine thoroughly at Croydon last Saturday, but a hurried examination failed to disclose any trouble or defect in the machine after its 17,000 miles' flight, so that the doubts often expressed as to how a wooden aeroplane will stand up to work in tropical climates appears to have been answered. The ply-wood-

covered fuselage appeared to be in perfect condition; the fabric-covered wings showed no undue slackness, and the machine, although oily and dirty with the sand and ravages of many storms, generally looked absolutely "fit." That we shall have to come to metal construction ultimately, owing to the problem of supplies of wood, no one will deny. But there is much to be said for Mr. Walker's contention, in a letter published in *FLIGHT* some time ago, that so long as we learn how to make efficient and cheap metal spars, there is no reason why the rest of the machine should not be made of wood. It is the long lengths of silver spruce which are difficult to get. The smaller stuff, such as is used for wing ribs, etc., can still easily be obtained, and certainly the D.H.50J seemed to show that the ply-wood skin fuselage will stand up remarkably well. Provided, therefore, that ample supplies of ply-wood are obtainable in case of war, there does not appear to be quite the urgent necessity of making every last small part of an aeroplane of metal.

For the first time in history a radial air-cooled engine was used on a flight of this nature, and the Armstrong-Siddeley "Jaguar" appears to have done all that any aero engine, of whatever type, could be expected to do. We had a short chat with Cobham on Saturday, and he stated that never at any time had there been the slightest suggestion of engine trouble. The extreme temperatures met with must have been trying to the engine, not to mention that more than once, when flying in sandstorms, the air intakes were smothered in sand. Yet the engine ran as well as ever. The flight has thus proved the qualities of the radial air-cooled, a type of aero engine which many regard as the type of the future. Altogether, the flight has demonstrated the superb qualities of British aircraft material, not to mention the equally British determination and stamina of the crew, to whom the very greatest credit is due. Our thanks to them all for their wonderful demonstration.

Another Radial Triumph

March seems to be a month of triumphs for the radial air-cooled engine. The "Jaguar" has completed something like 17,000 miles under the most trying conditions, and the Bristol "Jupiter" has completed an even longer period under, perhaps, rather less severe conditions, but nevertheless sufficiently searching to discover any defects that might have been present. That not a single defect was discovered after nearly 226 hours' flying at an average of about 72 per cent. of full power is proof positive of the soundness and reliability of Mr. Fedden's design and Bristol workmanship. The engine was officially sealed before the start of the test, and the machine and engine then handed over to Imperial Airways to be tested under normal operational conditions, still under the supervision of the A.I.D. What made the demonstration all the more impressive was the fact that the Bristol Aeroplane Company had such faith in the "Jupiter" that at the outset the statement was made that a flight of 25,000 miles without replacement would be attempted. That the attempt succeeded shows that those responsible for the engine know its capabilities to the full, and that, therefore, if a certain performance is promised it will be attained. That is a reputation which any firm might well envy, but it is one in keeping with the traditions of the Bristol Aeroplane Company.