

THE R.A.F. CAIRO-CAPE FLIGHT

Official Report on the Big 14,000-Mile Flight

THE official account of the Royal Air Force flight from Cairo to Cape Town and back, which took place last summer, has just been issued. This report, as it stands, would fill some 14 columns of *FLIGHT*, and with the present pressure on our space we are unable to publish it in full, in spite of the fact that it makes most interesting reading, and is at the same time an historic record.

In previous issues of *FLIGHT*, however, we have given particulars of this flight from start to finish, including a special article (in our issue for June 24 last) on the occasion of the arrival of the airmen in this country. We propose, therefore, to give this week a necessarily brief résumé of the official report referred to above, including only the more interesting items contained therein.

To begin with, it should be pointed out that this flight of four R.A.F. machines from Cairo to the Cape and back to England was purely a service flight carried out in the ordinary course of R.A.F. training, and no attempt was made to break records. The object of the flight was to visit the Dominion of South Africa and the various colonies en route; to gain experience in long-distance flying in formation, keeping to a scheduled time-table, and so to test the regularity with which reinforcements can be despatched by air, to gain experience in flying through changing climates and conditions, and over new country, to co-operate with local forces stationed in close proximity to the route followed, and last but not least, to visit the South African Air Force.

The route of the flight was practically the same as that organised by the R.A.F. in 1919, and followed by Sir Pierre Van Ryneveld on the Vickers "Silver Queen" machine in 1920. It was divided into three sections—Northern, Central and Southern. The Northern Section was organised by the Middle East Command, R.A.F., and stretched from Aboukir to Nimule. The Central Section, for which an R.A.F. officer with one N.C.O. and three airmen was responsible, lay between Jinja (Uganda) and Abercorn (N. Rhodesia). The Southern Section, for which another R.A.F. officer and two airmen were detailed, commenced at N'Dola (N. Rhodesia) and finished at Cape Town.

The flight was to be composed of four aeroplanes (Fairey 111 D land planes with Napier "Lion" series V engines). A spare aeroplane, two spare engines and spares were sent to Aboukir; a spare aeroplane, two spare engines and various spares were dumped at Kisumu (Lake Victoria); and a spare aeroplane, four spare engines and appropriate spares were to be dumped at either Cape Town or Pretoria. Thus a total of seven aeroplanes and 10 engines were allotted for the flight. (Note, the whole flight was completed without any change of machine or engine.)

On November 6, 1925, the flight formed at Northolt under the command of Wing Commander C. W. H. Pulford, O.B.E., A.F.C., but was not complete with personnel until December 1. In addition to the leader, the personnel engaged in the flight were:—Flight-Lieuts. P. H. Mackworth, D.F.C. (Pilot); E. J. L. Hope, A.F.C. (Pilot); L. E. M. Gillman (Navigation); Flying Officers W. L. Payne (Pilot); A. A. Jones (Technical); Sergeants Hartley (Fitter); and Gardener (Rigger).

At Northolt tests and practice flights were carried out as well as the preparation of the final lists of equipment, checking of same, etc., etc. The natural tendency when preparing lists of equipment is to try and take everything so as to be prepared for any eventuality. It is recognised, however, that if an engine is to last the aeroplane must not be overloaded—and as Wing-Com. Pulford said, "If you carry a lot of spares you will want them; if you don't you won't feel their need." The weight of equipment that could be carried was 450 lbs. per machine.

Wireless was not carried for the following reasons:—(a) It was heavy. (b) It would be of no value in Central Africa. (c) It required a skilled operator to send and receive signals and to look after the set.

After dealing with the final preparations for the flight the report gives the following narrative by Wing-Com. Pulford:—

"I suppose that there are few countries more interesting to visit than Africa, nor is there, I imagine, a more delightful way of doing so than by air.

"Within the space of six weeks we were able to see such world famous sights as the Pyramids at Ghizeh, the Aswan Dam, the source of the Nile at Jinja, the game reserves in

Kenya, the Victoria Falls at Livingstone, the Mattoppos Hills at Buluwayo, the diamond mines of Pretoria and Kimberley, and Table Mountain with the blue Atlantic stretching far beyond it.

"Any attempt however, to describe such a flight in detail would, I consider, be a very long and arduous task, added to which anybody who tried to read such a report would either fall asleep from sheer boredom or give it up in despair.

"Had there been any mishaps there might have been something to write about, but as it happened, from start to finish everything ran perfectly. The ground organisation was so thorough that all we had to do was to get in at one place and out at another and that was all there was in it.

"The strenuous period and the one which gave most work and anxiety was the preparation for the flight. There was so much which had to be provided for and every detail had to be gone into; but once all preparations were complete the actual flight was easy."

The Flight started from Heliopolis at 0710 hrs., March 1, and finished there at 0835 hrs. on May 27, one day ahead of schedule. The total flying time for the four machines for the flight to the Cape and back to Cairo was approximately 568 hrs. The actual time between Cairo and return for the leader's machine was 140 hrs. 55 mins.—68 hrs. 21 mins. outward and 72 hrs. 34 mins. return.

During the whole flight very little trouble was experienced beyond having to replace one magneto, two air screws and all the oil tanks; no major repairs were necessary. The reliability of the engines and aeroplanes, says the report, was no doubt a great factor in determining whether the flight kept to time-table or not. But it was also very largely due to the efficient ground organisation prepared by the parties of R.A.F. personnel that had been sent in advance.

The rest of the report is devoted to a detailed log of the flight, a brief résumé of which, with outstanding items of interest included, follows:—

Outward Flight

1st Stage, March 1-3.—Cairo-Assiut (220 miles). Assiut-Aswan (260 miles). Time, 4 hrs. 57 mins. [The routine on landing at the end of a stage adhered to during the flight is described here.—Immediately on landing and whilst taxiing in, R.A.F. ensigns were hoisted; they were not kept flying in flight owing to the heavy wear and tear. Air intake plugs airscrew, engine, cockpit and compass covers were immediately put on. The aeroplanes were then pegged down and flying controls secured. Where the ground was too hard for screw pickets heavy weights such as full oil or petrol drums were used instead. The usual practice was to peg down with one picket to each wing tip, one to the air screw, and one to the tail, the camber gear being wound down to normal. In localities where there was any likelihood of rain all petrol tank air vents were plugged in order to prevent water getting in. Refuelling and routine inspections were then proceeded with.]

2nd Stage, March 3-4.—Aswan-Wadi Halfa (185 miles), Wadi Halfa-Atbara (350 miles). Time, 5 hrs. 46 mins. [This section very monotonous, nothing to be seen but sand or rocky jebels (hills).]

3rd Stage, March 4-6.—Atbara-Khartoum (175 miles). Time, 2 hrs. 27 mins. [Flight had to return to Atbara shortly after leaving owing to leaky petrol sight glass in one machine. Sir Alan Cobham landed at Khartoum on Mar. 5, and the leader took the opportunity of obtaining his opinion of the various aerodromes en route.]

4th Stage, March 6-8.—Khartoum-Kosti (175 miles). Time, 2 hrs. 25 mins. [Flight left shortly after Cobham departed for Khartoum. Visibility very bad. Enthusiastic reception at Kosti. Decided to stay a day at Kosti owing to bad weather report.]

5th Stage, March 8-10.—Kosti-Malakal (260 miles). Time, 3 hrs. 53 mins. [Visibility still bad. At Malakal the Shilluks armed with spears and shields gave a war dance in honour of the Flight. Malarial district now reached—Flight started taking daily quinine.]

6th Stage, March 10-12.—Malakal-Mongalla (350 miles). Time, 3 hrs. 54 mins. [Visibility bad, not much of country could be seen—very monotonous. Hot and muggy at Mongalla, even at night.]

7th Stage, March 12-13.—Mongalla-Nimule (124 miles). Time, 1 hr. 32 mins. [Originally intended to fly to Kisumu,