The log of the flight is as follows:—

			miles.
Mar. 24	Lympne, dep. 1.05 a.m.		
,, ,,	Oran		1,100
,, ,,	Colomb Bechar		350
,, 25	Reggan		375
,, 26	Niamey		935
,, 26–27	Duala		900
,, 27	Loanda		950
,, 28	Walvis Bay		945
,, ,,	Cape Town, arr. 8.35 p.m.		800
			6,355

Mr. J. A. Mollison will already be well known to readers of FLIGHT for some of his previous flights, among which the flight from Wyndham, Australia, to Pevensey Beach, Sussex, in 8 days 19 hr. 25 min. is still unbeaten. On that occasion he was using a de Havilland "Gipsy Moth."

By selecting the western route Mollison saved a distance of close on 800 miles as compared with the route followed by the Imperial Airways machines, which goes via Egypt, Sudan, Kenya, Tanganyika, and Rhodesia. The price to to be paid for the shorter distance was the long flight across the featureless Sahara desert, and the headwinds to be expected over certain sections of the route.

The flight across the Sahara by night must have been a trying piece of work, and it speaks well of Mollison's ability as a navigator that he succeeded so well. In this he was doubtless aided and abetted by Smith's instruments and by the Hughes compass with which the machine was equipped. One has come to expect this equipment on machines making noteworthy flights.

So far as can be gathered at the moment, Mollison's flight was without mechanical trouble of any kind. The Gipsy III engine kept running, although it was never far short of maximum revs. the whole way. We have not worked out how many sparks the K.L.G. plugs, fed by B.T.H. magnetos, made during the flight, but it must have been quite a few, and, as usual, there was no cause for complaint.

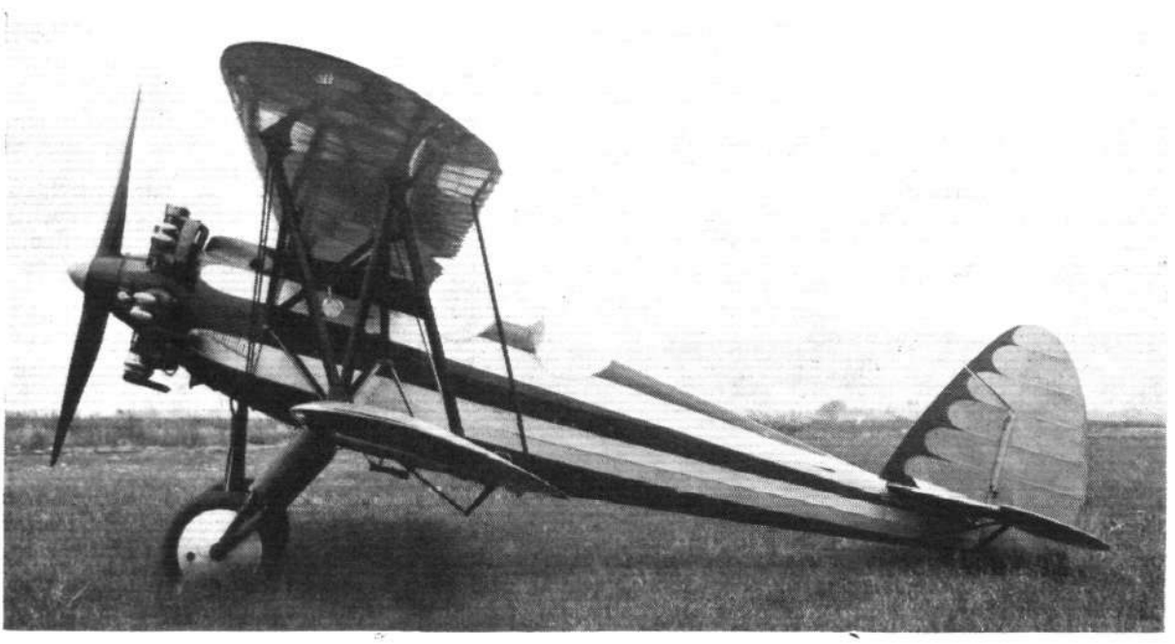
"Pleased reliable quality Shell petrol. Also splendid refuelling service Shell all points, no matter how remote. This contributed largely my successful flight. Mollison" was the cable received by Shell Mex, and this spirit and Wakefield Castrol once again proved a useful combination. The wide range of climatic conditions, from the March cold at Lympne to the tropical heat of equatorial Africa, were well met by the Titanine doping scheme used on the "Puss Moth" and by the Fairey metal airscrew with which the engine was fitted. These airscrews now appear to be the general choice for flights which have to contend with extremes of climate.

The de Havilland Aircraft Co., Ltd., have received from Mr. Mollison the following telegram:—

"Machine carrying great overload and engine running nearly maximum revolutions performed magnificently."

The Caproni CA.113

An Italian Aerobatic Biplane with 240-h.p. Walter Engine



FOR AEROBATICS: The Caproni CA.113, which is fitted with a 240-h.p. Walter air-cooled radial engine.

THE Caproni "CA.113" is a two-seater dual-control biplane designed for high "aerobatic" performance. It is of mixed wood and metal construction—wood and steel tubing being employed for the fuselage, tail planes and landing gear. The main planes are of equal span, the top plane being staggered forward in order to provide, as much as possible, uninterrupted visibility.

The construction of the wings is of normal type, and two-bay bracing is employed, with streamline steel N interplane struts and streamlined wire bracing. Interconnected ailerons are fitted to all four wings. Fabric, doped with Emaillite, is used for covering the wings.

In section the fuselage is rectangular, with a deep turtle deck top of duralumin sheet—the sides and bottom being fabric covered. There are two cockpits, arranged in tandem back of the wings, each equipped with Salvator back-cushion parachutes. All the necessary instruments are fitted in the rear cockpit.

The 240-h.p. Walter air-cooled radial engine is carried in a steel-tube mounting, secured to the fuselage by five bolts. It is fitted with a Walter carburetter specially designed for aerobatic flying, fed directly by an oscillating piston pump. The fuel and oil tanks are mounted in the fuselage, in front of the forward cockpit. A Maliverti compressed-air starter is fitted.

The tail plane, which is of steel tubing fabric-covered, is adjustable as to incidence during flight. Elevators and rudder are balanced, the rudder and fin being constructed of three-ply wood.

A non-axle undercarriage is fitted, with steel spring and oleo-pneumatic shock absorbers. The wheels are provided with brakes.

The principal characteristics of the CA.113 are:—Span, 34 ft. 5 in. (10,49 m.); O.A. length, 24 ft. 5 in. (7,46 m.); height, 9 ft. 2 in. (2,80 m.); wing area, 276.5 sq. ft. (25,70 m².); weight empty, 1,797 lb. (815 kg.); useful load, 551.25 lb. (250 kg.); maximum speed, 143 m.p.h. (230 k.p.h.); climb to 13,000 ft. (4,000 m.), 15 min.

Mario De Bernardi—the former Schneider Trophy winner, flew one of these machines in the International Air Meeting at Cleveland last year. C. R.