



## THE WORLD'S SPEED RECORD . . .

a new speed record would not be confirmed unless it exceeded an existing record by at least 8 km/hr (4.971 m.p.h.).

Up to 1924 the absolute world speed record had been held exclusively by landplanes, but as the maximum speed of aeroplanes in general increased, so correspondingly did the stalling speeds; and designers, worried about the high speed at which aeroplanes had to land, turned their attention to seaplanes as a means of providing a greater degree of safety when coming down. There were no lengthy runways then, and water provided much more room on which to manoeuvre. The extra drag of floats was countered by increased horse-power and better streamlining.

But in fact, the absolute world speed record set up by a landplane—Adjutant Bonnet's 448.171 km/hr made on December 11th, 1924, in one of the Bernard racing monoplanes—was not beaten until 1927 when, for the first time, a seaplane established the absolute world speed record. The pilot was Maj. Mario di Bernardi, of Italy, who in a Macchi M.52 twin-float seaplane at Venice on November 4th, 1927, achieved 479.290 km/hr. Actually the 1927 Schneider Trophy Contest that year had been won by Great Britain, when F/Lt. S. N. Webster flew the Supermarine-Napier S.5 into first place at 453.282 km/hr—a speed faster than Bonnet's but not quite high enough to qualify, and in any case it was not made over the 3 km course. In that race di Bernardi had had to retire with the Macchi. Later he improved on his own record, and became the first man to fly at 300 m.p.h.

In a British attempt to regain the record in 1928, on November 4th, F/Lt. D. D'Arcy Grieg attained 519 km/hr in the S.5, but although this bettered di Bernardi's speed it did not exceed the record by the requisite 8 km/hr.

So—and this is not generally realized—Great Britain never held the official World Speed Record until 1929. When the next Schneider Trophy was held, at Calshot, F/O. H. R. D. Waghorn flew the Supermarine S.6 into first place at 528.879 km/hr, giving Britain her second consecutive win and in fact surpassing di Bernardi's record. Afterwards F/L. G. H. Stainforth took up the Gloster-Napier IV and exceeded Waghorn's speed by achieving 541.2 km/hr (336.3 m.p.h.) over the 3 km course. Then S/L. A. H. Orlebar flew over the 3 km course at 575.700 km/hr (357.7 m.p.h.) in the S.6 and gained, for the first time, the absolute world speed record for Britain.

The record was next raised in 1931. F/L. (now A. V-M.) J. N. Boothman flew the Supermarine S.6b over the Schneider Trophy course at Lee-on-Solent at 548.45 km/hr (340.08 m.p.h.) and in so doing secured the Trophy permanently for this country. Under the rules of the contest the Trophy was to be won outright by any country recording three consecutive wins, and it now has a proud place in the Royal Aero Club. Boothman's speed, flown over a three-sided course, was not faster than Orlebar's speed over the straight course in 1929, but on September 13th, Stainforth took up the S.6b and established a new world speed record of 610.01 km/hr (379.05 m.p.h.) over the 3 km course, and later—on September 29th—increased it to 655 km/hr (407 m.p.h.). He was the first man to fly at 400 m.p.h.

For the 1931 Schneider Trophy contest Italy had been preparing a new Macchi seaplane, but had been unable to complete it in time. But two years later this aircraft captured the record. The new seaplane was the Macchi-Castoldi M.C.72 which, flown

by W/O. F. Agello, attained 628.078 km/hr. In 1934 Agello again raised the record by flying the M.C.72 at 709.209 km/hr. This aircraft was fitted with a 24-cylinder Fiat A.S.6 engine developing 3,100 h.p. and driving co-axial contra-rotating airscrews.

That record stood for five years. About a year before the Second World War began in 1939, plans were being made in Great Britain, France, Germany and America to beat the record. The landplane speed record had been gradually increased, but the M.C.72 still held the absolute record.

All of the potential record-breakers conceived at that time were landplanes. In this country Lord Nuffield sponsored the production of a small monoplane specially designed by the Heston Aircraft Co. Ltd. to attack the record. This aeroplane, known as the Heston Special, was powered by a 2,300 h.p. Napier Sabre 24-cylinder engine. Unfortunately it was not ready until

(Above, left) The beautiful Supermarine S.6 (Rolls-Royce R), in which S/L. Orlebar achieved 355.8 m.p.h. in 1929.

(Right) S/L. Orlebar. A few days later he raised his own 355.8 m.p.h. record (unconfirmed) to 357.7 m.p.h. "Flight" photographs



the war had started, and, as a result of cooling trouble, crashed on its first flight on June 12th, 1940.

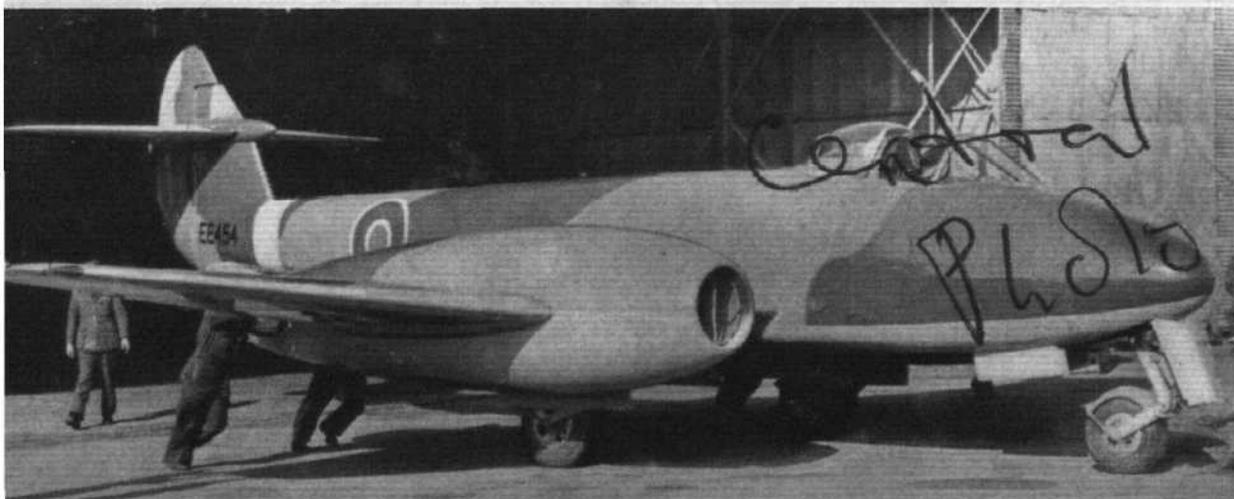
In France two well-known pilots, R. Delmotte and M. Doret, were preparing to make attempts, in a Caudron and a Dewoitine D.500 respectively, while Colonel Roscoe Turner in America was planning to reach 500 m.p.h.

Actually it was Germany that succeeded in taking the record from Italy. The landplane speed record had been pushed up to 610.95 km/hr by Germany in 1937, and Major-General Ernst Udet had flown a Heinkel He 112U over the 100 km closed circuit course at 634.32 km/hr in 1938. On March 30th, 1939, Flugkapitan Hans Dieterle flew an He 112U, fitted with a Daimler-Benz engine specially boosted to give about 2,000 h.p., at Oranienburg, and established a new absolute record at 746.66 km/hr. So for the first time for five years a landplane had flown faster than the fastest seaplane. The high stalling speeds of ten years before were in 1939 accepted as normal, and designers no longer considered it necessary for a 450 m.p.h. aircraft to alight on water.

As a matter of fact, Dieterle's record was not officially confirmed, because a few weeks later, on April 26th, 1939, the record was again raised by Germany, this time by Flugkapitan Fritz Wendel in a specially-prepared Messerschmitt Bf 109R at 755.138 km/hr. This performance became the official absolute world speed record. Not since the 1914-18 war had there been so long a period between two consecutive records. Even so, the increase amounted only to 45 km/hr (27.69 m.p.h.), which indicates that the piston-engined aeroplane was reaching its speed limit. Today the D.H. Hornet, among the fastest piston-driven aircraft, achieves 470 m.p.h., but has the advantage of being a useful standard machine and not one specially hotted-up for the job.

No more records were officially established until after the 1939-45 war had ended, although obviously it was only a matter of convenience before Britain or America should make an attempt. Since 1943 aircraft had been flying at speeds substantially greater than the official world speed record.

The first attempt after the war was made by Great Britain and



In the jet age: The Gloster Meteor 4 with which G/C. H. J. Wilson raised the record to 606 m.p.h. in November, 1945.