

# EIGHTEEN YEARS OF WORLD'S RECORDS

In the December issue of the F.A.I. *Bulletin* (the official organ of the Fédération Aéronautique Internationale) the various aviation records, officially recognised by the F.A.I., are summarised during the past eighteen years—that is, from 1906 to 1923. Arranged as they are in their separate classes—speed, altitude, distance and duration—each from the earliest and year by year to date, they make an interesting and valuable study, as may be judged by the tables and graphs which we have prepared in this week's issue of *FLIGHT*.

It should be pointed out that the early flights of the Wright brothers and certain early essays of other pioneers (such as Blériot, Santos-Dumont, etc.) are not included in these tables, which refer to F.A.I. records only.

As to how far an analysis or a comparative study of these tables serves as a true indication, from the technical point of view, of the progress made during the eighteen years is a question by no means easy to decide, for there are, without doubt, instances when the advance forward was more a matter of sheer luck or brute force rather than pure progress. As a matter of fact, looking at it from the technical point of view, one should examine each individual record if we desire to form a true basis for comparison.

This, however, we do not propose to do here, but we think it may be of interest to "run over" these tables and refer to one or two specific cases.

Taking the speed records first, the outstanding lesson one learns here would seem to be that increase in speed and increase in horse-power were very closely associated. Santos-Dumont and his machine call for passing reference only—and this applies equally to the distance and duration sections—for his effort, though historic, is of little interest technically.

The next step forward, by Farman, certainly points to an improvement aerodynamically, but the increase from 24 h.p. to 50-60 h.p. helped considerably. In July, 1910, we find the speed above the 50 m.p.h. mark, but again the h.p. has increased to 100 (Morane flew a Blériot monoplane fitted with a 100 h.p. Gnome).

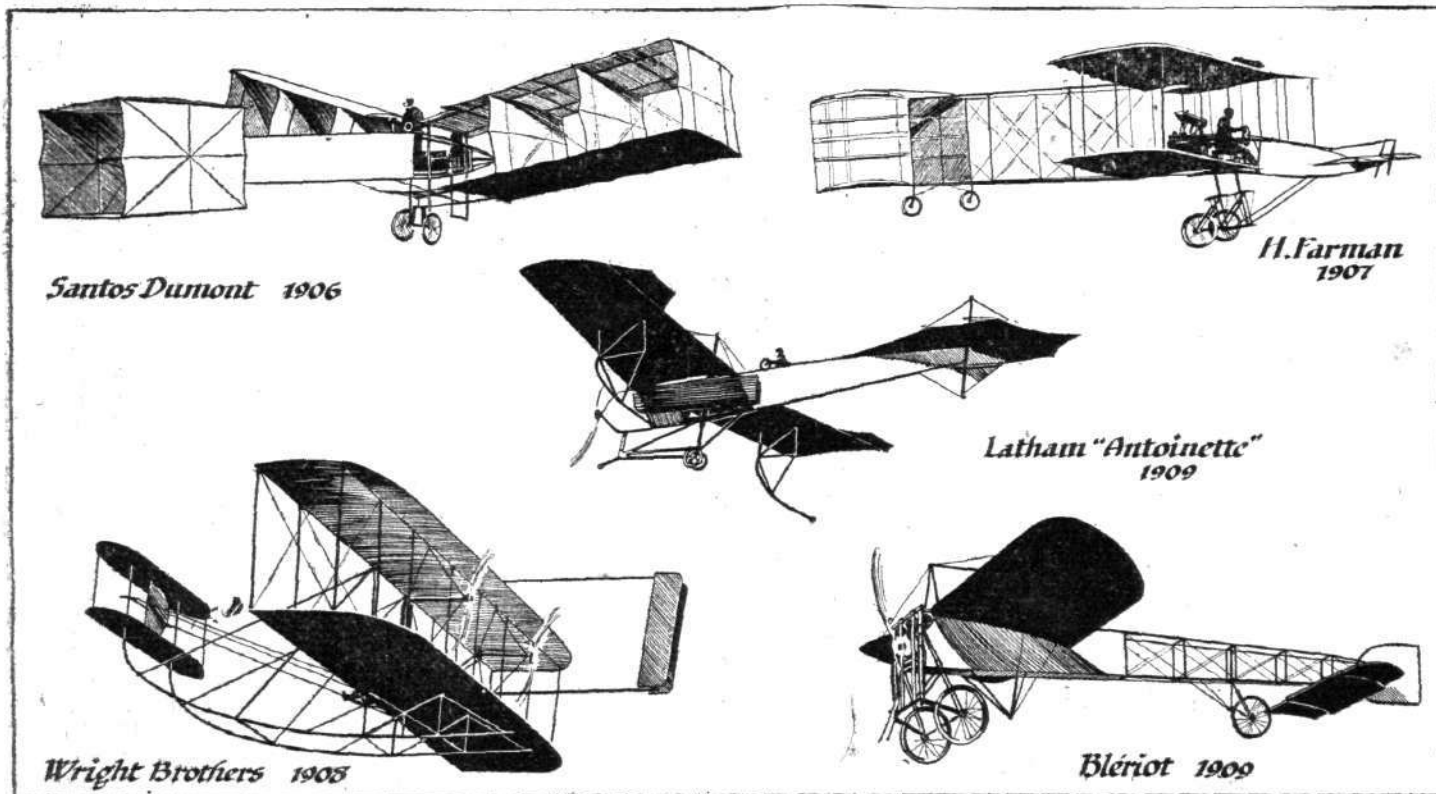
Then the speed gradually crept up until 1912, when a

marked advance was made with Vedrines and his 100 h.p. Dep. monocoque monoplane—the 100 m.p.h. mark being then reached. From this time until just before the outbreak of war in 1914 Vedrines very slowly crept up the scale, and then Prevost, also flying the Dep., but with a 140 h.p. engine, topped the list, for the time being, by just passing the 125 m.p.h. mark.

Little, we think, need be said on the period following the resumption of sporting air events to date, except that, whilst horse-power still went up by leaps and bounds with speed, there was, without doubt, a corresponding improvement in matters aerodynamic.

Turning now to the altitude records, we do not think we have very much to say here beyond remarking on the extraordinarily steady and regular advance in the figures, especially during the post-War period, when "design" certainly gained a point with its superchargers, etc. It will be noticed that the U.S.A. appears several times amongst the altitude records, whilst Great Britain makes its one and only appearance in these tables with Drexel's fine altitude flight of 6,600 ft. at Lanark on August 11, 1910.

The distance and duration tables are, we think, by far the most interesting, for here, perhaps, we have a much truer indication of man's struggle for the mastery of the air. It will be noticed that the progress made during the period 1906-1910 was remarkably rapid, some big jumps being made by Wilbur Wright during 1908. It may be of interest to note, in connection with the last two records of distance and of duration, that while there is not very much difference between them so far as actual figures are concerned, there is, we think, a considerable difference when one considers the merits of each particular case. Lieuts. Kelly and MacReady, it may be remembered, were flying a Fokker monoplane, and carried sufficient fuel on board to last them the 36 odd hours. On the other hand, Lieuts. Smith and Richter, who were flying a D.H. type biplane (400 h.p. Liberty), replenished their fuel in mid-air on no fewer than 15 occasions, from another aeroplane. Mid-air refuelling, it may be mentioned, is now officially recognised.



**SILHOUETTES OF SOME OF THE PIONEER DESIGNS AND EARLY RECORD MAKERS:** In the top left-hand corner is Santos-Dumont's weird "canard" machine, on which he created world's records for speed, distance, and duration on November 12, 1906. On the right (top) is the early Henry Farman machine, on which the next big advances were made about one year later. In the centre is shown the graceful Antoinette monoplane, on which Latham captured several records during 1909. The famous Wright brothers' biplane, shown in the lower left-hand corner, was another early record maker which was responsible for a marked advance forward during 1908. In the lower right-hand corner is the equally famous Blériot monoplane, which held the world's speed record during 1909. The dates given under the above silhouettes refer to the year of their construction as well as to the year in which they created their first record or records. Of course, the first Wright machine was built and flown in 1903, but these early attempts are not included in this collection of records, as only officially homologated records are dealt with. The first Wright machine differed slightly from the 1908 model.