

INSTITUTE OF AERONAUTICAL ENGINEERS



The following is the fixture list for 1926-1927 of the Institution of Aeronautical Engineers:—

1926.
October 12, Tuesday.—Paper by Mr. M. L. Bramson, A.C.G.I. (Member), on "Unsolved Aeronautical Problems."

October 26, Tuesday.—To be arranged.

November 16, Tuesday.—Paper by Mr. A. G. von Baumhauer, Sub-Director of the Government Aeronautical Laboratories, Amsterdam: "Some Notes on the Possibilities of Progress in Aviation."

November 30, Tuesday.—Paper by Mr. F. S. Barton, M.A., F.Inst.P., on "Air Photography Apparatus."

December 9, Thursday.—Paper by Captain F. Entwistle, B.Sc., on "Wind Structure in Relation to Air Navigation."

1927.

January 13, Thursday.—Paper by Professor F. C. Lea, D.Sc., M.Inst.C.E., M.I.Mech.E., on "Some Experiments on the Effects of Repeated Stresses on Materials."

January 25, Tuesday.—Paper by Mr. F. S. Barnwell, B.Sc., O.B.E., A.F.C., F.R.Ae.S. (Honours Member): "Some Notes on the Design of Airscrews."

February 10, Thursday.—Paper by Mr. H. P. Folland,

F.R.Ae.S., M.B.E. (Honours Member). Title to be announced later.

February 22, Tuesday.—Paper by Lieut.-Colonel L. F. R. Fell, D.S.O., O.B.E., R.A.F., on "The Manufacture and Testing of Mechanical Units for Aircraft."

March 8, Tuesday.—Paper by Major H. N. Wyllie, B.Sc., F.R.Ae.S., on "Portable Hangars."

March 16, Wednesday.—Visit to the Factory of Messrs. A. D. C. Aircraft, Limited, Waddon.

March 22, Tuesday.—Paper by Mr. W. Villa Gilbert, Founder M.R.Ae.S. (Member and Honorary Secretary), on a New Type of Wing Construction.

April 6, Wednesday.—Visit to the Works of Messrs. The DeHavilland Aircraft Co., Ltd., Stag Lane Aerodrome, Edgware, Middlesex.

April 19, Tuesday.—Paper by Capt. F. Tymms, M.C., on "Flying for Air Survey Photography."

May 10, Tuesday.—Paper by Mr. Lawrence A. Wingfield, M.C., D.F.C. (Associate), on "Aircraft Law."

May 25, Wednesday.—Visit to the National Physical Laboratory, Teddington, Middlesex.

June 4, Saturday.—Visit to Croydon Aerodrome, by courtesy of Messrs. Imperial Airways, Limited.

Note.—All the lectures will be held in the Lecture Room of the Junior Institution of Engineers, 39, Victoria Street, London, S.W.1, at 6.30 p.m.

UNSOLVED AERONAUTICAL PROBLEMS

IN spite of the great strides that have been made of recent years in the development of the science and art of aviation, we are still a long way from being able to claim that our knowledge of the subject is within measurable distance of being in the nature of an exact science. Nor can we say with any certainty whether aviation as we know it today is likely to lead us. To those whose daily task it is to carry out aerodynamic estimates, structure calculations, planning and placing of equipment, and the thousand and one things which go to the production of a modern aeroplane, and who may, therefore, be somewhat apt to come to look upon the aeroplane as we know it today as something very like final, and the problems connected with it capable of being tackled in a routine fashion, to them, we think, an occasional change of viewpoint may be of very considerable assistance, and may open the way for new ideas, or for new ways of attacking old problems.

Such a change of viewpoint is represented by the paper to be read by Mr. M. L. Bramson, A.C.S.I., before the Institution of Aeronautical Engineers on October 12, the title of which is "Unsolved Aeronautical Problems." Mr. Bramson does not merely look at the aeroplane as we know it today and then speculate upon how, by certain minor refinements, we may slightly improve the performance, or the economy, or the cost, or the safety. He boldly makes up a long list of problems which as yet remain unsolved, many of which will probably be thought to lie rather a long way out in the future. That, however, is, to our way of thinking, one of the chief merits of the paper; instead of marvelling at what we have already

accomplished, the lecturer takes the opposite course and outlines some big problems that still have to be tackled. It should be understood that he does not attempt to solve the problems, preferring, presumably, to leave it to the discussion to bring forth suggestions for the solution of the various riddles.

Among the many problems which Mr. Bramson proposes to deal may be mentioned the following: The propulsion of aeroplanes with constant power at varying altitudes; jet propulsion; variable wing surfaces; vertical ascent and descent; fog landing; seaworthy flying boats; the ideal aerodynamic structure; the multi-engine room with ideal propeller distribution and without engine drag; the super-altitude high-speed transatlantic liner, etc.

It will be seen that there should be sufficient material for a discussion lasting several weeks, and the paper should afford an excellent opportunity for people with new ideas to put them forward, even if one evening will scarcely suffice to "solve" all the problems. However, there is always a great advantage in knowing what one is "up against," and a realisation of the exact nature of an obstacle will often help one in surmounting—or perhaps circumventing—it.

Mr. Bramson will read his paper in the lecture room of the Junior Institution of Engineers, 39, Victoria Street, S.W.1, at 6.30 p.m., on Tuesday, October 12, and we understand that non-members of the I.Ae.E. will be welcomed, and may obtain tickets from the Hon. Secretary, Institution of Aeronautical Engineers, 34, Broadway, Westminster, London, S.W.1.

Land's End to John O'Groats Flight

COL. THE MASTER OF SEMPILL, flying a D.H. "Moth," left the village of Sennen—within a mile of Land's End—on September 29, and flew to John O'Groats, with only a brief halt at Shotwick, Chester, in 8 hrs. 14 mins. The distance covered was about 630 miles. He started on the return journey on September 30, but just as he got away he experienced engine trouble and had to make a forced landing. In doing so he struck a rough pitch of ground, and the "Moth" turned turtle, but fortunately he escaped uninjured, and the machine was only slightly damaged.

Australian Flight to the Pacific

GROUP-CAPT. R. WILLIAMS, with Flight-Lieut. McIntyre, Pilot Serg. Trist, and a mechanic, left Melbourne on September 25 in a Supermarine "Seagull" Amphibian (Napier "Lion") on the first stage of the aerial survey of the Pacific Islands. They reached Sydney after a flight of 9½ hours, and left again on September 29 for Brisbane. A broken split-pin, however, necessitated a forced descent in rough sea 6 miles from Southport, Queensland. The flight was resumed on October 5, and they arrived safely at Gladstone.

Another Cross-Channel Air Service Disaster

A TERRIBLE disaster, following much too close upon that of August 18 last, overtook one of the French Air Union four-engined Bleriot air liners on October 2 in the vicinity of Tonbridge, Kent, in which five passengers, the pilot and mechanic lost their lives. The tragedy occurred at about 3.30 p.m. as the machine was flying over Tonbridge on route from Paris to London. It was observed that the machine was in difficulty, and then suddenly flames were seen coming from the rear of the machine. The pilot immediately turned as if to land at Penshurst, but the flames rapidly spread over the machine, and a few minutes later the machine slowly turned over, then crashed to the ground, and was immediately a mass of flames. Several people rushed to the spot, but so intense was the heat that it was impossible to render any assistance, and every occupant in the machine perished. At the inquest on the seven victims, which was held on October 5, the jury found that the persons concerned met their deaths accidentally—there being no evidence to show the cause of the fire, while Maj. Cooper, of the Air Ministry, stated that he had arrived at no conclusion at all as to the cause of the affair. Investigations are proceeding.