

and the other some 160 ft. to the rear—by means of a central quick-release attachment to the top plane centre section, there being struts coming from the airship to points on the port and starboard wings (top) and on the fuselage, near the tail, respectively, to prevent the machine oscillating (not the wireless variety!)

Located in the airship was a Bristol gas starter, which was connected to the "Jaguars" of each "Grebe" by means of flexible piping. Access to each machine from the keel of the airship was made by means of a rope ladder from openings in the keel just above each machine.

Having been successfully manhandled from her shed, R.33 rose gracefully into the air, and was soon cruising overhead at between 2,000—3,000 ft. After circling over the station thus for about an hour and a half, the two pilots, equipped with parachutes, climbed into their respective machines.

Shortly after the "Jaguar" engines were started up; the engine of the rear machine got going properly, but the front engine went on strike and refused to be started. Thus, at 10.17 a.m., Flying Officer Mackenzie-Richards, pilot of the rear "Grebe" pulled his release lever, and the "Grebe" dropped swiftly from the airship. It fell some 100 ft. before its pilot obtained full control and got his engine going all out—this, by the way, is indicated graphically in one of our accompanying illustrations—but as soon as this happened, it gambolled gaily in the air as if glad to be free, at last, from the maternal apron strings. F/O. Mackenzie-Richards eventually made a successful landing.

Apparently, they were still unable to start the engine of the second machine, for soon after the first machine was launched, the R.33 headed for Cardington, with "Grebe" No. 2 still in position, and it was not until 11.40 a.m., when the R.33 arrived over this place, that the engine got going and F/O. Ragg also released himself, and made an equally successful descent. In each case, the speed of the R.33 at

the moment of release was about 30 m.p.h., for unlike launching an aeroplane from seacraft, it is essential that the airship's speed should be much less than that of the aeroplane, in order that the latter may quickly fall clear of the airship. On the other hand, it is not essential when launching an aeroplane from an airship for the latter to fly head to wind, whereas the marine aircraft carrier must do so, and, of course, speed is a helpful factor.

Launching the two Grebes, however, was not the only test carried out that day by R.33, for during the flight from Pulham to Cardington, tests were made in connection with the method of calculating the exact altitude of aircraft by means of acoustics. In this method use is made of the speed at which sound travels, which being a known and unvarying factor, enables extremely accurate calculations.

The procedure adopted in this method of altitude measuring is as follows: A detonator is suspended a known distance (in this case, 100 ft.) below the airship, and the charge is exploded by electrical means. A special instrument in the control car records the time that elapses between the explosion and the exact moment at which the echo returns to the airship—or, in other words, the time taken for the sound of the explosion to travel to the ground, or sea, and back again to the airship, and, therefore, the speed of sound being known, the distance the sound had to travel. In Thursday's tests, a study was made of the different character of the echo as affected by varying ground conditions, and we believe some valuable data was obtained.

At the conclusion of the tests, R.33 was berthed in the large shed at Cardington—where R.101 is under construction—but, unfortunately, during the landing operations, some slight damage was caused to the airship by some rather violent "bumps." We understand, however, the damage was not serious, and R.33 was safely housed and the two "Grebes" attached once more into position in readiness for a visit of the Dominions Premiers.

THE ROYAL AERO CLUB OF THE U.K.

OFFICIAL NOTICES TO MEMBERS

A JOINT Meeting of the Royal Aero Club, Racing Committee, and the Society of British Aircraft Constructors was held at the Royal Aero Club, 3, Clifford Street, W.1. on Wednesday, October 20, 1926, when the following were present:—

Royal Aero Club.—Air Vice-Marshal Sir W. S. Brancker, K.C.B., in the Chair; Lieut.-Col. W. A. Bristow; Lieut.-Col. M. O. Darby; Lord Edward A. Grosvenor; Major R. H. Mayo; Capt. C. B. Wilson, M.C.; Howard T. Wright.

Society of British Aircraft Constructors.—Commander James Bird; H. Burroughes; F. M. Green; John Lord; T. O. M. Sopwith, C.B.E.; H. T. Vane.

In attendance:—H. E. Perrin, Secretary, R.Ae.C.; C. V. Allen, Secretary, S.B.A.C.

The Club submitted proposals for the races for 1927 which

included the King's Cup, Aerial Derby and Grosvenor Challenge Cup.

It was decided to further consider these proposals next month.

ROYAL AERO CLUB MONTHLY DINNERS

The Royal Aero Club will commence its Winter Monthly Dinners on Wednesday, November 10, next. These dinners are held at the Club and Members wishing to attend are requested to notify the Secretary as early as possible as the accommodation is limited to 60.

The subject for discussion has not yet been definitely settled. Offices: THE ROYAL AERO CLUB,

3, CLIFFORD STREET, LONDON, W. 1.

H. E. PERRIN, Secretary

LIGHT 'PLANE CLUB DOINGS

London Aeroplane Club.

The total flying during the week was 57 hours and 50 minutes.

The following members had dual instruction:—Lady Bailey, H. Spooner, S. H. J. Garne, W. L. S. McCleod, J. L. Gardner, C. H. Tutt, V. H. Doree, J. G. Crammond, A. J. Richardson, S. C. Richards, J. J. Hofer, O. J. Marstrand, R. A. St. John, E. A. Lingard, P. W. Hoare, F. C. Elford, H. R. Pressland, G. N. Howe, P. G. Lucas, D. P. H. Esler, S. O. Bradshaw, M. P. Susman, H. F. Wright, Miss O'Brian, G. W. Hall, L. Martin.

The following members made solo flights:—P. G. Lucas, E. S. Brough, A. H. M. Lees, A. R. Ogston, W. Hay, Lady Bailey, Miss O'Brian, O. J. Tapper, H. Petre, S. O. Bradshaw, N. J. Hulbert, N. Jones, W. Roche Kelly, Mrs. S. C. Elliott-Lynn, J. J. Barros, E. L. O. Baddeley, H. F. Wright.

On Monday, October 18, 1926, Lady Bailey, Miss O'Brian and J. J. Barros all successfully completed the tests for their Aviator's Certificates.

Joy rides were given to the following members: C. F. Stocks, C. G. Miese, gras, J. Plisich, Miss Marks, J. L. Gardner, P. W. Hoare, R. Malcolm, R. Andrews.

Hampshire Aeroplane Club

REPORT for week ending October 21.—Very high winds and rain have curtailed flying during this week, weather conditions being quite impossible on two days out of the seven. The total flying time for the week was 9 hrs. 20 mins.; instruction flying, 6 hrs. 25 mins.; solo flying, 2 hrs. 30 mins.; Passenger flying, 25 mins.

The following members received instruction:—Messrs. Rumble 1 hr., Bishop 50 mins., Southcliffe 50 mins., Bound 40 mins., Moloney 40 mins., Courtney W., 20 mins., Stokes 25 mins., Dickson 20 mins., Bailey 15 mins., Kerry 15 mins., Cooper 10 mins., Van den Bergh 10 mins., Perfect 5 mins., and Lieut. Graham, R.N. 25 mins.

Two joy riders braved the elements, viz.:—Mrs. Hoare and Lieut.-Commander Tucker, R.N.

In spite of the adverse weather conditions, Mr. Perfect, who flew his first solo last week, took the air nearly every day and put up a really good show.

Mr. D. Rumble successfully flew his first solo on Tuesday, within a few weeks of taking his first joy-ride.

Other soloists were Messrs. S. Fry, K. P. L. Bowen, Flying-Officer Brodie and ast but not least, Capt. F. T. Courtney, the well-known test pilot with Senor De la Cierva of Autogyro fame, as passenger. Capt. Courtney demonstrated that his almost vertical descents on the Autogyro have not impaired his skill in effecting the more usual type of landing.

Yorkshire Aeroplane Club.

REPORT for the week ending October 20:—Total flying time, 14 hrs. 35 mins. Solo time, 3 hrs. 50 mins. The following members flew solo: Messrs. Fielden, Wood, Norway, and Lax. Instruction, 10 hrs. 45 mins. The following members took dual instruction with Captain West: Messrs. Williams, Wormald, Watson, Ambler, L. Dawson, Harvey, Gratwick, Pigg, Mann, Lister, Captain Beaumont.

On the first three days of this week Captain West was taking a busman's holiday at Brough to do his R.A.F. Reserve training, so that our flying time is rather below the average. However, we have several pupils ready to go solo, and we hope that by the time this report appears Messrs. Mann and Dawson will have been launched.

Early this week G-EBLS was at Brough, where Mr. Fielden managed to fly it with one hand and shoot a wild goose with the other. The goose was seen to go spinning down out of control, but a careful search later failed to reveal the body; under these circumstances it is felt that the goose may be one up on Mr. Fielden.

Mr. Rimmer has been with us on his Avro for the last ten days. After two nights spent in holding the machine down in a field he came to the conclusion that it was time he had some sleep, and so has been flying daily from the aerodrome while carrying out a photographic survey of a part of Leeds for Messrs. Aerofilms.

We have it on the highest authority that two members have bought a pig (less engine) in a poke. The breed has not yet been ascertained, but we are told that it is a two-seater suitable for a six-cylinder in-line engine. We hear that a radial Anzani of pre-war vintage and doubtful power is available for it, and that the trial flights will be carried out by Captain West. No statement has been received from Captain West upon this matter.

At any rate, we are assured that it will not be allowed to join the Wren, whose owner continues to regard it thoughtfully. A brief interview with Squadron-Leader Longton, who described in a few well-chosen words how the machine should be flown to get out of our aerodrome, has not materially assisted the Wren into the air.

The Bluebird is still with us, but by the time these notes appear it will have gone to Croydon to show the Dominion Premiers the sort of aeroplanes we build in Yorkshire. We understand that it is then proceeding to Martlesham for its official trials.