FLIGHT
The AIRCRAFT ENGINEER & AIRSHIPS

First Aero Weekly in the World
Founder and Editor: STANLEY SPOONER
A Journal devoted to the Interests, Practice, and Progress of Aerial Locomotion and Transport
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Flight

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CONTENTS

DIARY OF FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in the following list:—

1925

May 21 .... **Aero Golfing Soc. Match, Cassiobury Park.**
May 28–June 13 Royal Tournament, Olympia.
May 28 .... **R.A.F. Middle East Dinner.**
May 29 .... **Aero Golfing Soc. Match, Oxhey.**
May 31–June 9 Deutscher Rundflug.
June 6 .... **Visit to Croydon Aerodrome, by I.Ae.E.**
June 7 .... **Gordon Bennett Balloon Race, Brussels.**
June 12 .... **Entries close for King's Cup Race.**
June 23 .... **Independent Force (R.A.F.) Re-Union Dinner, R.A.F. Club, 7.45 p.m.**
June 25 .... **Aero Golfing Soc. Match, Mid-Surrey.**
June 27 .... **Royal Air Force Pageant, Hendon.**
June 27 .... **R.A.F. Iraq Dinner, Holborn Restaurant, at 8.15 p.m.**
July 3–4 .... **King's Cup Race.**
July 26–Aug. 9 Vauville Light 'Plane and Glider Meeting.

EDITORIAL COMMENT.

LONG-DISTANCE flights appear to have been a topical subject this week. To begin with, Mijnheer van der Hoop read a paper before a joint meeting of the Royal Aeronautical Society, the Society of Arts, and the Anglo-Batavian Society last week, on his flight from Amsterdam to Batavia, and this week a luncheon is being given by the Directors of Handley Page, Ltd., in honour of the crew of the machine which was flown from Brussels to Kinshasa in the Belgian Congo. Mijnheer van der Hoop's lecture proved a most interesting one, and really served to show what a very fine effort the flight must have been. On the whole, except for the mishap at Philippopolis, the Dutch aviators appear to have had pretty good luck, and to have met with comparatively little trouble. In saying this, we are not in the least detracting from the sterling merits of the flight, which was, undoubtedly, extremely well carried out, but there is no gainsaying the fact that luck does play a very considerable part in these undertakings. Mijnheer van der Hoop's lecture confirmed previous experience, *viz.*, that the most difficult portion of the route to Australia is the stretch from Calcutta to Rangoon and onwards to Batavia and Australia. As the lecturer pointed out, to all intents and purposes it can be stated that from Calcutta onwards there are no places where forced landings can be made, and it is in such conditions that the question of engine reliability becomes one of primary importance. It is gratifying to know that in this instance the engine was a British one—the Rolls-Royce "Eagle IX"—so that Great Britain can justly claim a not inconsiderable share in the success of the Amsterdam-Batavia flight.

Amsterdam–Batavia

One point which the lecture brought out very clearly (although it was not actually mentioned) was the fact that, until the arrival of the airship at any rate, the type of machine which seems to be necessary for the eastern portion of the route is the seaplane, or possibly the amphibian. Although aerodromes

are absent, and even if established, would be difficult to maintain, that part of the country is well supplied with rivers and fairly sheltered stretches on which forced landings could be made. It is perhaps significant that on two occasions during the flight the Fokker monoplane was escorted by seaplanes belonging to the Dutch East Indian Government. In any planning of future British air routes we would strongly urge that the seaplane or amphibian be given every consideration, as it is a type, the seaplane particularly, which has been badly neglected and denied the encouragement which the type deserves.

Brussels–Kinshasa

Another famous long-distance flight recalled this week was that from Brussels to Kinshasa in a Handley Page W.8.F., made by a Belgian aviator, Lieutenant Thieffry. In this instance, Great Britain can claim a considerably larger share of the honours in so far as the machine, although built in Belgium by the S.A.B.C.A. Company under licence, was certainly of British design, while the three engines used, a Rolls-Royce "Eagle" and two Siddeley "Pumas," were of British design and manufacture. For the handling of the machine and for its navigation the Belgian crew were, of course, responsible, and right well they did their work. The announcement will, therefore, be received with satisfaction that a gathering is being held at the Savoy Hotel this week to honour Lieutenant Thieffry and his mechanic, De Bruycker.

The flight to Kinshasa was in many ways a most difficult one, and bad weather was the order of the day over long sections of the route, which fact accounts for the flight taking considerably longer to accomplish than had been expected. For all that it was a most meritorious one, and reflects the greatest credit not only upon the crew but also upon the British machine and engines which made it possible. The Handley Page W.8.F., it may be recollected, was fully described in FLIGHT at the time when the first of the type was tested. The main object of the design has been to provide a type of machine which shall be, practically speaking, immune from forced landings, as it has been so arranged that any two of the three engines will fly the machine. In the Belgian Congo, where emergency landing places are few and far between, this is an extremely important consideration, and no doubt influenced the Belgian authorities in their choice of type for the Congo route. At home also the three-engined type of aeroplane is looked upon as the coming type, and considerable development in this direction may be expected in the near future.

Airship Honours

We are very glad to see the announcement that His Majesty the King has approved of recognition being accorded the crew of R.33 for the very meritorious work carried out in connection with the recent breaking away of the airship from the mooring mast at Pulham. We have heard the view expressed that after all the crew only did their duty, which, up to a point, is no doubt correct. It should be remembered, however, that the occasion was an extremely difficult one, and that not only was considerable damage caused whilst the airship was actually being torn away, but that this damage seems to have spread to some extent during the anxious period spent in the air, and that it was only by the exercise of great skill and no small amount of personal risk to several members of the crew that the damage was so far patched up that it became possible for the airship ultimately to be saved. It is one thing, of course, to handle an airship in bad weather when everything is in order, but quite a different thing to control and manœuvre an airship with her nose stowed in as was that of the R.33. When it is remembered that to a great extent the crew of the R.33 was inexperienced, and that certainly none had had any practice worth speaking of for several years, the performance becomes even more creditable, and we personally, therefore, consider it judicious that official recognition was given, and in such happy form, especially as regards the "civilian" section of those on board.

Moreover, the fact that Great Britain is just embarking upon an active airship policy after several years makes it all the more important that all possible encouragement should be given to those to whom the airship work is being entrusted.

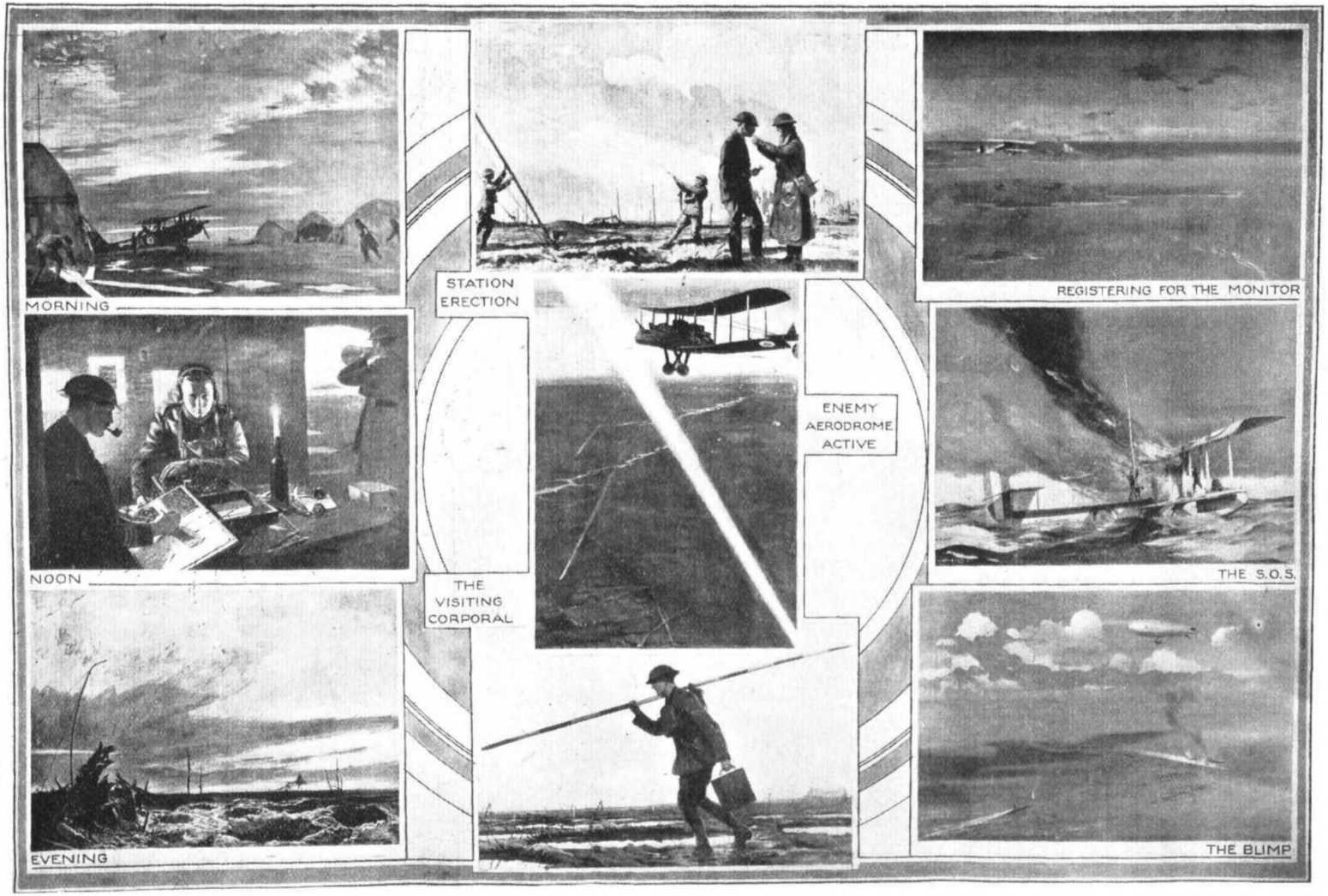
We feel that we should be doing less than justice to everyone concerned if we failed to mention, in this connection, Major Scott and those working with him at Pulham during the exceedingly trying hours while the R.33 was adrift. Major Scott, as is well known, is our foremost airship pilot, and the instructions and advice which he was able to wireless to the airship must have been of incalculable value. There can, we think, be little doubt that but for the fact that the closest touch was kept during the whole time between the airship and her base, the ship might very well have sustained disaster, and certainly the predicament of those on board might have been far worse than it was.

R.A.F. Memorial Fund

On the next page in this issue of FLIGHT will be found a reproduction of a series of paintings by Flight-Lieut. Verpilleux, M.B.E., which the artist has presented to the officers' mess of the Wireless School at Flower Down Air Station. With the consent of the artist, the officers of that Station have had coloured reproductions made, and a number of these have been handed over to the Royal Air Force Memorial Fund for sale, the proceeds to be devoted to the general purposes of the Fund.

Although the reproductions in FLIGHT are on a very small scale, they do, we think, give some idea of what the actual pictures look like, and we think it will be agreed that to anyone interested in the wireless side of the Royal Air Force, the nine pictures are full of interest and charm. The coloured reproductions which the R.A.F. Memorial Fund has for sale measure 9 by 12½ inches, and are supplied on grey mounts 20 by 25 inches. Considering the quality of the reproductions, we think it will be agreed that the price is extremely reasonable, it having been decided to sell the set of nine signed copies at 3 guineas; the set of nine unsigned at 2 guineas; single signed copies at 8*s.* 6*d.* each; and unsigned copies at 5*s.* each.

The work being carried out by the Royal Air Force Memorial Fund is of such a character as to be deserving of every support from all interested in Service aviation and we feel sure that many of our readers would be glad of the set of these charming reproductions quite apart from the fact that in purchasing sets they will be helping a most deserving cause. Applications for the pictures should be addressed to Lieutenant Colonel W. E. S. Burch, Secretary, Royal Air Force Memorial Fund, 7, Iddesleigh House, Caxton Street, Westminster, S.W.1.

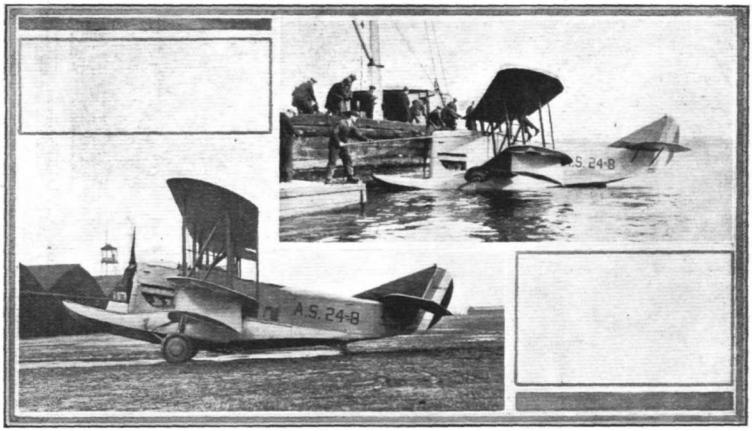


WIRELESS PICTURES : The nine pictures reproduced in miniature above are the work of Flight-Lieut. Verpilleux, M.B.E., and have been presented by him to the Officers' Mess of the Wireless School at Flower Down. The R.A.F. Memorial Fund have a number of coloured reproductions for sale at three guineas per set of nine signed copies, and two guineas per set of unsigned. The reproductions measure 12 ins. by 9½ ins., and are mounted on grey mounts 25 ins. by 20 ins. The proceeds will be devoted to the general work of the R.A.F. Memorial Fund.

THE LOENING AMPHIBIAN

IN our issue for April 2 last we published a brief report on the tests with the Loening amphibian, and this week we are able to give some further particulars, together with illustrations and general arrangement drawings, of this interesting machine, which have kindly been furnished by Mr. Loening.

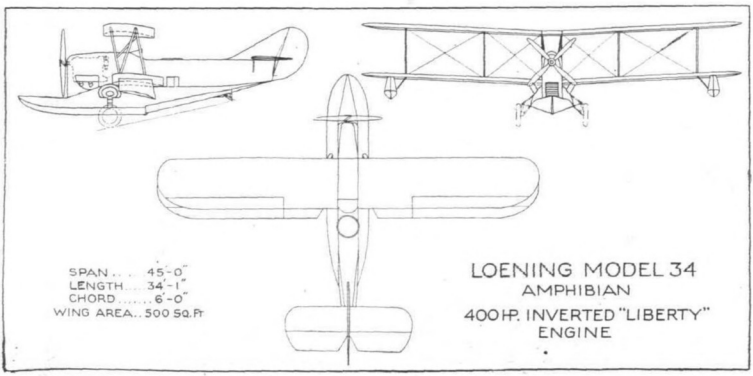
The announcement that the U.S. Navy Department of the American Government has ordered it for use in Panama, Hawaii, and the Philippines, as well as along the coast; and the Marine Corps has ordered the same type for general use, in Haiti and the Caribbean Sea; and the Navy Department of the American Government has ordered the Loening amphibian, for use on aircraft carriers and battleships, as the



THE LOENING MODEL 34 AMPHIBIAN: Two views of the machine, showing it on the water with wheels up, and on land with wheels down.

MacMillan expedition to the Arctic is using the Loening amphibian calls attention prominently to this new type of aircraft, which has been under secret development for over two years for the American Government, at the new aircraft plant of the Leoning Aeronautical Engineering Corporation at 31st Street and East River, New York City.

The versatility and general usefulness of this new type of machine is indicated by the fact that the Army Air Service of standard observation machine of the navy. In addition to this, it is said that the American Post Office Department is also interested in this machine, so that there probably has never been a design of aeroplane developed, either in Europe or America, which appears to have a wider application than does the Loening amphibian—chiefly due to the fact that, in addition to being an amphibian, the Loening type has shown itself to be an exceedingly good seaplane, and, much to the



THE LOENING MODEL 34 AMPHIBIAN: General arrangement drawings.

surprise of aviation experts, has equally shown itself to be a very good land type 'plane, even if it was to be used exclusively over land.

Grover Loening, the inventor of the new 'plane, has been consistently working for a long time perfecting this type of aircraft. Loening, who is one of the most experienced aircraft designers and engineers in America, was awarded the Aero Club of America trophy, two years ago, for the greatest development in aviation, and is this year a prominent contender for the new Wright medal, which is to be awarded for the greatest current achievement in aviation. Many aviation experts believe that Loening's new type of amphibian, due to its very successful tests, represents one of the most practical and useful developments in aviation since the War, and one that is declared to be entirely original and with a wide field of use.

The principal idea in the Loening Amphibian is the use of the inverted type of aircraft engine, placing the propeller thrust at the top of the body and thus including the entire body with the engine mount in the nose to form a compact unit hull, carrying passengers, load, petrol, and all equipment. The landing gear, which is mounted to this hull, folds into it by the operation of an electric motor, switched on by the pilot. This hull body is made exceptionally strong, entirely covered with metal, and so shaped as to give remarkable seaworthiness which has been proved by tests in rough water carried out this winter in the Atlantic Ocean off Norfolk, Virginia, by a special Board of Army and Navy Pilots, and representatives of the National Advisory Committee.

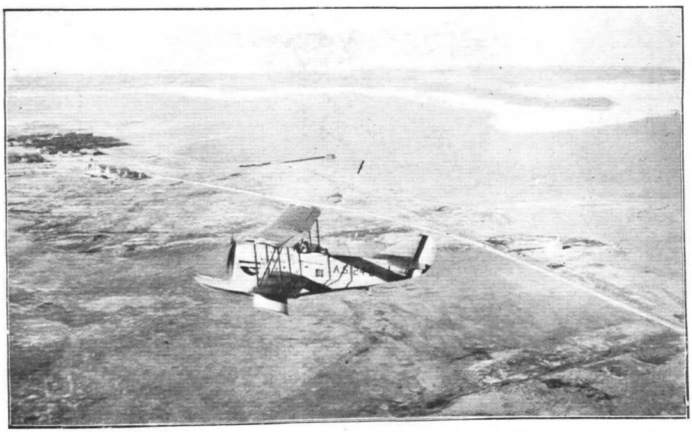
The crew sit well back and in the upper part of this unit body, where they are protected from spray and in a much safer position than has been, heretofore, found possible on flying boats. There exists, therefore, a very definite distinction between the Loening type of amphibian, and other types of aeroplanes designed for land and water use, such as the Vickers Amphibian, etc., which, like two or three machines of that type in America, is, practically speaking, an orthodox type of flying boat, to which wheels have been added, but carrying the engine up above between the wings—in a comparatively dangerous position in the event of an accident.

In flying tests that have been made by the Army Air Service the past few months, the flying qualities of the new machine were found to be quite remarkable, and to equal in every way the ordinary land type of aeroplane of the same weight and power—so that enthusiasts for the new Loening type point out that it will very likely render the old limited type of land machine obsolete, as, not only is there no loss in performance or manœuvrability due to the new type, but there is a definite gain in strength against crashing, and very much more room, made available for added loads to be carried. Since this type of machine can also land with equal ease on soft snow or hard ice by merely carrying retractable skis instead of retractable wheels, it becomes an ideal 'plane for Polar exploration, and, in fact, its development makes the

A "close-up" of the Loening Model 34 Amphibian, showing the position of the pilot and the retracting undercarriage.

present plans for the MacMillan Expedition extremely practical.

The Loening Amphibian is fitted with an inverted 400 h.p. Liberty engine. It weighs 3,300 lbs. empty, and carries a load of 2,200 lbs., including pilot, observer, cameras, radio and 250 gallons of petrol, which is sufficient for a flight of over one thousand miles. In the test conducted at the Army Air Service Engineering Division at McCook Field, Dayton, Ohio, this 'plane has recently demonstrated a high speed of 122 miles an hour, and a ceiling of 14,000 ft. The machine is readily hoisted aboard a ship and launched in the water and may either be moored in a bay, or with its wheels down



THE LOENING MODEL 34 AMPHIBIAN: View, showing the machine flying over Langley Field, Virg. The tractor-fuselage type of biplane and the flying boat are, it will be seen, ingeniously blended together to form a new type. It is fitted with a 400 h.p. inverted "Liberty" engine.

run up on to a beach. It handles in every way exactly like a seaplane, or exactly as a land 'plane, depending entirely upon the desire of the pilot.

While the Liberty engine is fitted in this machine, any twelve cylinder motor of approximately 400 h.p., weighing about 900 lbs. (400 kgs.), in which the cylinders project through the crankcase, can readily be modified for use on this 'plane. Among such engines may be mentioned the "Eagle" Rolls (ungeared), Renault, Lorraine-Dietrich, Fiat, etc. The only major change made in the Liberty motor for this work, was the installation of oil collecting chamber and sump ahead of the distributors of ignition mounted on the camshaft.

Last February, the first public demonstration of the new type was made in Washington, D.C., with Lieut. Wendall H. Brookley of the Army Air Service giving an exhibition of flying before the Aircraft Investigating Committee of Congress, and which at the time was commented upon as being quite a remarkable display—the machine being equally at home on Bolling Field, or in the Potomac River. It was at this time that General Mitchell stated to the Committee that in his opinion this machine represented the most satisfactory solution that he knew of for this difficult type of 'plane, and represented a real advance in aircraft engineering for which there would be great promise.

The Royal Aero Club of the United Kingdom

OFFICIAL NOTICES TO MEMBERS

COMMITTEE MEETING

A MEETING of the Committee was held on Wednesday, May 13, 1925, at 5 o'clock, when there were present :—The Duke of Sutherland in the Chair, Lieut.-Col. M. O. Darby, O.B.E., Wing-Commander T. O'B. Hubbard, M.C., A.F.C., Lieut.-Col. F. K. McClean, A.F.C., Lieut.-Col. M. O'Gorman, C.B., Mr. T. O. M. Sopwith, and the Secretary.

Election of Members.—The following new members were elected :—

Pilot Officer G. C. A. Armstrong.
Flying Officer Maurice William James Boxall.
Flying Officer Gerald Bourke Collett.
Harvy Albert Dunkley.
George Edward Woods-Humphrey.
Reginald Watson Kenworthy.
Flying Officer Herbert Edward King.
Gyles Mackrell.
Capt. Arthur Dayer Makins, D.F.C.
Flight-Lieut. Duncan Grinnell-Milne.
Edward James Mulligan.
Pilot Officer Alfred Oliver Pollard.
Flight-Lieut. Franklin Geoffrey Saunders.
John Shuldham Schreiber.
Flight-Lieut. J. Lawson.
George Albert.
Maurice Alfred Giblett.
S. H. Gaskell.
Flight-Lieut. Victor Richard Gibbs, D.F.C.

Committee.—Letter was received from Sir Mortimer Singer, K.B.E., intimating his wish to retire from the Committee on account of being unable to attend the meetings regularly while residing in the country. The resignation was accepted, and The Duke of Sutherland was elected to the vacancy.

On the motion of the Chairman the Committee passed a unanimous vote of thanks to Sir Mortimer Singer for his valued services as a Member of the Committee for the past fifteen years.

Chairman and Vice-Chairman.—The Committee unanimously elected the following :—

Chairman .. The Duke of Sutherland.
Vice-Chairman .. Lieut.-Col. F. K. McClean, A.F.C.

London Light Aeroplane Club.—The recommendation of the Finance Committee that a separate Company should be formed to carry out the finance and management of the proposed London Light Aeroplane Club was approved.

The following Committee was appointed for this purpose :—Lieut.-Col. F. K. McClean, A.F.C., Wing-Commander T. O'B. Hubbard, M.C., A.F.C., Air Commodore C. A. H. Longcroft, C.B., C.M.G., D.S.O., A.F.C., Major R. H. Mayo, Lieut.-Col. A. Ogilvie, C.B.E., Col. The Master of Sempill, Capt. C. B. Wilson, M.C.

Wembley Exhibition.—The Committee approved the Reid Reaction Timing Apparatus presented to the Club by Sir Charles Wakefield, Bart., being exhibited at Wembley in connection with the Air Ministry Exhibit.

Racing Committee.—The report of the Racing Committee was adopted.

This report included the King's Cup Race, Schneider Race, August Air Race Meeting at Lympne, Light Aeroplane Competition, 1926.

Racing Fund.—The following donations were reported :—Mr. A. S. Butler, £100 ; Major Vernon A. Bradshaw, £26 5s. ; Mr. A. E. Savill, £3 3s.

The following sums allocated from the Racing Fund by the Racing Committee were approved :—

King's Cup Prizes, £250 ; King's Cup expenses, £250 ; Grosvenor Challenge Cup Prizes, £150 ; August Air Race Meeting, Lympne, Prizes, £820 ; Schneider Cup expenses, £250 ; Total, £1,720.

Light Aeroplane Clubs.—The Secretary reported that a conference of the Light Aeroplane Clubs approved by the Air Council had been held on April 16, 1925. The equipment to be purchased for each Club out of the Air Ministry's grant had been agreed and orders placed for the following machines and spare engines :—

London District ..	2 D.H. "Moths" and one spare Cirrus Engine.	
Lancashire Aero Club	Ditto.	Ditto.
Newcastle Aero Club	Ditto.	Ditto.
Midland Aero Club	Ditto.	Ditto.
Yorkshire Aero Club	1 D.H. "Moth."	

It had been decided to form a permanent Committee consisting of two representatives from each Light Aeroplane Club.

F.A.I. Conference, Prague, September 19-25, 1925.—It was decided to raise the question of the limit of landing speeds in high speed races at the next F.A.I. Conference.

Appointment of Timekeepers.—The following timekeepers were appointed for the year 1925 :—Col. F. Lindsay Lloyd, C.M.G., C.B.E. ; Mr. A. G. Reynolds ; Mr. E. V. Ebblewhite ; Mr. F. T. Bidlake.

Representation on the Air League.—The following were nominated to represent the Royal Aero Club on the Executive Committee of the Air League :—Brig.-Gen. Sir Capel Holden, K.C.B., F.R.S. ; Lieut.-Col. F. K. McClean, A.F.C.

"Lighter-than-Air" Aircraft Committee.—The following Committee was appointed to deal with all questions relating to "Lighter-than-air" Aircraft :—Lieut.-Col. John D. Dunville, C.B.E., Commander F. L. M. Boothby, Mr. Griffith Brewer, Commander C. B. Burney, C.M.G., M.P., R.N., Lord Edward A. Grosvenor, Major G. H. Scott, C.B.E., A.F.C., Mr. H. B. Wyn Evans, M.B.E.

Offices : THE ROYAL AERO CLUB,
3, CLIFFORD STREET, LONDON, W. 1.
H. E PERRIN, Secretary

New Governor-General of Australia

THE King has been graciously pleased to approve the appointment of the Right Honourable Sir John Baird, Bt., C.M.G., D.S.O., M.P., to be Governor-General and Commander-in-Chief of the Commonwealth of Australia in succession to the Right Honourable Lord Forster, G.C.M.G., D.L., who will retire from that office in October next. Sir John Baird, it will be remembered, was a member of the Air Board from 1916 to 1918, and was Parliamentary Under-Secretary of State in the Air Council, 1918.

A Canadian Air Service

ON May 14 the Northern Air Service opened an air service for passengers and goods between Haileybury, Ontario, and the Rouyn mining fields in N.W. Quebec.

FLIGHT

LIGHT 'PLANE AND GLIDER NOTES

THAT was quite a good "stunt" the other evening, when London "Listeners-in" had an opportunity of hearing a flying lesson being given by Alan J. Cobham to Miss Heather Thatcher on the De Havilland "Moth" light 'plane! Although Cobham's voice might at times have been taken for that of Mr. Harry Tate, the show was a most realistic one. What we particularly liked about it, apart from the very clear fundamental flying instructions as to the functions of the control stick, was the screaming of the wind in the wires when the engine was throttled down. The whole business was in reality much more than a "stunt," and may be considered an excellent piece of propaganda for flying in general.

* * *

THINGS are beginning to move in the various Light 'Plane Clubs around the country, and, as will be seen by the official notices of the Royal Aero Club this week, a number of the clubs have definitely decided to adopt the De Havilland "Moth." As we stated in these notes a short time ago, the inter-club light 'plane race which is to be held at Lympne in August should do much to awaken interest in the Light 'Plane Clubs, since there will naturally be a good deal of keenness to win such an event. At the same time, it must, we think, be admitted that several difficulties still have to be overcome before the clubs can be considered to be fairly launched.

* * *

THE Newcastle-on-Tyne Aero Club, in order to encourage the entry of members, has decided at a Committee meeting that the first hundred members whose subscriptions are received are to be considered Founder Members. There is little doubt that this honour will be greatly appreciated, and, in point of fact, the first members are, we think, entitled to some such privilege, since it is precisely their support which is so valuable at the outset. Apart from the honour of being Founder Members of the Club, the first hundred will be given preference in the matter of being taught to fly, and will also receive first consideration should they desire to construct private hangars or to garage their own machines in the club's hangar. Various tenders for the construction of a hangar have been received and considered, and the contract will, we understand, be placed as soon as the necessary funds are available. It is to be hoped that the prospective members will send in their subscriptions at once so as to help in the good work of getting started in real earnest.

* * *

AT the Lancashire Aero Club at Manchester the members are at present working hard on reconditioning the club's instruction machine, the L.P.W. monoplane. This machine, it may be remembered, was originally built as a glider, but Mr. George Parnall has very kindly made the club a present of a Douglas engine, and this is now being fitted into the machine. The work on the machine will be carried out at Bowdon, Cheshire, under the direction of Mr. Tom Prince, and as soon as the work is finished, which is expected to be about the middle of June, it will be moved to the club's hangar at Woodford aerodrome. Mr. F. P. Raynham has made the club a present of the propeller he used on his 736 c.c. Douglas engine at Lympne in 1923, and this is being fitted to the second Douglas engine.

* * *

ON Saturday, May 9, a large number of members met at the club's temporary workshop in Didsbury, and started to work on the wings, tail plane and elevators of the L.P.W., which were stripped so as to inspect the woodwork. This proved to be in good condition, and the various surfaces were therefore entirely re-covered. To such good purpose did the members work that the wings, tail, elevator and rudder were covered again in one day. The fabric had been stitched into the form of bags by A. V. Roe and Co., Ltd., so that all that was necessary was to slip the fabric on to the wings like stockings, all that remained being to stitch the fabric to the ribs, etc., as required. Three members worked on each wing, elevator, and tail plane, and this gave plenty of work for eighteen of the members. The rest of those present helped very materially by more or less good advice, and ditto rude remarks. By evening the whole of the surfaces were ready for doping. That is the right spirit, and if maintained we venture to think that the Lancashire Aero Club will soon be one of the most energetic flying clubs in the country. And jolly good luck to them, too!

* * *

THE little Pander light monoplane now has another very fine flight to its credit. The machine, which was exactly similar to the one demonstrated at Croydon recently, was finished at the Pander works at the Hague on Saturday, May 9th, and shortly afterwards was given half an hour's test flight, when it was found to be in perfect trim. During the morning on Monday of last week a start was made from the Waalhaven aerodrome at Rotterdam, and the machine reached Paris without any intermediate landing. The pilot was Lieut. Raparlier, who flew the machine at Croydon the other week. On Tuesday of last week the little Pander covered the distance from Paris to Perpignan in one day, with intermediate landings at Dijon and Avignon. The night was spent at Perpignan, and on the following day the flight to Barcelona was completed non-stop.

* * *

THE actual flying time was only 17 hours, 33 minutes, which is distinctly good considering that the machine was fitted with an Anzani engine of 25 h.p. only. The machine had, we understand, been ordered by a purchaser in Spain, but is being shown at the Barcelona exhibition before the owner takes delivery. Although the flight does not, of course, quite come up to the famous London-Turin non-stop flight made some years ago by Bert Hinkler in the Avro Baby, it is nevertheless a very fine one considering the low horsepower, and it has distinctly proved the Pander light monoplane to be eminently suitable for cross-country flying.

* * *

ENTRIES are not coming along very fast for the Vauville light 'plane and glider meeting to be held from July 26th to August 9, but as there is still some time before the closing of the entries list it is believed that several more machines will be entered. It is now almost certain that there will be at least one Czechoslovak machine taking part.

Up to the present the official entries list is as follows:—Nos. 1, 2 and 3, S.A.B.C.A.; No. 4, Georges Ligreau; Nos. 5 and 6, Pander en Zoonen; No. 7, Eric Nessler; No. 8, H. and M. Farman; No. 9, H. Potez; No. 10, Victor Simonet; and No. 11, Briens-Capeaux.

* * *

As we pointed out last week, the fact that the Lympne meeting clashes with the Vauville competitions, as regards dates, will probably mean not only that no British machines will be able to take part, but also that probably many who had intended to visit Vauville during that meeting will be prevented from doing so by business in connection with the Lympne races. This is, of course, greatly to be regretted but presumably the choice of dates, although not officially announced earlier, had in reality been decided upon long ago; the August Bank Holiday always being a favourite time for British air races. What is, perhaps, even more regrettable is that the coincidence of the two competitions will, in all probability, prevent foreign machines from taking part in such of the Lympne events as are of an international character.

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London-Cologne-London-Cologne in One Day

A REMARKABLE record in civil aviation was set up on May 14 when Capt. F. L. Barnard, the well-known pilot of Imperial Airways, left Croydon on a D.H.-Napier air express at 5.6 a.m. and arrived at Cologne at 9 a.m. After breakfast he started on the return journey at 10.5 a.m., arriving at Croydon at 1 p.m. Having lunched he set out once more, with another load, at 3.15 p.m., and landed for the second time in Cologne at 7 p.m., having thus covered some 1,000 miles in 10 hrs. 34 mins. flying time.

Maj. Zanni's Bad Luck.

MAJOR ZANNI, the Argentine aviator who started from Amsterdam last July in an attempt to fly round the world in a Fokker-Napier and got as far as Tokio, where, owing to the lateness of the season, he postponed the flight until this year, has met with misfortune at the very outset of the resumption of the world flight. On May 14, at 11.45 a.m., Major Zanni, accompanied by his mechanic, Beltrame, started from Kasumigaura for Osaka, but owing to the heavy seas the machine overturned as he was taking off. A launch immediately rushed to their assistance, and got them on board and towed the machine ashore. Considerable damage has been done to the machine, and it is feared that the flight will now have to be abandoned.

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ROYAL AIR FORCE EXPANSION

Short-Service Officers Required for Flying Duties

THE Air Ministry announces:—The Royal Air Force is prepared to accept during the next three months approximately 100 officers for flying duties under the short-service commission scheme, and applications are accordingly invited from suitable candidates. Part of these are required as a result of the authorised expansion of the Air Force for home defence, the remainder being needed to replace other short-service officers who automatically pass to the Reserve of Air Force Officers on termination of their period of service on the active list.

Candidates, who should be of thoroughly good education and physique, but who need not have had any previous flying experience, must not be less than 18 and not more than 25 years of age at the time of entry. Those judged from their applications to be suitable will be interviewed by a Selection Committee, and those selected, after passing the standard R.A.F. medical examination, will be gazetted as pilot officers, on probation. The probationary period is six months, after which, subject to satisfactory progress, officers are confirmed in rank. Short-service commissions are granted for five years' service on the active list, followed by a period of four years' service on the reserve.

For all purposes of pay, allowances and promotion, short-service officers receive equal treatment with officers holding permanent commissions. The present rates of pay and allowances for unmarried pilot officers amount to £1 4*s.* 11*d.* a day or about £450 per annum. In addition, short-service officers receive on transfer to the Reserve, on the completion of their period of five years' active-list service, a gratuity of £375. When they are transferred to the flying branch of the Reserve they receive a retaining fee of £30 per annum, and are required to carry out 12 hours' solo-flying training each year on up-to-date war-type aircraft. During such training they receive the pay and allowances of their rank.

Pilot officers will be posted to one of the Royal Air Force flying training schools, where they will undergo a course of training in aviation and in aeronautical and technical subjects for a period of a year. At the end of this period they will be posted to Air Force squadrons for duty. Pilot officers, provided they qualify for promotion, will be promoted to flying officers, with increased rates of pay, after completing not less than 18 months' service from the date of being gazetted as pilot officers.

A strictly limited number of officers serving on short-service commissions may be selected for transfer to the permanent list, and officers so selected will be allowed to count their actual service on their short-service commissions towards retired pay or gratuity under the permanent officers' scales, but will not be eligible for the gratuity mentioned above. Arrangements have also been made for all officers who desire it to receive special tuition from the R.A.F. education officers who have been recently appointed, to equip themselves for civil life against the time when their period of service terminates. These educational facilities are being gradually extended.

Application forms and copies of the detailed regulations can be obtained by applying in writing to the Secretary, Air Ministry, Adastral House, Kingsway, London, W.C. 2.

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No. 1 WING, ROYAL AIR FORCE

IN the General Duties branch of the Royal Air Force there are 100 officers who hold the rank of Wing Commander. Up to a few weeks ago, 97 of these wing commanders had no wings to command. The three fortunate exceptions were in India. Within the last few weeks the number of non-wing commanding wing commanders has been reduced from 97 to 96—a wing has been formed in Great Britain.

Wings played such a prominent part in R.A.F. organisation towards the end of the War that it is rather hard to realise that since the post-Armistice reduction of the fighting services there have been no wings in this country. Probably some of our readers have forgotten what a wing is. According to King's Regulations for the Royal Air Force, a wing is a formation, and consists of a wing headquarters and one or more squadrons, and may include a park, depôt, or other units as required. No. 1 Wing just formed is an Army Co-operation Wing, belonging to No. 7 Group, which in turn is under the Inland Area. The H.Q. of this our one and only wing are situated at South Farnborough, and the squadrons which are the mainstay of the formation are No. 4, commanded by Sqdn.-Ldr. J. C. Slessor, M.C., which is stationed at South Farnborough, and No. 13, under Sqdn.-Ldr. C. C. Durston, which is stationed at Andover. Both are Army Co-operation squadrons, equipped with Bristol fighters. Army co-operation occupies far fewer personnel and far less equipment of the Royal Air Force than do either Air Defence or the Naval Air Arm. This is doubtless in accordance with the modest requirements of our "Contemptible Little Army." There are, in fact, only four A.-C. squadrons in the country, the two mentioned above, and No. 2 at Manston and No. 16 at Old Sarum, the last being included in the School of Army Co-operation. All are mounted on the admirable but over-venerable Bristol fighter. But though the Army side of the Royal Air Force is small in numbers, it is full of energy and enthusiasm, and this institution of a wing indicates that in organisation it is somewhat ahead of the Air Defence and the Naval Air Arm branches.

There can be little doubt that Air-Marshal Sir John Salmond will not long delay the proper organisation of the Air Defence squadrons under his command, but in the meantime it must be admitted that Air-Commodore T. I. Webb-Bowen, commanding the Inland Area, has got his shell in first.

The officer selected to command No. 1 Wing is Wing Commander P. C. Maltby, D.S.O., A.F.C. Naturally and properly he is an old Army man, who transferred from the Royal Welch Fusiliers to the Royal Flying Corps in 1915. He was rapidly promoted to the command of a flight in No. 15 Squadron at Dover, and before the end of 1915 he was sent to No. 16 Squadron in France. He remained on active service for 18 months, during which time he was awarded the Distinguished Service Order and shortly afterwards was mentioned in dispatches. In June, 1917, he came home to take a senior officers' course, and after a brief period at the Air Ministry in 1918, he was appointed to the staff of the then Midland Area as G.S.O.I. in charge of training. For his work there he was awarded the Air Force Cross. He was also a staff officer in the North-Western Area for a time. In the autumn of 1919 he was sent to India to command a squadron, and for a while he was in temporary command of No. 1 Indian Wing. He returned to England last year, and in January last was appointed to the command of No. 1 Wing, then not in existence. While waiting for it to be formed he was employed at Halton. A great opportunity now lies before him, for not only is he responsible for the formation under his command, but he is in a position to act as chief authority on air matters to the staff of the Aldershot Command. The army officer commanding at Aldershot is Lieut.-General Sir Philip Chetwode, who, it will be remembered, was once deputed by the War Office to speak at an Air Conference in the Guildhall, and in his speech he showed himself keenly alive to the value of air observation to a military commander. Wing Commander Maltby should be certain of a sympathetic hearing from the military authorities for whom he has to work.

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The Big Italian Flight

COL. M. DI PINEDO, who is flying to Australia in a Savoia S.16 ter flying-boat, accompanied by a mechanic, left Calcutta at 7 a.m. on May 13, and five hours later arrived at Akyab, where, owing to rough weather, they had to land several miles up the Kaladan River. Proceeding the next day, they reached Rangoon, having crossed the Pegu Yoma mountains at an altitude of about 9,000 ft. During the next three days bad weather prevented further progress, and the opportunity was taken for giving the Savoia a thorough overhaul. On May 18 they left Rangoon for Tavoy (in Burma) and arrived there safely.

Alicante-Algiers Seaplane Service

ON May 16 the Latécoère company commenced a weekly (*pro tem.*) seaplane service between Alicante and Algiers, in connection with the Toulouse-Casablanca service.

FLIGHT

THE ROYAL AIR FORCE FIELD SERVICE POCKET BOOK

IF you want to know the value in sterling of a Hong Kong dollar, *don't* buy the R.A.F. Field Service Pocket Book. I, your reviewer, have two small great-nephews in Hong Kong, and on such occasions as Christmas I send them small avuncular tips. I have often wondered how many dollars those postal orders would convert themselves into, and when the review copy of the R.A.F.F.S.P.B. reached me, I quite eagerly turned up Hong Kong Coinage. I found the remark "Same as China." I turned to foreign coinage, looked up China, and read: "1,200 (abt.) cash = tael. Various foreign dollars current, such as Mexican, Japanese trade, and Hong Kong dollars." So my natural curiosity remains unsatisfied. Evidently the Hong Kong dollar is a mysterious coin, not to be understanded of the people, and when my great-nephews displease me I shall cut them off with a Hong Kong dollar apiece.

But, if you want to know anything else whatsoever under the sun or over the sun, if you want to be able to boast that "in information vegetable, animal and mineral, I am the very model of a modern Major-General," then take or send 3*s.* 6*d.* to H.M. Stationery Office in Adastral House, Kingsway, or elsewhere, and you will receive a neat little volume bound in horizon-blue cloth, which will fit into your pocket, and will satisfy your wildest thirst for curious information. Do you want to learn the flag-wagging alphabet, or the Morse code?—do you wonder how Mercator projected his map of the world from a globe onto a flat sheet of paper?—does the difference between true and magnetic North puzzle you?—would you learn the weight of "Linings," worsted, for gauntlets, pair"?—are you curious as to which joints of a sheep are better for roasting, and which for stewing?—are you seized with a desire to erect an incinerator in your back yard?—do you want to know how to stop a bleeding artery or resuscitate a half-drowned man?—would you doctor a case of frostbite or corrosive poisoning or cobra bite?—do you want to tie a clove hitch or a fisherman's bend?—would you like to protect your house against bombs?—are you obliged to translate kilometres into knots?—are you burning with curiosity to know the French for Loblolly pine or a camshaft ignition distributor pinion?—would you care to correct your ignorance on the subject of the Indian monsoon?—or have you need to know how many drams make a ton? All these things are easy if only you have the R.A.F.F.S.P.B. in you pocket.

It was only to be expected that this new publication should be based upon the time-honoured F. S. Pocket Book of the Army, and one sees a taint of the old Adam in allusions to "the unexpended portion of the previous day's ration," and such-like *jeux d'esprit*. But, of course, much is added which is applicable to the Air Force alone. One is rather surprised to find that the pocket book does not seem to contemplate a purely air campaign, but only one waged in co-operation with either the Navy or the Army. In the case of naval air war, there is nothing much to be said, for the Royal Navy takes charge and provides for most eventualities. The observers in naval aircraft are always to be naval officers, and so the Air Ministry has no tips to give them. But there is a great deal of useful and very interesting information about Army co-operation work, advice to observers and rules for selecting aerodromes both in civilised and in savage warfare. There are valuable chapters on the rigging and maintenance of standard types of aircraft and the care of engines, with the French terms for nearly all the parts. Of course, these chapters will require modifications when the well-beloved Bristol Fighters and F.V. boats are replaced by more modern specimens of aircraft. In time, and we hope in no long time, a chapter on airship maintenance must be added. The book is presumably an annual, and it is practical and useful. As has been suggested above, it should be a valuable book of reference to many besides officers and airmen of the Royal Air Force. As in the case of its Army prototype, it is rightly included in the list of necessities to be carried always on active service, and probably, like the Army F.S. pocket book, it will always be discarded in favour of a few more packets of Woodbines.

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R. 33 Awards

THE Air Ministry announces: The King has been graciously pleased to approve of the following awards in recognition of conspicuous devotion to duty in circumstances of exceptional difficulty and danger on board H.M. Airship R. 33, on the occasion if the breaking away of the airship from the mooring mast at Pulham on April 16:—

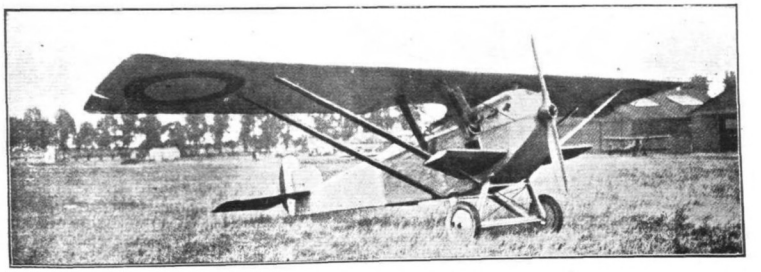
Awarded a Bar to the Air Force Cross.—Flight-Lieut. Ralph Sleigh Booth, A.F.C., Royal Air Force. First officer of the airship, who was the only officer on board.

Awarded a Bar to the Air Force Medal.—Flight-Sergt. George William Hunt, A.F.M., Royal Air Force. Chief coxswain of the airship.

Awarded the Air Force Medal.—Mr. George Ernest Long, Second Coxswain of the airship.

Awarded the Meritorious Service Medal of the Order of the British Empire (Civil).—Mr. William Rose Gent, Senior Engineer on board; Mr. Leslie Anderson Moncrieff, Rigger, acting Coxswain; Mr. Charles Bernard Olliver, Rigger, acting Coxswain; Mr. Spencer Thomas Keeley, Wireless Operator.

A suitably-inscribed watch will be presented by the Air Council to each of the remaining members of the crew, viz.:—Mr. A. V. Bell, Mr. R. W. Dick, Mr. W. H. King, Mr. Z. Little, Mr. N. Mann, Mr. D. W. Mayes, Mr. J. N. Potter, Mr. J. G. Rarp, Mr. H. L. Rowe, Mr. J. E. Scott, Mr. S. E. Scott, Mr. J. Walkenshaw, Mr. G. Watts.



AN INTERESTING FRENCH SHIP'S-'PLANE: A single-seater parasol monoplane scout constructed by Ateliers des Mureaux of Paris. Fitted with a 300 h.p. Hispano-Suiza engine, it is intended for use with the fleet, and in order to enable it to alight on the water and keep afloat the front part of the fuselage is made water-tight, being constructed in a similar manner to that obtaining in flying boats. There are also two stumpy, wing-like floats mounted on each side of the fuselage, low down near the nose, whilst the undercarriage can be dropped by the pilot before alighting. The span of the machine is 39 ft. 4 ins., the weight, empty, 1,980 lbs., and fully loaded 3,124 lbs.

AERONAUTICAL RESEARCH COMMITTEE REPORTS

FROM the number of enquiries we receive it appears that there is a desire in aircraft circles to know approximately the contents of the various technical publications of the Aeronautical Research Committee. All the aircraft firms probably receive these reports regularly, whether or not they contain anything of immediate interest or utility. In the case of draughtsmen, however, and others interested in aeronautics, who can hardly be expected to purchase all the reports, the problem of deciding whether any publication interests him is often a difficult one. As it is obviously desirable that the knowledge of aeronautics should be made available to all who take an interest in the subject, we have arranged with the Air Ministry to publish in FLIGHT summaries of all the technical publications as soon as these are issued, or shortly before they are published. All A.R.C. publications can be purchased from H.M. Stationery Offices at Adastral House, Kingsway, London, W.C.2; 28, Abingdon Street, London, S.W.1; York Street, Manchester; 1, St. Andrew's Crescent, Cardiff; 120, George Street, Edinburgh, and through any bookseller.

Forces and Moments (including those due to Controls) on a Model Fairey "N.4" Flying Boat "Atalanta," at Various Angles of Yaw. By H. B. Irving, B.Sc., and A. S. Batson, B.Sc. Reports and Memoranda, No. 933. (Ae. 154.) November, 1924.

A large amount of wind tunnel data has been accumulated on the stability of complete models, including the lateral stability of S.E. 5A aeroplane (see R. and M. 831)* and the Bristol Fighter (see R. and M. 932)† and the longitudinal stability of the six following (see R. and M. 705): Tarrant "Tabor," Vickers "Valentia," Boulton and Paul "Bourges" ("Dragonfly" engines), Avro "Manchester" ("Puma" engines), Short "Cromarty," Fairey "N.4."

The present investigation is the first of its kind, and was undertaken to measure the lateral stability characteristics of a flying boat. A special balance was used to obtain these measurements, and it is described in R. and M. 822.‡

Measurements were made on a one-thirtieth scale model Fairey "N.4" flying boat, at a wind speed of 40 ft./sec., of the forces and moments over a range of incidence 4 deg. to 36 deg., and for angles of yaw up to 30 deg.

The report concludes as follows:—

Lateral Force.—In general, lateral force due to yaw decreases slightly as the angle of incidence is increased.

Rolling and Yawing Moments.—For angles of incidence greater than about 12 deg., rolling and yawing moments, due to yaw, increase considerably with incidence.

Yawing Moment.—When the model is yawed the general tendency is to produce a pitching moment tending to increase the angle of incidence, but, excepting in the region of the stall, this effect of yaw is small.

Rolling Moment Due to Ailerons.—At normal flying angles of incidence the aileron control is slightly reduced by either negative or positive yaw; at large angles, the variation in the aileron control is considerable and irregular. For aileron angles larger than about 10 deg. there is but little increase in control.

Yawing Moment Due to Ailerons.—At normal flying angles of incidence the yawing moment due to ailerons does not vary much with yaw: at large angles this yawing moment is appreciably increased when the model is yawed more than about 15 deg.

Rudder Control.—The general effect of yaw on the yawing moment due to rudder is to increase it for small angles of yaw up to about 10 deg., but to reduce it appreciably for larger angles of yaw. There is no increase in the rudder control for rudder settings greater than about 15 deg.

Measurement of Pitching Moments due to Roll on Wings of Avro 504K. By F. B. Bradfield, Math. and Nat. Sci. Tripos. Presented by the Director of Scientific Research. Reports and Memoranda, No. 944. (Ae. 164.) November, 1924.

There are a number of difficulties associated with the control of aeroplanes at low speeds, and the subject is one that is being thoroughly investigated by the Air Ministry under the direction of the Aeronautical Research Committee.

In connection with the full-scale work, a number of model experiments have been made to measure the various characteristics of aeroplanes. The present report gives the results of the measurement of pitching moments due to rolling. Two other papers, R. and M. 787 and 848, give the results of rolling and yawing moments on model wings due to rolling, and they should be studied in conjunction with the present paper.

The pitching moments were measured for angles of incidence up to 33°, and rotational rates up to a value defined by $ps/V = 0{\cdot}3$, and in some cases up to $0{\cdot}5$. The moments so measured have been calculated from pitching moments measured without rotation. The accuracy of the results is detracted from by large corrections which had to be made to the balance reading, but measurement and calculation are in substantial agreement as to the type of curve resulting.

The change of pitching moment with rate of roll is of interest as being a possible contributory cause to the difficulty experienced in some types of aeroplanes in coming out of a spin. At incidences above 21° the moments measured in the model experiments become more positive with increased rate of roll, and so would help to keep an aeroplane in a spin, but the effect in magnitude is small.

Lift and Drag of Junker Monoplane: Comparison of Model with Full-Scale Results. By B. D. Clarke, B.Sc., L. P. Coombes, B.Sc., H. Glauert, M.A., and A. S. Hartshorn, B.Sc. Presented by the Director of Scientific Research. Reports and Memoranda, No. 945. (Ae. 165.) November, 1924.

There are many available reports of comparative tests on model and full-scale biplanes, but there are no published British tests on a monoplane except those described in the present report. There is an additional interest on account of the thick wing used in the Junker construction, the present experiments forming the first of a series on thick wings.

The full-scale determination of the lift and drag has been made in the usual manner by glides with a stopped airscrew, and the corresponding model experiments cover a range of speed from 25 to 90 ft. per second with a detailed model to 1/12th scale. It was found that the scale effect on lift coefficient was not large, but its maximum value decreased steadily with increase of the scale of test. There was a very large scale effect on the minimum drag of the complete aeroplane, the full-scale value being about 20 per cent. lower than that given by the model at its highest wind speed.

The amount of scale effect due to the corrugations of the wing and body surfaces has not been thoroughly investigated, but it is hoped to carry out at a later date some experiments on another thick wing to clear up a possible large-scale effect due to this cause.

Experiments to Verify the Independence of the Elements of an Airscrew Blade. By C. N. H. Lock, M.A., H. Bateman, B.Sc., D.I.C., and H. C. H. Townend, B.Sc. Reports and Memoranda, No. 953. (Ae. 172.) November, 1924.

A previous paper, R. and M. 786, gives an aerodynamic theory of the airscrew based upon similar lines to the aerofoil vortex theory of Prof. Prandtl and his colleagues. The two theories differ in one essential aspect in their application. According to the vortex theory of airscrews,* the forces on an element of an airscrew for a given working condition are independent of the design of the rest of the blade,† a conclusion differing from the case of an aerofoil, and the object of the present experiments was to provide a direct experimental check. The experimental check can be accomplished by a comparison of observed thrust grading on two airscrews which are identical in shape and blade angle at one section, but differ at other sections.

Thrust grading curves were determined by measurement of total head for pairs of screws, selected from the family of airscrews, and with the blades of one member of the pair rotated so that the blade angle and section at a single radius were identical with those of the other member, while differing at other radii. The thrust grading curves should then cross at this particular radius. Two screws of extreme pitch were tested, each at four different angle settings, for comparison with a standard screw of normal pitch at two working conditions.

The agreement of experiment with theory was very good except in certain cases of measurements near the tip and boss of the airscrew, which measurements affect only slightly the calculation of the airscrew's performance.

* R. and M. 831. "On the Effect of Sideslip on the Aerodynamic Forces and Moments (including those due to the Controls) for a Model S.E.5a Aeroplane."—Irving and Batson.

† R. and M. 932. "Experiments on a Model of a Bristol Fighter Aeroplane (1/10th scale)." Sections I and II.

‡ R. and M. 822. "An Attachment to Main Balances for Measuring There Forces and Three Moments."—Lavender, Fewster, and Henderson.

* R. and M. 786. "An Aerodynamic Theory of the Airscrew."—Glauert.

† Neglecting the pressure gradient in the wake due to centrifugal force, which is shown in R. and M. 786, Appendix III, to be negligible.

FLIGHT
THE AIRCRAFT ENGINEER AND AIRSHIP

AIR MINISTER VISITS NAPIER WORKS

AFTER having flown some 3,500 miles during his Iraq tour, most of the time in machines fitted with Napier aero engines, it was somewhat natural that the Secretary of State for Air, Sir Samuel Hoare, should wish to visit the great works at Acton, at which the famous Napier engines are built, and on Friday of last week the Air Minister, at the invitation of Sir Harry Brittain, had the opportunity of seeing for himself the methods of manufacture employed.

On his arrival at the works, Sir Samuel Hoare was met by Sir Harry Brittain, Mr. H. T. Vane, managing director of Napiers, and Mr. George Pate, chief engineer, and conducted through the works, where he took the keenest interest in the work being carried out.

"It has been a great source of pride to me when I have travelled about the world by air, whether in Europe, or whether on my recent journey in Iraq, to find that the reputation of the Napier engine stands as high as it does.

"During the last few weeks I have had the opportunity of testing the reliability of your work.

"The greater part of the tour was made in the big "Vernon" troop carriers, with two 450 h.p. Napier engines in them. When we went to parts of the country where we could not fly with big machines, owing to the absence of large landing grounds, we flew in D.H. 9A's, again with Napier engines. I spent a good many hours of a good many days looking out of the window of the aeroplane, and what I saw was the

THE AIR MINISTER VISITS NAPIER WORKS: A section of the large number of Napier employés giving the Air Minister a rousing cheer; and inset is a photograph of Sir Samuel Hoare, Mr. H. T. Vane (managing director of Napiers) and Sir Harry Brittain, M.P., who is a director of the Napier firm.

On the completion of his tour of inspection Sir Samuel Hoare was introduced by Sir Harry Brittain to the work-people whom he had seen at work during the morning, and to whom he delivered the following short address :—

"Friends of the Napier Works, when Sir Harry Brittain gave me the invitation to come down here and meet you this morning I was very glad to accept it. I remember two years ago, when I was Secretary of State for Air before, I came down here, and I then found the works a good deal less active than they are today, and it is a great pleasure to me to come back after two years and find the shops more fully employed, and apparently with more men employed than were engaged two years ago, as I can assure you there is no work of more urgent national importance than the work you are now engaged upon.

word "NAPIER" written on the engine on each side. That gave me great confidence. I felt there was no risk about it, and there *was* no risk about it.

"There were Mr. Amery, myself and certain officers of our two departments travelling very often with two, three, four, or even six machines. Plenty of opportunity for something to go wrong. Nothing did go wrong—we arrived up to time wherever we went; we were never held up.

"It is the British workmanship. It is the tests that go on here. It is by the work you put into the engines you turn out at these works that we were able to make a journey that a few years ago would have been impossible."

Mr. H. T. Vane then, in a few words, thanked the Air Minister for his visit and called for three cheers, which were enthusiastically given.

THE AMSTERDAM-BATAVIA FLIGHT

Mijnheer van der Hoop Tells of His Experiences

On Wednesday, May 13, Mijnheer van der Hoop read, before a general meeting of the Royal Aeronautical Society, the Society of Arts and the Anglo-Batavian Society, a paper on his great flight from Amsterdam to Batavia in October-November, 1924.

Major-General Sir Frederick Sykes was in the chair, and, in introducing the lecturer, he said that at the beginning of the war Mr. Van der Hoop was a student at the University of Amsterdam. After leaving the University, Mr. Van der Hoop interested himself in flying and became a pilot. He referred to the old days when the broom and the whip were significant signs in the relations of Holland and England, and said he was very glad that today the air was bringing the nations together. This was particularly so with Holland and England. Sir Frederick referred to the Elta Show in 1919, when he, with a number of British officers, visited Amsterdam in five flying-boats and was received with every kindness by the Dutch. He also recalled the very valuable help given to Sir Ross and Sir Keith Smith in the Dutch East Indies, during their flight from London to Australia.

The Chairman then called upon Mijnheer van der Hoop to read his paper.

The famous Dutch pilot had not spoken for more than a few minutes before it became evident that he felt quite at home in the English language, and later on this fact was brought out even more clearly when he came to give explanations of the various lantern slides shown. Except for a very slight accent, Mijnheer van der Hoop spoke perfectly, and it was quite enjoyable to listen to his humorous references to incidents which at the time they happened, must have been far from amusing.

The first part of the paper was devoted to a brief reference to the great flights of 1924, and the lecturer acknowledged the fact that it was certainly Sir Ross Smith who gave the initial start by his famous flight from England to Australia. Shortly after the War, plans began to be formed in Holland for a flight to the Dutch East Indies, and the Dutch East Indian Government offered a prize for the first Dutch crew to succeed in flying to the Indian possessions. Various schemes were put up, some of which had a very good chance of success, but they all had to be abandoned owing to lack of financial help and also to various political difficulties.

The lecturer pointed out that in the meantime Dutch Air traffic developed gradually in spite of unfavourable economical conditions. A brief reference was then made to the various types of Fokker machines, from the first of these to be used by the K.L.M., the F.II, which was a four-passenger machine, and up to the F.V, which had a Rolls-Royce engine of 360 h.p., and was designed to carry six passengers. In the opinion of Fokker himself this later would be a suitable type for use on the air line between Holland and the Indies, and the idea of a flight to Batavia was again revived. A committee was formed in the beginning of 1923 to go into the question in detail. The Chairman of this Committee was General Snyders, ex-Commander-in-Chief of the Dutch Military and Naval Forces. The Committee was faced with many difficulties, one of the most serious being the withdrawal of the Dutch Government's offer of financial support. It was also found, the lecturer said, that the F.V machine was not quite so suitable as had been expected. In the meantime Fokker had designed an improved type, the F.VII, but this machine could not be got ready and thoroughly tested before April 1, 1924, the date which had previously been fixed for departure. It was therefore decided to postpone the flight until October, 1924, at which date the F.VII might be expected to have passed all her tests. It was necessary to fix the start either for the first April or October 1, owing to the atmospheric conditions in India.

The F.VII machine was finished in the early spring of 1924, and was used by the K.L.M. on the Amsterdam-London air line for two months, during which time it flew some 120 hours on this route, piloted by Flight-Lieutenant Poelman and the lecturer, so that they had an opportunity of becoming thoroughly conversant with the machine. The lecturer then gave a a description of the machine, but as the F.VII is already familiar to readers of FLIGHT, it is scarcely necessary to go into details here. During the month of September the machine was taken off the Amsterdam-London service and made ready for the great flight. A new Rolls-Royce engine was fitted which had been tested for 20 hours. The tank capacity was increased from the normal of 180 gallons to 220 gallons, which was sufficient for a non-stop flight of 10½ hours.

Mijnheer van der Hoop then referred to the difficulty which has confronted all who have ever attempted long-distance flights; *i.e.*, that of over-loading. The maximum weight in Europe for the F.VII was 7,600 lbs. In the warmer climates of the East, however, it would, of course, be considerably less, and this was naturally a very serious consideration. The increase in tank capacity caused a considerable amount of extra weight, and a large amount of spare parts, tools, etc., also had to be carried. After carefully going into the matter, the K.L.M. technical staff succeeded, by keeping everything not absolutely essential down to a minimum, in getting the total weight of the machine, with full tanks, down to 7,200 lbs. Thus with this relatively small weight good starts could be made from even fairly bad grounds. The lecturer referred to the fitting of wireless on the machine while it was in use on the London-Amsterdam line, and said that it gave excellent results, but as no very great use could be made of it during the flight to India they reluctantly decided to remove the wireless outfit from the machine.

Stores of petrol and oil were sent to the various landing grounds along the route, as were also a number of spare parts and propellers, but it was found that the latter were not required as the flight was completed with the same tyres and propeller, which, the lecturer said, were still fit for extensive use at the end of the flight.

Towards the end of September, 1924, van der Hoop, his pilot, Lieutenant Poelman, and his mechanic, van der Broeke, had completed all arrangements for the start of the great flight, and the Fokker VII left the Schiphol Aerodrome at Amsterdam. Flying over Soesterberg, the Dutch military Aerodrome, they proceeded *via* Deventer to the German frontier, and the lecturer said that the trip over the monotonous plains of Germany was rather uninteresting. He and Poelman relieved one another at regular intervals, and time passed quickly. At Dresden they reached the River Elbe, which was followed between the Ore Mountains into Czecho-Slovakia. In the afternoon they reached Prague, where the Chech authorities gave them an enthusiastic welcome. It had been their intention to start early the next morning, but the authorities wanted them to await the weather reports, and as these took rather a long time, there was some delay in starting. Over the hills of Bohemia, where the clouds were unusually low, they made for the Danube, which they followed for a considerable distance as it flowed through the vast plains, with many suitable places for forced landings. Belgrade was reached at sunset, and a landing was made by the aid of landing lights at the aerodrome. So far the flight had been carried out to schedule, but the third day's flying turned out to be less favourable. The original plan had been to follow the Danube from Belgrade through the Iron Gates over Roumania across Bulgaria and the Balkan Mountains to Constantinople. They were, however, advised not to go through the Iron Gates, owing to bad weather, and, therefore, chose the southern route *via* Bulgaria. A small river was followed up to Nish, and from there eastwards over the mountains, but as they flew high a strong headwind developed which compelled them to come down and try to find protection behind the mountains. The railway which formed their landmark, climbed higher and higher, and the gorge through which it passed became more narrow. Suddenly, the gorge made a sharp turn, and as the aviators did not know whether the gorge continued behind the bend, or whether it stopped suddenly and the train passed through a tunnel, they decided to turn back. Making a sharp left-hand turn, they "missed" the mountain, as the lecturer put it, "by the skin of their teeth," and flew back again to gain altitude. After that had been reached they crossed the mountains safely and flew down towards Sofia. Sofia was passed and they were flying over the plains of Maritza, when suddenly serious engine trouble developed. Until now the engine had been running splendidly, but a few miles off the small town of Philippopolis, the radiator thermometer began to rise, while the engine revs. dropped. Finally, the engine stopped altogether, and there was just time to do a sharp "S" turn, so as to come in reach of a small meadow. The landing did not appear difficult, but suddenly a wheel touched some obstacle and the machine rolled on, bouncing and inclining more and more to the right, until the right wing

touched the ground ; then making a quick turn, the machine came to a standstill.

The damage was found to be somewhat serious. The engine had been damaged beyond repair through over-heating, and the field, which looked like a meadow, had in reality been used as a rice field, and was crossed by a number of dykes about a foot high. During the landing, the wheels had struck no less than nine of these dykes, with the result that the right-hand wheel had been seriously damaged.

The lecturer then gave a graphic account of his troubles in making himself understood in any of the Western languages, and made some humorous references to a sealed telephone which was opened with a form of golden key that is universal all over the world. After a long delay, the Dutch Consul from Philippopolis arrived in a Ford, and in this vehicle the aviators were brought along over very bad roads to the town. After more than a week of waiting, telegraphing, and letter-writing, the Chief of the technical services of the K.L.M. arrived in Philippopolis to make investigations, and he expressed himself in favour of repairing the damage on the spot. The Fokker factory at once commenced work on a new under-carriage, and *Het Leven*, the illustrated paper, made the aviators a present of a new Rolls-Royce engine.

While repairs were being effected the aviators had to wait with what patience they could muster, and judging by the lecturer's remarks, they did not greatly enjoy their stay. At last, however, three mechanics arrived from Holland with the engine and spare parts, towards the end of October. After five long days of extremely hard work in the open and in rain and mud, the machine was ready by November 1. The engine had been tested and found to be O.K., and a piece of ground had been found in the neighbourhood with good surface, and just long enough to enable the machine to start. In the small hours of the morning of November 2, a start was made from this field, and the journey to the Far East was continued. The machine landed on the San Stephano Aerodrome, near Constantinople, that afternoon The aerodrome itself was quite good, but there was only one very small hangar, and it was impossible to run the F. VII inside. The next day a somewhat belated start was made and flying along the Princes Islands the aviators made for Asia Minor. Here the scenery changed. The mountains were not very high, but nevertheless dangerous enough in the event of a forced landing. Ultimately, the Baghdad Railway was reached and followed up to Eski Sher, where the Angora Railway leaves the main track. Again the landscape changed.

In the meantime the wind had increased and made headway more difficult. By the time the sun had set, Angora was still out of sight, but at last they sighted the lights showing up against the hills. The aerodrome was none too large, and fairly rough, and a landing was only possible right in the middle. They could just see in the dusk that a herd was grazing on the spot where they ought to have landed, and so they had to turn right over the chimney tops of a factory. Suddenly, there was a loud bang against the left-hand wing, but nothing seemed to happen, and a safe landing was made. It was found, however, that the left-hand wing had struck a wind indicator, while a long length of telegraph wire was entangled in the propeller. The damage to the wing was not important, and was repaired by gluing a piece of three-ply wood on to the wing. The next step was from Angora to Aleppo, flying first for many hours over the desert of Anatolia, and then passing a large salt lake.

After having flown for several hours on a compass-course, they struck the Baghdad Railway, in the south of Anatolia, and reached the Taurus Mountains, which rise to a height of 10,000 ft. The mountains were too high to fly over with the heavy machine, and so they were forced to fly eastward, following the railway through the narrow pass between the Taurus and Anti-Taurus mountains. The lecturer described the scenery as wonderful, but said that had their trusted Rolls-Royce engine refused to work the F. VII would have met with a terrible end.

Emerging into the green plain of Adana, they came down from about 6,000 feet to a few hundred feet, crossed the Gulf of Alexandretta, and entered Syria. A short flight over a low range of hills and Aleppo was in sight. At Aleppo they were very well received by the French pilots, who gave them every assistance possible. From Aleppo the aviators proceeded across the desert to the Euphrates, which was followed into Iraq, the British mandate. Presently they left the Euphrates, and, flying east towards the Tigris, went on towards Baghdad, a squadron of British 'planes flying past them on the way. A landing was made on the south side of the R.A.F. aerodrome at Baghdad, and the lecturer was loud in his praise of the reception extended to them by the Royal Air Force personnel at Baghdad.

The next step contemplated was to Busra, but it was found that a strong following wind helped the aviators along, and so it was decided to continue as far as Bushire, on the Persian Gulf. From Bushire the aviators flew to Bunder Abbas, where again they were received by a few Englishmen present, and on the next stage Karachi was reached, it having been decided, as a result of a strong following wind, not to land at Chahbar, as had originally been intended. A severe dust-storm was encountered, but the wind blew in from the sea, and, fortunately, the wind direction made it possible for the machine to fly above the dust-storm.

From Karachi to Calcutta use was made of the various British aerodromes along the Indus and Ganges. The first landing was made at Ambala, and from there the route taken was to Allahabad and Calcutta, the northern route being preferred to the more direct southern one from Karachi to Agra. Everywhere, the lecturer said, they were received with the heartiest hospitality and assistance from the Royal Air Force. From Calcutta the course was laid down along the coast of Burma, and Mijnheer van der Hoop stated that, as a matter of fact, it could safely be said that from Calcutta to Batavia there were no forced landing-grounds at all. The first landing was made at Akyab, and from there the Dutch fliers headed for Rangoon. On arriving over Rangoon, it was found that the aerodrome there was a small racecourse surrounded by trees and houses, from which the machine would not have been able to start again. It was also impossible to continue on to Bangkok owing to a strong head wind, and there seemed nothing for it but to return to Akyab and there fit a larger tank. Fortunately, some distance away from the town another and larger race-course was discovered to be suitable, and there a safe landing was made.

Crossing the mountains and channels, the flight continued from Burma to Bangkok, the capital of Siam. From Bangkok southwards the east coast of the Malay Peninsula was followed as far as Sengora, a small Siamese town with an aerodrome not more than 320 yards in length. From Sengora they flew over the Malay Peninsula, passed Penang, and then had to cross the only large stretch of sea of the whole flight, the Malacca Straits, which separated them from the Dutch East Indies. A Dutch steamer was in attendance in the Malacca Straits, and the gallant aviators were accompanied by Dutch seaplanes up to the coast of Sumatra to the small town of Muntok. From Muntok they flew to Sumatra across the Sunda Strait, between Sumatra and Java, and were met and again escorted by seaplanes until reaching Batavia.

In conclusion, Mijnheer van der Hoop said he wished to express his sincere gratitude to the English authorities, and the Royal Air Force in particular, for their kind and welcome assistance and the hearty hospitality he had always received during the preparations for the flight, as well as during the flight itself.

DUTCH AVIATORS ENTERTAINED

ON May 14 the Anglo-Batavian Society gave a dinner at the Connaught Rooms in honour of Mijnheer van der Hoop, Lieutenant Poelman, and Mr. van der Broeke. Sir Walter Townley, K.C.M.G., who is Chairman of the Society, presided.

In proposing the toast of "Our Guests," Sir Walter Townley said he was sure that in the future the main transport would be in the air. He congratulated a comparatively small nation such as Holland upon ranking as pioneers in the art of aviation. He said that Mr. Fokker, who was present at the dinner, had made a name not only for himself but for Holland in general in developing air transport.

Mijnheer van der Hoop, in replying, again expressed his cordial thanks for the help he had received by the British during his flight, and particularly by the Royal Air Force. He thought that aviation, both sporting and commercial, served as a link between nations. It had already done much in that way, and he hoped and trusted it would do a great deal more in the future.

Air Vice-Marshal Sir Wm. Sefton Brancker, Director of Civil Aviation, submitting the toast of "Anglo-Batavian Relations by Air," pointed out that the interests of Great Britain and the Netherlands were very closely bound together in the development of air transport.

His Excellency the Netherlands Ambassador, Jonkheer Dr. R. de Marees van Swinderen, briefly responded to this toast, and the proceedings came to a close with a toast to the Chairman, Sir Walter Townley, proposed by Lieut.-Colonel I. A. E. Edwards, of the Air Ministry.

Married

Air Commodore C. L. N. NEWALL, R.A.F., was married on April 18, at the Royal Memorial Church of St. George, Cannes, to OLIVE TENNYSON FOSTER, only daughter of Mrs. FRANCIS STORER EATON, of Boston, U.S.A.

To be Married

A marriage will shortly take place between Capt. ANTHONY A. J. POOLE, late R.A.F., of Zanzibar, youngest son of Major A. E. Poole, late 10th Hussars, and FREDERIKA DOLORES ST. G. BARKWORTH, only daughter of Frank Barkworth, of Daglingworth Place, Cirencester.

A marriage has been arranged, and will take place at Penton Mewsey on June 3, between Flight-Lieut. E. E. POTTER, M.B.E., D.C.M., R.A.F., and BERTHA, eldest daughter of Flight-Lieut. and Mrs. SURR, Tralee, Alexandra Road, Andover.

The engagement is announced of Squadron-Leader G. G. A. WILLIAMS, R.A.F., third son of the late Capt. G. S. Williams, 8th Hussars, and KATHLEEN MARY, daughter of the late Lieut.-Col. G. K. ANSELL, 5th Dragoons, and Mrs. ANSELL, of Gorse House, Rugby.


Air Mails to Scandinavia

THE Postmaster-General announces that letters for Denmark, Norway (east) and Sweden may now be posted for transmission by a morning air mail from London additional to the evening mail from London (for onward transmission by air from Rotterdam). The new air mail is closed at the General Post Office, London, at 6.15 a.m., and is forwarded by direct aeroplane service from Croydon due to arrive at Copenhagen and Malmö the same evening. It offers delivery in Copenhagen and Malmö the same evening, or by first post next morning, and in Stockholm and Oslo in the forenoon and afternoon respectively of the day following despatch from London. By the use of one or other of the two air mails now available, a letter for Denmark, Norway (east) or Sweden posted in any part of the country at almost any time during the 24 hours, should, given regular flight, be delivered at the place of destination from 12 to 24 hours earlier than if it were sent all the way by ordinary service. An air mail letter for any of the three countries mentioned must be prepaid with a special fee of 4*d*. per oz. (in addition to ordinary postage), and should bear in the top left-hand corner of the cover a blue official "Air Mail," label, or be very plainly marked "By Air Mail."

Australian Air Services

ACCORDING to the correspondent of the *Morning Post* the manager of the Adelaide-Sydney air service announces the cessation of the present service under the scheme to provide air connection from Sydney, Melbourne and Adelaide with Broken Hill. The present Adelaide-Sydney route will terminate at Cootamundra, where railway connection with Sydney renders further flight less profitable. The company intends to start two new routes branching from the Adelaide-Cootamundra course, one from Melbourne to Hay, and the other from Mildura to Broken Hill. The Adelaide-Sydney service has been operating for 12 months, and approximately 100,000 miles have been flown without injury to passengers or crew.

R.A.F. Flying Accident

THE Air Ministry regrets to announce that as a result of an accident near Upavon, Marlborough, Wiltshire, to a D.H.9A of No. 1 Flying Training School, Netheravon, Wiltshire, at 3.30 p.m. on May 15, David Brown Morgan, Lieut. Royal Navy, Flying Officer Royal Air Force, the pilot of the aircraft, was killed.

Air Ministry Helicopter Competition

THE Air Ministry announces: None of the machines entered for the Helicopter Competition, 1924-25, was presented for test during the prescribed period. All of the prizes originally offered are consequently available to be competed for in the further competition announced in March last, the entry list for which is now closed.

The Royal Air Force Memorial Fund

THE usual fortnightly meeting of the Grants Sub-Committee was held at the offices of the Royal Air Force Memorial Fund, at No. 7, Iddesleigh House, Caxton Street, London, S.W.1, on Thursday, May 14. The following members of the committee were present:—Lieut. Commander H. E. Perrin (Chairman), Mrs. L. M. K. Pratt-Barlow, O.B.E., Mr. W. S. Field, Squadron-Leader E. B. Beauman. The committee considered 19 cases of appeal for assistance, and issued grants to the amount of £179 0*s*. 6*d*.

The S.M.A.E. Competitions

Two successful Competitions were held on the Sudbury Flying Ground on Saturday, May 16, by the Society of Model Aeronautical Engineers. The first Competition was for the Model Engineer No. 1 Cup. There were seven entrants and the following are the results:—1st, L. A. Gray (28⅘th secs.); 2nd, S. C. Hersom (27⅗th secs.); 3rd, B. K. Johnson (19 secs.).

The second Competition was for the Weston Cup. There were ten entrants, and the results are as follows:—1st L. A. Gray (27⅘ secs.); 2nd, S. C. Hersom (18⅘ secs.); 3rd, F. de P. Green (18 secs.).

The next S.M.A.E. Competition will be held on Wimbledon Common on Saturday, June 6, for the K. & M.A.A. Challenge Cup. The Competition for the Felix Kelly Challenge Cup has been postponed to a later date.

Mr. Santoni Makes a Move

HIS many friends in this country will be interested to learn that Mr. D. Lawrence Santoni, until recently founder and managing director of the well-known firm of Chantiers Aero-Maritimes de la Seine (usually abbreviated to CAMS), has now severed his connection with that firm and has established a new company under the name *Compagnie Générale de Constructions Aéronautiques* with offices at 72, Rue la Boetie, Paris. The French government has recognised the excellent work done by Mr. Santoni, in the development of the seaplane, and particularly the flying boat, and his nomination to the Legion of Honour is announced in the Official Gazette as follows: "D. Lawrence Santoni, sujet Italien, Ingénieur, Administrateur Directeur Général des Chantiers Aéro-Maritimes de la Seine: après avoir rendu des services signales pendant la guerre, a prete le concours le plus precieux à l'hydraviation française." We feel sure his numerous friends in this country will join us in wishing Mr. Santoni every success in his new undertaking.

Aerofilms, Ltd., Staff Dinner

A DINNER given to the entire staff of Aerofilms, Ltd., by the directors, was held on Friday May 8, at The Refectory, Golders Green. The company's aerial photographers and travellers were re-called from various parts of the country to participate in this social event. Mr. F. L. Wills, managing director, was in the chair, and took this opportunity of explaining the future policy and the developments the directors had in view. Mr. Wills then proposed the toast of the company and staff, and read a letter from the chairman and directors, expressing their appreciation of the loyalty of the staff and their good wishes for the future success of the business. Mr. Tidswell, the secretary, suitably replied. The toast of the ladies was proposed by one of the Aerial photographers, Mr. Murrell, and Miss Clapham, head of the artists' department, responded. A number of songs were rendered, including some comic sketches by one of the company's travellers, Mr. Owen. Dancing followed, and a most successful and enjoyable evening was brought to a close by singing "Auld Lang Syne."

FLIGHT

THE ROYAL AIR FORCE

London Gazette, May 12, 1925

General Duties Branch

The following are granted permanent commissions in ranks stated (May 13):—*Flight-Lieuts.*—B. B. Caswell, L. G. le B. Croke, G. V. Howard, D.F.C. *Flying Officers.*—J. L. Airey, D.F.C., J. B. H. Rogers.

Sqdn.-Ldr. R. H. Portal, D.S.C. (Lieut.-Comdr., R.N.) relinquishes his temp. commn. on ceasing to be lent for duty with R.A.F.; April 27.

The following are granted temp. commns. as Flying Officers on attachment for four years' duty with R.A.F. (April 27):—*Lieut.-Comdr., R.N.*—R. H. Portal, D.S.C. *Lieuts., R.N.*—H. M. S. Forbes, D.S.C., G. T. Campbell, D. H. Tollemache, K. E. Smith, A. B. B. Foulerton, A. N. R. Keene, C. N. Lentaigne, P. D. Oliver, G. R. F. Tooper, R. H. S. Rodger, J. Nicholson, J. F. M. Robertson, P. B. McDonald, N. H. Portal, C. W. Byas, L. G. Richardson, C. R. Townsend, G. C. Dickins, C. L. Keighly-Peach, E. Chafe. *Sub-Lieut., R.N.*—P. G. Smith. *Lieuts., R.M.*—G. H. Morris, A. G. Warren, R. C. Giles, K. Hunt.

The following Pilot Officers are promoted to rank of Flying Officer:—E. C. de V. Lart; March 15. S. M. Thomas; April 15. Pilot Officer on probn. C. F. Caunter is confirmed in rank; April 28. Wing-Comdr. J. R. W. Smyth-Pigott, D.S.O., is placed on half-pay, Scale A; May 11. The short service commn. of Pilot Officer on probn. L. A. G. D. Kelly is terminated on cessation of duty; May 13. Flying Officer L. B. Lewis is placed on retired ist on account of ill-health; May 13.

Accountant Branch

Pilot Officer on probn. L. M. Spicer resigns his perm. commn.; May 6.

Medical Branch

Flight-Lieut. (Hon. Sqdn.-Ldr.) W. R. Kemp, B.A., relinquishes his temp. commn. on ceasing to be employed, and is permitted to retain rank of Flight-Lieut.; April 10.

Reserve of Air Force Officers

The following are granted commns. on probation in the General Duties Branch in the ranks stated (May 8):—

Class A.—Flying Officers.—H. A. Buss, O.B.E., D.S.C., S. A. Packman (Maj., R.A.R.O.). *Pilot Officers.*—S. Barker, M. H. Edmunds, F. James, G. F. Macdonald, A. C. Robertson, G. B. Shillaker, J. D. Sinclair.

Class B.—Flying Officer.—H. W. G. Trotman. *Pilot Officer.*—W. A. R. Speight.

The following Pilot Officers are promoted to rank of Flying Officer:—L. D. Hamblin; March 18. A. E. Ansell; April 23. E. P. Smith; April 30. S. G. Shand; May 6. H. H. Perry; May 6. The following Pilot Officers are confirmed in rank:—C. C. Thurrell; April 21. S. W. Lumnis; May 11. Flying Officer G. M. Stephenson is transferred from Class A to Class C; March 22. Flying Officer S. Hampton is transferred from Class B to Class C; May 12. Pilot Officer J. E. G. Robinson resigns his commn.; April 16.

Memorandum

Gazette July 1, 1921, appointing No. 26683 Cadet W. H. Dudley to an hon. commn. is cancelled.

ROYAL AIR FORCE INTELLIGENCE

Appointments.—The following appointments in the Royal Air Force are notified:—

General Duties Branch

Air Commodore C. L. N. Newall, C.M.G., C.B.E., A.M., to H.Q. Special Res. and Aux. Air Force for duty as Air Officer Commanding; 14.5.25.

Wing Commander H. R. Busteed, D.F.E., A.F.C., to H.M.S. *Furious*, for duty as Senior Air Force Officer; 8.5.25.

Squadron Leaders: R. D. Oxland, to No. 502 Sqdn., Aldergrove; 30.5.25. C. H. Hayward, to H.Q. Special Res. and Aux. Air Force; 14.5.25.

Flight Lieutenants: R. E. Nicoll and R. J. Rodwell, to R.A.F. Depot, on transfer to Home Establt.; 29.4.25. B. E. Baker, D.S.O., M.C., A.F.C., to No. 4 Flying Training Sch., Egypt; 18.4.25. P. D. Robertson, A.M., to Inland Water Transport, Iraq; 8.5.25. J. R. Cassidy, to No. 208 Sqdn., Egypt; 1.4.25. C. W. Attwood, to No. 216 Sqdn., Egypt; 1.4.25. E. F. Turner, A.F.C., and C. F. Toogood, to No. 502 Sqdn., Aldergrove; 30.5.25. H. A. Smith, M.C., to No. 19 Sqdn., Duxford; 18.5.25. L. H. Cockey, to No. 3 Group H.Q., Spittlegate; 18.5.25. P. F. Fullard, D.S.O., M.C., A.F.C., to Air Ministry; 1.6.25. J. P. Coleman, A.F.C., to H.Q. Special Res. and Aux. Air Force; 14.5.25.

Flying Officers: F. G. Gibbons, D.F.C., to No. 208 Sqdn., Egypt; 15.4.25. S. J. Smetham, to No. 2 Wing H.Q., India; 8.5.25. F. F. Inglis, to Aircraft Depot, Egypt; 15.4.25. W. J. Buchanan, D.F.C., and A. H. Love, to R.A.F. Depot on transfer to Home Establt.; 28.4.25. H. B. Holdway, to No. 20 Sqdn., India; 14.4.25. S. C. Black, M.M., to No. 39 Sqdn., Spittlegate; 18.5.25. R. N. Waite, to No. 1 Flying Training Sch., Netheravon, instead of to R.A.F. Cadet College, as previously notified; 27.4.25. K. R. Thomas, to Aircraft Park, India; 22.4.25. S. C. Black, M.M., to remain at Elect. and Wireless Sch., Flowerdown, instead of to No. 39 Sqdn., as previously notified. G. Lansdowne, D.F.C., to Armament and Gunnery Sch., Eastchurch; 18.5.25. B. C. Duke, H. W. Pierce, V. J. Hatton, H. C. Evans, F. F. W. Hall, and E. C. A. Wing, to No. 502 Sqdn., Aldergrove; 30.5.25. H. J. Storey, to remain at R.A.F. Depot, instead of to Station H.Q., Bircham Newton, as previously notified.

Pilot Officers: F. W. C. G. Tussaud and W. C. Ward, to No. 502 Sqdn., Aldergrove; 30.5.25. C. W. Martin, to No. 2 Flying Training Sch., Digby, on transfer to Home Establt.; 14.5.25.

Stores Branch

Flight Lieutenant T. J. Organ, to H.Q. Special Res. and Aux. Air Force; 14.5.25.

Flying Officer H. J. Bamber, to No. 502 Sqdn., Aldergrove; 30.5.25.

Accountant Branch

Flight Lieutenant W. H. Hoile, M.B.E., to H.Q. Special Res. and Aux. Air Force; 18.5.25.

Flying Officer: F. M. Gingold, M.B.E., to R.A.F. Depot, on transfer to Home Establt.; 17.4.25. R. T. Carter, to No. 502 Sqdn., Aldergrove; 30.5.25.¶

Medical Branch

Wing Commanders: E. C. Clements, O.B.E., and D. Ranken, M.S., B.S., F.R.C.S., to Specialists' Med. Establts. for Specialists' Duties with Central Medical Board; 6.5.25.

Squadron Leaders: T. J. Kelly, M.C., M.B., B.A., to R.A.F. British Hospital, Iraq; 24.4.25. J. M. A. Costello, M.C., M.D., M.Sc., to Basrah Combined Hospital, Iraq; 24.4.25.

Flight Lieutenant V. R. Smith, to Stores Depot, Egypt; 1.5.25.

Flying Officer C. J. MacQuillan, M.B., B.A., to Station Commandant, Iraq; 23.4.25.

Flying Officer R. F. Dickson to Research Lab. and Med. Officers' Sch. of Instruction, Hampstead, on appointment to a S.S.C. for short course; 12.5.25.

IN PARLIAMENT

Marshal of the Royal Air Force

Mr. G. THORNE, on May 12, asked the Secretary of State for Air what are the reasons for changing the highest Air Force rank from Marshal of the Air to Marshal of the Royal Air Force?

Sir S. Hoare: The decision to effect this change was taken in view of the general consensus of opinion in the Service that the designation "Marshal of the Air" was somewhat indefinite in character, and that a title more explicitly related to the Royal Air Force was to be preferred to it.

Aerodrome, South-West Ireland

Mr. J. BECKETT on May 13 asked the Secretary of State for Air whether the aerodrome built in the south-west of Ireland during the War is still under his control; what amount was spent on its erection; for what purposes, if any, has it been used; and what is its present use?

The Under-Secretary of State for Air (Major Sir Philip Sassoon): As regards the first and last parts of the question, the Air Ministry does not now control any air station in the south-west of Ireland. As regards the second and third parts, if the hon. member will state the name of the aerodrome which he has in mind, I will endeavour to obtain the information requested.

Mr. Beckett: Has there been more than one large aerodrome built in the west of Ireland?

Sir P. Sassoon: The Air Ministry has no control over air stations in the Irish Free State, and, therefore, we have no knowledge of any air stations there at present. If the hon. member would let me know what air station he has in mind, I will let him know about it.

Mr. Beckett: Am I to infer that the Air Ministry did not build an aerodrome in the south-west of Ireland?

R. 33

SIR H. BRITTAIN on May 14 asked the Secretary of State for Air whether the necessary repairs have been completed to R.33; and when it is expected that she will be able to take part in further flights?

Sir S. Hoare: The repairs to R.33 will be completed, I hope, and the airship ready to take the air by the end of July, or early in August.

Flying Officers

CAPTAIN F. GUEST on May 18 asked the Secretary of State for Air what is the total number of officers in the Air Force, and, of this number, what is the average percentage of officers who are not habitually engaged in flying?

Sir S. Hoare: The total number of officers in the Royal Air Force is 3,314, of whom 2,607 belong to the General Duties Branch, and unless excused on grounds of age, medical unfitness, or other special reasons, are required to fly regularly. The difference between these two figures represents 21 per cent.

Fatal Accidents

CAPTAIN F. GUEST asked the Secretary of State for Air how many fatal accidents to both officers and men have occurred in the British Isles, India, and Iraq, respectively, in the years, 1922, 1923, 1924, and 1925; and in how many cases were the occupants of the machines equipped with parachutes?

Sir S. Hoare: Following is the information required:

Fatal Accidents

	British Isles.	Iraq.	India.
1922	20	7	4
1923	20	2	4
1924	29	8	7
1925 (to date)	5	3	3

In none of the above cases were the occupants of the aircraft equipped with parachutes.

Air Services to Sweden

IN connection with the announcement, appearing elsewhere in this issue, from the Postmaster-General *re* air mails to Scandinavia, both Imperial Airways, Ltd., and the French Air Union inaugurated new services to Sweden—in the former case from Croydon, and in the other from Le Bourget. In each case the route lies *via* Amsterdam, where passengers from the British and French machines transfer to machines belonging to the Swedish Aero Transport Co., and continue to Malmö *via* Copenhagen, and *via* Bremen and Hamburg.

AIR POST STAMPS

By DOUGLAS B. ARMSTRONG

New Syrian Air Stamps

THE overprinted French postage-stamps hitherto employed in the Syrian air post service have been finally replaced by the handsome new pictorial postage stamps of that State, and of Great Lebanon, distinguished by the addition of the word "AVION" vertically inscribed in green French and Arabic characters. There is a third set for use in the territory of the Alaouites additionally overprinted with the name of that district. The four values, in each instance, are: 2 piastres sepia; 3 piastres, brown; 5 piastres, mauve; and 10 piastres, purple. The 3 and 10 piastres (Syria), together with the 10 piastres (Grand Liban), exist with the "AVION" overprint inverted.

The new journal, *L'Aero Philatelie*, publishes an interesting account of the successful flight from Deir-ez-Zor (Syria) to Baghdad made by Colonel Denain on April 7, 1923. Sixteen letters only were carried on this flight, which bear the Beyrout postmark of 17.4.23, and that of Baghdad 18 Apr. 23. Needless to say, these flown covers are of the greatest rarity. As a result of this experiment, a regular air line was put in operation between Damascus and Deir-ez-Zor on December 15, 1924.

South African Air Post

APROPOS of the South African air post stamps recently referred to in this column, we understand that the initial printing of 90,000 sets was produced by a photo-lithographic process at the office of the *Cape Times*, where the design also originated. Future printings will be made, however, at the Union Government Printing Works, Pretoria, as previously stated.

The four values represent the surcharges for mail matter carried by air in accordance with the following tariff:—

Inland postcards, 1*d*.; overseas postcards, 3*d*.

Inland letters, 3*d*. per oz.; overseas letters, 6*d*. per oz.

Inland parcels, 6*d*. per lb.; overseas parcels, 9*d*. per lb.

During the first week of the service £257 worth of air post stamps were sold, and the total amount of letters, etc., posted at Durban for other points on the air route was 1,586 for Cape Town, 390 for East London, 271 for Port Elizabeth, 46 for Mossel Bay, 24 for Oudtshoorn, and 15 for delivery on board ship.

The South African air post service has achieved an initial success, and shows every prospect of becoming a permanent institution.

Trans-Andes Air Covers

IT does not appear to be generally known that a bag of letters was carried by the aviators who successfully crossed the Andes from Buenos Aires to Mendoza in December last. All were prepaid in ordinary postage stamps of the Argentine Republic, but were impressed in addition with a distinctive cachet inscribed "Servicio Postal Aereo." The date of the flight was December 4, 1924.

Montevideo-Rio de Janeiro Flight

ANOTHER experimental mail flight in South America took place on January 20 of this year between Montevideo and Rio de Janeiro. Flown covers were franked with the current 10c. postage stamp of Uruguay plus the 6c. aero stamp of 1924, and further struck with a cachet in purple, reading "Ensayo Postal Aereo: Montevideo-Rio de Janeiro."

Paris-Dakar Flight Covers

A NUMBER of letters were carried by Lieuts. Arrachart and Lemaitre on their sensational flight on February 3–March 24 last: 300 covers were carried on the outward and 200 on the return journey, most bearing the signatures of one of the aviators, and numbered consecutively. In addition to the ordinary French 25c. postage stamp and the "Par Avion" label, the outward letters were impressed with an oval cachet inscribed "Raid Etampes Dakar Fevrier 1925 Avion Bréguet Renault 19. A. 2," and had affixed to them an adhesive *etiquette* showing the portraits of Captains Lemaitre and Arrachard inset on a map of the route.

Letters originating at Dakar bear the postmarks of El Golea (Constantine) and Casablanca (Morocco), in addition to that of Dakar, February 7, and Versailles, March 24. Prior to despatch they were impressed with a special cachet in five lines, lettered "Par Avion Raid Dakar Paris via Timbouctou Mission Lemaitre & Arrachart," besides the official seal of the Commandant Aéronautique A.O.F. Postage was prepaid in ordinary 25c. postage stamps of Senegal (French West Africa). The average price asked for these historic covers at present is 44*s*. with autograph of the pilot and 22*s*. without.

IMPORTS AND EXPORTS, 1924-1925

AEROPLANES, airships, balloons and parts thereof (not shown separately before 1910). For 1910 and 1911 figures see "FLIGHT" for January 25, 1912; for 1912 and 1913, see "FLIGHT" for January 17, 1914; for 1914, see "FLIGHT" for January 15, 1915; for 1915, see "FLIGHT" for January 13, 1916; for 1916, see "FLIGHT" for January 11, 1917; for 1917, see "FLIGHT" for January 24, 1918; for 1918, see "FLIGHT" for January 16, 1919; for 1919, see "FLIGHT" for January 22, 1920; for 1920, see "FLIGHT" for January 13, 1921; for 1921, see "FLIGHT" for January 19, 1922; for 1922 see "FLIGHT" for January 18, 1923; for 1923, see "FLIGHT" for January 17, 1924; and for 1924, see "FLIGHT" for January 22, 1925.

	Imports.		Exports.		Re-Exports.	
	1924.	1925.	1924.	1925.	1924.	1925.
	£	£	£	£	£	£
Jan.	2,213	3,546	52,239	83,728	2,219	291
Feb.	920	985	26,349	85,639	335	20
Mar.	11,381	—	34,113	56,881	509	9,355
Apr.	373	321	56,998	78,041	6,014	6,732
	14,887	4,852	169,699	304,289	9,077	16,398

PUBLICATIONS RECEIVED

British Legion Annual Report and Accounts, 1924. The British Legion, 26, Eccleston Square, London, S.W. 1.

U.S. National Advisory Committee Reports: *No.* 199.—Interference Tests on an N.A.C.A. Pitot Tube. By E. G. Reid. *No.* 202.—The Sparking Voltage of Spark Plugs. By F. B. Silsbee. *No.* 203.—Accelerations in Flight. By J. H. Doolittle. *No.* 205.—The Effect of Changes in Compression Ratio upon Engine Performance. By S. W. Sparrow. *No.* 211.—Water Model Rests for Semirigid Airships. By L. B. Tuckerman. U.S. National Advisory Committee for Aeronautics, Navy Building, Washington, D.C., U.S.A.

Official Gazette of the United States Patent Office. *April* 7, 1925. U.S. Government Printing Office, Washington, D.C., U.S.A.

Royal Air Force Field Service Pocket Book, 1924. *Air Publication* 1,081. H.M. Stationery Office, Kingsway, London, W.C. 2. Price 3*s*. 6*d*. net.

Report on Civil Aviation, 1924. Dominion of Canada Department of National Defence, Ottawa, Canada. Price 25 cent.

AERONAUTICAL PATENT SPECIFICATIONS

Abbreviations: Cyl. = cylinder; i.c. = internal combustion; m. = motor. The numbers in brackets are those under which the Specifications will be printed and abridged, etc.

APPLIED FOR IN 1924

Published May 21, 1925

1,785. A. J. YEO. Rotary engines. (232,677.)
2,068. FAIREY AVIATION CO., LTD., and C. R. FAIREY. Controlling-devices for aeroplanes. (232,693.)
4,476. H. O. SHORT. Lifting and propelling devices for aircraft. (232,732.)
12,278. SCHNEIDER ET CIE. Control posts of aeroplanes. (217,198.)
12,601. CIE. D'APPLICATIONS MECANIQUES. Shock-absorbers. (217,200.)
13,821. J. W. PITTS. Propellers. (232,805.)
16,872. A. LAMBLIN. Cooling-elements for radiators. (222,445.)
18,009. J. J. CALLAHAN. Propellers. (232,828.)
18,121. NIEUPORT ASTRA. Propellers. (232,830.)
26,886. CIE. D'APPLICATIONS MECANIQUES. Cages for bearings. (225,198.)

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