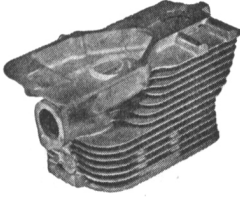


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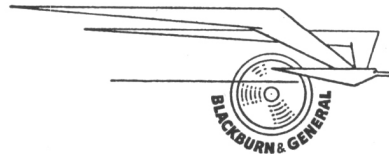


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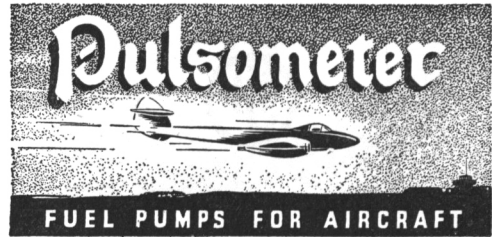
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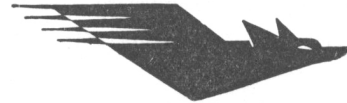


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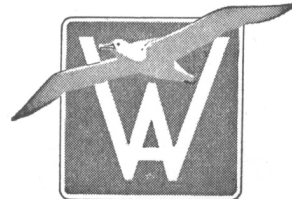
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It is regretted that because of the increasing costs of production it has been found necessary to increase the price of the Journal. From January 1951 (Volume 55, Number 481) the price of a single copy has been increased to 10s. (10s. 3d. including postage), and annual subscriptions to £6 3s. 0d., including postage.

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# SECRETARY'S NEWS LETTER

## FOR APRIL 1951

### ANNUAL GENERAL MEETING, 10th MAY 1951

Notice is hereby given that the Annual General Meeting of the Royal Aeronautical Society, with which is incorporated the Institution of Aeronautical Engineers, will be held on Thursday 10th May 1951 at 6 p.m., in the offices of the Society, 4 Hamilton Place, London, W.1.

#### AGENDA

1. To read the Notice convening the Meeting.
2. To receive and deliberate upon the Report of the Council on the state of the Society and the Balance Sheets and Income and Expenditure Accounts of The Royal Aeronautical Society and Aeronautical Trusts Limited for the year ended 31st December 1950.
3. To receive the names of those elected to Council for the years 1951-54.
4. To announce the names of Fellows elected by the Council in accordance with By-Law 4.
5. To elect the Auditors for the year 1951.
6. Any other business.

By Order of the Council,

J. LAURENCE PRITCHARD,

*Secretary.*

*2nd April 1951.*

**Note.**—In accordance with the By-Laws any member whose subscription has not been paid before the first day of April is not entitled to vote.

Light refreshments will be served after the meeting.

### PRESIDENT 1951-52

Major F. B. Halford, C.B.E., *Fellow*, has been elected President of the Society for 1951-52. The President takes office at the Annual General Meeting.

### GARDEN PARTY, 6th MAY 1951

The Society's Annual Garden Party will be held on Sunday 6th May 1951 at White Waltham Aerodrome, near Maidenhead, by kind permission of the Ministry of Supply and the Fairey Aviation Co. Ltd. An application form is enclosed with this JOURNAL to home members.

As usual attractive flying and printed programmes are being prepared. This is the first flying party of the Festival year and provides an opportunity for members to meet their friends.

**THIRD ANGLO-AMERICAN AERONAUTICAL CONFERENCE**

A leaflet containing particulars of the preliminary arrangements for the Third Anglo-American Aeronautical Conference, which is to be held at Brighton from 3rd-7th September 1951, was enclosed with the March JOURNAL. With the leaflet was an application form for enrolment, which members are asked to complete when making their application.

**CONTENTS OF THE APRIL JOURNAL**

- Clear Air Turbulence Over Europe, G. S. Hislop, Ph.D., B.Sc., A.R.T.C., A.F.R.Ae.S., M.I.Mech.E.
- Measurement of Jet Engine Thrust, Bengt Jakobsson, Dr.Sc.(Eng.), A.F.R.Ae.S.
- 86th Annual Report of the Council.
- Reviews.
- Correspondence.

**The Council are particularly anxious to encourage members of the Society to support their own Journal by contributions to it of articles and papers on any aspect of Aeronautics. For that purpose they have set aside £250 a year in the form of premium awards to the authors (members or non-members) of such papers as some reimbursement for the work which has been done by the author. These premium awards are not fixed but vary from five to twenty guineas normally. It is hoped therefore that those members who have written papers on their special subjects will consider their own Journal in the first place.**

**THE AERONAUTICAL QUARTERLY, VOLUME II, PART IV**

Part IV, Volume II of "The Aeronautical Quarterly" is available from the offices of the Society at 7s. 9d. a copy to members of the Society, post-paid, or 10s. 3d. to non-members, post-paid.

*The Contents of Part IV are:—*

Supersonic Flow Investigations with a "Hydraulic Analogy"	Joseph Black and O. P. Mediratta
Water Channel ... ..	
Contracting Ducts of Finite Length ... ..	L. G. Whitehead, L. Y. Wu and M. H. L. Waters
The Properties of Crossed Flexure Pivots and the Influence of the Point at which the strips cross ... ..	W. H. Wittrick
An Analysis of the Lift on Straight, Yawed and Swept- back Wings ... ..	J. Lockwood Taylor
Index to Volume II.	

**Copies of the rest of Volume II, Parts I, II and III and a few copies of Volume I, Parts I to IV are still available, but members are reminded that a strictly limited edition only of "The Aeronautical Quarterly" is printed and numbers cannot be reprinted in any circumstances. An annual subscription to Volume III therefore is advisable.**

**MEMBERS' NEW APPOINTMENTS**

- W. M. Widgery (*Fellow*)—Director and Chief Engineer, Normalair Limited.
- Commander F. W. N. Bassett (*Associate Fellow*)—Director and Commercial Manager, Normalair Limited.
- P. E. Felgate (*Associate Fellow*)—Chief Development Engineer, Waymouth Gauges and Instruments Ltd.
- H. A. Carless (*Associate Fellow*)—Structures Development Engineer, Chance Vought Aircraft, Dallas, Texas.

Captain J. H. H. Luxton (*Associate Fellow*)—Airport Manager, Walney Island Airport, Barrow-in-Furness.

Colonel H. L. W. Stevens (*Associate Fellow*)—Technical Expert in Baghdad, Iraqi State Railways, which own and run Iraqi Airways.

### NEWS OF BRANCHES

The President visited the Manchester Branch on Wednesday 28th February 1951 when a Film Show was given to the members, and attended the Birmingham Branch Annual Dinner, accompanied by Mrs. Bulman, on Saturday 10th March. The President also attended a meeting of the newly formed Halton Branch on Monday 19th March, when a Brains Trust was arranged.

### ASSOCIATE FELLOWSHIP EXAMINATION

The next Associate Fellowship Examination in the New Syllabus will be held in the offices of the Society on 29th, 30th and 31st May 1951. All candidates who have entered for the Examination will be informed individually of the detailed arrangements.

### ELLIOTT MEMORIAL PRIZE

The Elliott Memorial Prize has been awarded to Aircraft Apprentice T. L. Cox, of the May 1948 Entry at R.A.F., Halton, who has obtained the highest marks in the General Studies Examination. The prize will be presented at the Graduation Prize Giving on the 8th May 1951.

### CONGRÈS INTERNATIONAL DE GIRAVIATION

The attention of members is drawn to the Congrès International de Giraviation organised by the Association Française des Ingénieurs et Techniciens de l'Aéronautique and the Aero Club de France which will be held during the second fortnight in June 1951. Any members who wish to attend this Congress or who would like further particulars, should write to the Secretary-General at 6 Rue Cimarosa, Paris 16.

### LECTURES—SPRING 1951

#### MAIN LECTURES

(At 6 p.m. in the Lecture Hall of the Institution of Civil Engineers, Great George Street, London, S.W.1, unless otherwise stated. Tea will be served at 5.30 p.m.)

**Thursday, 12th April 1951**—Planning and Production Methods as Applied to the Comet, H. Povey, A.F.R.Ae.S.

**Thursday, 26th April 1951**—A DISCUSSION. Air Travel from the Passenger's Point of View.

#### SECTION LECTURE

(At 7 p.m. in the Library of the Royal Aeronautical Society, 4 Hamilton Place, London, W.1, unless otherwise stated.)

**Tuesday, 10th April 1951**—Simulators, W. R. Thomas, B.Sc., A.M.I.E.E.

#### GRADUATES' AND STUDENTS' LECTURE

(At 7.30 p.m. in the Library of the Royal Aeronautical Society, 4 Hamilton Place, W.1, unless otherwise stated. Visitors are welcome to attend.)

**Thursday, 19th April 1951**—Boundary Layer Control, E. D. Poppleton, M.Sc.

## BRANCH LECTURES AND NOTICES

Notices of Branch Lectures and Meetings for inclusion in the Monthly Notices of the Society must be received by the 20th of the preceding month. The Honorary Secretaries of all Branches are asked to inform the Society of their arrangements for meetings so that a complete list of Branch meetings may be given.

### BIRMINGHAM BRANCH

**Friday, 27th April 1951**—Annual General Meeting. At the White Horse Hotel, Birmingham.

### BRISTOL BRANCH

**Tuesday, 17th April 1951**—Some Notes on Overhaul and Maintenance, C. H. Jackson, B.Sc., A.C.G.I., A.F.R.Ae.S., A.M.I.Mech.E.

**Monday, 30th April 1951**—Annual General Meeting and Film Show.  
In the Conference Room, Filton House, The Bristol Aeroplane Co. Ltd.  
at 6 p.m., unless otherwise stated.

### COVENTRY BRANCH

**Wednesday, 18th April 1951**—Annual General Meeting and Films. In the Wine Lodge Hotel, The Burges, Coventry, at 7.30 p.m.

### DERBY BRANCH

**Monday, 7th May 1951**—Long Range Turbo-Jet Transports, A. E. Russell, B.Sc., F.R.Ae.S.  
In the Rolls-Royce Welfare Hall, Nightingale Road, Derby, at 6.15 p.m.

### LEICESTER BRANCH

**Friday, 13th April 1951**—Rockets and Space Travel, J. Humphries, B.Sc., A.M.I.Mech.E., A.F.R.Ae.S.  
In Room 104, College of Technology, The Newarke, Leicester, at 7.15 p.m.

### LUTON BRANCH

**Wednesday, 2nd May 1951**—Plastics in Aircraft, J. Byers.  
**Wednesday, 23rd May 1951**—Film Show and Discussion Evening.  
At the George Hotel, Luton, at 7.30 p.m.

### PRESTON BRANCH

**Wednesday, 25th April 1951**—Annual General Meeting.  
In the Assembly Hall, Technical College, Corporation Street, Preston, at 7.30 p.m.

### SOUTHAMPTON BRANCH

**Wednesday, 11th April 1951**—Instrumentation for Testing Aircraft and Aero-Engines, C. N. Jaques, B.Sc., A.F.R.Ae.S. (Joint meeting with Southern Branches of Institution of Mechanical Engineers and Institution of Electrical Engineers).  
In the Physics Lecture Theatre, University College, at 7 p.m.

### WEYBRIDGE BRANCH

**Wednesday, 18th April 1951**—Junior Prize Lecture, Branch Members.  
**Wednesday, 2nd May 1951**—Annual General Meeting and Smoking Concert.  
At Vickers-Armstrongs Ltd., Weybridge, at 6 p.m.

**PROFESSIONAL ENGINEERS FOR MINISTRY OF SUPPLY**

The Civil Service Commissioners invite applications for permanent appointments of Professional Engineers (Higher Departmental Grades) in the Ministry of Supply. Applications will be accepted at any time before 30th June 1951, but a closing date for the receipt of applications earlier than 30th June 1951 may eventually be announced. Selected candidates will be interviewed as soon as possible after the receipt of their application forms. Candidates are advised to apply as early as possible.

Candidates must be at least 30 years of age on 1st January 1951.

Candidates must (1) be Corporate Members of one of the Institutions of Civil, Mechanical or Electrical Engineers, or Associate Fellows of the Royal Aeronautical Society, or (2) have served an engineering apprenticeship or pupilage including a minimum period of two years in the workshops of a reputable establishment, and either hold a University degree in Engineering, or a Higher National Certificate in mechanical or electrical engineering with the endorsements necessary to secure exemption from the whole of the Associate Membership examination of one of the above named professional Institutions, or have passed any other examinations recognised by one of the above named Institutions as granting exemption from the whole of its Associate Membership examination, or by the Royal Aeronautical Society as exempting from its Associate Fellowship examination.

Candidates will be required to undertake the more responsible duties in a wide variety of professional engineering work. Preference will be given to those candidates with experience in

- (a) The design and construction of large factories and the necessary plant and services,
- (b) The design of radio and radar equipment,
- (c) The design and development of very high precision medium and light mechanical devices,
- (d) The production of aircraft engines or electric cables.
- (e) The installation and maintenance of plant, gas, electrical water and steam services in large factories,
- (f) Production management in a large factory filling ammunition.

In some cases houses will be available at moderate rents for successful candidates. London salary scales:—

	<i>Men</i>	<i>Women</i>
Main Grade	£750 — £1,000	£650 — £850
Senior Grade	£1,050 — £1,270	£900 — £1,100

Further particulars and application forms are obtainable from the Civil Service Commission, Scientific Branch, Trinidad House, Old Burlington Street, London, W.1, quoting No. S87/51. Completed application forms should be returned as soon as possible.

**ELECTIONS**

The following is a list of new members and transfers of membership of the Society:—

*Associate Fellows*

Eric Aubrey (from Graduate), Norman Frederick George Banfield (from Graduate), Brian Stewart Eamer Beattie (from Graduate), John William Davison, Peter Edward Felgate, Stefan Alexander Grott, Keith Leonard Charles Legg (from Student), William Maurice Locke (from Graduate), Ian Robert Lyon (from

SECRETARY'S NEWS LETTER

Graduate), Maitland Robert Roper (from Associate), Theo Vincent Small (from Graduate), Sydney Snell (from Graduate), Harold Geoffrey Spurr, Robert Walter Wilson Tennant (from Graduate), Albert William Watkins.

*Associates*

Richard Frederick John Brock, Basil Benedict Fleming, Lawrence Gray, Gwyn Griffiths, Reginald Hugh Howard, Albert Madoc Lovatt, Frank Henry Roberts, Geoffrey Musgrave Shipway, Sidney Harold Phillip Smith, Ronald John Reynolds Steer, Harold Townley, Ernest Brian Trubshaw, Gordon Arthur Vickers, Harold James Watts.

*Graduates*

Ronald Desmond Anthony (from Student), Alan Edgar Bingham, Victor Rex Bunyard, John Alan Caister (from Student), Trevor Storr Davies (from Student), Paul Kichenside Digby, Ronald Edward Dudley, Robert Harold Ladd, Charles Henry Martin, George Beric Parkin, Harry Nigel Saint (from Student), Arthur Griffith Patrick Vaughan, Geoffrey Wass (from Student).

*Students*

Charles John Adey, Robert Colville Aikman, John Alfred Bones, Alexander Campbell Craighhead, John Ernest Felstead, Thomas Henry Hallstaff, Raymond Alan Harrison, John Charles Michael Jones, John Barry Large, Harold Moore Lofthouse, Lawrence Pickering, David Arthur Sharp.

*Companions*

Yashvant Thakorelal Desai (from Graduate), John Valentine Amyard Haggard, Dennis Job Upton, George Frederick Watson.

**INCOME TAX**

In response to numerous inquiries from members with regard to a rebate on Income Tax for their subscriptions, the following is a copy of a letter received from the Principal Inspector of Taxes.

Ref. H.R.S. 34/C.I. 4420/63.

Dear Sir,

Further to your interview with Mr. Stonely at this office on the 19th July, I am now in a position to inform you that the Board of Inland Revenue will not raise objection to the allowance as an expense for Income Tax purposes of annual subscriptions paid by members who are:—

- (i) Assessable under Schedule D of the Income Tax Acts in respect of professional or trading profits, subject to the decision of the Commissioners who make the assessment that such subscriptions are sufficiently closely related to the business on: or
- (ii) Assessable under Schedule E in those cases only in which continual membership of the Society is an essential condition of the terms of appointment.

Yours faithfully,

(Signed) GEO. WILCOCK,

*Principal Inspector of Taxes.*

**JOURNAL BINDING**

The prices of binding of Journals are as follows:—

1950 Volume (including packing and postage), 16s. 0d.

Previous Volumes (including packing and postage), 18s. 0d.

Journals, with a note of the name and address of the sender, should be sent direct to The Lewes Press, Friars Walk, Lewes, Sussex, and the remittance to the Secretary at the offices of the Society.

Cases only for unbound 1950 Volumes are available, price 6s. 6d. each. Requests for cases, with remittances, should be sent to the Secretary at the offices of the Society.

**CHANGES OF ADDRESS**

To assist in keeping the records of members correct and up to date the Secretary will be glad if all members will notify him as soon as possible of changes of address.

When notifying changes please give the following particulars:—

- Name (in block letters).
- Grade of membership.
- New address (in block letters).
- Old address.

Changes of address must be received *before the 15th of the month* in order to be effective for the Journal for the following month.

**ACKNOWLEDGMENTS**

The Council acknowledge with grateful thanks the return of back numbers of the JOURNAL from The British Aluminium Co. Ltd.

**ADDITIONS TO THE LIBRARY**

The following have been added to the Library (titles of pamphlets are printed in italics. Books marked \* or \*\* may not be taken out on loan):—

- |  |  |
|--|--|
| Banks, F. R.                           | The Aviation Engine. I.Mech.E.(Preprint). 1951.  |
| Barton, F. A.                          | Jack of All Trades. Bale Sons & Curnow. 1938.  |
| Bolster, C. M.                         | The Assisted Take-Off of Aircraft. Norwich University (U.S.). 1950.                        |
| Kopal, Z. ( <i>Director</i> )          | Tables of Supersonic Flow Around Cones of Large Yaw. Massachusetts Inst. Technology. 1949. |
| Lipson, C., G. C. Noll and L. S. Clock | Stress and Strength of Manufactured Parts. McGraw Hill. 1950.                              |
| Schonland, B. F. J.                    | The Flight of Thunderbolts. O.U.P. 1950  |
| Shawcross, C. N., K. M. Beaumont, etc. | Shawcross and Beaumont on Air Law. Second Edition. Butterworth. 1951.                      |

**A.R.C. Reports and Memoranda**

2457—*Tests on thick cuff sections in the compressed air tunnel. D. H. Williams and A. F. Brown.*

**College of Aeronautics, Cranfield. Reports**

- 12—*Addendum.*
- 41—*Corrigendum.*
- 42—*The equations of motion and energy and the velocity profile of a turbulent boundary layer in a compressible fluid. A. D. Young.*

**Aeronautical Research Laboratories, Australia. Reports**

- A.73—*Skin friction in a retarded turbulent boundary layer near separation. B. G. Newman.*
- SM.160—*An experimental determination of the fatigue strength of CA-12 "Boomerang" wings. W. W. Johnstone, C. A. Patching and A. O. Payne.*
- SM.162—*The approximate deflection of thin flat triangular plates subjected to uniform normal load. Part II. J. Guest and F. S. Shaw.*

**Ministère de l'Air. France. Publications scientifiques et techniques**

246—*Recherches sur la genèse de la turbulence dans les conduites en charge. R. Comolet.*

**Max-Planck-Institut für Strömungsforschung. Göttingen. Mitteilungen**

3—*Der Einfluss der wandnahen Strömung auf den turbulenten Wärmeübergang. H. Reichardt.*

**National Advisory Committee for Aeronautics, U.S.A.**

**Reports**

- 951—*Use of source distributions for evaluating theoretical aerodynamics of thin finite wings at supersonic speeds.* J. C. Eppard.
- 953—*Attainable circulation about airfoils in cascade.* A. W. Goldstein and A. Mager.
- 956—*Linearized compressible-flow theory for sonic flight speeds.* M. A. Heaslet, H. Lomax and J. R. Spreiter.
- 957—*The calculation of downwash behind supersonic wings with an application to triangular plan forms.* H. Lomax, L. Sluder and M. A. Heaslet.
- 961—*The application of Green's theorem to the solution of boundary-value problems in linearised supersonic wing theory.* M. A. Heaslet and H. Lomax.
- 962—*The aerodynamic forces on slender plane- and cruciform-wing and body combinations.* J. R. Spreiter.

**\*Technical Memoranda**

- 1246—*Hydrodynamic properties of planing surfaces and flying boats.* N. A. Sokolov.
- 1261—*On the theory of the propagation of detonation in gaseous systems.* Y. B. Zeldovich.

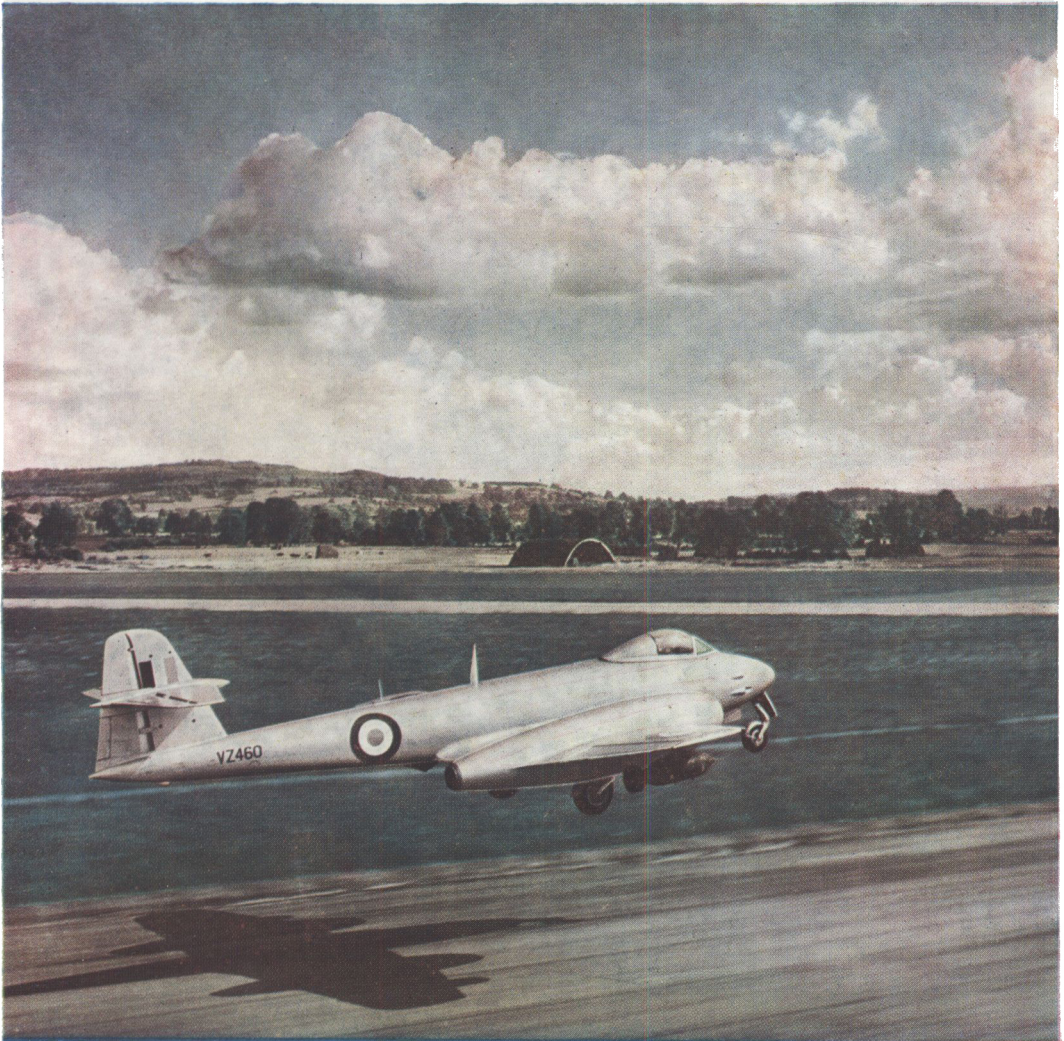
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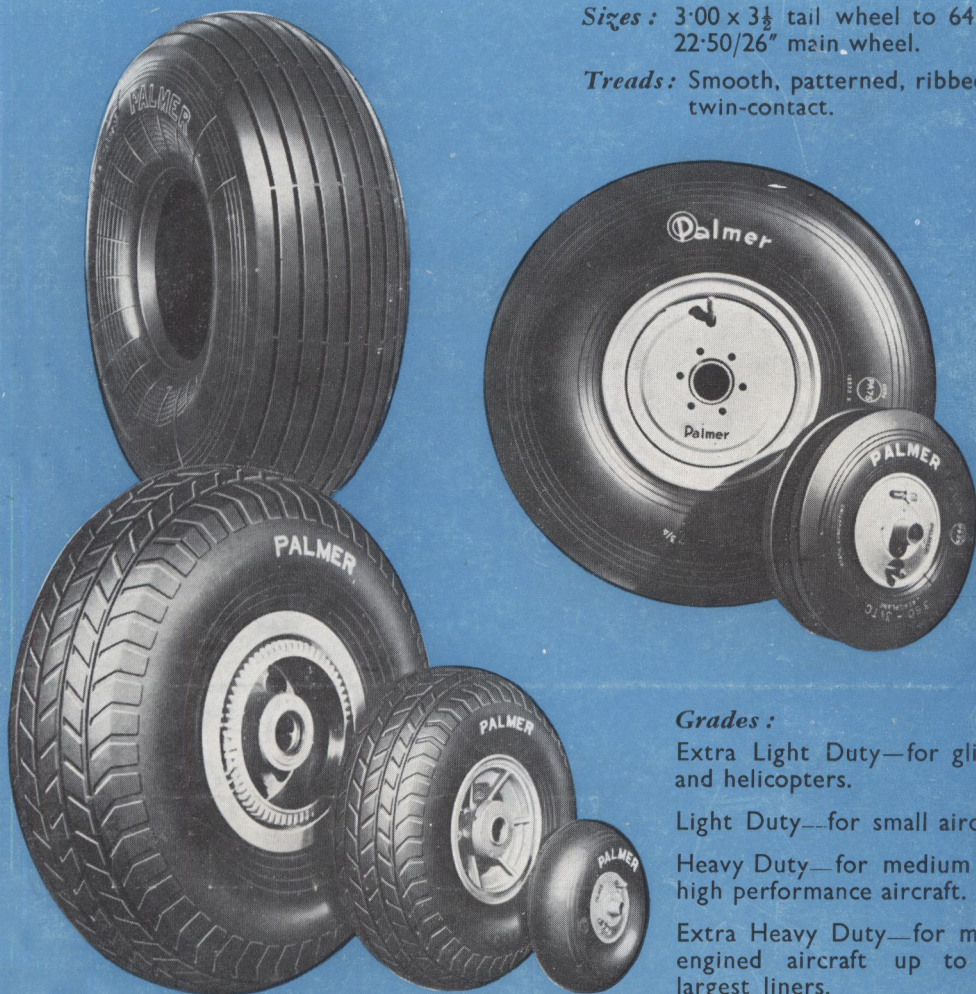
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