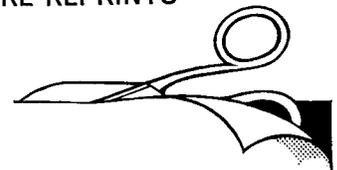


SUPPLEMENTARY PAPERS

The Non-members issue of this Journal contains the following Supplementary papers:

	<i>Page</i>	<i>Reprint price</i>
Operational Research Aspects of Airline Helicopters —S. G. Lennox	237–247	6s. 0d.
Helicopters on Scheduled Services —J. A. Cameron	248–253	3s. 0d.

SUMMARIES OF THESE PAPERS ARE GIVEN OVERLEAF. IF YOU REQUIRE REPRINTS OF THE PAPERS PLEASE USE THE ORDER FORM BELOW.



SUPPLEMENTARY PAPERS

ORDER FORM

March 1969

**ACCOUNTS DEPT.,
Royal Aeronautical Society
4 Hamilton Place, London W1V 0BQ**

Please send me the following Supplementary Paper(s)

Title

.....

.....

.....

For which I enclose s. d. including 6d. postage (1s. 9d. if 2nd class air mail required)

Name (*Block letters please*) Grade.....

Address

N.B. Members are reminded that they may have the Journal containing the Supplementary Papers instead of the Members edition at the special rate of £2 10s. 0d. per annum (Graduates and Students £1 10s. 0d.).

Operational Research Aspects of Airline Helicopters

Operational Research is defined as the application of systematic analysis to the study of management problems. The role of Operational Research is discussed in relation to other scientific disciplines in the aeronautics field, and to the increasing use of computerised management information systems.

Some practical airline applications are reviewed including stock control, reliability analysis and the simulation of complex airline operations. These case studies are used to demonstrate a few of the more basic Operational Research techniques.

Some applications to Airline Helicopters are considered relating operating costs and journey times to competitive modes of transport. A systems analysis approach is presented for examining the market potential of helicopters of different sizes, with alternative performance standards, in providing inter airport and airport to city centre transport links.

Helicopters on Scheduled Services

This paper covers every important aspect of the introduction of the first twin-engine helicopter to scheduled passenger operation in Europe—that of Penzance to the Isles of Scilly.

Details are given of the progress made since their introduction, operational aspects are discussed, and procedures and navigational aids adopted to improve the regularity of the service are detailed. Engineering and other problems with design recommendations are made for future generations of passenger rotorcraft.

Details of the Agency Agreements concluded with the MoA and comments on the financial benefits by using helicopters on this route are made. A refreshing reference to lack of noise complaints from the citizens of Penzance is made and reactions from the travelling public to this form of transport are assessed.

PLEASE USE THE ORDER FORM OVERLEAF

Specialists in Specials

Sealing Rings

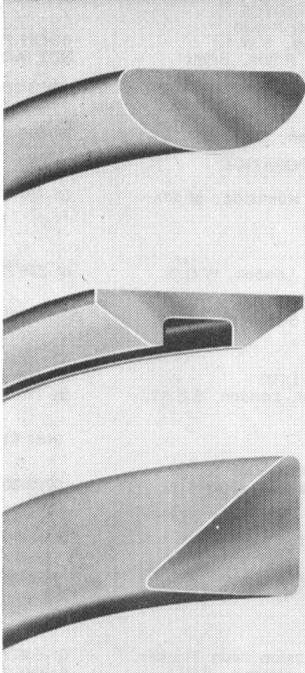
Call on Cross the specialists in design and manufacture of sealing rings for normal and high temperature application from $\frac{1}{8}$ " to 5' or even larger.

Moving or static.

Materials include Alloy Steels, Nimonic Alloys, Stellite, Aluminium and Plastics.

Outspringers and inspringers.

For further information and advice contact:



A.I.D. and A.R.B. approved

CROSS

CROSS Mfg Co (1938) Ltd
Combe Down Bath BA2 5RR

Phone: COMBE DOWN, 2355/8
Grams: 'CIRCLE' BATH.

THE CITY UNIVERSITY RESEARCH STUDENTSHIPS

Applications are invited from Honours Graduates (or candidates with equivalent qualifications) for Research Studentships in the

DEPARTMENT OF AERONAUTICS

The successful candidates will be expected to register for the M.Phil or Ph.D degrees of the University, and to undertake research work in

Aerodynamics
Aerospace Structures, or
Air Transport Engineering.

They will receive an award based on Science Research Council Scales, but they may be able to supplement this by undertaking demonstrating duties.

Research Students are eligible for residence in Northampton Hall.

Further information may be obtained from Professor G. A. Tokaty, Head of the Department of Aeronautics, 19/A/ASJ, The City University, St John Street, EC1.

UNIVERSITY OF LEEDS SCHOOL OF MATHEMATICS

Applications are invited for the post of Lecturer or Assistant Lecturer at a salary on the scale of £1,240-£2,735 (efficiency bar £2,275). Preference will be given to candidates having a research interest in the Mathematics of Control Theory or Helicopter Theory. Applicants with qualifications in other branches of Applied Mathematics will also be considered. The appointment will be made either in the Department of Mathematics for Applied Science or the Department of Applied Mathematics, and the successful candidate may be required to lecture in both Departments. Reference No. 21/9.

Applications (three copies) stating age, qualifications and experience and naming three referees should reach The Registrar and Secretary, The University, Leeds LS2 9JT not later than 31st March 1969. Please quote reference No.

CARPETS

for aircraft, passenger reception, airline offices, flying clubs, etc.

All leading makes of Branded Carpets

WILTONS • AXMINSTERS • TUFTED • ORIENTALS
at Highly Competitive contract prices

Expert fitting service and free delivery throughout UK.
Over £200,000 stocks in our London showrooms

Private individuals in the aircraft industry may purchase from us at up to 30% DISCOUNT

Dodson Bull CARPET CO LTD 

LONDON: 5 & 6 Old Bailey, E.C.4. Tel: 01-248 7971 (10 lines)

NEWCASTLE-UPON-TYNE: 83-89 Blackett St. Tel: 20321/21428

MANCHESTER: 55-61 Lever Street. Tel: 061-236 3687/8/9

**SECTION LEADER/STRESSMAN
SENIOR STRESSMAN
SECTION LEADER/LOFTSMAN
SENIOR DRAUGHTSMAN**

Only personnel with previous aircraft experience are required and salaries offered will be commensurate with qualifications and experience.

Assistance towards housing is available to selected married applicants who should apply to the

Personnel Officer

MARSHALL OF CAMBRIDGE (ENGINEERING) LTD
Airport Works, Newmarket Road, Cambridge

THE COLLEGE OF AERONAUTICS

Research into the Engineering Aspects of Advanced Aircraft Controls

Applications are invited for appointment as RESEARCH FELLOW in the DEPARTMENT of AIRCRAFT DESIGN to carry out an appraisal of advanced aircraft controls, including circulation devices. The work is specifically intended to assess their suitability by applying them to relevant types of existing aircraft, and it will include the necessary engineering design. Candidates should be graduates in aeronautical engineering and preferably have some practical experience of aircraft design.

Salary according to qualifications and experience in range £1,240 to £1,470 Appointment initially for period of one year.

Application form from Assistant Registrar, The College of Aeronautics, Cranfield, Bedford.

Advertisements for inclusion in this section are charged at ordinary displayed advertisement rates. (Page £90, ½ page £45, ¼ page £22 10s, ⅛ page £12. Odd sizes are charged at £6 psci (min 3 in) part of inch counting as full inch.) Where size is not specified on order, the advertisement will be set to nearest appropriate standard size. Where type sizes and styles are not specified on copy, copy will be laid out and set in accordance with the usual House setting styles.

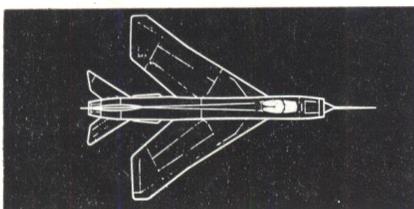
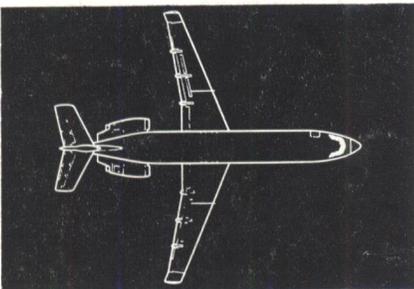
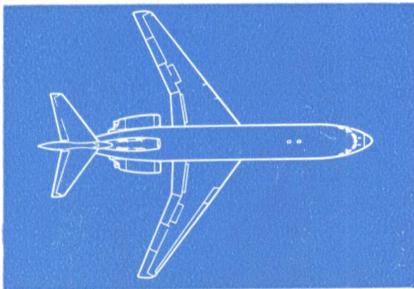
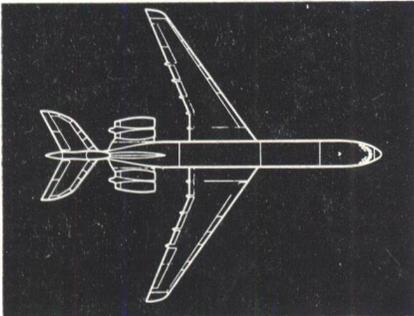
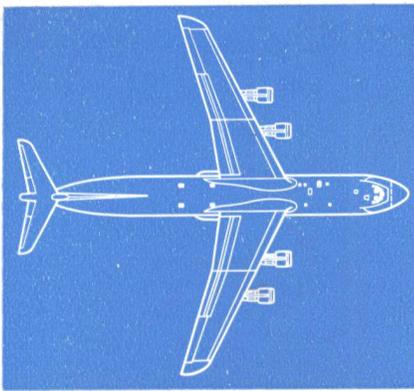
Orders and copy should be sent to the **Advertisement Offices**, The Aeronautical Journal of the Royal Aeronautical Society, **184 Fleet Street, London EC4, by the 18th of the preceding month.**

Remittances—Cheques and postal orders should be made payable to The Aeronautical Journal of the Royal Aeronautical Society, **184 Fleet Street, London EC4.**

The Society reserves the right to decline any copy or advertisement at its discretion and accepts no responsibility for delay in publication or for clerical or printer's errors, although every care is taken to avoid mistakes.

DIRECTORY OF ADVERTISERS

AIRCRAFT MATERIALS LTD. Midland Road, London, N.W.1.	01-387 6151
BEAGLE AIRCRAFT LTD. Shoreham Airport, Shoreham-by-Sea, Sussex.	Shoreham 2301 0664-74 321
B.P. AVIATION SERVICE, SHELL-MEX AND B.P. LTD. Shell-Mex House, Strand, London, W.C.2.	01-836 1234
BRISTOL ENGINE DIVISION, ROLLS-ROYCE London Office: Mercury House, 195 Knightsbridge, S.W.1. Bristol: P.O. Box 3, Filton, Bristol. Coventry: P.O. Box 17, Coventry, Warwickshire.	01-589 7090 0272 693871 0203 28666
BRITISH AIRCRAFT CORPORATION 100 Pall Mall, London, S.W.1.	01-930 1020
BRITISH OVERSEAS AIRWAYS CORPORATION Head Office: London Airport, Hounslow, Middx	01-759 5511
CHATTO & WINDUS 42 William IV Street, London, W.C.2.	01-836 7669
CROSS MANUFACTURING CO. (1938) LTD. Combe Down, Bath, Somerset.	02213 2355/8
THE DECCA NAVIGATOR COMPANY LTD. 9 Albert Embankment, London, S.E.11.	01-735 8111
DOWTY GROUP LTD. Cheltenham, Glos.	0452 21511
THE DUNLOP CO. LTD. AVIATION DIVISION Holbrook Lane, Foleshill, Coventry.	0203 88733
ELECTRO-HYDRAULICS LTD. Liverpool Road, Warrington.	0925 35922
HAWKER SIDDELEY AVIATION LTD. Richmond Road, Kingston upon Thames, 32 Duke Street, St. James's, S.W.1.	01-546 7741 01-930 2064
HIGH DUTY ALLOYS LTD. Slough, Bucks.	75 23901
HOBSON, H. M., LTD. Hobson Works, Fordhouses, Wolverhampton.	09078 2381
IRVING AIR CHUTE OF GREAT BRITAIN LTD. Icknield Way, Letchworth, Herts.	04626 6282
PERGAMON PRESS LTD. Headington Hill Hall, Oxford.	0092 64881
PITMAN, SIR ISAAC & SONS LTD. 39 Parker Street, London, W.C.2.	01-405 9791
ROBERT RILEY LTD. Milkstone Spring Works, Rochdale.	0706 44551
ROLLS-ROYCE LTD. P.O. Box 31, Derby DE2 8BJ. 14-15 Conduit Street, London, W.1.	0332 42424 01-629 6201
ROSEMOUNT ENGINEERING CO. LTD. Durban Road, Bognor Regis, Sussex.	Bognor Regis 4101-4
ROTAX LTD. Wilkesden Junction, London, N.W.11.	01-965 7777
SAUNDERS VALVE COMPANY LTD. Aircraft Division, Widemarsh Common, Hereford.	0432 3125-8
SHELL AVIATION SERVICES, SHELL-MEX AND B.P. LTD. Shell-Mex House, Strand, London, W.C.2.	01-836 1234
SMITHS INDUSTRIES LTD. (AVIATION DIVISION) Kelvin House, Wembley Park Drive, Wembley, Middx.	01-902 8888
UNION CARBIDE U.K. LTD. Flame Lining Department, Millers Road, Warwick.	0926 41760
UNIVERSITY LIFE ASSURANCE SOCIETY 4 Coleman Street, London, E.C.2.	01 606 6225
WESTLAND HELICOPTERS LTD. Yeovil, Somerset.	0935 5222



HOBSON

**Designers and
manufacturers of
HIGH PRECISION
AIRCRAFT EQUIPMENT
for the**

LOCKHEED GALAXY

B.A.C. VC10

H.S. TRIDENT

B.A.C. ONE-ELEVEN

H.S. 125

B.A.C. LIGHTNING

and many others

The basic requirement demanded by the function of this equipment is absolute reliability, and this is achieved - as with all HOBSON products - by sound design and the highest standards of precision engineering.



H. M. HOBSON LTD

FORDHOUSES ·

WOLVERHAMPTON