

The Aeronautical Journal RAeS May 1971

HOTZ, R. B.

**Is there a future for Europe in Aerospace?**

*A review of the aerospace industry in Europe and its future prospects. The main rivals to the European aerospace industry are enumerated and their products analysed.*

The Aeronautical Journal RAeS May 1971

ZEIGLER, H.

**The Major Development Trends in Air Transport and European Co-operation**

*In the coming years, air transport will be used more and more both for passengers and freight.*

*The important trends in this development will be increased speed and capacity, development of STOL aircraft and of a third level transport serving small urban communities.*

*Considering the size of the technological, industrial and financial problems, it is imperative to unite the efforts of manufacturers. European co-operation is an absolute necessity for the 'seventies.*

The Aeronautical Journal RAeS May 1971

GARNIER, M.

**The Progress and Economics of the Aero Engine**

*After recalling some of the outstanding features of technical progress in jet engines over the past 25 years, and giving a brief outline of what the future holds, the author suggests possible ways of limiting the cost of increasingly complex equipment.*

The Aeronautical Journal RAeS May 1971

LIVOCK, GROUP CAPTAIN G. E.

**The Far East Flight of the Southampton Flying Boats 1927-1928**

*A personal account of a flight by four Supermarine Southampton flying boats from England to Australia and the Far East forty-three years ago. The author was second in command and led the formation. The Flight left Felixstowe in October 1927 and flew to India, Burma and Singapore. The second stage took them to Australia, round the continent and back to Singapore. The Flight then flew round the China Sea to Hong Kong and finished at Singapore fourteen months after leaving England.*

*The objects of the Flight were to test the ability of flying boats and their crews to operate away from fixed bases, to open up the air routes and show the flag.*



**PROCEEDINGS OF THE XIXth  
ASTRONAUTICAL CONGRESS**  
Volumes 1-4

*Edited by M. Lunc*

Contains the papers presented at the 19th Congress of the International Astronautical Federation held in New York, October 1968.

**Volume 1—Spacecraft Systems**

344 pages £12.50 hard cover

**Volume 2—Astrodynamics and Astrionics**

368 pages £12.50 hard cover

**Volume 3—Propulsion. Re-Entry Physics**

312 pages £11.00 hard cover

**Volume 4—Bioastronautics**

252 pages £8.00 hard cover

**MECHANICS OF  
COMPOSITE MATERIALS**

*Proceedings of the Fifth Symposium on Naval Structural Mechanics*

*Edited by F. W. Wendt, H. Liebowitz and N. Perrone*

The papers cover military requirements, applications, environmental effects, micro-mechanics, structural mechanics and failure mechanics or composite materials. The last three categories are treated rigorously and provide a foundation for future design application studies.

904 pages £15.00 hard cover

**PROGRESS IN  
AEROSPACE SCIENCES**

Volume 11

*Edited by D. Küchemann et al*

**Contents:** Dynamic aerolastic calculations of aircraft based on ground-vibration test data—*H. Förschung*; Present challenges in prediction of the efforts of Atmospheric turbulence on Aeronautical systems—*J. A. Dutton*; Problems du col d'un avion on turbulence—*G. Coupry*; Atmospheric turbulence at the cruise altitudes of supersonic transport aircraft—*J. Burnham*; Interactions between shock waves and turbulent boundary layers—*J. E. Green*; Name Index; Subject Index; Contents of Previous Volumes.  
368 pages £10.00 hard cover

**THE STRESS ANALYSIS OF  
PRESSURE VESSELS AND  
PRESSURE VESSEL  
COMPONENTS**

*Edited by S. S. Gill*

Presents a survey of the major contributions to the subject which have appeared in different publications during the last 25 years, reviewing and correlating them in a logical manner to give a broad coverage of each topic.

**Contents:** Introduction; Basic Principles, Pressure Vessel Branches; Pressure Vessel Ends; Local Loading and Local Attachments; Flanges; Smooth and mitted pipe bends; Computer Analysis of Pressure Vessels; Externally Pressurised Vessels; Determination of Creep Effects in Structures; Analysis of Ligament Stresses in Pressure Vessels.  
608 pages £10.00 hard cover

A177

# 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.**

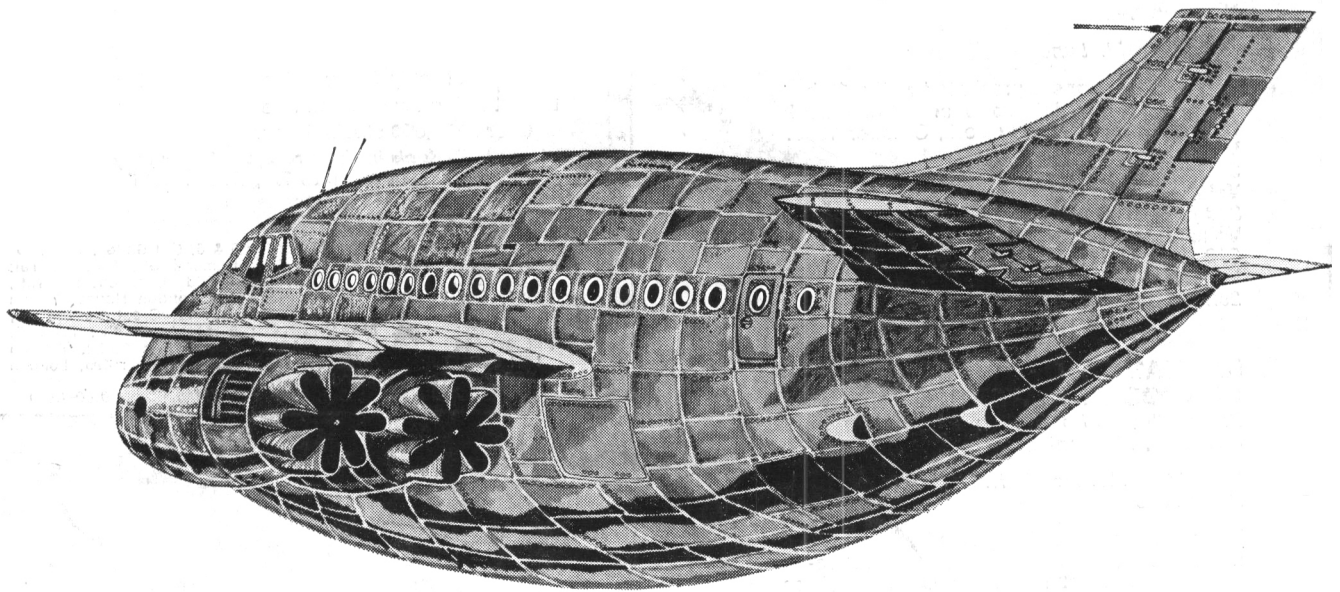
Please write to Dept. R.A.S. LONDON: 5 & 6, Old Bailey, EC4 7JD. Tel: 01-248 7971. BIRMINGHAM: 164, Edmund St., B3 2HB. Tel: (021) 236 5862. BOURNEMOUTH: 268, Old Christchurch Rd., BH1 1PH. Tel: 21248. BRISTOL: 2-3, Royal London House, Queen Charlotte St., BS1 4EX. Tel: 28857. LEEDS: 12, Great George St., LS1 3DW. Tel: 41451. MANCHESTER: 55-61, Lever St., M1 1DE. Tel: (061) 236 3687/8/9. NEWCASTLE-upon-TYNE: 90-92, Pilgrim St., NE1 6SG. Tel: 21428/20321. WESTCLIFF-on-SEA: 495, London Rd., SS0 9LG. Tel: Southend 46569.  
Open: 9.00-5.30 Mon-Fri. Sat. 9.00-12.00 (Manchester 9.00-4.00)

Advertisements for inclusion in this section are charged at ordinary displayed advertisement rates. (Page £110, ½ page £70, ¼ page £50. Odd sizes are charged at £8 psci (min 3in) 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.



# Stranger than friction.

There's nothing very unusual about this airliner.

It weighs 85 tons. Or 140 tons loaded with passengers, luggage, cargo and fuel.

It flies at around 550 mph for up to 3,500 miles at a stretch.

And there are about 17,000 moving parts. Many of which work in extremes of temperature, with a film of oil measured in tenths of a thousandth of an inch thick keeping metal from metal and 150 people or more from disaster.

In the long war against friction, Shell and BP are not

content merely to achieve specification during manufacture.

We also take incredible care to deliver Aviation products clean and free from contaminants.

We've always said that Shell-Mex and B.P. don't sell lubricants – we sell lubrication.

If that sounds strange, think about it.

It means that we are pretty confident that a smear of oil less than a tenth the thickness of this paper will keep a plane in the air.

So long as the oil is ours.



SHELL-MEX AND B.P. LTD.

Operators in the U.K. of the Shell and the BP Aviation Services.