Library Additions

July/August 2001

BOOKS

General


The latest edition of this financial guide to the purchase cost of individual aircraft and engine types, arranged alphabetically by manufacturer.


Aerodynamics


James Lighthill and his contributions to fluid mechanics, aerodynamics of high-speed trains, Robert Legendre and Henri Werle: Toward the elucidation of three-dimensional separation and drag due to lift: concepts for prediction and reduction (including wing tip devices and winglets) are among the subjects reviewed in the latest volume in this series reviewing developments in fluid dynamics research and applications.


Air Transport


Airline Flight Simulators. JAR-STD 1A — Amendment 2. Joint Aviation Authorities, PO Box 3000, 2130 KA Hoofddorp, The Netherlands. 2001. Distributed by Rapidoc, Willoughby Road, Bracknell, Berkshire RG12 8DW, UK. Irregular pagination.


Avionics and Systems


Flight Simulation

Aeroplane Flight Simulators. JAR-STD 1A — Amendment 2. Joint Aviation Authorities, PO Box 3000, 2130 KA Hoofddorp, The Netherlands. 2001. Distributed by Rapidoc, Willoughby Road, Bracknell, Berkshire RG12 8DW, UK. Irregular pagination.

Guided Flight

Theater Ballistic Missile Defence. Progress in Astronautics and Aeronautics series Vol 192. Edited by B-Z.

**Historical**


**Mathematics and Dynamics**


Celestial mechanics and the derivation of Newton’s laws of gravitation are used as the context of this book which describes some basic constructs of modern sympletic geometry.


The latest edition of this textbook describes in a step-by-step approach the essential tools of engineering mathematics (including differentiation, integration, matrices, vectors and probability). The text is supported by numerous worked examples.

**Propulsion**


A detailed overview of scramjet research and development in the USA, Australia, France, Germany, Japan and Russia precedes an analysis of specific components of scramjet propulsion (including inlets, combustors and liquid hydrocarbon fuels), a discussion of the potential of detonation engines and a review of integration methodology of the overall scramjet engine system.


**Rotorcraft**


Small Rotorcraft. JAR-27 — Amendment 2. Joint Aviation Authorities, PO Box 3000, 2130 KA Hoofddorp, The Netherlands. 2001. Distributed by Rapido, Willoughby Road, Bracknell, Berkshire RG12 8DW. Irregular pagination.

Large Rotorcraft. JAR-29 — Amendment 2. Joint Aviation Authorities, PO Box 3000, 2130 KA Hoofddorp, The Netherlands. 2001. Distributed by Rapido, Willoughby Road, Bracknell, Berkshire RG12 8DW, UK. Irregular pagination.

**Service Aviation**


Incorporating the recollections of many
who were involved, this is a detailed account of the contribution made by over 100 volunteer Polish pilots to the RAF’s operations during the Battle of Britain.


Biplanes and Bombsights: British Bombing in World War I. G.K. Williams. Air University Press, Maxwell Air Force Base, AL 36122-6615, USA, 1999. 312pp. A detailed revisionist analysis of the British long-range bombing campaign against Germany during WWI when, in the author’s conclusion, “Natural limitations, technical shortfalls and aircrews lacking proficiency acted in concert with German defences to produce far less result than those claimed.”

CD-ROMs

Imperial Airways (Royal Aeronautical Society Archive series Vol 3) Archive Britain, Suite 407, Victory House, Somers Road North, Portsmouth PO1 1PJ, UK. 2001. £11.44 (inclusive of postage/packing). ISBN 1-903129-30-3. This CD-ROM visually traces the development of Imperial Airways, its air routes and aircraft — designed by Handley Page, Shorts, Armstrong Whitworth, de Havilland and other leading manufacturers — via numerous contemporary photographs (digitally imaged from original glass lantern slides), cutaway diagrams, route maps, timetables, brochures and philatelic covers carried on the first air mail flights — a selection of the original material on the airline held in the Society’s extensive archive.


SYMPOSIA


REPORTS

Aerodynamics


The concept is to use magnetic levitation and linear motor technologies to propel a model through temperature controlled and presurised quiescent nitrogen.

Aeroelasticity, flutter and vibrations


Aerospace engineering


Aerospace medicine and life sciences


Astronomy and geodesy


‘Adopt’ a Library Book or Journal

Since its formation in 1866, the Royal Aeronautical Society has been acquiring aeronautical books, journals and other material which are now housed in its extensive library.

Owing to a combination of age and use, a number of the older volumes in the library are in a worn condition and require rebinding.

These books and journals date primarily from pre-1945 and form a major collection of the world’s aeronautical heritage which should be preserved for current and future generations of researchers.

The average cost of rebinding a worn volume is about £30, depending on its size and condition. Anyone who would like to contribute to rebinding costs will have their donation recorded on the bookplate inside the particular rebound volume. If you would like to ‘adopt’ a book or journal (possibly in memory of someone else) please contact Brian Riddle, RAeS Library, 4 Hamilton Place, London W1J 7BQ, UK. Tel: +44 (0)20 7870 4300. Fax: +44 (0)20 7870 4359. e-mail: library@raes.org.uk

Structures and Materials

Library Additions is designed to keep members of the Royal Aeronautical Society informed of the latest acquisitions of the library at its headquarters: 4 Hamilton Place, London. The contents include those books, symposia, pamphlets, papers, videos, reports and UK patent applications added to the library in the two months prior to publication. Library Additions is published bi-monthly in The Aerospace Professional.

Access to the library is free to individual members, members of Engineering Council institutions as well as employees of member companies of the Royal Aeronautical Society’s Associated Company Scheme, while others pay a small daily access fee.

The Library’s extensive catalogue of books, proceedings, technical reports since 1980, photographs and slides is now available to members via the Society’s website, http://www.aerosociety.com

For further information about the library or Library Additions please contact: Brian Riddle, RAeS Library, 4 Hamilton Place, London W1J 7BQ, UK. Tel: +44 (0)20 7670 4362. Fax: +44 (0)20 7670 4359. e-mail: library@raes.org.uk.

Library’s photographic collections

The Royal Aeronautical Society’s Library holds a very extensive photographic/glass lantern slide/lithographic collection of aviation images (over 100,000), from the early days of ballooning through to the modern technology aircraft, missiles and rockets of today, including a number of portrait photographs of aviation personalities. Prints from the collection can be supplied to members and non-members on a fee basis for reproduction in books, journals, CD-ROMs, internet sites, lecture slides or for use as presentation prints.

All enquiries regarding the Library should be addressed to: Brian Riddle, Librarian, Royal Aeronautical Society, 4 Hamilton Place, London W1J 7BQ, UK. Tel: +44 (0)20 7670 4362. Fax: +44 (0)20 7670 4359.
e-mail: brian.riddle@raes.org.uk.

Left: Boeing 247D NR-257Y and crew aboard the SS Washington on arrival at Plymouth for the start of the 1934 MacRobertson London–Melbourne air race eventually to be won by the de Havilland DH88 G-ACSS Grosvenor House.

Library Additions

UK PATENT APPLICATIONS


Safety


Strength analysis


Testing facilities and techniques


The OPM was an in-space laboratory to study the effect of that environment on thermal control, optical and other materials; it was flown on Mir and recovered.


Library Additions


History

Propulsion

Propulsion

Strength analysis


By splitting the damaged region into domains, each containing a single defect, finite element analysis is more readily applied.


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