



THE AERONAUTICAL QUARTERLY

A JOURNAL DEVOTED TO AERONAUTICS AND THE ALLIED SCIENCES

Volume XXIII

February 1972

Part 1

CONTENTS

- | | |
|--|---|
| Pressure Distributions and Forces on
Rectangular and D-shaped Cylinders | <i>B.R. Bostock and
W.A. Mair</i> |
| Waves near a Sonic Line in Non-homentropic
Flow | <i>B.L. Hunt</i> |
| A Method of Reducing the Base Drag of
Wings with Blunt Trailing Edges | <i>M. Tanner</i> |
| Numerical Results for the Initial Buckling
of some Stiffened Panels in Compression | <i>F.W. Williams and
W.H. Wittrick</i> |
| Some Stability Problems of "Ground Effect
Wing" Vehicles in Forward Motion | <i>P.E. Kumar</i> |
| Aerodynamic Throttling of Two-dimensional
Nozzle Flows | <i>R.H. Nunn and
H. Brandt</i> |
| Lower Bounds for the Pressure Jumps of the
Shock Waves of a Supersonic Transport of
Given Length | <i>L.B. Jones</i> |
| Optimum Thickness Variation in a Curved
Strip under Pure Blending | <i>D.R. Blackeby and
E.H. Mansfield</i> |

ROYAL AERONAUTICAL SOCIETY
4 HAMILTON PLACE, W1V 0BQ
LONDON

THE AERONAUTICAL QUARTERLY

Editorial Board

Dr A M Ballantyne, OBE, TD, BSc, PhD, FRAeS, HonFCASI, FAIAA
(*Chairman*)
Sir Robert Cockburn, KBE, CB, PhD, MSc, HonFRAeS
Sir Arnold Hall, MA, FRS, HonFRAeS, HonFAIAA
Professor D W Holder, MA, FRS, FRAeS
Lord Kings Norton, DSc, DIC, PhD, HonFRAeS, FAIAA
Professor W A Mair, CBE, MA, FRAeS
Sir Morien Morgan, CB, MA, FRAeS
Sir Alfred Pugsley, OBE, DSc, FRS, HonFRAeS
Professor S C Redshaw, DSc, PhD, FRAeS, FICE, FISTructE
Sir Owen Saunders, FRS, FRAeS

Editor – Miss E C Pike, MA, AFRAeS

Editorial Referees

Aerodynamics and Fluid Motion

Dr A W Babister
Prof G K Batchelor
Prof K N C Bray
Mr E G Broadbent
Prof R N Cox
Prof S N Curle
Mr S B Gates
Dr J H Gerrard
Mr N Gregory
Dr R J Gribben
Prof L Howarth
Prof D Kuchemann
Prof G M Lilley
Dr R C Lock
Mr E C Maskell
Prof T R F Nonweiler
Prof P R Owen
Mr H H Pearcey
Prof J H Preston
Dr E W E Rogers
Dr D A Spence
Dr L C Squire
Prof A V Stephens
Prof K Stewartson
Prof J T Stuart
Mr H H B M Thomas
Dr B G J Thompson
Dr C K Thornhill
Prof A D Young

Aeroelasticity, Vibration and Noise

Prof R E D Bishop
Prof A R Collar
Mr F B Greatrex
Mr H P Y Hitch
Prof D J Johns
Mr N C Lambourne
Dr R D Milne
Prof A W Morley
Prof E J Richards
Mr C Scruton
Mr C H E Warren

Dr D S Whitehead
Mr D L Woodcock

Aircraft Design

Mr R M Clarkson
Dr H H Gardner
Mr G H Lee
Mr R L Lickley
Sir Archibald Russell
Dr R S Stafford

Air Transport

Mr A C Campbell Orde
Sir Peter Masefield
Mr B S Shenstone
Mr W Tye

Astronautics and Guided Flight

Mr J E Allen
Mr A D Baxter
Mr E G C Burt
Mr A V Cleaver
Mr D J Farrar
Mr G C I Gardiner
Mr W H Stephens

Aviation and Space Medicine

Dr K G Bergin
Dr A Buchanan Barbour
Dr W E Hick

Control and Guidance

Mr J F Atherton
Mr B G Gates
Dr F E Jones
Mr W Makinson
Dr R L Smith Rose
Dr A M Uttley

Instruments and Equipment

Dr G E Bairsto
Mr A E Bingham
Mr W J Charnley

Mr C D Holland
Dr C S Hudson
Mr C N Jaques
Mr H Templeton

Materials and Metallurgy

Prof L Aitchison
Dr N P Allen
Dr W M Doyle
Dr G Forrest
Sir Nevill Mott
Dr B P Mullins
Mr L Rotherham
Dr H Sutton
Dr C Sykes

Mathematics and Numerical Analysis

Dr E T Goodwin
Dr S H Hollingdale
Prof G Temple

Meteorology and Space Environment

Mr P J Meade
Prof R S Scorer
Prof P A Sheppard

Performance and Flight Testing

Mr H Davies
Mr R R Duddy
Mr J Hanson
Mr P A Hufton
Mr D R Newman
Mr J N Quick

Propulsion

Mr E L Bass
Mr S L Bragg
Mr H G Conway
Dr J W Drinkwater
Sir A H Roy Fedden
Prof W E Garner
Dr S G Hooker

Prof J H Horlock
Mr A R Howell
Mr W H Lindsey
Dr E S Moulton
Mr F Nixon
Mr F M Owner
Mr H Pearson
Prof A G Smith
Dr B S Stratford

Rotorcraft and Air Cushion Vehicles

Prof I C Cheeseman
Mr R Hafner
Dr G S Hislop
Mr R Stanton Jones

Structures and Solid Body Mechanics

Prof D N de G Allen
Dr I M Allison
Prof J H Argyris
Mr R J Atkinson
Dr A J Barrett
Prof W Carnegie
Dr A H Chilver
Mr H L Cox
Prof W S Hemp
Dr R Hill
Prof H G Hopkins
Mr H B Howard
Dr D M A Leggett
Dr E H Mansfield
Mr L S D Morley
Mr M J Parks
Mr R H Sandifer
Mr R L Wheeler
Prof W H Wittrick

VTOL/STOL

Prof D Keith-Lucas
Dr R C Pankhurst
Dr John Williams