

*N. A. E. Library*

CP No 50

aval. 4. 1951  
'COY 54'  
L 50

NATIONAL AERONAUTICAL  
ESTABLISHMENT  
19 OCT 1951  
NR. CLAPHAM BEDS.



## MINISTRY OF SUPPLY

AERONAUTICAL RESEARCH COUNCIL  
CURRENT PAPERS

# LIST OF CURRENT PAPERS

Published by the  
AERONAUTICAL RESEARCH COUNCIL

## Nos. 1 - 50

*Crown Copyright Reserved*

LONDON HIS MAJESTY'S STATIONERY OFFICE

1951

PRICE 1s 6d NET



## List of Current Papers

July, 1951

published by

THE AERONAUTICAL RESEARCH COUNCIL  
(Numbers 1-50)

| C.P. No. | Council No.  | Title  | Author(s)  |
|----------|--------------|--|--|
| 1        | 11,421       | Some notes on the flapping motion of rotor blades.<br>(December, 1947).  | Owen, J. B. B.                                     |
| 2        | 9505         | Tests in the N.P.L. electric tank on a 4:1 axi-symmetrical diffuser having a discontinuity in the wall velocity.<br>(March, 1946). | Cheers, F.<br>Raymer, W. G.                        |
| 3        | 8448         | Water stability tests on Saro 37 fitted with Shetland hull, wing tip floats, and tail.<br>(October, 1944).                         | McCaig, I. W.                                      |
| 4        | 10,057       | Maximum impact pressures on seaplane hull bottoms.<br>(March, 1946).   | Smith, A. G.<br>McCaig, I. W.<br>Inverarity, W. M. |
| 5        | 10,413       | Note on the interference on a part-wing mounted symmetrically on one wall of a wind tunnel of octagonal section.<br>(March, 1947). | Garner, H. C.                                      |
| 6        | 8741         | Tank tests on the effect of slipstream on the water performance of a large four-engined flying boat.<br>(April, 1945).             | Raymond, S.  |
| 7        | 12,390       | Report on measurements of the pressure distribution over a wing of triangular plan form at a Mach number of 2.44.<br>(July, 1948). | Lean, G. H.<br>Whittaker, K. G.                    |
| 8        | 12,264       | The application of jet propulsion to helicopters.<br>(February, 1949).   | Stewart, W.<br>Burle, F. M.                        |
| 9        | 9383<br>9641 | Note on sintered metal with a view to its use as a porous surface in distributed suction experiments.<br>(February, 1946).         | Preston, J. H.<br>Rawcliffe, A. G.                 |
| 10       | 11,991       | The indication of boundary-layer transition on aerofoils in the N.P.L. 20" x 8" High Speed Wind Tunnel.<br>(December, 1948)        | Pearcey, H. H.                                     |

| C.P. No. | Council No. | Title  | Author(s)                       |
|----------|-------------|--|---------------------------------|
| 11       | 12,619      | Revised and extended performance character.<br>(June, 1949).   | Collins, D. F.<br>Gordon, F. M. |
| 12       | 12,654      | Transitional frictional effects in powered controls with particular reference to hydraulic jacks.<br>(September, 1949).                          | Holoubek, F.                    |
| 13       | 12,329      | The viscid flow of air in a narrow slot.<br>(December, 1948).  | Shires, G. L.                   |
| 14       | 9955        | Determination of the static stability of seaplanes.<br>(June, 1946).   | Tomaszewski, K. M.              |
| 15       | 10,429      | Hydrodynamic design of seaplane floats.<br>(November, 1946).   | Tomaszewski, K. M.              |
| 16       | 12,492      | Low speed tunnel investigation of the effect of the body on $C_{m0}$ and aerodynamic centre of unswept wing-body combinations.<br>(April, 1949). | Anscombe, A<br>Raney, D. J.     |
| 17       | 12,058      | Wind tunnel tests on a one-twelfth scale model of a twin-engined military transport (Airspeed C.13/45(Ayrshire)).<br>(January, 1949).            | Warden, R.                      |
| 18       | 12,267      | Heat treatment of flat Perspex sheets.<br>(February, 1949)   | Russell, E. W.                  |
| 19       | 12,529      | Annealing of formed Perspex structures.<br>(April, 1949).  | Russell, E. W.                  |
| 20       | 11,796      | A comparison of three thick, symmetrical, multi-slot suction aerofoils.<br>(October, 1948).  | Gregory, N.<br>Curtis, A. R.    |
| 21       | 10,925      | The effect of propeller thrust on downwash and velocity at tailplane - a collection of data from low speed wind tunnel tests.<br>(August, 1947). | Spence, A.                      |

| C.P. No. | Council No. | Title   | Author(s)                          |
|----------|-------------|---|------------------------------------|
| 22       | 13,173      | Preliminary measurements of the aerodynamic damping in pitch of a 12 ft diameter helicopter rotor.<br>(May, 1950).          | Britland, C. M.<br>Fail, R. A.     |
| 23       | 12,886      | An electronic analyser for linear differential equations.<br>(December, 1947).  | Gait, J. J.<br>Allen, D. W.        |
| 24       | 12,407      | The porous properties of various materials for use in making parachutes.<br>(March, 1949).                                  | Brown, W. D.<br>Holford, J. F.     |
| 25       | 12,649      | The effect of variation of air density and temperature on the airflow characteristics of porous fabrics.<br>(August, 1949). | Picken, J.                         |
| 26       | 12,813      | The electronic simulator for the solution of flutter and vibration problems.<br>(October, 1949).                            | Smith, F.                          |
| 27       | 6517        | Stability tests on a large scale model of the Shetland hull bottom.<br>(January, 1943).                                     | White, H. G.<br>Smith, A. G.       |
| 28       | 13,091      | Camber derivatives and two-dimensional tunnel interference at maximum lift.<br>(April, 1950).                               | Pankhurst, R. G.<br>Pearcey, H. H. |
| 29       | 12,883      | The low speed performance of related aerofoils in cascade.<br>(September, 1949).  | Carter, A. D. S.                   |
| 30       | 12,884      | An approximate method for the estimation of the design point efficiency.<br>(August, 1949).                                 | Ainley, D. G.                      |
| 31       | 12,999      | Some improvement in the design of thick suction aerofoils.<br>(March, 1950).  | Williams, J.                       |
| 32       | 12,738      | Air bags as flexible supports in ground resonance testing of aircraft.<br>(September, 1949).                                | Moffatt, R. L.<br>Gaukroger, D. R. |

| C.P. No. | Council No. | Title  | Author(s)  |
|----------|-------------|--|--|
| 33       | 13,176      | Influence of variable specific heats on the high-speed flow of air.<br>(June, 1950).   | Kestin, J.   |
| 34       | 12,677      | Torsional vibration investigations on the Musketeer engine.<br>(June, 1949).   | Downham, E.<br>Davidson, W.<br>Wolfe, M. O. W.       |
| 35       | 13,082      | A three-channel piezo-electric pressure recorder.<br>(November, 1949).   | Fletcher, P. J.                                      |
| 36       | 13,409      | Cockpit lighting - a general survey of the principles and techniques with particular reference to the development of the dual system.<br>(February, 1950). | Calvert, E. S.                                       |
| 37       | 10,303      | Wind-tunnel tests on a Griffith Meteor model (without suction).<br>(November, 1946).   | Clarke, D. A.  |
| 38       | 10,010      | The air flow under the towing carriages in the R.A.E. Seaplane Tank.<br>(June, 1946).  | Tomaszweski, K. M.<br>Raymond, S.<br>Chalmers, G. F. |
| 39       | 13,185      | Low-speed wind-tunnel investigation of the change in aerodynamic centre position and in $C_{m_0}$ due to propeller turbine nacelles.<br>(February, 1950).  | Kirby, D. A.<br>Dee, F. W.                           |
| 40       | 12,823      | Tests on A.W. Apollo (Brab. IIB) in the N.P.L. Compressed Air Tunnel.<br>(December, 1949).   | Salter, C.<br>Miles, C. J. W.<br>Pusey, F. S.        |
| 41       | 13,263      | Tests on the effect of incidence on some pressure heads at high subsonic speeds.<br>(July, 1950).  | Rogers, E. W. E.<br>Berry, C. J.                     |
| 42       | 13,112      | Wind-tunnel tests on the effect of accretion of ice on control characteristics in two-dimensional flow.<br>(May, 1950).                                    | Halliday, A. S.<br>Batson, A. S.<br>Cox, D. K.       |
| 43       | 13,259      | Further wind-tunnel tests on the effects of ice accretion on control characteristics.<br>(May, 1950).  | Spence, A.   |

| C.P. No. | Council No. | Title  | Author(s)  |
|----------|-------------|--|--|
| 44       | 12,925      | A recording system for flight test data.<br>(December, 1949).  | Hufton, P. A.<br>Cook, F. G. R.<br>Saunders, P. S. |
| 45       | 13,260      | Comparison between experimental measurements and a suggested formula for the variation of turbulent skin-friction in compressible flow.<br>(February, 1950). | Monaghan, R. J.                                    |
| 46       | 12,911      | A note on the use of time series in the analysis of flight test records.<br>(January, 1950).   | Jones, W. P.                                       |
| 47       | 13,682      | Dynamic stability of the helicopter.<br>(January, 1951).   | Yates, A. H.                                       |
| 48       | 12,796      | Data on flight loads obtained with Miller recording equipment, with particular reference to test flights in Lancaster P.D. 119.<br>(September, 1949).        | Burns, A.  |
| 49       | 13,570      | Notes on definitions of, and nomenclature for air speeds.<br>(November, 1950).   | Staff of<br>A. & A.E.E.*                           |
| 50       | -           | List of Current Papers published by the Aeronautical Research Council.<br>(numbers 1-50).  |  |

Aeroplane and Armament Experimental Establishment.







PRINTED AND PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE

To be purchased from

York House, Kingsway, LONDON, W C 2    429 Oxford Street, LONDON, W 1

P O Box 569, LONDON, S E 1

13a Castle Street, EDINBURGH, 2    1 St Andrew's Crescent, CARDIFF

39 King Street, MANCHESTER, 2    Tower Lane, BRISTOL, 1

2 Edmund Street, BIRMINGHAM, 3    80 Chichester Street, BELFAST

or from any Bookseller

1951

Price 1s 6d net

PRINTED IN GREAT BRITAIN