

C.P. No. 450

Ad. Stewart
C.P. No. 450

LIBRARY
ROYAL AIR FORCE ESTABLISHMENT
BEDFORD.



MINISTRY OF AVIATION
AERONAUTICAL RESEARCH COUNCIL
CURRENT PAPERS

List of Current Papers Published for
The Aeronautical Research Council

(Nos. 401-450)

LONDON: HER MAJESTY'S STATIONERY OFFICE

1960

Price 1s. 3d. net

List of Current Papers

published for

THE AERONAUTICAL RESEARCH COUNCIL
(Numbers 401-450)

C.P. No.	Council No.	Title	Author(s)
401	19,936	Static response of a hemispherical-headed yawmeter at high subsonic and transonic speeds. (August, 1957).	Hutton, P. G.
402	19,940	Wing flow measurements of the damping in pitch derivative of a 45 deg Delta wing-body combination and with a tailplane in two positions. (August, 1957).	Rose, R.
403	19,997	Real gas effects on shock-tube performance at high shock strengths. (November, 1957).	Stollery, J. L.
404	19,942	Critical flight conditions and loads resulting from inertia cross-coupling and aerodynamic stability deficiencies. (March, 1957).	Pinsker, W. J. G.
405	18,881	A flight technique for the measurement of thrust boundaries and of drag due to lift. (November, 1956).	Rylands, H. D.
406	20,165	A method of calculating the effect of one helicopter rotor upon another. (April, 1958).	Cheeseman, I. C.
407	20,202	The theoretical performance of shock tubes designed to produce high shock speeds. (May, 1958).	Henshall, B. D.
408	20,204	Some notes on the use of resistance thermometers for the measurement of heat transfer rates in shock tubes. (May, 1958).	Henshall, B. D.
409	20,399	A note on the interpretation of base pressure measurements in supersonic flows. (June, 1958).	Hastings, R. C.
410	20,397	Low-speed wind tunnel tests of the effects of various leading-edge modifications on the sectional characteristics of a thin wing. (6 p.c. thick, R.A.E.101 section). (June, 1958).	Butler, S. F. J.

C.P. No.	Council No.	Title	Author(s)
411	19,220	Calculated aerodynamic forces on a sweptback untapered wing oscillating in incompressible flow. (December, 1956).	Woodcock, D. L.
412	20,499	Theoretical analysis of the heating of a composite slab, with applications to the kinetic heating of an aircraft wing. (June, 1958).	Capey, E. C. McKenzie, K. I.
413	20,302	Effects of some changes in body length and nose shape on the aerodynamic characteristics of wing-body combinations at supersonic speeds. (February, 1958).	Tomlin, S. Stanbrook, A.
414	20,474	Static and dynamic response of a design of differential pressure yawmeter at supersonic speeds. (February, 1954).	Beecham, L. J. Collins, S. J.
415	20,554	Notes on some simple strain gauge networks commonly used with wind tunnel balances. (August, 1958).	Anderson, J. R.
416	20,531	Comparative strength tests of tension bolts with UNF and BSF threads. (September, 1958).	Mousley, R. F. Clifton, F. Le Brocq, D.
417	20,603	A device programme for the solution of two-dimensional heat-flow problems. (September, 1958).	McKenzie, K. I.
418	20,570	An improvement of the velocity distribution predicted by linear theory for wings with straight subsonic leading edges. (September, 1958).	Randall, D. G.
419	20,563	The distribution of gusts in the atmosphere - an integration of U.K. and U.S. data. (June, 1958).	Bullen, N. I.
420	19,863	Model tests on an effuser induction scheme for operating a transonic wind tunnel. (June, 1957).	Spence, D. A. Bennett, A. S.
421	19,928	A simple method of improving the supersonic velocity distribution in a transonic tunnel having slotted walls. (July, 1957).	Hall, C. N.

C.P. No.	Council No.	Title	Author(s)
422	20,622	Flight tests of a simple method of measuring pressure distributions on a wing. (September, 1958).	Port, W. G. A. Morrall, J. C.
423	19,736	Statistical analysis of a particular target manoeuvre. (March, 1957).	Bain, R. W. Leslie, D. C. M. Ruston, G. C. A. Hynd, W. R. B.
424	18,735	The interaction between a weak normal shock wave and a turbulent boundary layer. (June, 1957).	Gadd, G. E.
425	19,986	A note on the control of secondary flow by using cascades of twisted blades, (March, 1958).	Martin, Moira E
426	19,987	An experiment to determine the position of an equivalent actuator disc replacing a blade row of a turbo-machine. (March, 1958).	Horlock, J. H. Deverson, E. C.
427	19,970	The flow upstream of finite span spoilers at supersonic speeds. (September, 1957).	Stanbrook, A.
428	19,957	Some simple conical camber shapes to produce low lift-dependent drag on a slender Delta wing. (September, 1957).	Brebner, G. G.
429	20,645	Atmospheric turbulence encountered by Bristol freighter aircraft in United Kingdom, West Africa and New Zealand. (October, 1958).	Heath-Smith, J. R.
430	20,306	Some experiments with static tubes at transonic speeds in a slotted-wall wind tunnel. (July, 1958).	Rogers, E. W. E. Hall, I. M.
431	18,877	The effect of axial spacing on the surge characteristics of two mismatched axial compressor stages. (November, 1956).	Turner, R. C.
432	20,899	Atmospheric turbulence encountered by Super Constellation aircraft. (January, 1959).	Heath-Smith, J. R.
433	19,715	The influence of drag characteristics on the choice of landing approach speeds. (April, 1957).	Lean, D. Eaton, E.

C.P. No.	Council No.	Title	Author(s)
434	19,965	The aerodynamic effects of aspect ratio on control surface flutter. (September, 1957).	Hall, H. Chapple, E. W.
435	18,250	Preliminary note on the effect of inertia cross-coupling on aircraft response in rolling manoeuvres. (November, 1955).	Finsker, W. J. G.
436	20,203	Microwave techniques applied to the investigation of ionised gases in shock tubes. (May, 1958).	Schultz, D. J.
437	20,078	A family of camber lines for subsonic applications. (A modified form of the N.A.C.A. family with uniform loading over the forward part and linear loading over the rear part. (April, 1958).	Squire, H. B.
438	20,340	Non-equilibrium theory of an ideal-dissociating gas through a conical nozzle. (August, 1958).	Freeman, N. C.
439	20,344	The 'Newtonian' theory of hypersonic flow for any three-dimensional body. (August, 1958).	Freeman, N. C.
440	21,088	Fatigue loadings in flight: Loads in the tailplane and fin of a jet Provost. (February, 1959).	Burns, Anne
441	20,125	One-dimensional treatment of weak disturbances of a shockwave. (April, 1958).	Powell, Alan
442	21,155	Flutter of an untapered wing allowing for thermal effects. (April, 1959).	Broadbent, E. G.
443	20,720	Shock speed and running time measurements in the N.P.L. hypersonic shock tunnel. (January, 1959).	Henshall, B. D.
444	20,060	A list of the journals and periodicals to which reference is made in Incompressible Aerodynamics and Laminar Boundary Layers, together with their abbreviations. (September, 1959).	-

C.P. No.	Council No.	Title	Author(s)
445	20,175	A one-dimensional theory of liquid-fuel rocket combustion. (May, 1958).	Spalding, D. B.
446	20,189	A one-dimensional theory of liquid-fuel rocket combustion. Part II. The influence of chemical reaction. (May, 1958).	Adler, J.
447	20,176	Theory of the burning of mono-propellant droplets. (May, 1958).	Spalding, D. B. Jain, V. K.
448	20,579	The noise field from designed nozzles at different Mach numbers. (August, 1957).	Williams, J. G. M. Stevenson, D. C.
449	19,900	Stall cell propagation in two mis-matched compressor stages. (January, 1958).	Turner, R. C. Hargest, T. J. Burrows, R. A.
450	-	List of Current Papers published for the Aeronautical Research Council. (Nos.401-450).	

© *Crown copyright 1960*

Printed and published by
HER MAJESTY'S STATIONERY OFFICE

To be purchased from
York House, Kingsway, London W.C.2
423 Oxford Street, London W.1
13A Castle Street, Edinburgh 2
109 St. Mary Street, Cardiff
39 King Street, Manchester 2
Tower Lane, Bristol 1
2 Edmund Street, Birmingham 3
80 Chichester Street, Belfast 1
or through any bookseller

Printed in England