

NATIONAL ARCHIVES

32487

C.P. No. 150

A.R.C. Technical Report



MINISTRY OF SUPPLY

AERONAUTICAL RESEARCH COUNCIL CURRENT PAPERS

List of Current Papers Published by the Aeronautical Research Council Nos. 101 - 150

LONDON HER MAJESTY'S STATIONERY OFFICE

1954

SIXPENCE NET

List of Current Papers

C.P. No. 150

March, 1954

published by

THE AERONAUTICAL RESEARCH COUNCIL
 (Numbers 101-150)

C.P. No.	Council No.	Title	Author(s)
101	14,757	The effect of induced velocity variation on helicopter rotor damping in pitch or roll. (November, 1951).	Sissingh, J. J.
102	14,138	Swept-wing loading. A critical comparison of four subsonic vortex sheet theories. (July, 1951).	Garner, H. C.
	14,297	With foreward. (October, 1951). And Addendum.	Bryant, L. W.
103	14,448	Some effects of Reynolds number on a cambered wing at high subsonic Mach numbers. (May, 1951).	Gamble, H. E.
104	14,449	The effect of end plates on swept wings. (June, 1951).	Kuchemann, D. Kettle, D. J.
105	14,598	The design of jettisonable cockpit hoods. (September, 1951).	Keiller, I. L.
106	14,400	A frost point hygrometer for supersonic wind tunnels. (July, 1951).	Boastall, D. Waryard, A.
	14,562	With Addendum - (November, 1951).	
107	13,539	Some investigations into the design of wind tunnels with gas turbine jet engine drives. (May, 1950).	Higgs, H. J.
108	14,891	Some curves for use in calculations of the performance of conical centrebody intakes at supersonic speeds and at full mass flow. (December, 1951).	Fraenkel, L. E.
109	14,383	The pressures on the surface of a flat elliptic cone set symmetrically in a supersonic stream. (November, 1951).	Hurloy, D. G.
110	14,879	A note on shock tubes. (May, 1952).	Holder, D. W.
111	14,747	Tailplane loads and normal accelerations after an automatic control failure. (December, 1951).	Reddaway, J. L.
112	14,826	Low speed wind tunnel investigation of tab hinge moment characteristics. (November, 1951).	Trebbles, W. J. G. Holford, J. F.

- 2 -

C.P. No.	Council No.	Title	Author(s)
113	14,861	An approximate method of deriving the transient response of a linear system from the frequency response. (November, 1951).	Wass, C. A. A. Hayman, E. G.
114	14,790	A method for calculating pressure distributions on circular arc ogives at zero incidence at supersonic speeds, using the Prandtl-Meyer flow relations. (January, 1952).	Zienkiewicz, H. K.
115	15,029	The application of the polygon method to the calculation of the compressible subsonic flow round two-dimensional profiles. (June, 1952).	Woods, L. C.
116	15,595	Charts of the wave drag of wings at zero lift. (November, 1952).	Lawrence, T.
117	14,698	Wake survey and strain-gauge measurements on an inclined propeller in the R.A.E. 24-ft tunnel. Part I. Wake survey. (February, 1952).	Russell, J. G.
118	14,951	A comparison of calculated and measured base pressures of cylindrically based projectiles. (May, 1952). With Appendix. Calculation of Reynolds number effect on projectiles at supersonic speeds. (July, 1946).	Cope, W. F.
119	14,969	Asymmetric tailplane loads due to sideslip. (January, 1952).	Braun, W.
120	15,157	Effect of mean stress on the fatigue strength of D.T.D.364 round bars with and without transverse holes. (May, 1952).	Morris, G. M.
121	15,041	Higher harmonics of flapping on the helicopter rotor. (March, 1952).	Stewart, W.
122	15,045	The low speed performance of a helicopter. (May, 1952).	Oliver, A. L.
123	14,990	The estimation of skin temperatures attained in high speed flight. (February, 1952).	Davies, F. V. Monaghan, R. J.

C.P. No.	Council No.	Title	Author(s)
124	15,403	The definitions of the angles of incidence and of sideslip. (August, 1952).	Warren, C. H. E.
125	14,953	Growth of the turbulent wake close behind an aerofoil at incidence. (May, 1952).	Spence, D. A.
126	14,758	Pressure error measurements using the formation method. (March, 1952).	Levon, K. C.
127	14,992	Note on the lift slope, and some other properties, of delta and swept-back wings. (16th June, 1952).	Relf, E. F.
128	15,186	Method for the determination of the pressure distribution over a finite thin wing at a steady low speed. (2nd September, 1952).	Hancock, G. J.
129	15,253	Surface slopes and curvatures of the RAE 100-104 and other roof-top type aerofoil sections. (October, 1952).	Williams, J. Love, E. M.
130	14,736	The performance of some typical turbo-jet engine exhaust systems, with particular reference to the effects of swirl. (December, 1951).	Ashwood, P. F. Fletcher, P. J.
131	14,300	An analysis of the air flow through the nozzle blades of a single stage turbine. (February, 1951).	Johnston, I. H.
132	13,946	Tests on an axial compressor with various stator blade staggers. (September, 1950).	Jeffs, R. A. Hartley, E. L. Rooker, P.
133	14,648	Air cooling methods for gas turbine combustion systems. (August, 1951).	Bayley, F. J.
134	13,242	A relaxation treatment of shock waves. (July, 1950).	Woods, L. C.
135	14,623	Design of a right-angled bend with constant velocities at the walls. (February, 1952).	Thom, A. S.
136	15,685	Curves for estimating the wave drag of some bodies of revolution, based on exact and approximate theories. (August, 1952).	Fraenkel, L. E.

- 4 -

C.P. No.	Council No.	Title	Author(s)
137	15,437 15,524	Pressure distribution and boundary layer investigations on a 44 deg swept-back tapered wing. Part I. Three-dimensional tests on the wing. Part II. Two-dimensional pressure distribution tests on a 10 per cent thick symmetrical aerofoil section. (January, 1953).	Black, Joseph
138	15,107	The theory of aerofoils with hinged flaps in two-dimensional compressible flow. (August, 1952).	Woods, L. C.
139	15,348	The measurement of heat transfer and skin friction at supersonic speeds. Part III*. Measurements of overall heat transfer and of the associated boundary layers on a flat plate at $M = 2.43$. (December, 1951). *Part I C.P.59. Part II C.P.64.	Monaghan, R. J. Cooke, J. R.
140	15,400	The measurement of heat transfer and skin friction at supersonic speeds. Part IV*. Tests on a flat plate at $M = 2.82$. (June, 1952). *Part I C.P.59, Part II C.P.64, Part III C.P.139.	Monaghan, R. J. Cooke, J. R.
141	15,071	The vibrations of a swept wing. (April, 1952).	Heaps, N. S.
142	15,464	A review and assessment of various formulae for turbulent skin friction in compressible flow. (August, 1952).	Monaghan, R. J.
143	15,509	An investigation into the pitot rake method of measuring turbo jet engine thrust in flight. (December, 1952).	Stephenson, J. Shields, R. T. Bottle, D. W.
144	15,144	The performance of the 108 compressor fitted with low stagger-free vortex blading. (June, 1952).	Foster, D. V.
145	15,243	Zero lift drag measurements on swept wings at transonic and supersonic speeds using the ground-launched rocket-boosted model technique. (May, 1952).	Lawrence, T. Kell, C.

- 5 -

C.P. No.	Council No.	Title	Author(s)
146	15,462	Vibration and flutter of aircraft aerals. (July, 1952).	Johnson, W. H.
147	15,429	Theoretical load distributions on wings with cylindrical bodies at the tips. (June, 1952).	Hartley, D. E.
148	15,586	Experiments at $M = 1.8$ on blades of revolution having ogival heads. (January, 1953).	Zienkiewicz, H. K. Channeck, A. Berry, C. J. Peggs, P. J.
149	15,570	Unsteady cavitating flow past curved obstacles. (March, 1953).	Woods, L. C.
150	-	List of Current Papers published by the Aeronautical Research Council. (Nos.101 - 150). (March, 1954).	-

C.P. No. 150

A.R.C. Technical Report

CROWN COPYRIGHT RESERVED

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

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

1954

Price 6d net

PRINTED IN GREAT BRITAIN