

TEST PILOTS' GROUP REPRINTS

The following is a list of the Test Pilots' Group lectures that have been printed in the *Journal*. Most of them are available as Reprints.

Bedford, A. W.	The Role of the Test Pilot	June 1964
Henderson, Sqn. Ldr. J. M.	Low-Speed Handling of a Slender Delta (HP115)	May 1965
White, Lt. Col. R. M.	Flying the X-15	September 1965
Merewether, H. C. H.	Erect and Inverted Spinning with Particular Reference to the Hunter (<i>Out of Print</i>)	December 1965
Watts, Gp. Capt. R. A.	The Training of Test Pilots	June 1966
Trubshaw, E. B.	Low Speed Handling with Special Reference to the Super Stall	July 1966
Symposium	Flight Testing for the Certification of Civil Transport Aircraft	November 1967
Prahl, V. E.	A Résumé of the F-111 Flight Test Programme	January 1968
Gill, Sqn. Ldr. T. E.	Thoughts on Flight Instrument Presentations	June 1968
Knight, Maj. W. J.	Increased Piloting Tasks and Performance of X-15A-2 in Hypersonic Flight ...	September 1968
Farley, J. F.	Piloting Aspects of Poor Weather Jet V/STOL	October 1968
Pinsker, W. J. G.	The Theory and Practice of Inertia Cross-Coupling	August 1969
Stinton, D.	The Developing Scene in British Light Aviation	May 1970

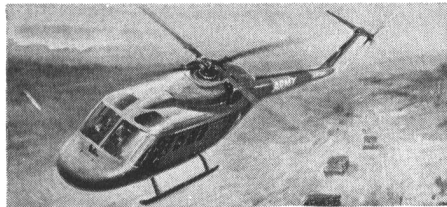
HISTORICAL GROUP REPRINTS

The following is a list of the Historical Group lectures that have been printed in the *Journal*. Some of them are available as Reprints.

Sopwith, Sir Thomas	My First Ten Years in Aviation (<i>Out of Print</i>)	April 1961
Cave-Browne-Cave T. R.	R101 and other Airships—The Process of Development	August 1962
Banks, F. R.	Five Decades of the Aero Engine	November 1962
Wills, P. A.	Air Transport Auxiliary: Its Place in Aviation History (<i>Out of Print</i>)	June 1965
Bruce, J. M.	A History of Martinsyde Aircraft (<i>Out of Print</i>)	September 1968
Goddard, Air Marshal Sir Victor	Per Ardua—Peradventure, A Contemporary Review of Innovations during the First Fifty Years of the RAF (<i>Out of Print</i>)	October 1968
Peckham, C	Air Photography	January 1969
James, T.	Charles Grey and his Pungent Pen	October 1969
Brown, Sir Vernon	Flying and Accidents during and between the Two Wars	November 1969

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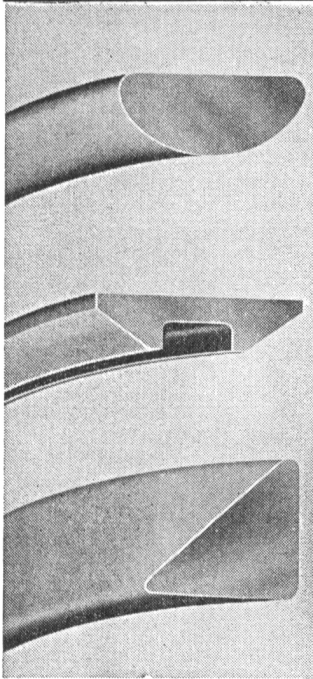
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The Aeronautical Journal RAeS October 1970

CROCOMBE, F. F.

Portrait of a Pioneer, J. D. North, 1893-1968

John Dudley North must be almost the last of the select group of aircraft enthusiasts who started practical aviation in this country in the early years of the century. The career of John North divides itself into three distinct phases. First, his early years and active participation as an aircraft designer up to the start of the Second World War. Secondly, his work in the field of hydraulic mechanisms as evinced by the power-controlled gun turret and aircraft power control units, and later in the development of commercial hydraulic pumps and motors. The third phase concerns his absorbing interest, in his mature years, in control mathematics and cybernetics.

The Aeronautical Journal RAeS October 1970

PAUL, C. H.

The Development of Small Gas Turbines for Aircraft Auxiliary Power

The historic evolution of the auxiliary power unit (APU) is presented. The significant events in APU field from 1947 to the present are discussed and emphasis is given to the transition from ground cart auxiliary power sources to on-board auxiliary power.

The author describes the technical evolution of the APU and the operational requirements that have dictated the APU design. The advancements in compressors and combustor design, the decrease in noise level, the decreased fuel consumption and the improvements in specific weight over the past 23 years are discussed. The units that today are being designed for the next generation of aircraft are described.

The Aeronautical Journal RAeS October 1970

COX, R. A.

A Comparative Study of Aircraft Gust Analysis Procedures

The various currently available methods of calculating the response of an aircraft to turbulence and of obtaining design loads are reviewed. Due to their relative unfamiliarity, the power spectral methods, which are expected to form the basis of a future airworthiness requirement, are discussed in some detail. Only static strength (rather than fatigue), aspects are considered. Preliminary results obtained in a recent series of calculations at BAC (Weybridge) for a typical T-tail aircraft are presented and discussed.

The Aeronautical Journal RAeS October 1970

PERRY, Flt. Lt. G. L.

Collision Avoidance Systems

A considerable amount of discussion and development has been carried out in the USA during the past 14 years, and some prototype equipments are now flying. The purpose of this paper is to describe the technique employed in these systems and to suggest an original principle as a design basis for a collision avoidance system.

The Aeronautical Journal RAeS October 1970

PINSKER, W. J. G.

Direct Lift Control

Direct lift control offers the potential of substantial improvements in longitudinal aircraft response. It is attractive as a means of easing the task of naval pilots during carrier landings and may be the only solution to the increasingly difficult problem of maintaining adequate approach control with sluggish giant transport aircraft. All aspects relevant to the design and operation of DLC control are discussed and available flight and simulator test evidence is reviewed. These have demonstrated the feasibility of DLC control directly from the stick and have indicated significant improvement in landing control, but further work is required to realise the full potential of this technique.

The Aeronautical Journal RAeS October 1970

DUNN, S. C.

Rapier

Rapier is a very important element in our armoury of defence against attack from the air. At low to medium altitudes the attack comes from all-weather, contour following, very fast and expensive aircraft, through much more numerous and diverse conventional aircraft limited to fair weather operation, to helicopters and reconnaissance drones. After a brief account of the system as a whole and how it works, the design requirements of each of the major equipments are discussed. The special arrangements made for testing and training operators are described. Some engineering features are mentioned as well as certain trials which are peculiar to the system.

The Aeronautical Journal RAeS October 1970

JOHNSON, W. E. P.

Protection of Work in Patents and Designs

The title of this paper illustrates immediately one danger of which industry must beware—that of under-rating the extent of protection which the laws of this country afford to inventors and innovators. The limitation to Patents and Designs implied by the title, will be exceeded and there are included in the paper Copyright and Trade Marks, both of which can contribute to the protection of industrial innovations.

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