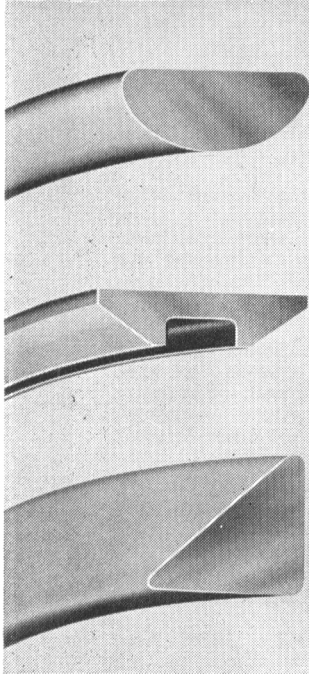


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The Aeronautical Journal RAeS February 1970

SIKORSKY, S. I.

The Helicopter—Today and Tomorrow

This short review of current helicopter trends shows the helicopter branching out into several distinct classes from the LOH into the HLH, or heavy-lift crane, a new generation of combat helicopters, and others. The first use of avionics specifically designed for helicopters is reviewed and some predictions are made on the basis of current military and commercial experience.

The Aeronautical Journal RAeS February 1970

ARGYRIS, J. H.

**The Impact of the Digital Computer on Engineering Sciences.
Part II**

The second part of the Twelfth Lanchester Memorial Lecture, the first part of which was published in the January Aeronautical Journal.

The Aeronautical Journal RAeS February 1970

Hijacking—Why Governments must act

A Discussion organised by the Air Law Group of the Society. Speakers include Prof. D. H. N. Johnson, Captain Arthur, D. J. Barham and Sir Frederick Tymms.

The Aeronautical Journal RAeS February 1970

JARRETT, P.

**Dagenham Days
A History of the Aeronautical Society's Flying Ground**

This paper constitutes a history of the Flying Ground of the Aeronautical Society of Great Britain, established at Dagenham, Essex, during 1909. The history covers the complete life span of the Ground, from its conception to its closure, and includes particulars of the aircraft tested there. The subsequent controversy resulting from the failure of the Ground is also dealt with.

The Aeronautical Journal RAeS February 1970

BRAMSON, M. L.

**Report on the Whittle System of Aircraft Propulsion
(Theoretical Stage)—October 1935**

The purpose of the Report is to record the result of an independent step by step check of the theories, calculations and design proposals originated by Flt. Lt. Whittle, and having for their object the achievement of practical stratospheric transport. No investigation of the patent situation has been attempted.

The Aeronautical Journal RAeS January 1970

DUNHAM, J.

**Experiments Towards a Circulation Controlled Lifting
Rotor. Part 1.—Wind Tunnel Tests**

The world's aircraft industries have devoted substantial effort in the past decade towards the realisation of aircraft which can take-off and land vertically. Two dominating operational factors have emerged: noise and downwash. These papers describe two complementary research programmes carried out at the NGTE during 1960-65.

The Aeronautical Journal RAeS February 1970

DUNHAM, J.

**Experiments Towards a Circulation-Controlled Lifting Rotor.
Part II. A Model Rotor**

The construction and testing of a 3.66 m (12 ft) diameter experimental circulation-controlled lifting rotor is described. It has two circular section blades equipped with narrow tangential blowing slots for generating lift. When tested on a hovering rig, up to 5 kN ($\frac{1}{2}$ ton) of lift was produced, and over the tip speed range 75 to 135 m/s. The performance of the rotor is fully analysed and the corrections needed to predict the performance from two-dimensional data are derived. The power consumption is analysed into profile drag, tip vortex drag, and induced drag, so that a complete performance prediction method is available. (Part I was published in the January 1970 issue).

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