

Books Received

- Air Navigation Theory and Practice* By E BROOK WILLIAMS and W J V BRANCH
(pp 644) Pitman, 55s
- Parachutes*, by W D BROWN, pp 322, Pitman £2
- Airplane Flight*, by A YORK BRAMBLE, pp 366, Pitman £1 15s 0d
- Khaki and Blue*, by R SHERBROOKE WALKER, St Catherine Press 10s 6d
- Air Power Key to Survival*, by ALEXANDER P DE SEVERSKY, pp 314, Herbert Jenkins,
price £1 1s 0d
- Faith is a Wind Sock*, by MILES TRIPP, Peter Davies 12s 6d
- The Stories of Flying Officer X*, by H E BATES, Cape 10s 6d
- Night be my Witness*, by WALTER CLAPHAM, Cape 12s 6d

Book Reviews

Typical Helicopter Performance Calculation, by R J HARRIS, L H SLOAN and K W
ULRICH (pp 43) Rotorcraft Publishing Committee, S1 25

This booklet is the second of a projected collection of works dealing with rotary-wing aircraft and is a sequel to the first publication of the Group, "Introduction to Helicopter Aerodynamics" by W Z Stepniewski

The authors have considered the performance estimation of a hypothetical single rotor helicopter, using the methods developed in the above-mentioned work. The calculation of hovering, vertical and forward flight, performance with power and vertical and forward flight in autorotation are dealt with, a section on range and endurance is also included.

The calculations of induced velocity used throughout are based on combined blade element and momentum theory. Profile drag is derived from two dimensional section lift and drag characteristics based on conditions at the 0.8 radius station, an addition of 30 per cent to the section profile drag coefficient being made to allow for blade surface roughness, while simple corrections for pre-shock stall compressibility effects on lift and drag are made. Curves for determining the forward speed at which the retreating (untwisted) blade will stall are given, they appear to be based on Gustafson's flight tests on the R 4.

In general, the booklet provides the reader with an adequate introduction to helicopter performance estimation.

Aerodynamic Drag, by S F HOERNER (pp 259) Published by the author British
Agents—Bailey Bros, Swinfen Ltd £2 2s 6d

It is not often that a technical book of such wide value appears. It is, therefore, particularly surprising that the author could not find a publisher to handle it for him. The whole field of aerodynamic drag, from low to supersonic speeds is covered. In addition to streamlined sections and bodies, the drag of "bits and pieces" of all types is given. The book is not merely a catalogue of useful data, but the general theoretical background of each subject is given briefly, so that the work becomes an admirable revision book for the skilled aerodynamist.

The work is copiously illustrated with clear and useful figures and diagrams and very full references are given, including those to German and other papers which are not widely known (many of them to original work by the author).

Altogether an invaluable book for the practising aerodynamist and one which deserves to find its place on his bookshelves.