" Characteristics and Applications of a Monofuel "	By E B Zwick
" Ramjet Boost for Helicopters "	By R T DeVault
" Local Service Air Line Helicopter Operations	By D E Postle
" A second Look at Helicopter Propulsion Problems "	By J B Nichols
" Sound and Noise Considerations in Helicopter Transport Design "	By M Miller
" Influence of Rotor Blade Twist and Mass Distribution on Blade Loadings "	By H Hirsch
" Description of Seven Years of Helicopter Operation in a Wide Variety of Industries and Geographical Locations "	By H S Ricklefs
" Operating Characteristics of a Typical Pressure Jet Power Plant "	By W Wayman
" Application of System Analysis Methods to Helicopter Preliminary Design "	By J A De Torre & E L Brown
" Selected Deficiencies Affecting the Helicopter Accident Picture "	By Capt W F Johnson

Book Reviews

' Aerodynamics of the Helicopter ' By Alfred Gessow and Garry C Myers Jr

This attractive little textbook of 343 pages was first published in the United States in 1952 by The MacMillan Company, New York The two authors, having had a background of experience in helicopter work at Langley Field, are well qualified to present an abridged version of N A C A literature on the subject The physical principles are discussed with the utmost clarity, lengthy mathematical derivations being omitted The reader is referred to a bibliography of N A C A papers, listed in an appendix, and to selected material from other sources which, though far from complete, gives the reader a good idea of the technical work that has been done in the rotary-wing field The reviewer chose the textbook as an appropriate one for both under-graduate and post-graduate students in courses conducted at Stanford University, Calif during 1953 and 1954

After a short historical introduction, general helicopter features are discussed Hovering and vertical flight is studied before the chapter on blade motion and rotor control because, contrary to forward flight, at a given blade element there is no periodic change with azimuth position The classic notation to the no-feathering axis rather than the no-flapping axis of reference is chosen because it is used in the early N A C A rotary-wing literature This may confuse readers who are used to thinking of the axis of the tip-path plane as the reference axis but familiarity with both systems is necessary for appreciation of the literature Conversion from one system to the other should be an easy matter for British readers who are used to ' irrational ' systems of one kind or another, *e g* , non-decimals, foolscap and right-hand drives !

The periodic features of forward flight are presented with the usual simplifying assumptions, after which a review of the assumptions is given and the elements of validity of the theory are discussed A separate chapter is devoted to the prediction and effects of periodic blade-tip stall

The last two chapters introduce the reader to the problems of helicopter stability and vibration, but self-excited oscillations such as ' ground resonance ' and ' weaving ' are not discussed in detail As analyses of these subjects are of a mathematical nature, the interested reader is referred to the bibliography

The textbook is a great contribution to helicopter literature and is recommended to all who are interested in the physical principles of rotary-wing aircraft and in the fundamentals of helicopter aerodynamics

J A J B