

AIRCRAFT CALCULATIONS



CAMBRIDGE

This edition of *Aircraft Mathematics* has been planned in collaboration with Air Commodore J. A. Chamier, C.B., C.M.G., O.B.E., D.S.O. and the headquarters staff of the Air Training Corps, and is published with their approval, in its revised form as

AIRCRAFT CALCULATIONS

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PREFACE

In consideration of the modifications made recently to the syllabus of mathematics for Air Training Corps cadets and in consultation with the Administrative Staff of A.T.C. headquarters, it has been decided to remodel this book so that the essential material shall be more readily accessible to the student.

The book has now been arranged in two parts and its title changed.

Part I contains the revisionary work and exercises which are definitely within the scope of the syllabus.

Part II is made up of exercises and problems involving the simple fundamental rules of algebra, geometry, logarithms, and trigonometry.

All the work, as far as possible, in both Parts I and II is based upon Service conditions or flying problems so that the cadet shall be able to see the value of a training in simple mathematics by its practical application.

Although knowledge of the principles and ability to work the exercises in Part II are not essential for the cadet in order to obtain the necessary proficiency, they have been included for the benefit of those many cadets who will find instruction and possible enjoyment in solving the varied and typical Service problems.

A knowledge of logarithms, for example, and the ability to use logarithm tables, although not essential to a pilot-observer, will, without doubt, enable him to use with intelligence and understanding the various logarithmic computers that are widely employed in practice. The Tables of Logarithms printed on pages 132-143 are included by the kind permission of the Cambridge Local Examinations Syndicate.

With few exceptions, which consist mostly of additional exercises and the omission of problems based exclusively upon navigation, the content of the book as it now stands is the same as that in previous editions of *Aircraft Mathematics*, except that it appears in a different sequence.

For this reason little difficulty should be experienced in using this book with classes where it has already been adopted in its original form.

The authors would like to express their appreciation of the very helpful criticisms and suggestions that have been made to them by Air Commodore J. A. Chamier, C.B., C.M.G., O.B.E., D.S.O.

S. A. W.

J. C. H.

July 1942

For those students requiring an up-to-date text book of navigation, both theory and practice, with a comprehensive study of meteorology and a course of practical work including exercises on the plotting chart and logarithmic computer (both of which are supplied with the book) a companion book to this is published by Cambridge University Press, entitled

AIRCRAFT NAVIGATION

Students requiring further exercises and problems are recommended to write for particulars of a

**SERIES OF 100 TEST CARDS
FOR REVISION**

of previous work done in

AIRCRAFT CALCULATIONS

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