BOOKS IN REVIEW

USO DEL RADAR A BORD
(Use of Radar on Board)

by Lieutenant Commander (I.H.) Lorenzo MARTIN ROCA
263 pages; 144 illustrations; 17 × 25 cm

Special Publication No. 9 (1st edition of the Navy Hydrographic Institute (Nautical Section), Cadiz, 1961

The aim of this publication is to present information to the navigator using radar to enable him to obtain maximum efficiency from his radar apparatus. The theory of radar is outlined as briefly as possible, as well as information concerning the working of the equipment and wave propagation, but in some cases it was necessary to explain certain theoretical principles more fully to facilitate the understanding of the text.

The publication contains an introduction which sets out the problem of radar navigation; eleven chapters and three appendices.

Chapter I : Principle of radar and general characteristics.
Chapter II : Wave propagation and echoes from targets.
Chapter III : Meteorology and radar.
Chapter IV : Interpretation of the display on the screen.
Chapter V : False echoes and their effects.
Chapter VI : Radar as a navigational aid.
Chapter VII : Procedure for increasing the intensity of the echo and identification.
Chapter VIII : Radar as an aid in giving warning of collisions.
Chapter IX : Radar and rules for warning of collisions at sea.
Chapter X : The importance of recording experiences in the use of radar.
Chapter XI : Efficiency of radar and its future development.
At the end of the book there is a glossary of terms used in radar navigation.

ELECTRONIC SURVEYING AND MAPPING

by Simo LAURILA

Publication of the Institute of Geodesy, Photogrammetry and Cartography No. 11, 294 pages, 127 fig., 26 × 18.5 cm, the Ohio State University Press Columbus, 1960

This book studies numerous electric systems which have been developed during the last twenty years to measure distances by controlled electromagnetic propagation. It is based on hundreds of original reports and on Dr. LAURILA's

experience investigating and teaching electronic surveying at both the Finland Institute of Technology and the Ohio State University. The contents are separated into the following three parts :

1) Fundamentals of Electronic Surveying

For the benefit of readers with limited knowledge of electronics, the normal introductory material is here supplemented by discussions of transmitters, receivers, cathode-ray tubes, antennas and reflectors.

2) Electronic Surveying Systems

This part is half of the entire book and is divided into three chapters : " Circular Methods " (Gee-H, Oboe, Shoran, E.P.I.); " Hyperbolic Methods " (Gee, Loran, Decca, Raydist, Lorac); and " Other Methods " (PPI Radar, etc.). All the systems are clearly explained and evaluated, Shoran and Decca receiving the fullest attention.

3) Special Problems and Applications

These supplementary chapters present a variety of propagation studies and computational procedures that have been developed for reducing the output of the electronic systems to useful geodetic data.

Many of the formulae are illustrated numerically, and the numerical data on operational accuracy are abundant. A bibliography of 94 references and a glossary of electrical terms are appended.

OZEANOLOGIE, Band I
(Oceanology, volume I)

by Erich BRUNS

420 pages; 145 illustrations; 85 tables; 23.5 × 17 cm
" Deutscher Verlag der Wissenschaften ", Berlin, 1958

The work " Oceanology " deals with the general subject of marine and oceanic research, and is intended for students, scientists and practical workers. Its purpose is to present the latest scientific achievements in all branches of oceanology. At the same time, it gives a brief account of the solutions to certain problems, particularly the improvement of oceanographic instruments and measuring techniques.

The work will comprise 4 volumes.

Volume I, the only one so far received by the International Hydrographic Bureau, gives an introduction to oceanology (hydrology, hydrometry, oceanography) and deals with oceanography proper.

The 17 chapters devoted to oceanography give hydrographic descriptions of the seas and oceans and study the methods of hydrographic survey.

According to the preface of volume I, volume II will deal with oceanometry (methods of measurement, technical instruments), whereas volumes III and IV will deal with oceanology, with particular reference to problems of instability and the movement of water masses.

At the end of the volume there is a bibliography, an index, a list of illustrations and a list of tables.
