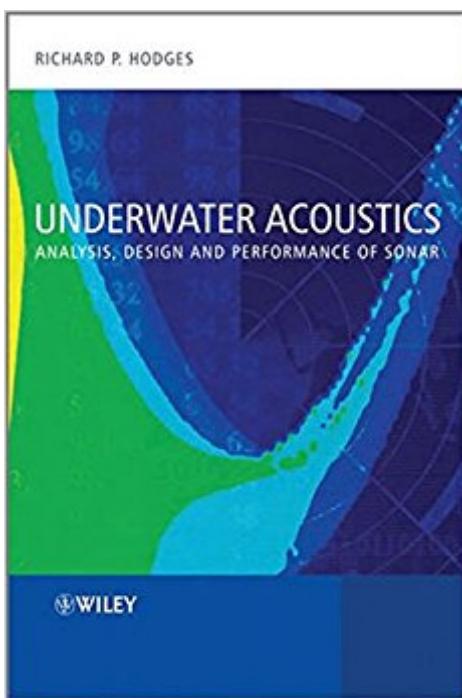


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# Underwater Acoustics: Analysis, Design And Performance Of Sonar



## **Synopsis**

Offering complete and comprehensive coverage of modern sonar spectrum system analysis, Underwater Acoustics: Analysis, Design and Performance of Sonar provides a state-of-the-art introduction to the subject and has been carefully structured to offer a much-needed update to the classic text by Urick. Expanded to include computational approaches to the topic, this book treads the line between the highly theoretical and mathematical texts and the more populist, non-mathematical books that characterize the existing literature in the field. The author compares and contrasts different techniques for sonar design, analysis and performance prediction and includes key experimental and theoretical results, pointing the reader towards further detail with extensive references. Practitioners in the field of sonar design, analysis and performance prediction as well as graduate students and researchers will appreciate this new reference as an invaluable and timely contribution to the field. Chapters include the sonar equation, radiated, self and ambient noise, active sonar sources, transmission loss, reverberation, transducers, active target strength, statistical detection theory, false alarms, contacts and targets, variability and uncertainty, modelling detections and tactical decision aids, cumulative probability of detection, tracking target motion analysis and localization, and design and evaluation of sonars

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RICHARD P. HODGES has forty years experience in sonar, operations analysis, modeling, and the simulation of military systems. He is currently working for Sonalysts, Inc as a principal analyst, and is a member of the Acoustic Society of America. He has taught courses at the Naval Underwater Warfare Center (NUWC) and elsewhere in naval analysis of sonar, acoustics, TMA, tactics, weapons, damage and kill mechanisms, C4I, non-acoustic sensors, platform dynamics weapons, tactics and on the use of NUWC's SIM II Naval Engagement Simulation.

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