

The Slide Rule for Sea and Air Navigation, Podmore, 1933, 2nd Edition 1957

This text is intended for self-study by readers, familiar with high school algebra and trigonometry, who are involved with "...solution of the many problems in Navigation, Flight planning, Cargo work, and other everyday calculations, met with by Seamen and Airmen."

The theory necessary for construction and operation of the slide rule is briefly touched on in Chapter 1. Examples and exercises within chapters are a mix of purely numerical and very applied problems. As should be understood from the title of the book, the majority of problems addressed are quite applied, even arcane, in nature. It is likely that those of us who are not involved in the areas of cargo working, and ship and aircraft handling, will not have run across a number of these issues. Despite this, even because of this, the application and problem set is an extremely interesting and valuable illustration of the utility of the slide rule to practitioners other than scientists and engineers.

The author recommends a slide rule on which the ordinary calculating scales as well as the trigonometrical scales are located on the same face of the rule in order to simplify calculations. Specifically, he recommends the use of "The Navigator's Slide Rule", by Blundell Rules Ltd. This rule has all the relevant scales on one face, has an added tangent scale for angles greater than 45 degrees, and has "...other scales for conversion of units; such as feet to meters, nautical miles to statute miles and kilometers, etc., and special scales for air navigation." A number of gauge points inscribed on this rule are specifically useful in solving problems for which it was designed. Other than a fold-out depiction of the Blundell Navigator's rule included as a frontpiece, the text contains no illustrations.

Appendices are included for Gauge Points-Conversion Factors-Conversion Tables, Useful Formulae, Weights and Storage Factors, and Tables of Weights and Measures. Despite the fact that the book contains no index, the chapter organization and arrangement of problems and examples should make this an excellent reference for those in the fields at whom the book is aimed.