

monic constituents and harmonic analysis. The actual tides are presented in Chapter 5 "Tidal Dynamics" which deals with long wave characteristics in the real world and goes on to excellent descriptions and illustrations of tides in oceans, enclosed seas, on shelves and shelf tidal currents.

Storm surges are covered in Chapter 6 as well as seiches, tsunamis (seismic sea waves), wave set-up and surf beat. Numerical modelling and regional examples of surges are also dealt with. Chapter 7 "Shallow Water Wave Dynamics" covers the impact of shoaling, friction and topography on tides, together with residual currents, tides in rivers, bores and tidal energy budgets at local, regional and global levels.

The engineer is catered to in Chapter 8 "Tidal Engineering" which includes sections on coastal and offshore engineering and tide power generation. Mean sea-level is the title of Chapter 9 and as with tides it is well covered in terms of definition, and influences at scales from seasonal to meteorological and from secular to eustatic. The final two chapters 10 and 11 cover a tidal influence in "Geological Processes and Biology," and conclude by looking to the impact of the Greenhouse effect on mean sea-level.

Given the aims and intended audience this book is highly successful. The coverage is comprehensive including mathematical treatment of all relevant sections. The non-mathematician is covered however by asterisks marking those minority of sections which can be safely passed over, knowing a more qualitative treatment has been provided elsewhere. Throughout, the book is very clear in its definitions, and includes a glossary and an appendix of legal definitions.

In total I found this a very well produced book. The organisation and coverage is thorough, the printing, figures and tables are sharp and very readable, it is a well bound durable book. It is subtitled a 'handbook' and I am sure the intended audience of non-tidal specialists together with undergraduates and graduate students in the disciplines will find it an extremely useful introduction to, coverage of and handbook for their interest in tides. I would recommend it highly both for the classroom and reference shelves.

Andrew D. Short  
University of Sydney  
Sydney, NSW, Australia

**Port Design**, by Carl A. Thoresen, 1988. Tapir, Trondheim. 307p. US \$93.

*Port Design* first of all is a book on Port structures and related subjects, next a manual on planning aspects including operational conditions and less a report on environmental, hydraulic and transportational matters. As such it serves well planners and designers while subjects usually handled by laboratories, research stations, maritime and transport institutes largely are left to them. An experienced consulting port engineer is behind it. He knows what is most important for his task.

The planning and harbour chapters, one and two respectively, are concise with many tables and schematics. Chapter three deals with structures and is particularly well written, especially the "loads" topics; schematic presentations on wharf and berth structures and their main characteristics and details on tie back systems and measures against corrosion are useful. The best section is probably section 3.6, open berth structures, where the author is in his home bailiwick advising even on some constructional aspects.

Fenders are treated in chapter four. It includes a wealth of practical information including examples of calculations and descriptions of damages. Chapter five gives comprehensive information on concrete in marine structures, including underwater casting, types of deterioration and methods of repair. Figures and tables are well done but not referenced. The index is detailed with a number of multiple entries.

All in all, this is a very professional manual for the design of port and terminal structures, leaving hydraulics, breakwaters, transportation facilities, equipment and sheds to others. It deserves to be on every professional port designers shelf.

Per Bruun  
34 Baynard Cove Road  
Hilton Head, South Carolina

**Coastline: Britain's Threatened Heritage**, by Greenpeace, 1987. Kingfisher Books, London, 200p. £14.95. ISBN 0-86272-213-6.

This book sets out to convey a strong message. The British coast is one of the most beau-