BOOK REVIEWS

Marine Policy for America, Gerard J. Mangone, 1988. Taylor and Francis, New York, 365p, $US40.00 ISBN 0-8448-1537-3.

Marine Policy for America illustrates the near Herculean task of writing a detailed yet comprehensive volume on marine policy in the United States. This is probably the reason for the uneven treatment given to the various topics covered in this volume. According to the publisher this represents both a revised and expanded version of the book which was first published in 1977, yet the basic organization has been retained. The book is divided into seven sectoral chapters, five of which treat a particular maritime activity or use (navy, merchant marine, fisheries, seabed mining and pollution). The introductory chapter analyzes U.S. maritime policy from a historical perspective which is clearly one of the author's main areas of interest. The final chapter describes both public and private organizations and institutions which have played a role in formulating maritime policy nationally and internationally. Each of the five chapters is loosely structured around the historical evolution of the maritime activity, interspersed with sections on the development of both national and international

policy formulation as it relates to the major theme of the chapter.

One of the primary criticisms of this well intentioned effort is the near absence of integrated analyses of the impacts and conflicts among the five uses included in the volume. Some specific examples may be cited illustrating these deficiencies. Marine boundary delimitation has been one of the most hotly debated issues nationally and internationally and has occupied marine policy makers, academicians and the business community for decades. The limited discussion of delimitation in this volume is centered on the Gulf of Maine decision and the events leading up to the 1984 International Court Chamber's mandated partition. Nowhere are the boundary issues among U.S. states discussed and since the boundary issues confronting the US are intimately tied to the allocation of resources (read oil and gas) between adjacent states, these issues will not likely diminish during the remainder of the 20th century.

Marine recreational fisheries are treated in less than a page. The number of participants size of investments in boats, equipment and operating expenditures associated with sports fishing warrant a more detailed analysis than offered here. This apparent oversight is aggravated in light of the potential conflicts between commercial and recreational fisheries. This issue is discussed in only one sentence. A more in depth analysis of the potential conflicts between recreational and commercial fisheries would greatly enhance the text considering the limits to the resources and the growing popularity of recreational fishing.

Other topics which have become 'hot' since the first edition was published, but which have not been included in the revised edition, include the issues of access to and ownership of marine archaeological resources by recreational, commercial and marine archeological divers. This issue has become especially important in light of the recent discovery of several very valuable finds in the Gulf of Mexico and on the Atlantic.

The Coastal Zone Management Act is discussed in less than three pages. Furthermore, the treatment is centered entirely on the terrestrial as opposed to nearshore activities and impacts. Given that the coastal region includes the area extending seaward to the outer limit of the Territorial Sea, the author has failed to analyze the accomplishments as well as the lost opportunities for managing many of the resources, impacts and activities occurring in the nearshore. While the Coastal Zone Management Act was hailed in 1972 as one of the few comprehensive environmental laws passed in the US, why did it fail to control nearshore pollution and nearshore fisheries (commercial as well as recreational)? Unfortunately, these important questions are never addressed.

Much of the quantitative information dealing with both shipping and fishing could have been presented graphically or in tabular form. Instead the author was opted for incorporating many of these figures in the written text which has resulted in paragraphs which often appear awkward and overburdened. Specific examples include a lengthy discussion of the changes in the number of fishermen involved in the industry (p. 136) and a description of the European-Asian Fishery Conventions (pp. 151-52). On occasion the author gets lost in the minutae of individual events. A specific example is the discussion of the Challenger Expedition (p. 195) where the reader learns not only the specific time the expedition left the pier, but also the exact tonnage and length overall of the vessel. To compound the problem much of this information is repeated in an earlier section (p. 12).

Finally, some curious errors have crept in the text which justly are the responsibility of the editor(s). Several passages and/or headings appear in two places in the next. Examples include the identical headings on pp 113 and 114, and again on pp 12 and 195. Too many typographical errors appear throughout the text which should have been caught by the reviewers and/or editors especially considering that this volume is in its second edition.

There is clearly a demand for texts on the subject matter included in *Marine Policy for America* as evidenced by the very few textbooks and general readings existing on marine policy and management. The author has gone to considerable length in researching the original documents leading up to a given policy. Relatively few secondary sources however have been cited which seems a shame as these might have been useful in sharpening the analysis. As a text in a marine policy course, this volume would have to be complemented with a rich collection of supplementary readings to provide the students with a sense of the rich diversity

of the policies confronting the professional in this area. The limited analysis addressing competing and conflicting uses of the marine environment and the near absence of integrated analysis makes it less valuable as a general reference on U.S. marine policy during the latter part of the 20th century.

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Port and Ocean Engineering Under Arctic Conditions, W.M. Sackinger and M.O. Jeffries, (eds.). The Geophysical Institute, University of Alaska, Fairbanks, 1988. Volume I, 763p., $95; Volume II, 124p, $24; Volume III, 707 p., $90 (No ISBN given).

The decade 1977-1987 brought an intensive set of engineering and scientific advancements in the Arctic, motivated by the promise of Arctic petroleum, and a newly-recognised public need for understanding of the Arctic environment as part of a global system. This three-volume book provides a full-breadth overview of recent observations, combined with current theory, computer modeling, and laboratory simulation. It contains 131 refereed papers that are an outgrowth of an historic symposium of the same name held in Fairbanks, Alaska. This hardbound edition is an indispensible compendium of data and current theory for the Arctic engineer and polar researcher, and acts as a major step in assimilating the results of a decade of engineering research into a future strategy for rational and selective Arctic devleopment.

Civil and mechanical engineers, ocean engineers, oceanographers, meteorologists, physicists, geographers, mathematicians, geophysicists, geotechnical engineers, marine biologists, and environmental scientists make up the 254 professionals who contributed to the three-volume set. Published a year after the meeting, the papers retain the significance of a decade of research while giving the authors time to polish and reflect upon their manuscripts and the comments elicited at the meeting. The general organization of Volumes I and III cover sea ice properties, ice morphology, sea ice remote sensing, climate, and forecasting, ice dynamics, ice/structure interaction, icebreaking vessels, Arctic materials, steel/concrete composite structural systems, spray ice, Arctic port design and construction, and Arctic/offshore database. Papers from a special symposium on noise and marine mammals are presented in Volume II, organized by J. L. Imm and S.D. Treacy. The editors have produced a set of handsome archival-quality volumes, with many color illustrations and photographs generiously spread throughout the papers, an an elegant selection of supplemental color photographs in the opening pages of the third volume.

Port and Ocean Engineering Under Arctic Conditions is an extremely valuable contribution to the engineering community, and will undoubtedly stand as an historic landmark and guide to our future Arctic engineering endeavors.

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Late Quaternary, Sea-Level Changes and Crustal Movements in the British Isles, I. Shennan, (Ed.), 1989. *Journal of Quaternary Science,* Vol. 4, No. 1, pp. 1–89. Longman, Harlow, Essex CM20 2JE, UK, $61.00 (£30.00), ISSN 0267-8179.

This special issue of the JQS contains a series of original research articles, representing recent developments in sea-level research in the United Kingdom. It is the final contribution of the UK working group, one of the largest national groups of the IGCP Project 200 'Late Quaternary sea-level changes: measurement, correlation and future applicants', which came to an end in 1988. This issue includes, after an introduction chapter, a paper on Ireland, one on the Norfolk coast, four on Scotland and a review covering all Great Britain. It will be useful certainly to researchers and students interested in Quaternary processes, especially sea-level changes and isostatic movements, in coastal geomorphology, sedimentology and paleogeography, and in the British Islands.

In Ireland, Carter *et al.* discuss, with the help of new data, the regional differences in relative sea-level change which have occurred around