

international groupings such as the Caribbean community and the South Pacific Forum which are sponsoring regional schemes for scientific research, environmental protection or fisheries management.

It is when one reaches this point and turns again to the bibliography that one realizes what is missing in this otherwise invaluable work. It is the lack of an overall framework of integration that is missing. There are entries for maritime law, shipping and shipbuilding, fisheries, offshore resources, underwater activities, ocean sciences, environmental protection and naval warfare (though this last is grossly inadequate). There are no entries for overall marine policy, not at the general, not at the regional, nor at the national level. This has the odd result that of British books in the field, C.M. Mason's *International Politics of the North Sea* is only listed under 'Fisheries', and R.P. Barston and Patrician Birnie's *Maritime Dimension* under 'Maritime Law' and 'Naval Warfare'. Kent and Valencia's *Marine Policy in South East Asian Seas* is listed under 'Ocean Sciences', Alastair Couper and Hance Smith's *Multi-Use*

and Multi-State Management in the North Sea under 'Fisheries'. Logically, all these should appear either under 'Marine Policy – general', or under 'Marine Policy – regional – North Sea' or 'South East Asia'.

These are, however, minor examples chosen to illustrate a major choice of conceptual approach. Cannot Keesing's be persuaded to conceive of a second companion volume which would cover the marine and ocean policies of the major maritime powers, and the development of the marine regions, North Sea, Baltic, North East, North West and South Atlantics, Arctic, Bering Sea, Indian Ocean, Mediterranean, Caribbean, West African seas, South East Asia waters, North and South Pacific? Perhaps even for Keesing's this would be too major an undertaking – but it is what is needed. Until that ideal date, this volume can be very warmly recommended, even at its very considerable price.

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limit, including those to the territorial sea and the exclusive economic or fishing zones.

An analysis

The analytical part of the book consists of two chapters summarizing trends in national maritime claims and the development of the EEZ. The first chapter by reviewing state practice with regard to the territorial sea, continental shelf and fishery zones, provides the reader with an adequate view of how these claims culminated in the concept of the 200-mile exclusive economic zone. This is supplemented by a table of the ocean claims of states (listed alphabetically) worldwide, including the status of signature and ratification of the LOSC, and by a table indicating the chronology of the territorial sea and fishing zone claims from 1958–1985. In this context it is interesting to note that, according to a recent study by K. Grzybowski ('The New Soviet Law of the Sea', *Osteuropa Recht*, Vol 32, 1986, p 163), the first 110-mile exclusive fishery zone was established by Alexander I of Russia off the coasts of the Russian Empire in 1821, but due to British and American protests this claim was withdrawn.

The second chapter dealing with the EEZ does not intend – as Smith explains – to present a negotiating history of the LOSC or provide a full analysis of its EEZ provisions, but is meant to give the reader 'an overview of how states have thus far implemented the exclusive economic zone concept in national laws' (p 28). One has to agree with the author that the value of such an overview is emphasized by the importance of the EEZ legislation as the basis for national enforcement policies of states, and as the key to understanding disputes over the interpretation of LOSC provisions. At the same time, it is appreciable that while referring to the legislative history of LOSC, Smith uses as a base the works of Bernard Oxman – one of the most outstanding commentators in this area. Moreover, the above mentioned overview is preceded by a brief examination of the relevant articles of Parts V (EEZ) and

Analysing EEZ development

EXCLUSIVE ECONOMIC ZONE CLAIMS: AN ANALYSIS AND PRIMARY DOCUMENTS

by Robert W. Smith

*Martinus Nijhoff Publishers,
Dordrecht-Boston-Lancaster, 1986,
501 pp, £112.25*

This book is the most adequate response yet to the needs of the world community of scholars and practitioners at the present stage of development of the 200-mile exclusive economic zone (EEZ). This is because the institution of the EEZ, being one of the major achievements of the 1982 United Nations Convention on the Law of the Sea (LOSC), has been developing for more than a decade through state practice. As a result, on

the one hand, the representatives of the doctrine of international law are interested in obtaining access to the legislative practice of states, which is an important element enabling them to assess the impact of such practice on the formation of the new customary international law on the EEZ. On the other hand, the practitioners who are directly involved in implementing the EEZ regime seek an access to the other states' legislative experience as a part of decision making in their respective countries.

Smith's book, as the subtitle indicates, responds to the needs of both these groups by providing them with analysis and texts of national legislation related to the 200-mile EEZ. In addition, it contains a valuable and extensive index, and a world map illustrating claims to the 200-mile

VII (High Seas) of the LOSC (pp 28–29) which are reproduced in an annex to this chapter, and by a valuable chronology of national claims to the EEZ presented in the context of respective developments at UNCLOS III (pp 29–31).

The review of legislative practice of 87 states and dependencies (pp 33–40) is illustrated by a table of the EEZ claims (listed alphabetically by state) that are categorized for each state according to the major contents of the respective national laws (pp 35–37). Whereas the idea of such categorization is certainly very useful, the further qualitative classification of the EEZ claims as those that generally follow LOSC, exceed LOSC and are not provided for in LOSC, inheres in the risk of controversial assessments. Moreover, the differentiation between 'LOSC Claims' (first five columns) and 'EEZ and Other Claims' (last three columns) does not seem to serve its purpose, as both these categories cover mutually the EEZ and/or LOSC claims.

The first five columns correspond respectively to the coastal state rights, as established by the LOSC, with regard to natural resources (all 87 claims), production of energy etc (57 claims), artificial islands (62 claims), scientific research (63 claims) and environmental protection (76 states). As it follows from Smith's analysis, the claims made by states with regard to the two first of these categories generally follow LOSC, and claims of some states with regard to artificial islands and environmental protection (potentially) exceed LOSC.

The last three columns comprise security claims in the contiguous zone, special areas and the penalty of imprisonment, with the first of them qualified as exceeding and two others as not provided for (not sanctioned) by the LOSC. This is a rather confusing categorization which for the sake of clarity would be better rearranged. In particular, the column of special areas should have been replaced by that of designated areas, and the security claims in the contiguous zone should have been qualified – not as Smith proposes as exceeding LOSC – but as not provided for in LOSC. All

these three kinds of claims (security, designated areas and imprisonment) do not conform with LOSC, and will require revision once the states concerned ratify the Convention.

This confusion of classification seems to lie in the difficulty encountered by Smith in categorizing Indian Ocean states and some other states' claims to the designated areas within their 200-mile exclusive economic zones. To overcome this difficulty Smith includes in a category of special areas claims, not only those for which this term is usually reserved, ie special areas (Article 211 (6)), but also those with regard to the safety zones around artificial islands (Article 60 (4–7)) (p 34). Subsequently he lists the Indian Ocean states' claims to designated areas together with the Soviet claim to special areas (Article 211 (6) (p 38), and indicates the former in his table under the column of special areas claims that do not conform with LOSC. As this may bring an inexperienced reader to misleading conclusions, it would have been better – as already mentioned – to distinguish a separate category of designated areas and include the assessment with regard to the safety zones under the column of artificial islands and with regard to special areas under the column of environmental protection.

The concept of designated areas – which was originally proposed by India at UNCLOS III in place of safety zones around artificial islands (Informal Proposal with regard to Article 48 of ISNT/Part II of 7 April 1976) – has so far not been referred to in any analytical study by authors from Indian Ocean states. Nor can any evidence be found of whether and how this concept is implemented in practice by the coastal states concerned. At the same time, it can be assumed that the unclear status of the designated areas may, to some extent, be connected with the uncertainties as to the legal implications of designation of the Indian Ocean as a zone of peace.

Finally, the comments column of Smith's overview could have been more elaborated or even channelled into some additional categories of claims. For instance, states requiring authorization for the laying of both

submarine cables and pipelines within their EEZs include not only Pakistan, Sao Tome and Principe, but also Burma, India, Guyana, Malaysia, Mauritius, Saint Lucia and the Seychelles; and the detailed fishing regulations have not only been enacted by New Zealand and its dependencies, but also by Cape Verde, Equatorial Guinea, Fiji, Gabon, Guinea-Bissau, India, Indonesia, Kiribati, Malaysia, Mauritania, Nigeria and other states.

Primary documents

The texts of national legislation reproduced in the book comprise – as Smith indicates – only the primary documents creating the EEZs which range from single-page proclamations to lengthy laws in which the EEZ is but one of several maritime zones established by the coastal state (p 32). At the same time, it is important that the author has ensured reproduction of all the relevant texts *in extenso*, because this allows the survey of parallel extensions of the territorial sea, contiguous zone and continental shelf and their interrelationships with the EEZ.

It should be emphasized that, due to its focus on primary documents, Smith's book, albeit most valuable, does not serve all the needs of in-depth studies on the EEZ. In view of the rapid developments occurring in state practice, both scholars and practitioners will need to turn to the ever increasing amount of implementing legislation related to 200-mile zones. In this context, it should be mentioned that access to such documents is being greatly facilitated by the United Nations Office of the Special Representative of the Secretary General for the Law of the Sea which has recently published two important collections, *National Legislation on the Exclusive Economic Zone, the Economic Zone and the Exclusive Fishery Zone* (UN, New York, 1986) and *Current Developments in State Practice* (UN, New York, 1987), and which continuously reproduces the relevant texts of national legislation and other documents in its *Law of the Sea Bulletin*.

Further collections of the UN Office for the Law of the Sea related to

continental shelf and marine scientific research are under preparation. Moreover, in view of the significance of growing cooperation of states within international organizations dealing with ocean affairs, the Netherlands Institute for the Law of the Sea (NILOS) has undertaken the preparation of *Documentary Yearbook - International Organizations and the Law of the Sea*. The first volume, covering documents issued in 1985 has recently been published by Martinus Nijhoff. The documents reproduced in the numerous publications of the UN Office for the Law of the Sea and in the NILOS Yearbook are of outmost importance for any studies related to the implementation of the LOSC, in general, and of the new EEZ regime in particular.

Since Smith's book is by its very nature a work that should be updated, it would be most useful if he could in future prepare supplements to the book. Such supplements could reproduce the new legislative texts, such as the 1984 decree of the USSR and the 1986 legislation of Ghana, Mexico and Romania (all of them reproduced in

the publications of the UN Office referred to above), as well as indicate the recent state of LOSC ratifications (now 32). Moreover, it would be of help to both researchers and practitioners if the proposed supplements to the book could list (with reference to their source) the relevant implementing EEZ regulations. It seems that such work could easily be arranged, with the assistance of the UN Office and its computerized Law of the Sea Information System.

With these suggestions for the future, I end by congratulating the author for his remarkable work which should certainly be given a prominent position in the libraries of scholars and practitioners involved in the international law of the sea and marine policy.

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some of the subjects described in the book.

Inclusion of these three topics would have been helpful in providing a more complete overview of the oceanic future. But that having been said, it is the only criticism of omission that can be made about the volume – and perhaps more important the inclusion of those topics would have been unlikely to modify what the authors say in their final chapter 'Summary and Prospects' – although there will be many who would like to argue with some of their conclusions in that chapter. However, their arguments are well put and stoutly defended.

Perhaps that is one of the best features of this book – the balanced view put forward on each topic – not to be confused with 'sitting on the fence' which the authors do not do. In fact, in a word, this book has to be described as excellent. Also in the context of UK readers it is particularly timely with the Government's Resources from the Sea Initiative getting into its stride.

Turning to the content of the book, following an Introduction by the series editor (Professor Bernard Taylor from the Henley Management College) which provides a thoughtful six pages of scene setting, the authors offer in their Introduction another six pages which put the scale and potential of ocean resources into the perspective of other (land-based) sources, and relate the nature of the task of exploring for and exploiting those resources to national endeavours – pointing out that the industry of a country may well benefit from a new ocean technology even if there is no application in home waters; in other words export potential could exist in the absence of a domestic market, particularly for countries which have developed ocean engineering expertise in other ways – and North Sea oil and gas developments spring to mind as an example.

In the seven chapters which follow, manganese nodules, phosphorites and muds, other minerals from the sea, ocean thermal energy conversion, other forms of energy from the sea, artificial islands, and surveying and sensing are covered. Finally there is

Future of ocean technology

THE FUTURE FOR OCEAN TECHNOLOGY

by Glyn Ford, Chris Niblett and Lindsay Walker

Frances Pinter, London and New Hampshire, 1987, xii + 139 pp, £17.50

This is the third volume in the publisher's series *The Future for Science and Technology*, and its breadth of subject will have provided a hard task for the authors. The fact that much of the book is based on work undertaken during the past few years by the Marine Resources Project (MSP) of Manchester University's programme of Policy Research in Engineering Science and Technology (PREST) will have eased that problem; but the further fact that this book provides a balanced and comprehensive account

of progress and opportunities in the ocean does considerable credit to the range of topics undertaken by MSP.

There are areas excluded from the book – oil and gas, shipping and fishing – the stated justification for this being the absence of *novel* technologies from their development, as opposed to the continuing development of existing technologies. Not, in the view of this reviewer, a justification which can be supported; fish farming and fish ranching seem as likely to develop in the next 20 years as much as some of the topics which are covered in the book; oil and gas developments are certainly retreating now, but if prices of crude start to rise further then deeper water exploitation will demand new solutions; and while shipping is a highly conservative industry, new hull forms and constructional techniques seem likely to be required to enable exploitation of