CALMING THE WATERS: INITIATIVES FOR ASIA PACIFIC MARITIME COOPERATION

Edited by
Sam Bateman and Stephen Bates

Published by
Strategic and Defence Studies Centre
Research School of Pacific and Asian Studies
The Australian National University
Canberra, Australia
1996
Calming the waters: initiatives for Asia Pacific maritime cooperation.

Bibliography.
ISBN 0 7315 2425 X.


355.03305

Series Editor Helen Hookey
Word Processing by Elza Sullivan
Cover Designed by Roy Blinston Design Studio
Printed by CPN Publications Pty Ltd
Published and distributed by:
Strategic and Defence Studies Centre
Research School of Pacific and Asian Studies
The Australian National University
Canberra ACT 0200
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ABSTRACT

This monograph includes the discussion papers presented at the First Meeting of the Council for Security Cooperation in the Asia Pacific (CSCAP) Maritime Cooperation Working Group held in Kuala Lumpur 2-3 June 1995.

The establishment of a Working Group on Maritime Cooperation by CSCAP, as part of its initial work programme, is a reflection of the importance of the maritime environment in the security deliberations of Asia Pacific countries. The Asia Pacific region is distinctively maritime in nature. The sea, and issues to do with the sea, are an important part of international relations in the region, both between regional countries themselves, and between these countries and the rest of the world.

The importance of maritime cooperation in the Asia Pacific region flows from the nature and complexity of the regional geographical environment, and the propensity for illegal activities and disputes to occur at sea. Maritime cooperation will contribute to regional stability by easing tensions and reducing the risks of conflict while helping to promote a stable maritime regime in the region with the free and uninterrupted flow of seaborne trade, and nations able to pursue their maritime interests and manage their marine resources in an ecologically sustainable manner in accordance with agreed principles of international law.

The CSCAP Maritime Cooperation Working Group has adopted a broad view of security, which encompasses a range of small 's' security issues, such as marine safety, resources conservation, coastal zone management and unlawful activities at sea (such as drug smuggling, illegal population movements and piracy), as well as more conventional maritime security issues. A comprehensive approach to security was explicit in the Group's first meeting programme, which included sessions on shipping, marine science, and the marine environment.

The papers in this volume provide a comprehensive review of the main maritime security concerns in the region.
Canberra Papers on Strategy and Defence are a series of monograph publications that arise out of the work of the Strategic and Defence Studies Centre at the Australian National University. Previous Canberra Papers have covered topics such as the relationship of the superpowers, arms control at both the superpower and Southeast Asian regional level, regional strategic relationships and major aspects of Australian defence policy. For a list of New Series Canberra Papers please refer to the last pages of this volume.

Unless otherwise stated, publications of the Centre are presented without endorsement as contributions to the public record and debate. Authors are responsible for their own analysis and conclusions.
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<tr>
<td>ACOPS</td>
<td>Advisory Committee on Protection of the Sea</td>
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<td>AEGE</td>
<td>ASEAN Experts Group on the Environment</td>
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<td>AFDC</td>
<td>ASEAN Fisheries Development Centre</td>
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<tr>
<td>APEC</td>
<td>Asia Pacific Economic Cooperation</td>
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<td>ARF</td>
<td>ASEAN Regional Forum</td>
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<td>ASCOPE</td>
<td>ASEAN Council on Petroleum</td>
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<td>ASEAMS</td>
<td>Association of Southeast Asian Marine Scientists</td>
</tr>
<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
</tr>
<tr>
<td>ASFIS</td>
<td>Aquatic Sciences and Fisheries Information System</td>
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<tr>
<td>C3</td>
<td>Command, Control and Communications</td>
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<td>CBM</td>
<td>Confidence Building Measure</td>
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<tr>
<td>CCOP</td>
<td>Committee for Coordination of Joint Prospecting for Mineral Resources</td>
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<tr>
<td>CCOP/EA</td>
<td>Committee for Coordination of Joint Prospecting for Mineral Resources in East Asian Offshore Areas</td>
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<tr>
<td>CFE</td>
<td>Conventional Forces in Europe</td>
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<tr>
<td>CDMSCS</td>
<td>Committee for Development and Management of Fisheries in the South China Sea (UN/IPFC)</td>
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<tr>
<td>CIMOS</td>
<td>Computer Integrated Marine Operations System</td>
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<tr>
<td>CNOOC</td>
<td>China National Offshore Oil Corporation</td>
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<tr>
<td>COBSEA</td>
<td>Coordinating Body on the Seas of East Asia (UNEP)</td>
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<td>COMAR</td>
<td>Interregional Project on Research and Training on Integrated Management of Coastal Systems (UNESCO)</td>
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<td>CSBM</td>
<td>Confidence and Security Building Measure</td>
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<tr>
<td>CSCAP</td>
<td>Council for Security Cooperation in the Asia Pacific</td>
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<td>CSCE</td>
<td>Conference on Security and Co-operation in Europe</td>
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<tr>
<td>DEA</td>
<td>Drug Enforcement Agency (US)</td>
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<tr>
<td>DPRK</td>
<td>Democratic People's Republic of Korea (North Korea)</td>
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<tr>
<td>DSTO</td>
<td>Defence Science and Technology Organisation (Australia)</td>
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<tr>
<td>EC</td>
<td>European Community</td>
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<tr>
<td>ECAFE</td>
<td>Economic Commission for Asia and the Far East (UN)</td>
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<tr>
<td>EEZ</td>
<td>Exclusive Economic Zone</td>
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<td>EFZ</td>
<td>Exclusive Fishing Zone</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>ENMOD</td>
<td>Environmental Modification Convention (UN)</td>
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<td>ESCAP</td>
<td>Economic and Social Commission for Asia and the Pacific (UN)</td>
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<td>EXTAC</td>
<td>Exercise Tactical</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organisation</td>
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<tr>
<td>FFA</td>
<td>Forum Fisheries Agency</td>
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<tr>
<td>FPDA</td>
<td>Five Power Defence Arrangement</td>
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<tr>
<td>GEF</td>
<td>Global Environment Facility</td>
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<tr>
<td>GEMSI</td>
<td>Group of Experts on Methods, Standards, and Intercalibration (IOC)</td>
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<td>GIPME</td>
<td>Global Investigation of Pollution in the Marine Environment</td>
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<td>GNP</td>
<td>Gross National Product</td>
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<td>GRT</td>
<td>Gross Registered Tonnage</td>
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<tr>
<td>HLH</td>
<td>Hong Kong-Luzon-Hainan Island</td>
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<tr>
<td>IBRU</td>
<td>International Boundaries Research Unit</td>
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<td>ICLARM</td>
<td>International Centre for Living Aquatic Resources Management</td>
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<td>IESG</td>
<td>(Oil) Industry Environment Safety Group</td>
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<tr>
<td>IHIO</td>
<td>International Hydrographic Organisation</td>
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<td>IMB</td>
<td>International Maritime Bureau</td>
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<td>IMO</td>
<td>International Maritime Organization</td>
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<td>INCSEA</td>
<td>Incidents at Sea (Agreements)</td>
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<td>IOC</td>
<td>International Oceanographic Commission</td>
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<td>IPFC</td>
<td>Indo-Pacific Fishery Commission</td>
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<td>JMSDF</td>
<td>Japan Maritime Self-Defense Force</td>
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<td>MARPOLMON</td>
<td>Marine Pollution Monitoring (IOC)</td>
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<td>MCBM</td>
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<td>MCSBM</td>
<td>Maritime Confidence and Security Building Measure</td>
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<tr>
<td>MECC</td>
<td>Maritime Enforcement and Co-ordination Centre</td>
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<tr>
<td>MEPP</td>
<td>Middle East Peace Process</td>
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<td>MIED</td>
<td>Maritime Information Exchange Directory</td>
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<tr>
<td>MPA</td>
<td>Maritime Patrol Aircraft</td>
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<td>MTJA</td>
<td>Malaysia-Thailand Joint (Continental Shelf) Authority</td>
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<td><strong>NATO</strong></td>
<td>North Atlantic Treaty Organisation</td>
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<td><strong>NFA</strong></td>
<td>National Fisheries Administration (South Korea)</td>
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<tr>
<td><strong>NGO</strong></td>
<td>Non-Governmental Organisation</td>
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<tr>
<td><strong>nm</strong></td>
<td>nautical mile</td>
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<td><strong>NOWPAP</strong></td>
<td>North-West Pacific Action Plan (UNEP)</td>
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<tr>
<td><strong>PACALS</strong></td>
<td>Pacific Area Cooperative and Logistic System</td>
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<tr>
<td><strong>PASOLS</strong></td>
<td>Pacific Area Senior Officers Logistics Seminar</td>
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<tr>
<td><strong>PICES</strong></td>
<td>North Pacific Marine Science Organisation</td>
</tr>
<tr>
<td><strong>PRC</strong></td>
<td>People's Republic of China</td>
</tr>
<tr>
<td><strong>PSA</strong></td>
<td>Port of Singapore Authority</td>
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<td><strong>RAN</strong></td>
<td>Royal Australian Navy</td>
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<tr>
<td><strong>RAS</strong></td>
<td>Replenishment at Sea</td>
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<tr>
<td><strong>RDC</strong></td>
<td>Responsible Data Centre</td>
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<td><strong>RMRDC</strong></td>
<td>Regional Mineral Resources Development Centre (UN ESCAP)</td>
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<tr>
<td><strong>ROK</strong></td>
<td>Republic of Korea (South Korea)</td>
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<tr>
<td><strong>RSSS</strong></td>
<td>Radar Sea Surveillance System</td>
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<td><strong>RUKUS</strong></td>
<td>Russia-UK-US talks</td>
</tr>
<tr>
<td><strong>SAR</strong></td>
<td>Search And Rescue</td>
</tr>
<tr>
<td><strong>SAREX</strong></td>
<td>Search And Rescue Exercise</td>
</tr>
<tr>
<td><strong>SCIMARE</strong></td>
<td>South China Sea Institute for Marine Resources Management (proposed)</td>
</tr>
<tr>
<td><strong>SEAFDEC</strong></td>
<td>Southeast Asian Fisheries Development Centre</td>
</tr>
<tr>
<td><strong>SEATAR</strong></td>
<td>Studies of East Asian Tectonics and Resources (Joint Working Group, IOC/CCOP)</td>
</tr>
<tr>
<td><strong>SEATRADC</strong></td>
<td>Southeast Asian Tin Research and Development Centre</td>
</tr>
<tr>
<td><strong>SLOC</strong></td>
<td>Sea Lane/Line Of Communication</td>
</tr>
<tr>
<td><strong>SMIS</strong></td>
<td>Strategic Maritime Information System</td>
</tr>
<tr>
<td><strong>SSBN</strong></td>
<td>Nuclear-Fuelled Ballistic-Missile Submarine</td>
</tr>
<tr>
<td><strong>TAC</strong></td>
<td>Treaty of Amity and Cooperation</td>
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<tr>
<td><strong>TBM</strong></td>
<td>Trust Building Measure</td>
</tr>
<tr>
<td><strong>UNCED</strong></td>
<td>United Nations Conference on Environment and Development</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<td>---------</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Program</td>
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<td>UNEP</td>
<td>United Nations Environment Program</td>
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<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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<tr>
<td>US</td>
<td>United States</td>
</tr>
<tr>
<td>USN</td>
<td>United States Navy</td>
</tr>
<tr>
<td>VLCC</td>
<td>Very Large Crude Carrier</td>
</tr>
<tr>
<td>VTIS</td>
<td>Vessel Traffic Information System</td>
</tr>
<tr>
<td>WESPAC</td>
<td>Western Pacific Working Group (UNESCO)</td>
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<tr>
<td>WPNS</td>
<td>Western Pacific Naval Symposium</td>
</tr>
<tr>
<td>YSLME</td>
<td>Yellow Sea Large Marine Ecosystem</td>
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CONTRIBUTORS

Commodore (Ret.) Sam Bateman retired from the Royal Australian Navy (RAN) in 1993 and took up a position as Manager (now Executive Director) of the Centre for Maritime Policy at the University of Wollongong in New South Wales. His naval experience included four ship commands, five years' service in Papua New Guinea, and several postings in the force development and strategic policy areas of the Department of Defence in Canberra. He has written extensively on defence and maritime issues in Australia and the Asia Pacific and the Indian Ocean regions, and is a Joint Chairman of the Council for Security Cooperation in the Asia Pacific (CSCAP) Working Group on Maritime Cooperation.

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He has authored and edited many articles and publications. These include: Southeast Asia and Regional Peace: A Study of Zopfan (ISIS Malaysia, Kuala Lumpur, 1992); The Oil Sultanate: the Political History of Oil in Brunei (Mawwadah, Malaysia, 1991); 'Jurisdictional Issues and the Conflicting Claims in the Spratlies', Indonesian Quarterly, Vol. XVIII, No. 2, 1990; The Malaysian Exclusive Economic Zone: Some Legal Aspects (Pelanduk, 1988); 'ASEAN-Discourse Relations: An Analysis' (Kuala Lumpur, 1989); Antarctica in International Affairs (ISIS Malaysia, Kuala Lumpur, 1987); 'The Indonesian Archipelagic Concept: Its Relevance to Malaysia', Marine Policy, January 1984; and Malaysia and the Law of the Sea (Kuala Lumpur, 1983).

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Rear Admiral Nit Srisomwong has had extensive service in the Royal Thai Navy and has studied abroad at the US Naval War College. His naval postings include that of Naval Attaché in Jakarta and Director of the Naval Research and Development Department. He has also served as Secretary to the Deputy Minister of Defence and has written articles on maritime, economic and strategic issues.

David Ong is a Lecturer at the Law Department of the University of Essex. Prior to that he taught International Law of the Sea, Marine Environmental Law and International Environmental Law in the Law Faculty of the University of Hull. An associate of the Malaysian Institute of Maritime Affairs (MIMA), he has published recently on Southeast Asian state practice on the Joint Development of Offshore Oil and Gas Deposits and the Relationship between Chapter 17 of Agenda 21 (on the Protection of the Oceans) and the 1982 UN Convention on the Law of the Sea (UNCLOS). In November 1991 he acted as a UN consultant (along with Professors David Freestone and Alan Boyle and Dr Katharina Kummer) to prepare jointly a survey of the Effectiveness of International Agreements for the Protection of the Marine Environment on behalf of the 1992 UN Conference on Environment and Development (UNCED) in Rio de Janeiro. More recently, he has worked as a consultant on various Southeast Asian maritime boundary disputes, including the Spratly Islands and the Gulf of Thailand.

Jin-Hyun Paik is Professor at the Institute of Foreign Affairs and National Security in the Ministry of Foreign Affairs. Previous positions include Research Associate at The Hague Academy of International Law, Attorney-at-law (Member of New York Bar), Chairman of the Asian Group United Nations Conference on the Law of the Sea, Member of the Presidential Commission on the 21st Century (Korea) and Member of the Commission on External Economic Policy Coordination. Dr Paik’s publications include: Exploring Maritime Cooperation in Northeast Asia: Possibility and Prospects (ed.); Nuclear Conundrum: Analysis and Assessment of Two Koreas’ Policies Regarding the Nuclear Issues; Rethinking Collective Security in the Post-Cold War World, Myth and Reality of the UN’s Role in International Peace and Security.
Donald R. Rothwell is a Senior Lecturer at the Faculty of Law, University of Sydney where he has taught since 1988. His major research interests include constitutional and international law, with a specific focus on federalism, international environmental law, law of the sea, and law of the polar regions. In 1995 he was awarded a PhD from the University of Sydney for a thesis titled 'The Polar Regions and the Development of International Law', which Cambridge University Press will publish in 1996. He is also a Senior Research Associate at the Centre for Maritime Policy, University of Wollongong, and a Lieutenant in the Royal Australian Navy Reserve.

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Calming the Waters: Initiatives for Asia Pacific Maritime Cooperation


Stanley Weeks is Senior Scientist in the Programs and Policy Division of Science Applications International Corporation (SAIC) in the United States. He has a BS in Foreign Affairs from the US Naval Academy and a PhD in International Studies from the American University. Dr Weeks has over 25 years' experience in international policy and security issues. Recent work at the SAIC has included support for the Office of the Secretary of Defense in developing Pacific multilateral security cooperation and US policy alternatives for Korea, and support for Navy Staff in strategy development, force structure analysis, and naval forward presence. His prior background includes leadership in arms control and international negotiations, key strategic planning roles, and extensive operational experience at sea. Dr Weeks' experience in the State Department included US and NATO nuclear and conventional force and policy planning responsibility. As a member of the National War College Strategy Department faculty, Dr Weeks developed and led the core course on Strategic Planning and Resource Allocation. Dr Weeks has also served as a member of the United Nations Experts group on Maritime Security, and is a member of the Board of Directors of the US Committee of CSCAP. His most recent writings include 'Multilateral Security Cooperation and Confidence Building Measures in the Asia-Pacific' (for OSD/ISA (EAPR)), July 1994; and 'Naval Forward Presence in the Cold War: Perceptions of Former Soviet Elites' (for OPNAV), November 1994.
PREFACE

The Council for Security Cooperation in the Asia Pacific (CSCAP) was established in 1993 as a result of agreement among strategic studies centres in the region that a more structured approach was required to the involvement of non-governmental agencies in the process of regional security cooperation and confidence building. Ten countries (Australia, Canada, Indonesia, Japan, South Korea, Malaysia, the Philippines, Singapore, Thailand, and the USA) were founding members of CSCAP, and New Zealand, Russia and South Korea subsequently joined, along with India and a Western European consortium as Associate Members.

Working groups are the primary mechanism for CSCAP activity, and the following four working groups have been established:

- maritime cooperation;
- the enhancement of security cooperation in the North Pacific/Northeast Asia;
- confidence and security building measures (CSBMs), including transparency; and
- the concepts of cooperative and comprehensive security.

This monograph includes the discussion papers presented at the First Meeting of the CSCAP Maritime Cooperation Working Group held in Kuala Lumpur 2-3 June 1995. Prior to the meeting, each member of the group had been assigned a maritime field of interest relevant to his or her expertise, and was then asked to prepare a discussion paper addressing the current level of cooperation in that field, the scope for further cooperation and dialogue, and the potential contribution to regional security.

Arrangements for this meeting of the Working Group were made by the Institute of Strategic and International Studies (ISIS) Malaysia, and we are most grateful to ISIS for this assistance, particularly to the two staff members of ISIS, Mr Valentine Siva and Mr Zainal, who carried out this task. We must also acknowledge the support received in organising this meeting from Mr Stephen Bates,
the Executive Officer of CSCAP Australia, and Mrs Myree Mitchell, the Secretary of the Centre for Maritime Policy. Mrs Mitchell, Mrs Helen Hookey, a Research Assistant at the Strategic and Defence Studies Centre, and Mrs Elza Sullivan, Strategic and Defence Studies Centre's Word Processor Operator, also helped with preparing the papers for publication.

R.M. Sunardi
Sam Bateman
Joint Chairmen, CSCAP Maritime Cooperation Working Group
INTRODUCTION

Sam Bateman and Stephen Bates

This volume comprises the papers presented at the first meeting of the Working Group on Maritime Cooperation established by the Council for Security Cooperation in the Asia Pacific (CSCAP).\footnote{In order to provide a complete coverage of possible areas of maritime cooperation, a paper on the law of the sea as a maritime confidence building measure has been included in the volume although it was not presented at the Kuala Lumpur meeting.} The meeting was held in Kuala Lumpur, Malaysia, on 2-3 June 1995 with support provided by the Institute of Strategic and International Studies (ISIS), Malaysia. The papers have been edited for publication under the auspices of the Australian Committee for CSCAP (AUS-CSCAP). The formal report from the meeting appears as the last paper in this volume.

The objectives of the Working Group are to:

- foster maritime cooperation and dialogue among the states of the Asia Pacific region and enhance their ability to manage and use the maritime environment without prejudicing the interests of each other;
- develop an understanding of regional maritime issues and the scope they provide for cooperation and dialogue;
- contribute to a stable maritime regime in the Asia Pacific region which will reduce the risk of regional conflict;
- undertake policy-oriented studies on specific regional maritime security problems;
- promote particular maritime confidence and security building measures (MCSBMs); and
- promote adherence to the principles of the 1982 UN Convention on the Law of the Sea (UNCLOS).
The establishment of a Working Group on Maritime Cooperation by CSCAP, as part of its initial work programme, is a reflection of the importance of the maritime environment in the security deliberations of Asia Pacific countries. The Asia Pacific region is distinctively maritime in nature. The sea, and issues to do with the sea, are an important part of international relations in the region, both between regional countries themselves, and between these countries and the rest of the world.

The Asia Pacific region depends heavily upon the sea for foodstuffs, for trade, and for longer term economic prosperity. The importance of the sea to regional countries is reflected in the size of their merchant shipping fleets, the burgeoning emphasis on maritime defence capabilities, and the attention given to offshore sovereignty claims in the region. Many regional countries are investing heavily in offshore resource developments, particularly in oil and gas, and fishing is a major regional industry - and a continuing cause of dispute between regional countries. Because many Asia Pacific countries are island or archipelagic states and the land transport infrastructure on the East Asian mainland is not well developed, seaborne trade is of particular importance in the region.

While the interests of regional countries in the sea often coincide, they can also conflict, particularly with regard to the exploitation of marine resources, both living and non-living. Furthermore, waste disposal and other polluting effects of coastal, or even inland, developments in one country can be carried by sea and river to affect other countries. Or in the case of a maritime security consideration, many regional countries have a vested interest in the freedom of navigation through international straits and choke points, but the coastal states, adjacent to these waters, may feel that this freedom compromises their national security, or the integrity of their marine environment, unless stricter procedures for navigation or marine safety are introduced.

In view of the significance of maritime issues in the region, the maritime environment is potentially a rich source of ideas and initiatives for developing the habit of cooperation and dialogue. This is in the context both of:

- the traditional concept of military security with possible MCSBMs, including regional naval cooperation, the prior
notification of maritime exercises, and avoidance of incidents at sea (INCSEA) agreements; and

- the concept of comprehensive security with possible measures in the area of regional maritime cooperation, including shipping safety, the control of marine pollution, cooperative marine scientific research, and resource management regimes.²

The importance of maritime cooperation in the Asia Pacific region flows from the nature and complexity of the regional geographical environment, and the propensity for illegal activities and disputes to occur at sea. Maritime cooperation will contribute to regional stability by easing tensions and reducing the risks of conflict while helping to promote a stable maritime regime³ in the region with the free and uninterrupted flow of seaborne trade, and nations able to pursue their maritime interests and manage their marine resources in an ecologically sustainable manner in accordance with agreed principles of international law.

A stable maritime regime requires comprehensive dialogue and cooperation between regional nations on issues of common concern in the maritime environment. This is not the case at present. There are many examples of disputed claims to offshore sovereignty in the Asia Pacific region, unresolved maritime boundaries, potentially restrictive interpretations of freedoms of navigation, widespread illegal fishing, illegal population movements, drug smuggling, and frequent occurrences of piracy in several areas. Disputation also arises between different activities at sea - shipping can cause pollution, overfishing depletes fish stocks, dumping and undersea mining degrade the marine environment, conservation clashes with development, and so on.

² There is thus a distinction to be made between naval cooperation, which encompasses all military activities associated with the sea (recognising that in some regional countries, maritime aircraft are operated by the air force); and maritime cooperation, which is a broader concept in line with the theory of comprehensive security, and encompassing the full range of activities and interests in the sea (for example, shipping, marine resources and environmental protection).

The potential for maritime 'disorder' in the Asia Pacific region is heightened by the geographical nature of the region - East Asia in particular. Along the eastern coastline of Asia, there is a continuous chain of enclosed or semi-enclosed seas between the mainland and the off-lying archipelagoes and islands, stretching from Sakhalin and the Kamchatka Peninsula through the Japanese archipelago and the Philippines to the Indonesian archipelago and northern Australia. The situation is then further complicated by the number of groups of islands within these seas, such as the Senkaku, Paracel and Spratly islands, which are the subject of sovereignty disputes.

The maritime geography of the Asia Pacific region has great strategic significance and underpins the fundamental importance of regional maritime cooperation. Achieving straight-line maritime boundaries and clear sovereign jurisdiction over maritime areas in such a region is proving to be an extraordinarily difficult task.

Regional seas are also relatively complex in oceanographic and hydrographic terms with plentiful marine life, uneven bottom topography, and sometimes fast currents and tidal streams. Comprehensive knowledge of regional seas is essential for resource development, navigational safety, and marine environmental management, as well as for naval operations such as submarine operations, anti-submarine warfare, and mine counter-measures. Cooperation in regional marine scientific research is important because ecosystems and oceanographic features vary so much from one area to another, and are not part of the sole jurisdiction of one country or another.

The CSCAP Maritime Cooperation Working Group has adopted a broad view of security, which encompasses a range of small 's' security issues, such as marine safety, resources conservation, coastal zone management and unlawful activities at sea (such as drug smuggling, illegal population movements and piracy), as well as more conventional maritime security issues. A comprehensive approach to security was explicit in the Group's first meeting programme, which included sessions on shipping, marine science, and the marine environment.

The papers in this volume provide a comprehensive review of the main maritime security concerns in the region. Inevitably there was considerable discussion at the meeting of the South China Sea as
the major maritime 'hot spot' in the region. With shifts apparent in China's policy towards a harder line on sovereignty, it was of concern that the pressure could be on ASEAN to develop a coordinated position, including a possible preparedness to hold the line militarily with consequent risks of the situation deteriorating into military conflict. However, the meeting acknowledged that the problems of the South China Sea are being comprehensively covered in other forums and the main role of the Working Group was to address maritime cooperation in the region more generally.

While the security of sea lines of communication was much discussed as a common concern of most Asia Pacific nations, the meeting agreed that care was necessary with perceptions of threats to shipping. There was a risk that some cooperation and dialogue on sea lines of communication (SLOC) protection could be destabilising if certain countries were excluded from the process. The meeting also noted the difficulties associated with the complex interdependencies in the shipping business, particularly with regard to the ownership of cargoes and ships, which make it very difficult to determine just where the real responsibilities and interests lie.

The desirability was discussed of a more imaginative and innovative approach to regional naval cooperation than is the case at present. Conventional wisdom suggested that the region was not yet ready for a Standing Naval Force but on the other hand, the symbolism of such an arrangement could be important, despite the obvious problems of the lack of systems interoperability and common doctrine. Avoidance of incidents at sea agreements were another area where a new regional approach was possible, which did not necessarily use existing agreements as a model. For example, an agreement could be tabled not to undertake particular activities at sea (for instance, not to interfere with another navy's operations or to conduct surveillance operations of other forces), as an alternative to the current agreements with Russia, which are effectively about how to avoid incidents when actually undertaking particular activities.

It became apparent during the meeting that marine environmental security, particularly the prevention of marine pollution, is perhaps a relatively bigger issue in the context of maritime security than environmental security is generally in the context of regional security. Law of the sea issues, particularly
excessive claims and navigational and resource regimes, were a fundamental aspect of many of topics discussed by the Working Group at its first meeting. Due to the enclosed or semi-enclosed nature of the seas in East Asia, the exclusive economic zone (EEZ) regime is leading to problems with resource management and environmental responsibilities. Northeast Asian countries, South Korea in particular, have not yet ratified the 1982 UN Convention on the Law of the Sea (UNCLOS) apparently because of these problems. Resource management regimes were identified as a particularly important area for further consideration by the Working Group.

The seas in the Asia Pacific region are relatively complex with high levels of resource exploitation and maritime activity. These factors underpin the importance of cooperative marine scientific research, marine information exchange and the establishment of databases. Rather than talking about 'strategic' marine information systems, which could send the wrong message to some countries, the meeting decided it was more appropriate to simply talk about 'marine information' systems.

Education and training for marine affairs emerged during the meeting as another area for worthwhile cooperation, particularly at the integrated policy level rather than in specific technical or vocational fields. Some proposals in this regard will be developed for the next meeting of the Working Group which is scheduled to take place in Kuala Lumpur in April-May 1996.

Overall the first meeting of the CSCAP Maritime Cooperation Working Group confirmed the potential value of a wide range of maritime issues as providing the basis for possible regional CBMs. The next meeting of this Group will endeavour to concentrate on specific proposals, including in the fields of naval cooperation, resource management regimes, marine information data exchange, and education and training. Law of the sea issues will not be studied specifically as this could duplicate work in other forums.

Possible proposals identified at the 1995 meeting for consideration at the next meeting included:

- a more innovative approach to naval cooperation based on a regional view of security rather than an attempted consensus from individual national views;
cooperative management regimes for living and non-living resources to get over the problem of conflicting jurisdictions;

- the establishment of a system of marine information exchange and databases;

- cooperative schemes of education and training for marine affairs; and

- INCSEA agreements optimised for regional circumstances and not modelled on the existing agreements with Russia.

The informal objective of the first meeting of the CSCAP Working Group on Maritime Cooperation was to move beyond the rhetoric of maritime cooperation, and identify some practical measures and areas of cooperation which would help reduce the risks of maritime tension and promote a stable regional maritime regime. We believe that this objective was achieved. The proceedings of the meeting contained in this volume confirm the view that maritime activities are potentially excellent vehicles for developing the habit of cooperation and dialogue, and the concept of common security in the Asia Pacific region.
PART ONE

MARITIME SECURITY AND DEFENCE
CHAPTER 1

SECURITY AND DEFENCE: A SOUTHEAST ASIAN PERSPECTIVE

R.M. Sunardi

Introduction

The Asia Pacific region is experiencing an unprecedented period of peace and stability. The level of prosperity is increasing at a respectable average and there is a growing trend among the states in the region to enhance dialogue on political, economic and security cooperation. The Asia Pacific is also the most dynamic region of the world in terms of economic growth and the centre of the world’s economic gravity is shifting into the region.

The main challenge for the regional community is to sustain economic growth well into the next century. This is not an easy challenge. The region has experienced some of the most disastrous wars of the twentieth century. It also became the ideological battleground of the Cold War, the residual effects of which are still being felt in many parts of the region. It is also a remarkably diverse region where big and small countries co-exist. The countries of the region differ significantly in their levels of development. There are cultural, ethnic, religious and historical differences to overcome and in some parts the colonial past is the root of territorial disputes. There is no tradition of cooperation among the states of the region.

 Basically there are two different types of challenges in the process of sustaining economic growth of the region. The first is the removal of impediments to economic growth, and the second the maintenance of an environment of peace and stability that underpins that growth. APEC is a forum dedicated to the promotion of growth and the eradication of the impediments to that growth, while the ASEAN Regional Forum (ARF) is seen as a possible vehicle in the future for maintaining an environment of peace and stability through dialogues and consultations.
In order to successfully preserve and enhance the environment of peace and stability that underpins economic growth in the region, the regional community, particularly the ARF members, must analyse and confront dispassionately the key security challenges facing the region. These are:

- shifts in power relations as a result of rapid economic growth;
- the region's diversity, which requires different approaches to peace and security; and
- residual unresolved territorial conflicts and other differences.

Any one of these challenges could spark a conflagration that could undermine peace and prosperity in the region.

The majority of Asia Pacific countries are natural resource-based and export-oriented economies and hence are very sensitive to external dynamics. Product complementarity is almost negligible amongst them. The growing domestic pressure on the governments of these countries to increase national prosperity on the one hand and their diminishing bargaining power on the other have the following consequences:

- the emergence of economic dominance by major economic powers; and
- conflicting national interests among smaller economies.

As a result, a new pattern of bilateral relationships as well as multilateral arrangements is emerging in order to enhance the collective bargaining power of the smaller economies vis-à-vis the major economic powers, and at the same time to reduce conflict, which often derives from rapid economic growth.

The diversity of the region calls for different approaches to peace and security. Indeed, the heterogeneous nature of the region makes it impossible to apply one single approach to all sub-regions. Culture is the most important factor in determining the uniqueness of the approach, followed by the particular strategic dynamics of the sub-region concerned. At least three strategic sub-regions can be
identified on this basis: the North Pacific sub-region, the South Pacific sub-region, and the Southeast Asia sub-region.

Each sub-region has its own specific strategic dynamics. However, the strategic dynamics of one sub-region is also affected by those of the other sub-regions. Therefore, an overarching mechanism for the maintenance of peace and stability for the whole region is called for.

**Approaches to Security Enhancement**

Although security has a universal meaning, any approach to security enhancement is influenced by culture. Southeast Asian culture is basically the offspring of the philosophical concept of harmony. In real life it translates into a way of life based upon the notion of 'togetherness'. Family/communal bonds are invariably adhered to. Consensus has become a routine in reconciling differences, in which the informality of the process is very much appreciated.

The Southeast Asian way of enhancing security is diametrically different from that adopted by other sub-regions. In other sub-regions any approach or process must be framed in a formal structure. Informality is considered improper for the sake of accountability. Discussion about enhancing the security situation revolves around the concepts of 'measure' and 'mechanism'. In these sub-regions it is not enough to have trust or confidence in just the words of the other party. Trust has to be translated into 'measures', such as confidence building measures (CBMs) or trust building measures (TBM). Eventually 'measures' must be tabulated and exchanged so they can be implemented.

The concept of measures and mechanisms in confidence/trust building is therefore quite new for Southeast Asia. For a Southeast Asian to have confidence in another party does not require any tabulation of what should be done, let alone a fixed schedule for implementation. This explains why the Southeast Asian sub-region is invariably misconstrued as being clumsy or at best slow in adopting CBM concepts.

Among ASEAN member countries there is a consensus that the maintenance of peace and security has to be done collectively. Of
course, the success of such an endeavour depends largely on the credibility of ASEAN itself in the international community and makes it necessary to foster regional resilience. There are four critical elements embodying ASEAN’s concept of regional resilience:

- the national resilience of each member state;
- the commitment of each member to the well-being of the Association;
- the quality of the interactions amongst member states; and
- the ability of the Association to adapt to the dynamics of the strategic environment.

Conscious of the existence of unresolved residual problems and differences amongst its member states, ASEAN has adopted a set of basic principles for the enhancement of regional resilience, which are enshrined in the Treaty of Amity and Cooperation (TAC). This is also a means to promote 'ASEANness', which is essentially the spirit of 'togetherness' unique to this sub-region. ASEAN's track record proves that the concept of regional resilience has been able to sustain an environment of peace and stability that has made possible the impressive economic growth of the last two decades.

If ASEAN's experience could be considered as a model, then the concept of regional resilience has the potential to be duplicated in the other sub-regions of the Asia Pacific once it has been adjusted to the specific dynamics of these sub-regions. Since regional resilience has the spirit of togetherness at its core, there is a natural progression towards the creation of a security community, without such a community ever having to be formally proclaimed. But currently it is only in the Southeast Asian and South Pacific sub-regions that security communities have come into being. The challenge confronting the region is therefore how to foster the development of a North Pacific community based on a concept similar to regional resilience.

Once sub-regional communities have been established a linkage mechanism is necessary to facilitate an exchange of views on those security issues that are of relevance to the region as a whole. At the moment that role is being performed by the ARF. Opinions are divided as to the future of the ARF. Southeast Asia, particularly ASEAN, is of the opinion that the ARF's current status as a dialogue
forum is sufficient. The informal nature of the exchange of views on security issues should be maintained. However, other members of the ARF are of a different opinion.

The forum is eventually expected to evolve into a conflict resolution mechanism through three stages of development:

- Stage I: Confidence Building Measure,
- Stage II: Preventive Diplomacy Mechanism,
- Stage III: Conflict Resolution Mechanism.

Maritime Security

Southeast Asia is basically maritime in nature. As such, the sub-region member countries are heavily dependent upon sea-borne trade for their well-being. However, no Southeast Asian country has developed a robust maritime policy commensurate with its maritime dynamics. Each of the national naval forces in the sub-region is sufficient only for sea patrol and law enforcement duties within its national boundaries. Joint naval forces are unknown in the sub-region because such a multilateral arrangement is still considered taboo. Even if such an arrangement existed, the combined strength of the sub-region's navies is too small to be a viable deterrent.

A high dependence upon sea-borne trade has been translated into a maritime strategy which puts emphasis on the defence of sea approaches and the security of the sea lanes of communications (SLOCs). At this juncture, it is appropriate to underline the inseparability of maritime security and defence, particularly for archipelagic states such as Indonesia and the Philippines. These two countries have the responsibility of ensuring the safety and security of their sea lanes both for their own sake and for the sake of international users as prescribed by the Law of the Sea Convention.

The maintenance of the security of the SLOCs in Southeast Asia is almost congruent with the maintenance of peace and stability in the South China Sea area. Any open conflict in the area will directly affect the safety of navigation through the SLOCs. The overarching territorial claim by the PRC to almost the entire area of the South China Sea is detrimental to the freedom of navigation on the high seas
as guaranteed by the Law of the Sea Convention. Therefore, it is important that conflict over these matters be averted if the region's economic growth is to be sustained.

However, conflicting territorial claims remain unresolved and perhaps will be there for quite some time to come. It is reasonable to predict that the strategic pivot of the Asia Pacific region will be in the South China Sea. For this reason, every avenue for dialogue should be explored and existing avenues kept open. With the Convention in force it is only logical to assume that it can be used as a common legal reference for the solution of territorial claims. But this is not the case as yet because of the following problems:

- Not all major maritime powers are parties to the Convention.
- There are differences concerning the interpretation of the Articles of the Convention.

In light of the uncertainty over the outcome of the South China Sea disputes, all interested parties should embark on strategic consultation in readiness for any future eventuality. There is still some likelihood of open conflict, although none of the conflicting parties wants it to happen. Therefore, strategic consultation among the interested parties of the region is not a bad thing at all.

**Defence Cooperation in Southeast Asia**

There has been defence cooperation among the ASEAN member countries almost since the birth of the Association. Although this cooperation is bilateral in nature, the resulting web of defence cooperation arrangements serves the purpose quite well. There are information exchanges on a regular basis as well as exchanges of trainees and visits. Joint border patrols are common among the ASEAN countries. Joint land, sea and air exercises are scheduled annually. As a result, ASEAN has already established indirectly a common operational and tactical procedure capable of supporting a multilateral operation.

There is also defence cooperation between individual ASEAN member countries and extra-regional powers and joint land, sea and air exercises involving ASEAN countries and extra-regional powers are very common. The Five Power Defence Arrangement (FPDA),
which continues to function as a joint-training and exercise institution, has been beneficial for the enhancement of peace and security in the sub-region. Indonesia appreciates the continued existence of the FPDA because it helps foster the operational quality of the defence forces of some of its ASEAN partners.

It can be seen then that CBMs have been common practice among defence establishments not only within ASEAN but between ASEAN establishments and friendly countries as well. It is not an exaggeration to say that the defence relationships among ASEAN member countries form the backbone of the implementation and actualisation of the concept of regional resilience. ASEAN's track record shows that fostering cooperation in defence is relatively easier than in other sectors, simply because of the existence of an almost standard format and procedure.

Conclusion

Each sub-region has its own unique approach to defence and security.

For the ASEAN countries, regional resilience is the vehicle for promoting peace and security in the sub-region. The ultimate test of the ASEAN way of resolving security problems will be the South China Sea.
CHAPTER 2

MARITIME SECURITY AND DEFENCE IN NORTHEAST ASIA

Mikhail Makaruk

Japan, the Republic of Korea (ROK) and the Democratic People's Republic of Korea (DPRK) are normally regarded as the countries comprising Northeast Asia. But when considering maritime security and defence in the region, the northeast areas of China, the Far Eastern region of Russia and the Northwest Pacific Ocean, where task groups and units of both the navies of regional countries and the United States Navy operate, must also be considered.

There are several factors which influence the problem of maritime security for countries of the region. The first of these factors is the repeated violation of the territorial waters and exclusive economic zone of Russia by various vessels from Japan and some other countries. The second factor which causes instability at sea is the continuing tension between North Korea and South Korea, both of which have special coastal waters regimes incompatible with the international law of the sea. Third, the United States Navy's nuclear-powered submarines, aircraft carriers and other combat ships are regularly patrolling or making passage in the region with consequent risks of nuclear accident or malfunction. Fourth, the region's airspace is regularly used by the combat aircraft of many countries that fly sorties there. Lastly, there are other factors which must be taken into account, such as sea piracy and terrorism.

The navies of Northeast Asia are very large and growing stronger in both quantitative and qualitative terms. The navies of Japan, the ROK and the United States, in particular, are modernising their fleet strength, weapons and weapon control systems, increasing the number of modern ships, and building up their overall combat

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This paper is a summary of the discussion paper presented at the Working Group meeting.
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potential. It is useful therefore to review the composition of regional navies.

Japan

The Japanese Maritime Self-Defense Force (JMSDF) organisationally consists of the Fleet, Naval Districts and the Fleet Air Arm. The fleet is made up of the Fleet Escort Force (four destroyer flotillas), the Fleet Submarine Force (two submarine flotillas), the Mine Warfare Force (two minesweeper flotillas) and a squadron of training ships. The strength of the fleet is more than 120 combat ships, including 15 diesel submarines, seven missile destroyers, 24 missile frigates, up to 10 amphibious ships and some 70 ships of other types. The Fleet Air Arm numbers are 100 P-3C patrol aircraft, 60 HSS-2D anti-submarine helicopters and 40 SH-60J anti-submarine helicopters. JMSDF personnel strength is about 43,000.

South Korea

The ROK Navy consists of the Fleet, naval aviation and the Marine Corps. The Navy's personnel strength totals 60,000, including 25,000 in the Marine Corps. Fleet numbers are 70 combat ships, including two diesel submarines, eight missile destroyers, 14 amphibious ships, 14 mine warfare ships, 11 fast attack craft (missile) and 140 craft of other types. The naval aviation force numbers 15 S-2E anti-submarine patrol aircraft, 25 500MD helicopters and 10 SA-316 helicopters. The Marine Corps comprises two divisions and one separate brigade. It is equipped primarily with US-made weapons and materiel, including 60 M-47 tanks and 60 landing vehicles, tracked personnel (LVTPs).

United States

United States Naval forces in the Pacific are organised into two operational fleets: the Seventh Fleet and the Third Fleet. The forces of the Seventh Fleet (Headquarters in Yokosuka, Japan) are deployed in

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2 This review is based on information published in *The Military Balance* (London), *Asian Defence Journal* (Kuala Lumpur) and *Foreign Military Review* (Moscow).
The Indian Ocean and the Western Pacific, and those of the Third Fleet (Headquarters in San Diego) operate in the Central and Eastern Pacific. Personnel strength of the United States Pacific Fleet is more than 300,000, including some 100,000 serving in the Marine Corps. The battle order of the Pacific Fleet involves up to 140 combat ships including six aircraft carriers, up to 50 nuclear-powered submarines, and 20 cruisers. The Naval Air Force, Pacific Fleet, numbers up to 400 combat aircraft with more than 200 of them being deck-landing planes.

**North Korea**

The DPRK Navy is organised into two fleets: the Western Fleet and the Eastern Fleet. Naval personnel strength is 46,000. Fleet strength numbers some 50 combat ships, including 25 diesel submarines, three missile frigates, up to 10 amphibious ships and 10 ships of other types. There also are more than 450 smaller combat craft including 46 fast attack craft (missile) and 170 fast attack craft (torpedo).

**China**

The Navy of China includes the submarine forces, the surface forces, the naval air force, the marine infantry, and the coast defence forces. Personnel strength is 260,000, including 25,000 in the naval air force, and five thousand in the marine infantry. The fleet numbers up to 200 combat ships, including 50 submarines (one of them is a nuclear-fuelled ballistic-missile submarine or SSBN), 18 destroyers, 37 patrol ships, 35 mine warfare ships and more than 50 amphibious ships. The naval air force numbers up to 800 combat aircraft. The Chinese Navy is organised into three fleets: the North Sea Fleet, the East Sea Fleet and the South Sea Fleet. Their operational zones are the Yellow Sea, the East China Sea and the South China Sea respectively.

**Russia**

Russia's Navy consists of large formations, formations and units of the submarine forces, the surface forces, the naval aviation, the coastal defence missile and artillery forces and the marine infantry.
The naval assets of Russia are organised into four fleets: the Northern Fleet, the Pacific Fleet, the Baltic Fleet and the Black Sea Fleet. According to The Military Balance 1994/95, published by the International Institute for Strategic Studies, the Russian Pacific Fleet strength numbers some 200 combat ships, including 50 submarines (16 of them being SSBN), nine cruisers, six destroyers, 35 patrol ships, 55 mine warfare ships and 20 amphibious ships. There also are 170 combat fixed-wing aircraft, 90 helicopters, one division of marine infantry and some coastal defence missile and artillery units.

It is worth noting that for the past three years the strength of personnel and ships of the Russian Pacific Fleet has been considerably reduced. Both aircraft carrier-cruisers (Minsk and Novorossiisk), many attack missile and torpedo-carrying submarines, and missile and artillery surface ships have been decommissioned and earmarked for scrapping. The strike aviation force of the Pacific Fleet has been disbanded. Naval combat units have been completely withdrawn from the Kuril Islands. The number of naval bases and naval air stations has been considerably decreased. Manning and equipment tables and the organisational structure of the Pacific Fleet are being brought into conformity with the changes in the fighting strength.

In the past few years the Pacific Fleet has been unilaterally reduced by 73 ships. Submarine navigation has been restricted to littoral seas adjacent to Russia. The Russian presence in Cam Ranh Bay has been reduced. Naval aviation and fighters have been withdrawn from there and this port is no longer visited by nuclear submarines and combat ships of the Pacific Fleet.

Measures such as the following could, in Russia's view, be of great importance for creating a maritime security system in Northeast Asia and the Asia Pacific region in general:

- notification of major exercises and movements of naval forces;
- invitation of observers to naval exercises;
- limitation of scale, duration and geographic space of such exercises;
- coordination of areas beyond territorial waters where no military activities can be started without notification;
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- reciprocal repudiation of exercises and manoeuvres in international straits, fishing zones and airspace over them;
- exchanging visits of military leaders and ships, and establishing communication lines between fleet commanders; and
- establishing multilateral dialogue for the purpose of creating a system for reacting to crises.
CHAPTER 3

DISPUTED MARITIME BOUNDARIES AND CLAIMS TO OFFSHORE TERRITORIES IN THE ASIA PACIFIC REGION

David Ong and B.A. Hamzah

Introduction

This paper will examine maritime boundary disputes in three areas in the Asia Pacific region. They are:

a. the Western Pacific maritime region, which corresponds to the Southeast Asia/South China Sea area (that is, the South China Sea);

b. the Northwestern Pacific sub-region, which corresponds to the East Asian land mass and Japan (that is, the East China Sea including the Yellow Sea); and

c. the North Pacific sub-region, which corresponds to northern parts of two continental land masses - Asia and North America (that is, the Sea of Okhotsk and the Bering Sea).

Dividing disputes into various sub-regions is not necessarily due to simple convenience. While there are similarities in the problems or issues in each sub-region, there are also a large number of distinguishing factors. What is immediately noticeable, however, in terms of security implications, is the presence of an emerging maritime power - the People's Republic of China - in disputes in the South China Sea as well as in the Northwest Pacific region. Beijing's recent moves in the South China Sea are of special interest to the region and its motives need to be properly analysed.

Disputed maritime boundaries and claims to offshore territories represent a continuing source of possible conflict and uncertainty in international relations within the Asia Pacific region.

1 The Malaysian Institute of Maritime Affairs (MIMA) expresses no institutional views and advocates no policies. The views and opinions in this paper are entirely the personal opinions of the authors concerned.
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Trying to understand the rationale for the disputes is not an easy task as it involves a variety of reasons. Prescott notes in the case of maritime boundary disputes that disputes result from different views about the current location of the boundary line.\(^2\) What Prescott does not attempt to explain in detail is how the different views come about. The fact that they are different in different regions and that disputing parties will justify their positions under various forms of legal fiction and historical, territorial, security, economic, cultural, scientific and religious reasons has been accepted by Prescott and many other analysts. Each of these will be examined where they arise in the following pages.

The reasons that disputes at sea occur are no different from the reasons for disputes on land. The usual issues of sovereignty and lebensraum are mere extensions of nationalist underpinnings for the acquisition of additional space. But disputes at sea are not always over space or territory. They can be over access to scarce resources and are occasionally justified on the grounds of conservation and resource protection. In almost all the disputes enumerated below the element of security takes a prominent position, especially with those countries which are inclined to use force as a means to settle their differences.

Many of the current disputes on maritime boundaries stem from the inherent nature of coastal states' rights over the continental shelf, coupled with the lack of certainty as to the preferred criteria for resolving overlapping continental shelf and EEZ/EFZ claims. Most states are likely to concede in principle that all territorial, jurisdictional and boundary claims should have a basis under international law, but much of the relevant law has been undergoing transformation over the last three or four decades.\(^3\) Conventional international law, in the form of the 1982 UN Convention on the Law of the Sea (UNCLOS III, in force since 16 November 1994), customary international law, and judicial decisions have all failed to come up with an acceptable set of


criteria which express normative distinctions between the different justifications utilised by states for the breadths of their claims. The uncertain nature of relevant norms has permitted wide discrepancies to emerge between claims and counterclaims. Thus there are no restrictions on the arguments which might be raised by states in support of a proposed boundary which would give them the lion's share of the overlapping zone claimed by several parties.

The main legal arguments utilised by states are geographical or geomorphologic in nature, although states have also been known to use economic arguments in their favour. Geomorphologic (or 'natural prolongation') arguments have lost much of their weight in law as a result of the outcome of negotiations during the Third UN Conference on the Law of the Sea, which culminated in the 1982 Convention (UNCLOS III), and recent judicial decisions upholding this shift of emphasis to the so-called 200 nautical mile (nm) 'distance' criterion. However certain states, such as the People's Republic of China, continue to base their broad continental shelf claims on the 'natural prolongation' principle. The presence of offshore territories, whether they be in the form of mere low tide elevations, reefs, rocks or islands, exacerbates matters. States usually become locked in a dispute over the territorial sovereignty of these features, knowing that they may be able to claim both continental shelves and EEZs in the marine areas surrounding these features. The potential economic value of a disputed maritime area may also become a critical factor in the negotiation of overlapping maritime boundary claims, although scientific uncertainty as to the true value of the resource may prove conducive to negotiations.

This paper will first outline the main reasons for the disputes in the respective sub-regions in the Asia Pacific region. Second, the current level of cooperation (if any) toward the resolution of these disputes will be examined. Third, the scope and potential for further cooperation (or incipient cooperation, as the case may be) will be canvassed, along with a discussion on the possible modes for cooperation. Finally, this paper will also address the security implications of these disputes, where applicable. An attempt will be

4 Ibid.
5 Prescott, 'On the Resolution of Marine Boundary Conflicts', p.35.
6 Ibid., pp.35-6.
7 Johnston and Valencia, Pacific Ocean Boundary Problems, p.57.
made to examine the political, economic and cultural contexts of the different disputes.

**Southeast Asian/Western Pacific Sub-Region (South China Sea)**

This sub-region is the most volatile and unpredictable. However, it has also been the scene of a very active and innovative ocean boundary diplomacy, involving a combination of boundary settlements and cooperative arrangements. It has more delimited maritime boundaries than any of the other sub-regions examined, with at least fifteen on record. It also has the highest number of cooperative or joint development arrangements in place. There are now three bilateral cooperative agreements over shared petroleum resources - the 1979/90 Malaysia-Thailand Joint Development Agreement, the 1989 Australia-Indonesia Timor Gap Zone of Cooperation Treaty, and the 1992 Malaysia-Vietnam Memorandum of Understanding.

On the other hand, this must be balanced against the semi-enclosed nature of the South China Sea and the greater number of neighbouring countries forming both the 'core' and 'periphery' of this sub-region, two factors which increase the overall number of maritime delimitation boundaries that need to be sanctioned and the potential for disputes arising from these putative limits to sovereignty. Indeed, it has been argued that despite the maritime boundary-making efforts of the Indonesians in particular, and the ASEAN countries in general, a number of important boundaries still remain to be sanctioned within this sub-region. Thus, the ratio of settled to still disputed boundaries may not be actually better than that of the other sub-regions examined here.

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8 ibid., pp.66-7.
Overshadowing all these local, generally bilateral, difficulties, however, is the continuing dispute over the multi-claimed offshore territories in the South China Sea, known as the Spratly islands. At the last count, this group of small islands, islets and rocks is being claimed, in whole or in part, by no less than six parties - the People's Republic of China, Taiwan, Vietnam, Brunei, the Philippines, and Malaysia. The Chinese historic line, which is the basis of their claim since 1947, overlaps a portion of the area off the Indonesian Natuna Islands where natural gas is found in large quantities. In effect, the Chinese area claim overlaps the maritime zones of Vietnam, Indonesia, the Philippines, Brunei and Malaysia. There are several factors which contribute to the intractability of this dispute. First, historical/cultural reasons provide a continuing tension between at least two of the protagonist states, namely the People's Republic of China and the Socialist Republic of Vietnam. Despite the successful process of rapprochement between ASEAN and the Indochinese countries, which has culminated in the 1992 accession of Vietnam and Laos to the 1976 Treaty of Amity and Cooperation in Southeast Asia, relations between China and Vietnam are still fraught with difficulty. As Johnston and Valencia note succinctly, the assertion of the right of historic title over this group of islands tends to limit the scope for compromise. The interconnected nature of the dispute over offshore territories and overlapping continental shelf claims giving rise to maritime boundary disputes further complicates any attempts to resolve them. The visit of President Jiang Zemin to Hanoi in November 1994 marked a watershed in otherwise bellicose relations.

Economic interests, initially in the perceived oil and gas deposits in the seabed of the Spratlys area and latterly in the fisheries and eco-tourism potential of the islands, are another important reason for the dispute over title to territory and sovereign rights in the continental shelf and waters surrounding the islands. Recent reports, however, cast some doubt over the amounts of petroleum reserves said to be within the Spratlys' continental shelf. Strategically, these
islands have also been considered important as possible bases for control over sea lanes of communication (SLOCs) between the Indian and Pacific oceans. Again, dissenting opinions can be heard concerning the strategic viability of such bases. Built as they are on tiny, exposed islands which are open to airborne attacks, these bases lack the depth needed to defend them against sustained attacks.

Some talks have taken place at the bilateral level between officials. These include talks between Malaysia and Vietnam, Malaysia and the Philippines and between China and the Philippines even before the recent incident over Mischief Reef. Whatever multilateral contact there is, this has usually taken place between scholars and diplomats in their unofficial capacity in various seminars and forums organised in the region. The South China Sea workshop process initiated by the Indonesian Foreign Ministry is one such forum. Apart from the informal multilateral meetings and bilateral talks, no diplomatic negotiations involving all the disputing parties at the same time have ever been attempted. China has been the most reluctant to multilateralise the talks as Beijing claims the South China Sea belongs to them. Beijing's preference for bilateral talks on the Spratlys fits in well with its long-term strategy of divide and rule.

Official views are also exchanged at the meetings of ASEAN officials and in seminars. For example, in March 1995 and April 1995 the ASEAN meeting of senior officials in Singapore and Hangzhou respectively discussed the occupation of Mischief Reef by China. A statement issued in the name of the ASEAN Foreign Ministers implicitly rebuked China and established a united stand by the six

unlikely in Spratlys' in EWC Views (East-West Center, Honolulu, September-October 1992), p.3.


member countries following the meeting at Sentosa Island in Singapore. This statement reaffirms ASEAN’s declaration on the South China Sea made in July 1992 following the meeting of ASEAN Foreign Ministers in Manila. This declaration was made after China passed a law on its territorial sea and contiguous zone in February 1992 which includes the disputed Spratlys and the disputed Senkaku Islands. By virtue of this law, warships entering the Chinese territorial sea are required to obtain prior authorisation. It would appear that all these ASEAN declarations have not retarded China's forward movement in the South China Sea.

Northeast Asia/Northwest Pacific Sub-Region (East China and Yellow Seas)

This maritime sub-region, being the oceanic counterpart to Northeast Asia, is characterised by seemingly intractable political and diplomatic relationships. This can readily be seen from the relative lack of agreed maritime boundaries, although the sub-region also boasts one of the first examples of a cooperative legal arrangement incorporating the notion of joint development, thus eschewing the need for a single-line boundary settlement, namely the 1974 Japan-Republic of (South) Korea Agreement. Agreement has yet to be reached on maritime boundaries between the People's Republic of China and South Korea, as well as the People's Republic of China and Japan, with both North Korea and Taiwan suffering from diplomatic isolation in this regard; the former self-imposed, the latter because of the continuing dispute over the right to govern China. The legal difficulties here, aside from the political and diplomatic ones discussed below, arise from the different justifications by the protagonists concerning the breadth of their overlapping continental shelf claims. As mentioned above, the Chinese base their claim on the now less acceptable geomorphologic criterion of 'natural prolongation', while the Japanese rely upon the 200 nm 'distance' criterion. South Korea rather ingeniously relies on both these criteria: the former against the Japanese in the Sea of Japan, and the latter against the Chinese in the Yellow Sea.

The sub-region also continues to suffer from two essentially bilateral disputes over offshore territories, the first the dispute over the Senkaku/Diao Yu Tai group of islands between the People's Republic of China, Taiwan and Japan and the second the dispute over the Kuril Islands between Japan and the then USSR, latterly Russian Federation. Like the Spratlys dispute above, these centre on disputed ownership over offshore territory with the implication of large areas of maritime jurisdiction accruing to the claimant states.

For virtually all the governments in this sub-region, however, disputes over maritime boundaries and title to offshore territories are a relatively minor part of wider strategic and security concerns and therefore tend to be subsumed within the latter. On the other hand, the collapse of the former Soviet Union, the re-emergence of the People's Republic of China in world affairs and especially the rapid integration of its economy with the economies of the Asia Pacific region and the rest of the world, the demise of North Korean President Kim Il Sung, recent calls by the Taipei government to be recognised as an independent state in its own right, and the imminent return of Hong Kong to China in 1997 have all served to re-cast the various international relationships between states in this region. However, even if the historical, political and strategic factors are no longer prohibitive and resort to negotiation is no longer unthinkable, they continue to cast a shadow over the likelihood of settlement of disputed maritime boundaries and title to offshore territory.

Northern Pacific Sub-Region (Okhotsk and Bering Seas)

This sub-region involves fewer coastal states than the others, although the dispute potential does not appear to have been reduced because of this factor. Aside from a continuing bilateral dispute between Canada and the United States over the delimitation of maritime boundaries in the northeast part of the Pacific Ocean, the biggest problems are those concerning the regulation of fisheries within the 'peanut' hole in the Sea of Okhotsk and the 'doughnut' hole in the Bering Sea, both high seas enclaves completely surrounded by the EEZs or EFZs of the littoral states within these semi-enclosed seas.

20 ibid., p.47.
While the most intractable bilateral dispute here remains the Russo-Japanese one over the ownership of the Kuril Islands, it is the consequence of this dispute over offshore territory that has international implications due to the then Soviet Union and now Russian position that the entire semi-enclosed Sea of Okhotsk (including the high seas enclave within it) should be subject to Russia's sole jurisdiction in respect of certain activities such as fishing. The Russian position appears to assume that where a high seas enclave exists in an enclosed or semi-enclosed sea bordered by a sole coastal state then the fisheries resources within this enclave should be subject to the coastal state's sovereign rights under the EEZ regime in Part V of the 1982 UNCLOS. In taking this position the Russians appear to be rejecting possible Japanese interests in the high seas enclave as a littoral state, as well as asserting that the Sea of Okhotsk does not fall under Article 123 of Part IX of the 1982 UNCLOS. Thus, Russia feels that it is not required to consult Japan as a fellow littoral state but merely as a distant water fishing state over Russia's proposed three-year moratorium over fishing activities in the enclave. This proposal has been accepted by Japan on a voluntary basis, although three other fishing states - Poland, South Korea and the People's Republic of China have only agreed to a 25 per cent reduction of their catch.

The jurisdictional problem over high seas enclaves within semi-enclosed seas is also a source of international dispute in the other major body of water in this sub-region - the Bering Sea. The 1st June 1990 US-Soviet Union agreement on their maritime boundary in the Bering Sea is only the third such international maritime boundary agreement in this sub-region. While this agreement resolved the bilateral dispute between the two superpowers in favour of cooperation within this semi-enclosed sea according to Article 123 of the 1982 UNCLOS, nevertheless the high seas enclave at its centre represents a legal anomaly because there is no provision in the 1982 UNCLOS or evolving customary international law of the sea to account for it. Article 123 merely enjoins the littoral states of a semi-enclosed sea to cooperate in the exploration, exploitation, conservation

21 Alex G. Oude Elferink, 'Fisheries in the Sea of Okhotsk High Seas Enclave: Towards a Special Legal Regime?' in Blake et al. (eds), The Peaceful Management of Transboundary Resources, p.461.
22 ibid., p.463.
23 ibid., pp.464-5.
and management of the living resources of the sea. Negotiations are continuing at the United Nations towards an agreement on a Draft Convention on Straddling Fish Stocks and Highly Migratory Fish Stocks.\textsuperscript{25} The 1990 agreement itself is silent on the controversial question of US or Soviet (now Russian) special interests within the enclave. Fishing vessels from Japan, South Korea, Poland and the People's Republic of China therefore claim high seas fishing rights within this enclave, especially over the pollock fishery. The wholesale exploitation of the pollock fishery resources in this enclave has raised protests from the US and Russian Federation governments concerned at the possible depletion of stocks. Extensive negotiation between the two littoral states and other states interested in the fisheries in the high seas enclave culminated initially in a voluntary moratorium on pollock fishing until the end of 1994. This was followed by the adoption in February 1994 of a convention on Bering Sea fisheries which does not allow fishing to take place until the pollock biomass exceeds 1.67 million tonnes.\textsuperscript{26}

Levels of Cooperation: A Framework for Analysis

It is imperative at this point to attempt the construction of a normative framework that will be used to assess the levels of cooperation perceived within such sub-regional disputes examined here. Specifically, how do we recognise that the level of cooperation within one particular dispute examined is either higher(/better) or lower(/worse) than in others? It is arguable that the strength of commitment that is evidenced by the parties in dispute toward its resolution, along with the consequent reduction in their initially perceived absolute sovereignty over such issues, are relevant indicators of the level of cooperation entered into by these states.

Therefore, the assumption is that where formal, legally perfect arrangements have been entered into by two or more of the protagonists concerned, whether in the form of bilateral or multilateral maritime boundary delimitation agreements or some other type of cooperative or joint development arrangements, these should be

\textsuperscript{25} See Moritaka Hayashi, 'The Role of the United Nations in Managing the World 's Fisheries' in Blake et al. (eds), \textit{The Peaceful Management of Transboundary Resources}, pp.373-93.

\textsuperscript{26} Oude Elferink, 'Fisheries in the Sea of Okhotsk High Seas Enclave', p.467.
assessed as representing the highest level of cooperation. The submission of such disputes to some form of legal dispute settlement mechanism, such as a judicial or arbitral decision-making process, coupled with indications by the states concerned of their willingness to be bound by such decisions, also represents a higher level of cooperation than most others.

Active and direct bilateral or multilateral diplomatic negotiations between the state parties to particular disputes may in turn be considered to be at a slightly lower level of cooperation. Negotiations or discussions through the good offices of third parties take the next place down. Ostensibly non-diplomatic, 'track two' type methods, involving meetings/workshops/conferences attended by mainly non-officials and officials in their 'private' capacities may be seen to occupy the next level of cooperation down. Such an assessment, however, should not be taken to mean that these methods are without value in the qualitative exercise attempted here.

Southeast Asian/Western Pacific Sub-Region (South China Sea)

Applying the above framework to the sub-regional disputes over maritime boundaries and especially claims to offshore territories, we can see that in the South China Sea Spratly Islands dispute, the level of cooperation has scarcely moved beyond that of a non-diplomatic 'track two' type. This is notwithstanding the fact that the sub-region as a whole has been fairly successful in concluding maritime boundary agreements or other types of cooperative arrangements such as joint development agreements in respect of mainly bilateral disputes concerning overlapping continental shelf claims.

The Indonesian-initiated South China Sea workshop process would appear to have been unsuccessful in its attempts to get the various governments concerned to address the Spratlys issue at the multilateral diplomatic level.27 The multilateral workshop process has been more successful in setting up the scientific and technical aspects of a resource management regime, albeit at an unofficial level and

informal in nature. Discussion of the opposing claims to offshore territories now takes place at two different though interconnected diplomatic levels. First, a dialogue has begun between Vietnam and ASEAN generally and between Vietnam and the ASEAN member states most involved with the Spratlys, namely the Philippines, Malaysia and Indonesia. Second, bilateral talks have commenced between the People's Republic of China and the same ASEAN states with a view to resolving the individual disputes between them over parts of the Spratlys that they claim. Vietnam and China have also held talks on the South China Sea following the visit of Jiang Zemin to Hanoi in November 1995. Prior to this China and Vietnam formed Expert Groups to examine problems related to their land boundary and the Gulf of Tonkin. The complex, multilateral scope of the Spratlys dispute makes it very difficult to assess the success or otherwise of this mode of cooperation, particularly in view of the nascent nature of these bilateral talks.

The decision by China in February 1995 to occupy Mischief Reef, a feature in the Kalayaan Group claimed by the Philippines, and its decision not to dismantle the structure there despite appeals from Manila show the complexity of the problem. On 25 March, the Philippine Navy destroyed Chinese-built stone markers on islets surrounding Mischief Reef. Those include Pennsylvania Reef and the Thomas I, Thomas II and Half Moon shoals. Manila also arrested four PRC fishing vessels with sixty-two crew members for intruding into Philippine waters near Half Moon Shoals. Earlier, on 16 March 1995, the Malaysian Navy had also arrested a fishing vessel with a crew of sixteen persons belonging to the People's Republic of China for illegal fishing, resisting arrest and causing damage to a naval patrol boat. On 25 March 1995, on the same day that the Philippine Navy destroyed the stone markers on islets surrounding Mischief Reef, Taiwan's navy opened fire on a Vietnamese boat which had strayed into a unilaterally declared security zone near the island of Taiping (Itu Aba) occupied by Taiwan. Ships of all nationalities are not allowed access into this security zone.

China's occupation of Mischief Reef represents a policy shift. Before this incident the Chinese clearly avoided those islands held by ASEAN members. Some analysts believe China is testing its

28 ibid., p.282.
neighbours' reaction to its growing strength as well as gauging ASEAN's diplomatic options if Beijing were to mount a similar offensive on islets held by Hanoi after it joins ASEAN in July 1995. ASEAN's recent reaction, in the form of a joint resolution of senior officials meetings in Singapore and Hangzhou in March 1995, was swift but as expected did not alter the Chinese position in the Spratlys.

*Northeast Asian/Northwest Pacific Sub-Region (East China and Yellow Seas)*

Although there have been unconfirmed reports that North Korea has settled its maritime boundaries with China and the then Soviet Union respectively, the only publicly announced settlements in this sub-region have concerned South Korea and Japan. These involved a continental shelf boundary delimitation agreement and the 1974 joint development agreement mentioned earlier.\(^{29}\) However, this joint development agreement is a means of finessing, not resolving, the delimitation issue. Accordingly, it can be argued that there is only one boundary settlement and one other arrangement in this sub-region between the same two countries.\(^{30}\)

The prospects for more boundary settlements or even arrangements similar to that of the 1974 joint development agreement between the various other protagonists appear slim. The most complicating factor is the existence of disputed islands, subject to conflicting territorial claims which thereby inflame the delimitation issues, giving them a symbolic significance that almost precludes any possibility of compromise diplomacy. This is certainly the case in respect of the southern Kuril islands and the Senkaku/Diao Yu Tai island group.\(^{31}\) Unlike the situation in the South China Sea, there are no well-publicised 'track two' initiatives or processes that have been instituted between the protagonist states of these disputes. What little cooperation exists there is presumably confined to secret, low-level diplomatic exchanges, plagued by discontinuity.

\(^{30}\) Ibid., p.78.
\(^{31}\) Ibid., pp.78-81.
As mentioned earlier, the international implications of the southern Kuril islands dispute between Japan and the Russian Federation extends to the purported sole jurisdiction over the fishery resources of the whole Sea of Okhotsk, including the 'peanut hole' high seas enclave within it. This unilateral assertion of jurisdiction appears to have been at least partly acquiesced to by the distant water fishing nations that fish in the 'peanut hole' enclave. However, the lack of a legally binding international arrangement for the conservation of the threatened fish stocks must be seen as a setback to the level of cooperation that is required.

Prospects for cooperation are better within the Bering Sea, 'doughnut hole' high seas enclave where there now exists (as of February 1994) an international convention for the regulation of the pollock fishery which has also secured the participation of the distant water fishing nations involved in this fishery. Under this convention, the annual Conference of the Parties will decide allowable catch levels and establish catch quotas for all parties fishing in the enclave. Although it is too early to assess the level of cooperation between the parties to this convention, especially with respect to the distant water fishing nations, the fact that these states have also signed up to this convention is prima facie empirical evidence of their commitment.

**Prospects for Further Cooperation?**

In the light of continuing difficulties arising from disputed claims to offshore territory as well as disputed maritime boundaries, it is important to make a distinction between the different origins of these types of disputes. Disputed maritime boundary claims may arise from more intrinsically difficult claims to title to offshore territory. They may also occur in relation to overlapping claims to continental shelves and EEZs, from undisputed territory. In the latter case, such claims are usually made with expressly resource-based, economic interests in mind, whether they be living (fisheries), non-living (oil and gas), or environmental (eco-tourism). It is submitted here that the prospects for cooperation in these instances are much higher than for those cases involving disputes arising from opposing claims to title to offshore territory. This conclusion is much in evidence from the state...
practice to date in all three of the sub-regions examined here. In each case, the most concrete cooperative arrangements entered into between states, aside from actual maritime boundary delimitation settlements of course, have occurred in relation to either offshore oil and gas (1974 Japan-South Korea, 1979/90 Malaysia-Thailand, 1989 Australia-Indonesia), fisheries (1994 Bering Sea), or shared natural resources and the environment (1985 ASEAN agreement). Therefore, cooperation would appear to be more easily agreed upon in relation to the joint exploitation of shared natural resources than in cases of disputed offshore territory.

In such cases, more concerted efforts at cooperative regime-building must be attempted. Bearing in mind the intractability of most disputes over title to offshore territory, this will be difficult. An implicit objective of this cooperative, regime-building process must therefore be a reduced emphasis on title to territory and conversely, an increased emphasis on the economic and other benefits to be had from cooperation rather than confrontation.

Several models for such cooperation have been advocated in this respect. Their main components exhibit marked similarities. The initial requirement is the inception of a mechanism or process for increasing the exchange of information and consultation in order to ensure the transparency of actions and intentions of the states involved in these disputes. These should not be limited, as they presently are, to diplomatic and military contacts, coupled with various 'track two' type arrangements designed to bring in the academic and other non-governmental communities on the fringe of the policy-making sphere, but should also include various management, scientific and technical personnel whose expertise are important for the resolution of any overlapping or disputed maritime claims to marine areas or offshore territories. In other words, any cooperative arrangement must include non-overtly political elements within it in order to escape the vicious cycle of the politicisation and legalisation of national claims, followed

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by the militarisation and confrontation that often occurs when such disputes arise. The inclusion of non-diplomatic and non-military personnel will serve to enhance the possibility of the evolution of an 'epistemic community', a knowledge-based group of professionals who have a shared belief in the value of such cooperation and, through their political involvement, can influence national government policy making towards cooperation and away from confrontation. There is already some indication of the success of this method within the informal multilateral workshop process on 'Managing Potential Conflicts in the South China Sea', with the establishment of two working groups to organise joint activities on marine resource assessment and scientific research, without impacting on or attempting to prejudice any offshore territorial claims. This was recognised by the participants as a concrete step towards cooperation in the South China Sea region.

Once the requisite confidence and security building measures (CSBM) are in place, the states concerned may progress to the next phase of the cooperative process, involving legal and institutional regime-building in order to formalise the above mechanisms of cooperation. Several stages may be needed, requiring the progressive integration of cooperative efforts between different government departments and agencies, and at different levels. Although it can be argued that only legally binding settlements of one kind or another may be considered evidence of true cooperation, any regime that embodies a collective approach towards the common problems experienced by the Asia Pacific states will act as a deterrent against possible conflict in other more specific, bilateral disputes such as those over title to offshore territories. Thus, activities like the establishment of regional Maritime Surveillance and Safety, Avoidance of Incidents at Sea, and Environmental Security regimes all contribute towards increasing the options available for conflict avoidance and mitigating against the use of the military option.

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34 McDorman, 'The South China Sea Islands Dispute in the 1990's', pp.283-4.
Conclusions

The prospects for resolving territorial disputes are slim. States would not want to coordinate their maritime differences with one another unless it served their national interests. All excuses will be mobilised to justify their actions or inactions. In the short to medium term, disputed claims to offshore territory such as those in the South China Sea will be most difficult to resolve.

Disputes which do not involve territorial claims, but are resource-based, appear to have a better chance of being managed. Where national economic interests converge, however, especially in the case of offshore oil and gas deposits and increasingly with fishery resources, cooperative arrangements for their joint exploitation are an effective method of inducing a high level of formal and direct cooperation. In the absence of the requisite political will that is needed to bring about such formal cooperative arrangements, the intervening step may be the construction of resource management regimes consisting of low-level, semi-official and even informal institutions bringing together different types of personnel, including the usual diplomatic and military representation but also management, scientific and technical bodies in order to enhance a multi-track process geared ultimately towards formal cooperation.

This paper makes a distinction between resolving territorial ownership problems and managing the conflict. Resolving the territorial problem suggests a terminal point where all parties can finally agree who actually own the disputed islands and islets. It has been argued that, while such resolution is unlikely, deferring or shelving it is possible, as in the case of the Senkaku Islands. Because the problems are difficult to resolve, there is a pressing need to manage the issues to prevent them from turning into military conflicts. A range of options are suggested in this paper as a way out to manage the conflicts. They include: the conventional joint development areas or resource management regimes; confidence building measures; and a host of other second-track diplomatic initiatives. While all these are unlikely in the end to resolve territorial problems, they are important forums and useful channels of communication, which must be kept open during any crisis.
CHAPTER 4

LAW AND ORDER AT SEA: PACIFIC COOPERATION IN DEALING WITH PIRACY, DRUGS AND ILLEGAL MIGRATION

Stanley B. Weeks

Background

There is increasing recognition of the broad scope for maritime cooperation among the states of the Asia Pacific region. There has been considerable discussion and various proposals for future cooperative measures in the areas of maritime defence, confidence and security building measures, and even the maritime environment. To date, however, less thought has been given to the potential for maritime cooperation in dealing with issues that might be termed 'law and order at sea' - particularly piracy, drugs, and illegal migration. In a way, it is perhaps not surprising that these problems - typically handled by a variety of domestic law enforcement agencies (rather than naval forces), and where such international cooperation that might exist tends to be bilateral and closely held - have attracted less attention as a potential focus of regional maritime cooperation. Our brief analysis of the nature of these problems suggests that they are serious enough to affect maritime (and domestic) security, and that there would be value in regional cooperation to address them, perhaps within the broader scope of regional or sub-regional maritime safety agreements.

Piracy

Piracy is defined in Article 101 of the 1982 UN Convention on the Law of the Sea (UNCLOS III, which entered into force in November 1994) as illegal acts of violence or detention against a ship (or aircraft) 'on the high seas or in other areas beyond the jurisdiction
of any state'. Under international law, all states have the right to arrest pirates on the high seas and to punish them for acts of piracy. Under Article 58(2) of UNCLOS III, these rules apply to other areas outside of territorial waters (for example, in the exclusive economic zone), but do not apply when piracy occurs within the territorial sovereignty of a state. (This, of course, is suggested by the very restrictive UNCLOS III definition of piracy - which refers to 'high seas' and other areas beyond state jurisdiction.) UNCLOS III also recognised the existence of archipelagic waters (those waters within straight baselines drawn to connect the outermost islands in the archipelago). Archipelagic waters are also legally within the territorial sovereignty of the archipelagic state and, hence, not subject to definition or rules regarding piracy on the high seas. UNCLOS III also recognises responsibilities of states that border international straits - but where those straits lie within territorial sea limits of a state or states, only the sovereign state can exercise jurisdiction in its respective area.

To realistically address problems of piracy in the Asia Pacific region, we need to go beyond the narrow ('high seas') legal definition of UNCLOS III to something more like the definition in the 1992 Special Report on Piracy of the International Maritime Bureau: 'Piracy is the act of boarding any vessel with the intent to commit theft or other crime and with the capability to use force in furtherance of the act'. This broader definition obviously includes ships in territorial waters or even at anchor or in port.

Understanding these definitions - both legal and realistic - is important because, whatever the reality of the location where an act of piracy occurs, potential cooperation among nations to address that piracy must be conditioned by maritime legal definitions. In the Asia Pacific region, there are several implications of these legal definitions:

1. Almost all of the acts of piracy in or near the 'international' Straits of Malacca and the Straits of Singapore occur in waters that are within the territorial sovereignty (as territorial waters

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or archipelagic waters) of one of the three coastal states - Malaysia, Indonesia, or Singapore.

- Acts of piracy in the vast Indonesian archipelagic waters are within the territorial sovereignty of Indonesia.
- Maritime territories of disputed ownership - especially the Spratly Islands in the South China Sea - carry with them the areas of maritime jurisdiction accruing to the claimant states. This further complicates the demarcation of legal jurisdiction over acts of piracy.

These legal definitions and geographic facts mean that under universally accepted international law, law enforcement officials may not act to enforce their laws in areas within the territorial sovereignty of another state. Therefore, the naval vessels or marine police from one state may not enter the internal waters, territorial waters, or archipelagic waters of another state to patrol for pirates or to arrest persons for acts of piracy, regardless of where such acts took place.3

Nor does the right of innocent passage through territorial waters include the right to exercise police powers. In light of these legal constraints, there is clearly a need for bilateral and multilateral cooperation to effectively deal with piracy.

Our focus in this discussion will be on the most common current form of piracy in the Asia Pacific region, piracy against modern shipping. There exist other categories of piracy such as 'politically motivated piracy' (or terrorism at sea), such as the 1985 hijacking of the cruise ship Achille Lauro in the Mediterranean; 'piratic acts of violence against refugees' - which were notorious in the 1970s and 1980s against hundreds of thousands of refugees fleeing Vietnam in boats, particularly in the Gulf of Thailand; and 'yacht piracy', not unknown in Hong Kong in recent years.4

The most common current form of piracy in the Asia Pacific region - piracy against modern shipping - is characterised by 'hit-run' short-term seizure of ships and acts of robbery (according to the

International Maritime Bureau (IMB), the average length of an incident is thirty minutes, and the average theft between US$5,000 and US$15,000. In the Southeast Asia area (Straits of Malacca and Singapore), most attacks are at night, against all types of commercial ships (containers and bulk carriers, tankers), by pirates in small fast boats that approach from astern and board the ship with grappling hooks or ropes, and then threaten the crew on the bridge and in their cabins. They usually rob money from the ship's safe and electrical goods. In contrast, IMB reports indicate that overt approaches and the firing of weapons to stop ships are more common in the Hong Kong-Luzon-Hainan Island (HLH) piracy area further north.

In any case, piracy poses real dangers - not only to the lives of crew, but also to other ships in heavily travelled areas (200 ships, half of them oil tankers, enter the Straits of Malacca and Singapore each day). Figure 4:1 indicates the geographic 'hot-spots' for piracy in the Asia Pacific region. As the IMB statistics on piracy in Table 4:1 indicate, in 1992 and 1993 over two-thirds of the world's piracy incidents occurred in the Asia Pacific region. As Table 4:2 indicates, 71 of 87 global pirate attacks in 1994 took place in the Asia Pacific region.

Figure 4:2 indicates the specific geographic distribution of piracy attacks in 1994, but cannot show the interesting trends in location of attacks in recent years. After a surge in 1990-92, new cooperative initiatives (to be discussed below) in the Straits of Malacca and Singapore area reduced piracy incidents significantly in that area. But in the 1992 to early 1994 period, there was a significant shift of the focus of piracy to the Hong Kong-Luzon-Hainan Island area and the South China and East China Seas. Piracy in these areas was on a more overt, quasi-military scale, with the attackers being Chinese, in uniform and in patrol boats, firing shots in many cases. Beijing eventually claimed that rogue elements of the Chinese Customs and Public Security Bureaus (not military units) were responsible.5 (This may have reflected both the pressure of the PRC 'anti-smuggling' initiative, and the fact that local officials could keep half of the 'contraband' seized.)

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Table 4:1 Comparison of Worldwide Piracy Statistics Reported to the IMB in 1992 and 1993

<table>
<thead>
<tr>
<th>Area</th>
<th>1992</th>
<th>1993</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>16</td>
<td>9</td>
<td>-7</td>
</tr>
<tr>
<td>South Asia</td>
<td>9</td>
<td>5</td>
<td>-4</td>
</tr>
<tr>
<td>Southeast Asia</td>
<td>65</td>
<td>8</td>
<td>-57</td>
</tr>
<tr>
<td>Far East</td>
<td>9</td>
<td>68</td>
<td>+59</td>
</tr>
<tr>
<td>South America</td>
<td>10</td>
<td>5</td>
<td>-5</td>
</tr>
<tr>
<td>Middle East</td>
<td>1</td>
<td>0</td>
<td>-1</td>
</tr>
<tr>
<td>Europe</td>
<td>1</td>
<td>0</td>
<td>-1</td>
</tr>
<tr>
<td>Latin America</td>
<td>1</td>
<td>0</td>
<td>-1</td>
</tr>
<tr>
<td>Unclear coordinates</td>
<td>3</td>
<td>0</td>
<td>-3</td>
</tr>
<tr>
<td>Robbery in port</td>
<td>0</td>
<td>7</td>
<td>+7</td>
</tr>
<tr>
<td>Unknown area</td>
<td>0</td>
<td>1</td>
<td>+1</td>
</tr>
<tr>
<td>Total</td>
<td>115</td>
<td>103</td>
<td>-12</td>
</tr>
</tbody>
</table>

Of the 103 incidents reported for 1993, the major 'hot spot' is the Hong Kong-Luzon-Hainan area. In fact, there were 33 reported cases for this area in 1993, 11 for the South China Sea, and 20 for the East China Sea. There were only four reported incidents for the Straits of Malacca and Singapore. A dramatic decrease from the previous two years.

The IMB have also categorised attacks on vessels for 1993, thus:

25 attempted boardings repelled by would-be victim vessels
28 actual boardings
19 reports of vessels trailed by suspicious craft
16 reports of vessels being stalked and fired upon by pirate craft
7 vessels detained over varying periods of time
8 robberies at port/anchorage

Source: International Maritime Bureau.
Calming the Waters: Initiatives for Asia Pacific Maritime Cooperation

Figure 4:1 Piracy 'Hot-Spots' in East and Southeast Asia, to August 1993

### Table 4:2  Pirate attacks in Asia and the Rest of the World, 1994*

<table>
<thead>
<tr>
<th>Waters</th>
<th>Number of Attacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia; Papua New Guinea</td>
<td>23</td>
</tr>
<tr>
<td>Hong Kong-Luzon-Hainan Triangle; Hong Kong</td>
<td>16</td>
</tr>
<tr>
<td>Strait of Malacca-Indonesia; Singapore Straits; Malaysia</td>
<td>10</td>
</tr>
<tr>
<td>South China Sea</td>
<td>6</td>
</tr>
<tr>
<td>East China Sea</td>
<td>6</td>
</tr>
<tr>
<td>Philippines</td>
<td>5</td>
</tr>
<tr>
<td>Vietnam; Cambodia</td>
<td>4</td>
</tr>
<tr>
<td>Bangladesh; Sri Lanka</td>
<td>3</td>
</tr>
<tr>
<td>Yellow Sea</td>
<td>1</td>
</tr>
<tr>
<td>Rest of the world</td>
<td>16</td>
</tr>
</tbody>
</table>

* Attacks are attempted boarding, theft and hijacking of vessels. Water regions overlap.

**Source:** International Maritime Bureau.
Figure 4:2 Piracy in the Far East, 1994

Other nations in Asia were concerned that these 'piracy' incidents might be a deliberate PRC exercise of extra-territorial sovereignty, and (particularly in the South China Sea and East China Sea Senkaku Island areas) an unofficial exertion of expansive People's Republic of China maritime claims. If so, the People's Republic of China has either rethought this tactic or got better control of local 'rogue' officials. International pressure clearly played a role in this. After having seen 17 of 20 piracy incidents directed against Russian ships in the East China Sea in late 1992 and early 1993, Russia deployed naval ships to the area in mid-1993 with orders to attack any threats to shipping - whereupon such attacks promptly ceased. Japan, another focus of the 78 cases in 1991-93 where foreign vessels were boarded or shot at by Chinese, proposed to the PRC Foreign Minister during his February 1993 visit to Tokyo that officials from the two countries' coast guard authorities meet to discuss East China Sea shipping problems. The People's Republic of China agreed to an 'informal' June 1993 meeting, which arranged the establishment of a hotline to the Japanese Maritime Safety Agency - and incidents over the next year were reduced to only one. Elsewhere, an embarrassing Chinese attempt in May 1994 to seize a vessel inside Hong Kong's territorial waters even led to a PRC apology and promise to avoid such incidents in the future. As Figure 4:2 indicates, however, there were still numerous incidents in 1994 in the Hong Kong-Luzon-Hainan region (although half the 1993 number) - and a significant increase (double 1993) in piracy incidents in Indonesian waters in 1994.

These trends in regional piracy suggest that such acts may, in some areas and cases, have broader implications for regional security. However, it is also clear that discussions and cooperation between regional Asia Pacific nations can help ensure effective crackdowns on piracy. In the Malacca and Singapore Straits area, international cooperation and specific cooperative measures between neighbouring states have significantly reduced piracy incidents in recent years. 1992 was the key year. In October 1992, the International Maritime Bureau (IMB) of the International Chamber of Commerce - with support from the shipping and related industries, the UN International Maritime Organisation (IMO), and law enforcement agencies - established a

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Regional Piracy Centre (to cover all the countries east of Sri Lanka to Southeast Asia and the Far East) in Kuala Lumpur, Malaysia, to serve as an information and reporting centre, and to liaise with regional law enforcement authorities (the Centre has no enforcement capabilities of its own). In the summer of 1992, Singapore and Indonesia agreed to establish direct communications links between their navies and agreed to provide coordinated patrols of their navies to protect Singapore Strait shipping lanes against piracy, including provisions for coordinating pursuit across territorial boundaries. Also in 1992, Indonesia and Malaysia, using the long-standing Joint Border Committee mechanism for maritime cooperation (which already included joint naval and police exercises and operations in the Strait of Malacca, and procedures for regular rendezvous at sea to exchange information), agreed in December 1992 to form a joint Maritime Operation Planning Team to conduct coordinated patrols along the common borders in the Malacca Strait. In mid-1993, these two countries conducted a ten-day joint patrol exercise in the Strait of Malacca.) As a result of these cooperative measures (as well as significant unilateral anti-piracy measures by Singapore, Malaysia, and Indonesia), the piracy problem in the Malacca and Singapore Straits diminished significantly after 1992.

There is considerable scope for further cooperation in combating piracy in the Asia Pacific region. In the Malacca and Singapore Straits area, one suggestion has been that Singapore, Malaysia, and Indonesia agree to establish 'joint patrol areas', where more than the territorial state would have the right to patrol, arrest, and punish for acts of piracy. In the South China Seas area, a paper prepared for the Indonesian-sponsored Fifth Workshop on Managing Potential Conflicts in the South China Sea included a proposal for 'coordination and cooperation between the navies and authorities of the region' in combating piracy and illicit drug traffic. The Third South China Sea Workshop, in 1992, had reported that some participants 'suggested that piracy could be most effectively dealt with

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7 IBRU Maritime Briefing 1994, p.18.
8 'Proposals for Building Confidence in the South China Sea: A Summary', prepared by the South China Sea Working Group, The University of British Colombia, for The Fifth Workshop on Managing Potential Conflicts in the South China Sea, October 1994.
at the national level, while others considered that a regional approach to the problem would be preferable.\(^9\)

In the East China Sea area, a continuation of the dialogue between the coast guard authorities of the People's Republic of China and Japan, as well as inclusion of this problem on the agenda of the PRC-Taiwan 'informal' discussions on cross-straits issues, would be useful.

Eventually, one can envision piracy problems being effectively addressed in region-wide or, much more likely, sub-regional 'Safety at Sea' agreements (which would also address other common civil maritime problems like search-and-rescue, environmental protection, drug trafficking, and illegal refugees). The Regional Piracy Centre in Kuala Lumpur should continue to develop, and could act as a spur to the inclusion of the piracy problem on the future regional maritime cooperation agenda.

**Drugs**

The problem of maritime transport of illicit drugs is, understandably, much less documented than the piracy problem. Additionally, it is difficult to determine (from outside) the extent of regional cooperation in dealing with this problem - cooperation which most often occurs on a local level between civilian agencies.

The US Deputy Assistant Secretary of Defense for Drug Enforcement Policy and Support recently expressed US concern over a continuing rise in opium production in Asia, while praising regional governments for their efforts to stop the flow of drugs from the region.\(^10\) (For 1996, the US Defense Department has requested a budget for counter-narcotics operations of $680 million, plus $130 million for individual services, only 16 per cent of which goes to detection and monitoring the sea and air 'transit zones'.)\(^11\)

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\(^9\) The Third Workshop on Managing Potential Conflicts in the South China Sea, Yogyakarta, Indonesia, 29 June - 2 July 1992, p.11.


\(^11\) ibid.
However, most US effort is focused on the Caribbean transit area for cocaine imports. The US Drug Enforcement Agency (DEA)’s Pacific regional specialist pointed out recently to this author that the total heroin imports to the US (80 per cent of which comes from Golden Triangle or Central Asian opium from Asia) total only about 7 metric tons - which is only one per cent of cocaine imports to the United States! The DEA specialist also said that all the known seizures of drugs in the Asia Pacific region have been in ports or coastal waters - to his knowledge, none was seized on the high seas. The DEA specialist noted that the nature of drug problems within the region varied - Japan and Korea were very concerned with methamphetamine traffic, whereas Australia and New Zealand were concerned with sailing vessels bringing cocaine, while the Philippines (like the United States) was concerned with ocean tugs carrying marijuana. In addition to smaller smuggling vessels, it has long been known that the increasingly common containerised marine transport provides a good hiding place for drugs.

This information on the nature of regional drug trafficking has several implications for potential maritime cooperation. Obviously, effective sharing of intelligence and tracking data on suspected drug shipments is a prerequisite to dealing with the problem (this requires, of course, trust between nations that the officials informed are not themselves corrupted by the drug traffic). A new, separate region-wide clearing-house centre for exchange of drug-trafficking data is one possible solution - or, for maritime trafficking, it is conceivable that the IMB’s Regional Piracy Centre could add this function to its existing collection and broadcast of data on pirate boats and movements.

Most actual intercepts and arrests of drug traffickers are likely to continue to be in ports or territorial waters - where jurisdiction and enforcement authority is clearly defined - and not on the high seas. However, joint drug patrol and enforcement agreements (like those regarding piracy) might be useful in specific overlapping areas like the Malacca and Singapore straits. And, as noted earlier, eventual regional or sub-regional civil maritime ‘Safety at Sea’ agreements should include provisions to coordinate in detecting, monitoring, and intercepting maritime drug traffic.
In summary, there is considerable scope for enhanced coordination and cooperation of Asia Pacific regional nations in countering the maritime portion of drug trafficking. This traffic in drugs poses increasing threats to the domestic security of the increasingly modern and urban societies of East Asia, as well as to traditional drug destinations in Europe and North America. It should also be noted, in view of China's central geographic position across East Asian drug transit routes, that 'there is a growing feeling among Western anti-narcotics officials that any success in the fight against drugs depends on China's cooperation'.

Illegal Migration

The current problem of illegal migration by maritime routes is growing - although it still pales in comparison with the previous (1970s/80s) migration of over a million 'boat people' refugees from Vietnam (several thousand of whom still await repatriation). Moreover, estimates of refugees from any future civil war in China run into the millions.

The most noted current problem in illegal migration by sea has been boats smuggling people from Chinese coastal provinces to Japan and as far as Canada and the United States (where the landing of a group of illegal Chinese on Long Island, New York recently attracted publicity). In 1993, Japan caught over 5,000 Chinese attempting to enter illegally by boat or plane - double the number of four years before. As the ships to North America also showed, the nature of this illegal maritime traffic in migrants has also changed. A recent report stated:

Analysts say that syndicates involving Hong Kong, Taiwan, and Japanese smugglers are now mounting substantial operations ... illegal entry used to be small-scale, using ... fishing boats ... now they can do 100-150 per boatload using freighters.

Although this migration is not currently a major irritant in regional security relations, current cooperation in curbing illegal

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migrants in the Asia Pacific region seems limited, and should be improved. There needs to be better dialogue, so that authorities of countries which are sources of migrants can be encouraged to crack down on the smuggling out of illegal migrants. Regional police and immigration authorities (particularly in the China, Hong Kong, Taiwan, Japan areas) need to develop real working cooperation on this issue. To this end, coordination of efforts to counter illegal migration should be on the agenda of the 'informal' PRC-Japan coast guard authorities' discussions and of the PRC-Taiwan discussions on cross-straits issues.

The tracking of suspected migrant smuggling ships is another area where it might be useful to expand the data collected and broadcast by the already-operational IMB Regional Piracy Centre. And, as with piracy and drug trafficking, procedures to detect and counter illegal migration by sea should be part of eventual regional or sub-regional civil maritime 'Safety at Sea' agreements.
PART TWO
MARITIME CONFIDENCE AND SECURITY BUILDING
CHAPTER 5

MARITIME CONFIDENCE AND SECURITY BUILDING MEASURES

Eric Grove

This paper will look generally at the range of confidence and security building measures (CSBMs) available in the maritime domain and their relevance to the Asia Pacific region. The reality of maritime CSBMs (MCSBMs) predates the term. The well known Incidents at Sea Agreement (INCSEA) signed by the United States and the Soviet Union in 1972 came before the wide adoption of the term CSBM, although retrospectively it has been seen as one of the most useful such measures. The term CSBM achieved its modern currency in the context of the Conference on Security and Co-operation in Europe (CSCE) and, especially, the successful Madrid Mandate attempt from 1983 to expand the exercise notification and observation regime of the original 'Final Act'. Despite being denounced in some circles as 'the junk food of arms control', these measures were soon seen to have significant utility, especially when more classical arms control measures were impossible or at least very difficult to achieve.

Thus, when the Soviet Union tried in the late 1980s to bring naval forces onto the arms control agenda there was a tendency to explore possible maritime CSBMs - a kind of half-way house that might allay some Soviet concerns and allow them to sign up to Conventional Forces in Europe Agreement (CFE) ashore while also having positive effects in stabilising the seaborne confrontation

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2 For the best account of this process, see J. Borawski, Security for a New Europe (Brasseys, London, 1992).
between the superpowers and their allies.\textsuperscript{3} In the event the main substantive fruits of this process were the bilateral INCSEA agreements signed between the USSR and other NATO states. More recently Russia has signed INCSEAs with Japan and South Korea. Calls for a multilateral INCSEA have been made, notably by Sweden, but until recently (see below) such suggestions have fallen on stony ground. It has usually been asserted that bilateralism is an essential feature of the success of such agreements.

The end of the Cold War, something to which the classical European CSBM regime may be said to have contributed, at least in part, has seen attempts to broaden the concept of 'confidence building measure' to cover more general measures with the aim, as was succinctly summed up by Rear Admiral Kushariadi of Indonesia at the 1994 Western Pacific Naval Symposium (WPNS) in Penang, generally to 'remove inter state suspicion and change it into a sense of community'.\textsuperscript{4} The generally less binding nature of these CBMs differentiates them from the 'tighter' CSBMs negotiated in Europe.

This broader concept of CBMs is especially relevant to the Asia Pacific region. Here, unlike in the Cold War confrontation in Europe, there is no well-defined and established situation of hostility that one is trying to reduce or whose effects one is trying to mitigate. In this region the problem is more generalised suspicion fostered by a network of relatively small-scale conflicts or potential conflicts that are currently kept under control by various means but which could escalate dangerously. This suspicion is combined with an arms build-up that is significant even if its destabilising effects are often over-estimated. This is a very different situation from the clear fault line that ran across 1980s Europe and one can understand the attempts at last years ASEAN Regional Forum in Bangkok to invent new terms, such as 'mutual reassurance measures' or 'trust building measures'. There is an understandable reluctance to define a situation as confrontational when not doing so is an important CBM in itself. This

\textsuperscript{3} See the authors Maritime Power and European Security (Brasseys, London, 1990), especially Chapter 8.

paper, however, will retain the more traditional term 'confidence building measure'. There is indeed inherent in the CBM concept the idea that hostile intent is a misperception. Moreover, the use of the term CBM helps limit the paper to measures involving military forces in general and maritime forces in particular.

This is indeed a maritime region, with many regional states abutting each other in a maritime context - often with disputed claims to islands. Maritime CBMs ought thus to have a significant role to play. There are, however, problems posed by the maritime environment itself, factors that affected the MCBM debate of the late 1980s. Maritime forces gain much of their utility from an unfettered freedom to move, to achieve surprise, to operate covertly. Navies are thus most reluctant to give up these basic operational attributes in an extensive system of movement notification and constraint measures (another reason for dropping the 'Security' in the title of this chapter).

Nevertheless there clearly are a number of measures that can meaningfully be described as MCBMs that could be applied in the Asia Pacific region. The first five can be put under the general heading of 'transparency measures'. These are:

- visits by naval units to other nations naval bases and visits by naval personnel to other nations naval facilities;
- sharing non-sensitive information on programmes, policies, force structures and rationales of forces (there is a tendency for some states in the region to be too broad in their definition of 'sensitive');
- joint publication of naval tactical procedures (a process that has begun with the Maritime Information Exchange Directory (MIED) and Replenishment at Sea (RAS) Handbook produced under the auspices of WPNS and the adoption by WPNS states of the new unclassified Exercise Tactical (EXTAC) publications produced by the Americans);
- enhancing exchanges of personnel, especially in training courses;
notification and observation of exercises. This can provide important reassurance to non-participants as well as a demonstration of the non-threatening nature of the activity.\(^5\)

There is a strong element of transparency in the next heading that can be characterised as 'cooperation measures'. These include joint exercises either at a command post level or at sea, the latter on a routine single ship 'Passsex' basis or in more formal 'set-piece' exercises. It also includes cooperative arrangements in such areas as search and rescue (SAR) and pollution control. Cooperating in such innocuous ways enhances understanding and develops useful habits of cooperation and mutual knowledge of training, communications and equipment. As Rear Admiral Welch of the Royal New Zealand Navy put it at the 1994 WPNS, SAR cooperation would demonstrate that regional navies:

have the will to operate together in this humanitarian role. The development of standard operating procedures with common communications, supplemented by a regional exercise are first steps. Standing forces would not be required but ships in the region for other activities could participate if advanced notice were given of the ships programmes ...\(^6\)

The next category of MCBM to be considered is the Incidents at Sea agreement. As noted above, exiting INCSEA agreements have relevance in the region, notably the US-Russian, Japan-Russian and South Korean-Russian agreements. There is scope for other bilaterals and Japan-China, ROK-China, DPRK-ROK, China-Taiwan, US-China and China-India agreements have been suggested.\(^7\) There is much scope for these, complemented perhaps by regional multilateral INCSEA or Safety at Sea agreements covering Northeast or Southeast Asia. As Stan Weeks has argued:

Such multilateral agreements, which might be negotiated by naval specialists meeting on the margins of the ASEAN

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5 These are based on the measures discussed with generally favourable agreement on their practicality in WPNS Proceedings.


Maritime Confidence and Security Building Measures

Regional Forum (or the Western Pacific Naval Symposium), would include the time tested provisions of bilateral INCSEA agreements, requiring naval forces on the high seas to communicate and avoid dangerous manoeuvres and harassments. But these agreements could also be tailored to address particular subregional non-military maritime concerns, such as surveillance, fisheries, merchant shipping safety (search and rescue) and/or anti-piracy/anti-narcotics co-operation. Provision should be made in such agreements for an annual subregional review meeting/naval symposium, which would also provide the venue for the bilateral naval contacts that have proved so valuable and durable in existing bilateral INCSEA agreements.8

There is a useful precedent here in the work done by Dr Weeks and others under Canadian auspices in developing a draft INCSEA text for use in the Middle East as part of the Middle East Peace Process (MEPP). This is an especially useful document in that it covers such problems as 'the need for those regional states which have bodies of water which join one another to make special arrangements which cover potential problems in those areas, drawing on the larger INCSEA arrangement in doing so'.9 These words have particular resonance in this region, with its many square kilometres of archipelagic waters.

A powerful argument in favour of a regional arrangement of this type is that it would not formalise conflict between the participants. Indeed it would be useful in dealing with those embarrassing but nonetheless real cases where, for example, ASEAN partners come into conflict over disputed maritime territories. The key, as argued by Dr Weeks, is a flexible bilateral/multilateral approach. A final caveat must be added, however. It is effectively impossible to include submarines in INCSEA arrangements given their essential covertness. As submarines proliferate further in this region it will be up to the owners to demonstrate suitable unilateral restraint in their operations to prevent unnecessary incidents.

A final area of suggested MCBM is cooperative logistics. At Penang the New Zealanders suggested that WPNS adopt some of the cooperative ventures developed by the Pacific Area Cooperative and Logistic System (PACALS), an initiative developed by the US-sponsored Pacific Area Senior Officers Logistics Seminar (PASOLS) to promote co-operative interaction and the exchange of operational, supply and maintenance related information between participants in order to improve logistics effectiveness and reduce support costs. More generally at the same meeting Indonesia suggested that 'enhancing collective self reliance in the supply and maintenance of defence hardware and co-operation in maintenance and production of parts and components' would have useful confidence building effect. These suggestions were described by some participants as 'rather ambitious and a bit too early to implement' but they are worthy of further study.

It is in the investigation of such measures as the above that this Working Group might make a real contribution to the development of confidence at sea in this region. Much progress has been made - notably in the WPNS forum - but such discussions are inevitably limited by their official nature. 'Second channel' organisations such as CSCAP are the right forum to explore without official commitment ideas that might be useful to practitioners. This can lead directly to agreement at a more official level.

One precedent is the trilateral Russia-UK-US (RUKUS) talks developed first from 1988 under the auspices of the independent Foundation for International Security unofficially and very informally to discuss problems of maritime strategy. The process helped explain to the then USSR the impossibility of their plans for naval arms control but, in part because of this, had important confidence building effect. Mutual visits were made to warships and naval bases and remarkably open discussions on strategy and naval policy took place. In recent years RUKUS has evolved into a trilateral forum organised by the three navies to carry out simulations of cooperative operations. Draft rules of engagement have been developed and informal agreement

10 'A Framework for Regional Confidence Building Measures' in WPNS Proceedings. Kushariadi, 'Enhancement of Maritime Understanding amongst the Asia Pacific Navies'.
11 Vice Admiral Sharif RMN in 'Discussion Summary' on the two above papers in WPNS Proceedings.
made to develop cooperative exercises further. A specific Asia Pacific variant - or variants - of this process might prove fruitful, especially given the problems of engaging in command post exercises under official WPNS auspices (a process that has otherwise done much good work in its discussion of CBMs).

Certainly there seems to be much scope for the expansion of specially crafted MCBMs in the Asia Pacific region. A complementary mix of measures based on those discussed above - all of which are practical - would have significant impact in containing unnecessary suspicion and assisting in the process of enhancing the sense of community of the nations of the region.

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CHAPTER 6

MARITIME SURVEILLANCE AND INFORMATION EXCHANGE

Sam Bateman

Introduction

The Australian paper on practical proposals for security cooperation in the Asia Pacific region,\(^1\) tabled at the first meeting of the ASEAN Regional Forum (ARF) in Bangkok in July 1994, identified:

- Maritime Information Database as a Category 1 Trust-Building Measure (TBM) (that is, one which warranted early consideration because it appeared relatively achievable);\(^2\) and

- Maritime Cooperation (in activities such as maritime safety, search and rescue, marine pollution control and maritime surveillance) as a Category 2 measure (that is, one which could be considered and which would benefit from the improved security dialogue and trust flowing from Category 1 activity).\(^3\)

The idea of cooperative maritime surveillance has been canvassed for some years as a possible maritime confidence and security building measure (MCSBM) in the Asia Pacific region but little progress has been made towards achieving any practical outcomes. Information exchange has been a little more successful, primarily through the efforts of the Western Pacific Naval Symposium (WPNS) discussed later in this paper.

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2. ibid., p.8.
3. ibid., pp.10-11.
Background

The Institute of Strategic and International Studies in Kuala Lumpur floated the concept of a Regional Maritime Surveillance and Safety Regime for Southeast Asian waters in 1990. Des Ball and I reviewed the concept in a paper in 1991 but found several difficulties with its implementation, including the lack of any clear commonality of interest between possible member countries, the differences in organisational arrangements for undertaking surveillance in these countries, and regional sensitivities to particular issues, including fishing and disputed maritime claims.

Russ Swinnerton and Des Ball revisited the issue in a paper to a conference in Sydney in late 1993 which was subsequently published in 1994. They identified maritime interests of common concern to regional countries and then went on to propose a maritime surveillance, safety and information regime to cover low-level maritime security issues, specifically in East Asian waters. This regime would:

- help safeguard the peaceful merchant shipping which is so important to the region;
- assist in creating a stable maritime regime to permit exploitation of the marine resources of the region;
- contribute to the preservation of the marine environment; and
- develop a framework of cooperation that could provide the basis for dealing with higher order contingencies that might arise in the future.

After all this history and specification of the benefits of cooperation with maritime surveillance, why has there been so little progress towards cooperation? The short answer to this conundrum lies in the difficulty of moving beyond the rhetoric of the possible

benefits of cooperation towards introducing something operational where possible member countries believe that the benefits of participation outweigh the costs. Perhaps we have to start further back, and here the modest progress made through the WPNS may offer a way ahead if extended beyond the naval forum to the wider maritime community.

The objective of this short paper is to canvass once again the possibility of a higher degree of regional cooperation in the field of maritime surveillance and information exchange. The paper does, however, go one step further and outlines a possible way ahead.

**Maritime Surveillance**

Maritime surveillance is the systematic observation of maritime areas to locate, identify and track ships, submarines and other vehicles on or under the sea. The objective is to determine the extent, nature and purpose of ship and aircraft movement and other maritime activity. Maritime surveillance may also cover surveillance of the airspace above the sea and sub-surface surveillance to detect the movement of submarines. However, air and sub-surface surveillance have sensitive connotations which suggest that they are unlikely areas of cooperation, and discussion in this paper is limited to consideration of cooperative surface surveillance and information exchange.

Maritime surveillance may be undertaken by a variety of means including satellite, aircraft, surface ship, submarine, land-based radar, or by towed and fixed sonar arrays. Some combination of these means is usually used and thus an effective command, control and communications (C³) system is required to integrate the information from different sources and produce a coordinated surveillance picture. Databases and historical records of maritime activities in the area of interest are other important elements because it is important to have a benchmark against which to assess the unusual. This benchmark is not necessarily sensitive but it is complex and countries would have much to gain by sharing their open-source information to permit the development of databases.

Surveillance is a principal component of strategic intelligence and invariably there is a close relationship between intelligence and
surveillance operations. This is a two-way relationship - surveillance provides intelligence but surveillance priorities are also determined by intelligence. This close relationship between intelligence and surveillance is one of the factors that inhibits the process of cooperation.

Area of Interest

Comprehensive knowledge of what is occurring at sea in nearby waters is an essential element of national security for most regional countries. This is required in waters under some degree of national sovereignty (that is, internal waters, the twelve-mile territorial sea, the two-hundred-mile Exclusive Economic Zone (EEZ), and archipelagic waters for archipelagic states, such as Indonesia and the Philippines), as well as in the approaches to those waters. However, no one country can regard its area of maritime interest as simply being that over which it enjoys some degree of sovereignty or has sovereign rights; it must also develop a picture of what is going on beyond these areas.

Maritime surveillance may be either wide area or localised to some particular focal area or area of interest. It can be very demanding. For example, at one point of time, Malaysia could have concurrent requirements for surveillance of all national maritime areas, and for more detailed surveillance of, say, the Spratly Islands, the northern approaches to the Malacca Straits and the coast of Sabah. This is a task which can be extremely demanding of resources and few regional countries, with the exception of Japan, have the capability to sustain a high rate of effort.

In the broadest sense, the area to which a maritime surveillance or information exchange regime could apply in the Asia Pacific region comprises the extensive oceanic areas of the North and South Pacific and the enclosed and semi-enclosed seas adjacent to the mainland of Asia. However, this is a very large area and it may be prudent to concentrate initially on one part of the region.

A particular region where cooperative surveillance and information exchange would be valuable is that between Thailand and northern Australia, including the South China Sea and adjacent areas of the Indian and Pacific oceans. This is a very important part
of the world's seas with many unique qualities. It contains major strategic and commercial sea lines of communication and focal areas while being relatively rich in offshore resources, both living and non-living. It is also the scene of frequent illegal activity at sea including piracy, unlicensed fishing, drug smuggling and refugee movement.

This area is very complex both oceanographically and meteorologically. There are high sea water temperatures, fast tidal streams, plentiful marine life and uneven bottom topography. These factors, along with monsoonal weather conditions involving high levels of precipitation and storm activity, mean that high-technology surveillance systems, such as passive sonar arrays and microwave radars, may be relatively less effective here than they are elsewhere. Hence there is likely to be continued reliance on the more equipment-intensive surveillance instruments - surface ships and aircraft.

There have been several developments which support the concept of cooperative maritime surveillance in this area. Australia and Indonesia are establishing cooperative procedures for maritime surveillance in the Arafura and Timor seas. Australia, Malaysia and Indonesia are cooperating in the ASEAN-Australia Marine Science Project investigating waterflow between the Pacific and Indian oceans. Cooperative activities by Malaysia, Singapore and Indonesia have succeeded in reducing the incidence of piracy in the Malacca and Singapore straits.

Malaysia is installing a system of sea surveillance radars along the Malacca Straits. I understand this will be under the direction of the Maritime Enforcement and Co-ordination Centre (MECC) and would assist in improving marine safety by emphasising safe navigation and traffic separation. This would help to control piracy, smuggling, illegal migration, illegal fishing and pollution. The so-called Radar Sea Surveillance System (RSSS) will also be an important national defence asset.

There is potential for data to be exchanged between the Malaysian RSSS and the Vessel Traffic Information System (VTIS) operated by the Port of Singapore Authority (PSA) as the core of its Computer Integrated Marine Operations System (CIMOS). The VTIS

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6 Adrian David, 'Malaysia going ahead with Malacca Straits radar system', *New Straits Times*, 10 June 1993, p.1.
is a computer-aided ship tracking system covering the Singapore Strait and the approaches to the port of Singapore based on a chain of remote radars on Singapore Island and several off-lying islands. Vessel movements monitored by these radars are relayed back to a control centre where the information is coordinated graphically to give an overview of shipping traffic.

**Information Exchange**

The Australian paper at the ARF last year noted that a maritime information database:

... would enable regional countries to collect and collate data about maritime traffic, environmental issues, piracy and smuggling. Data relating to regional environmental security might, for example, include information on the management of the shipping and storage/disposal of toxic materials.

Multinational hydrographic and oceanographic programs might be worth pursuing at a later phase of this program. (Hydrographic and oceanographic resources in the region are limited and a multinational program that concentrated on key maritime areas where information is currently lacking would be an endeavour for the common good.)

The paper went on to refer to the Strategic Maritime Information System (SMIS) being developed by the Information Technology Division of the Australian Defence Science and Technology Organisation (DSTO). This is a database of open-source, maritime information covering Southeast Asian and Australian waters, including map depictions, maritime boundaries, reports of incidents at sea, port details, data on some 32,000 merchant ships over 1,000 GRT which operate in the region, major routes and shipping movements.

A number of maritime information exchange initiatives have been initiated by the Western Pacific Naval Symposium (WPNS). The principal one has been the compilation of a Maritime Information Exchange Directory which provides advice on communications lines.

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to be used for the voluntary reporting of time-critical information on maritime activities by naval ships and aircraft when transiting a fellow WPNS member's EEZ or territorial sea, or other waters of mutual interest such as search and rescue areas. Activities covered include marine pollution, search and rescue, humanitarian activities, suspicious actions that may indicate illegal activity including drug smuggling, piracy and fisheries infringements. Other WPNS initiatives include a WPNS Tactical Communications Manual and an Underway Replenishment Handbook.

South Pacific Cooperation

The South Pacific is the one part of the Asia Pacific region where cooperation in maritime surveillance and information exchange is well developed. The Regional Fisheries Surveillance Program has been established since 1986 with a charter to promote coordination and cooperation in fisheries surveillance and enforcement among member countries of the Forum Fisheries Agency (FFA). It is supported by a regional maritime surveillance and communications network which links member countries via satellite to the central fisheries and management database at FFA headquarters in Honiara.

Benefits of Cooperation

Few coastal states possess sufficient capability to meet all maritime surveillance and information demands. Hence there is scope for regional cooperation, particularly in areas where neighbouring countries have common interests, the information is freely available, and countries can cooperate without feeling they are compromising their national security or giving away vital intelligence information.

Cooperation with maritime surveillance and information exchange offers a number of benefits. First, it means better maritime knowledge. This leads to improved marine safety and search and

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rescue capabilities, while helping to control marine pollution and illegal activities at sea, such as piracy, drug smuggling and refugee movement.

Second, cooperative maritime surveillance contributes to regional resilience. It shows that neighbouring countries can work together to look after themselves. This helps both to deter potential adversaries and to assure extra-regional countries that they do not have to act more directly to support their own interests by, for example, protecting seaborne trade. Third, cooperative activities are recognised as valuable confidence and security building measures which promote trust and transparency between neighbouring countries.

Looking to the future, the role and importance of maritime surveillance and information databases is likely to expand, particularly in relation to pollution, illegal activities in fishing, waste discharge and failure to observe environmental safety requirements. This will be associated with an increased need for ocean monitoring and research including data and sample collection for monitoring the state of the marine environment.

Conclusion

In the most simple terms, surveillance means knowing what is going on in your area of interest. Background information on this area is essential to establish a baseline against which activities out of the ordinary can be assessed and to optimise the employment of assets. The employment of these assets requires a high degree of coordination.

The specific proposal that I would like to put to this meeting is that steps should be initiated towards setting up a database to coordinate and distribute through the region open-sourced strategic maritime information. The SMIS is a possible model but there may be others. We also have the experience of the WPNS Maritime Information Exchange Directory on which to build. First steps could include the compilation of a list of the types of information countries

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Richard Kenchington, ‘Protection and Sustainable Use of Marine Environments and Resources’, Maritime Studies, No 72, September-October 1993, pp.4-5.
would regard as useful, the possible sources of data, and agreement on the area (or areas) to which the information exchange regime would apply.

There can be little doubt that cooperation in maritime surveillance and information exchange would make a major contribution to the peace and stability of the Asia Pacific region. Achieving this cooperation will not be easy, in view of the sensitivities involved, and it will take a long time. However, the potential rewards make the effort well worthwhile.
CHAPTER 7

THE LAW OF THE SEA AS A MARITIME CONFIDENCE BUILDING MEASURE\(^1\)

Donald Rothwell

The New Law of the Sea

The 1982 United Nations Convention on the Law of the Sea (UNCLOS)\(^2\) eventually entered into force in 1994. The Convention had been negotiated during the 1970s in an attempt to resolve a number of major law of the sea issues still outstanding following the 1958 Geneva Conventions on the Law of the Sea\(^3\) and which had developed following the emergence of newly independent states seeking a new oceans order. UNCLOS tackled nearly all of these issues with the result that the Convention created for the first time a comprehensive legal order for the oceans. In the process the regime of the territorial sea was clarified, navigation rights were guaranteed, coastal state claims to an exclusive economic zone were recognised, and new legal provisions were created to regulate deep seabed mining and to protect and preserve the marine environment. As part of this process, UNCLOS not only enhanced but also clarified coastal state rights over maritime areas. Likewise, the rights and interests of maritime states were also respected and given further content. Through these processes, UNCLOS has made a substantial contribution to oceans order as a maritime confidence building measure (MCBM). The purpose of this chapter will be to assess the capacity and potential of UNCLOS to act as an instrument of maritime confidence building within the Asia Pacific region. A broad interpretation is taken of 'maritime confidence building measures' (MCBM) so as to include not

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\(^1\) This is a revised version of a paper originally presented at a Conference on *The UN Convention on the Law of the Sea and East Asia* sponsored by the SLOC Study Group-Korea and the Institute of East and West Studies, Yonsei University, Seoul, Korea on 29-30 November 1995.


\(^3\) These conventions are the Convention on Fishing and Conservation of the Living Resources of the High Sea, 559 UNTS 285; Convention on the Continental Shelf,
only initiatives directed towards maritime security and cooperation, but also initiatives which result in greater certainty in the law of the sea and therefore seek to reduce tension between coastal and maritime states.4

The Impact of UNCLOS upon Maritime Security and Cooperation

Clarification of the Extent of Maritime Claims

Perhaps the most important impact of UNCLOS upon maritime security is that it clarified the outer limits of all maritime claims, and in the case of baselines and the continental shelf provided a series of rules for coastal states to apply when determining their limits. While the issue of baselines was dealt with in the 1958 Geneva Convention on the Territorial Sea and Contiguous Zone, a number of contentious issues still existed on this point. UNCLOS dealt with this question by providing for specific rules in regard to the drawing of straight baselines (Art.7), the mouths of rivers (Art.9), bays (Art.10), ports (Art.11), roadsteads (Art.12), and low-tide elevations (Art.13). In many cases the effect of these provisions was to allow coastal states to further extend their baselines and thereby enlarge their internal waters. In effect, this gave to coastal states the capacity to enlarge the areas over which they exercised state sovereignty. UNCLOS also dealt with one of the longest standing issues in the law of the sea by defining for the first time the outer limit of the territorial sea at 12 nautical miles. This conferred upon states the ability to substantially extend their territorial sea claims from three, four or six nautical miles to 12 nautical miles. In a related development, UNCLOS also extended the potential outer limit of the contiguous zone to 24 nautical miles (Art.33).

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499 UNTS 311; Convention on the High Seas, 450 UNTS 82; and the Convention on the Territorial Sea and Contiguous Zone, 516 UNTS 205.

One of the most important developments which occurred in the law of the sea during the negotiation of UNCLOS was the acceptance of the rights of archipelagic states to draw baselines around their outer islands and to proclaim archipelagic status. Recognition has therefore been given for the first time in international law to 'archipelagic states'. States which can successfully claim archipelagic status have sovereignty over the waters that fall within the archipelagic baselines (Art.49). The Asia Pacific region has the largest concentration of geographic archipelagoes anywhere, and correspondingly the largest number of actual and potential claimants for archipelagic status under Part IV of UNCLOS. During the negotiation of the Convention, states such as Indonesia and the Philippines were at the forefront of the negotiations concerning the creation of the archipelagic regime, and it is not surprising that these two states have made substantial gains under UNCLOS. States which under Part IV of UNCLOS have had their archipelagic status recognised gain access to large additional areas of seabed and water column for natural resource exploitation. The sovereignty of archipelagic states extends to their 'archipelagic waters, regardless of their depth or distance from the coast' (Art.49). UNCLOS limits archipelagic status to states constituted wholly by one or more islands which form 'an intrinsic geographical, economic and political entity' (Art.46). The outer limits of an archipelagic state are determined by drawing a series of straight archipelagic baselines connecting the islands (Art.47).  

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8 Art.47, UNCLOS includes extensive provisions on how archipelagic baselines may be drawn. The main provisions are:
1. that the ratio of the area of water to the land is between 1 to 1 and 9 to 1;
2. that the length of the baselines not exceed 100 nautical miles excepting 3 per cent of the baselines which may extend up to 125 nautical miles;
3. that the baselines do not depart to any appreciable extent from the general configuration of the archipelago.
In addition to the new concept of the archipelagic state, UNCLOS also recognised for the first time the 'exclusive economic zone' (EEZ) as a mixed area of coastal state resource sovereignty and jurisdiction out to a limit of 200 nautical miles from the baselines. The recognition of this concept was very important for coastal state maritime resource security as the 1958 Geneva Conference had failed to recognise coastal state marine living resource rights beyond the territorial sea yet in the intervening years there had been many fishing zone declarations by coastal states. The declaration of such zones resulted in conflict between coastal and fishing states. The provisions of Part V of UNCLOS which dealt with the EEZ therefore assisted to clarify customary international law which had developed since 1958 but also gave further content to coastal state sovereign rights, jurisdiction and duties towards the area.

Clarification of Coastal State Rights over Navigation

One of the important consequences of the extension and clarification of coastal state rights to maritime zones has been the need to further clarify a range of navigational regimes that were impacted upon by these new developments. As a result, there was a need in UNCLOS to clarify coastal state rights over navigation. With respect to navigation through the territorial sea and the right of innocent passage, UNCLOS gives content to what constitutes passage that is prejudicial to the peace, good order and security of the coastal state (Art.19(2)). Activities such as the threat or use of force, the exercise or practice with weapons, acts of propaganda, wilful or serious pollution, any fishing activities, and acts that interfere with the communication systems of the coastal state are considered to be prejudicial. UNCLOS also gave further content and understanding to provisions which detail the ability of the coastal state to enact laws and regulations controlling innocent passage (Art.21). These laws, which must be in conformity with international law, can deal with the safety of navigation, the protection of navigational aids, conservation of the living resources of the sea, preservation of the environment, and the prevention of infringement of the customs, fiscal, immigration or sanitary laws and regulations of the coastal state. One advance on the previous law of innocent passage is the recognition given in UNCLOS...

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9 See, for example, Fisheries Jurisdiction Case (UK v. Iceland) [1974] ICJ 3.
to the legitimate rights of coastal states to control certain aspects of navigation that directly relate to the protection and preservation of both the marine and adjacent coastal environment. In some instances, this can extend to the imposition of a regime of compulsory pilotage upon foreign vessels. While coastal states may adopt laws and regulations dealing with the safety of navigation, these laws must also not hamper innocent or transit passage. However, there is also a recognition that if international regulations have been adopted for certain waters, then foreign vessels are required to respect those rules.10

The adoption of a 12 nautical mile limit for the territorial sea resulted in a need to give further content to the legal regime for international straits as a greater number of straits through which there previously existed high seas corridors were now potentially enclosed by overlapping territorial sea areas.11 The response in UNCLOS was to create a new regime for international straits in Part III of the Convention.12 Four types of passage through straits are recognised.13 First, the normal freedoms of navigation still apply through straits used for international navigation through which there exists a high seas or exclusive economic zone corridor.14 Second, the Convention does not affect long-standing legal regimes which control passage through certain straits such as the Turkish Straits of the Bosphorus and

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10 See UNCLOS, Arts 21, 24, 42, 44.
11 Larson has estimated that if all 142 coastal states were to extend their territorial seas out to 12 nautical miles, then an estimated 205 additional international straits that are 6 nautical miles or more in width would be overlapped by territorial seas: David L. Larson, Security Issues and the Law of the Sea (University of America Press, Lanham, 1994), p.72.
13 William L. Schachte, Jr and Peter A. Bernhardt ('International Straits and Navigational Freedoms', Virginia Journal of International Law, Vol.33, 1993, p.538) list six categories of international straits, distinguishing between the so-called Strait of Messina exception and the dead-end strait exception, but also including international straits within archipelagic waters.
14 UNCLOS, Art. 36 providing that the route through the strait is one of 'similar convenience with respect to navigational and hydrographical characteristics'.
Dardanelles. Third, the newly created right of transit passage applies in straits used for 'international navigation' which connect one part of the high seas or exclusive economic zone with another part of the high seas or exclusive economic zone (Arts 37 and 38). Finally, non-suspendable innocent passage applies in two special instances. The first is where the strait is formed by the mainland and an island of the mainland state bordering the strait and there exists to seaward a route of similar convenience. The second is where the strait is used for international navigation between the EEZ or high seas and the territorial sea of a foreign state (Art.45). Of these various categories of passage, the most significant is the right of non-suspendable transit passage which exists through genuine international straits. Transit passage is described in Article 38 of UNCLOS as being passage that is part of a 'continuous and expeditious transit of the strait between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone'. Ships engaging in transit passage have a number of duties imposed upon them, such as proceeding through the strait without delay, refraining from the threat or use of force against states which border the strait, complying with generally accepted international regulations and procedures and practices for safety at sea and the prevention, reduction and control of pollution from ships (Art.39).

Within the confines of archipelagic baselines, an archipelagic state has jurisdiction over shipping in much the same way coastal states enjoy such controls within the territorial sea. A right of innocent passage is conferred upon vessels within these archipelagic waters, with the archipelagic state having the same rights and duties as coastal states do in regard to territorial sea innocent passage (Art.52). However, a special passage regime for vessels engaged in international navigation exists through designated sea lanes within the archipelago known as 'archipelagic sea lanes passage' (Art.53). Within these archipelagic sea lanes many of the same rights and duties that exist for strait states with respect to international straits apply for archipelagic states (Art.54). Accordingly the archipelagic state may enact non-discriminatory laws and regulations dealing with passage (Arts 42 and

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15 UNCLOS, Art. 35(c); other examples are the Danish Straits, Aaland Straits and Straits of Magellan.
16 UNCLOS, Arts 38(1), 45. An example of such a strait is the Strait of Messina between mainland Italy and Sicily.
There is an expectation in the Convention that archipelagic states will designate approved sea lanes, however, pending their designation the right of passage may be exercised through rights 'normally used for international navigation' (Art. 53(12)).

**Clarification of Navigation Rights for Maritime States**

Not only did UNCLOS clarify and describe for the first time coastal state rights over foreign vessels within certain coastal waters, but the Convention also recognised that foreign shipping had legitimate rights within these waters. Each of these UNCLOS regimes therefore attempts to balance the rights and interests of both the coastal state and the maritime states to both control and make use of certain waters. Within the territorial sea, foreign flagged vessels have a right of unimpeded passage provided their voyage is 'innocent' (Art.17). UNCLOS defines 'innocent passage' as being one that 'is not prejudicial to the peace, good order or security of the coastal State' and one that takes place in conformity with international law (Art.19(1)). If a vessel is engaging in innocent passage then the coastal state may not hamper that passage. In particular, the coastal state may not impose any requirements that have the practical effect of denying or impairing the right of innocent passage or which discriminate in form or in fact against the ships of any state (Art.24). This right of innocent passage extends not only to merchant vessels but also to government vessels and warships. Provided that these vessels comply with the requirements of innocent passage, no special rules apply to their passage excepting that submarines are required to navigate on the surface and show their flag (Art.20).

Within straits used for international navigation that meet the requirements of Part III, not only is such passage non-suspendable, but states which border such straits are not to hamper passage and must also give appropriate publicity to any danger to navigation (Art.44). The coastal state which borders the strait may also enact certain laws and regulations, however, these measures may not discriminate against foreign ships or have the practical effect of denying, hampering or impairing the right of transit passage (Art.42). A non-suspendable right of innocent passage is further guaranteed in those waters excluded from the transit passage regime because of their geographical circumstances (Art.45).
Within archipelagic waters, the right of innocent passage is granted to all vessels (Art.52(1)), and the archipelagic state may only suspend passage if it 'is essential for the protection of its security' (Art.52(2)). Provision is also made for those vessels which are engaged in passage through the archipelago without intending to stop or divert to a port within the archipelago. These vessels enjoy a right of archipelagic sea lanes passage, which in many respects is equated for the purposes of the Convention with transit passage (Arts 53 and 54). This right of passage through the archipelago is enjoyed along sea lanes that have been designated by the archipelagic state, or, if such sea lanes have not been designated, through routes normally used for international navigation (Art.53). Providing the vessel does not infringe any of the laws of the archipelagic state, vessels enjoy a non-suspendable right of archipelagic sea lanes passage (Art.54).

Development of Resource Management Principles

States in the Asia Pacific will welcome the entry into force of UNCLOS as it will assist to clarify the status of the EEZ concept. While many Asia Pacific states have for some time asserted either an EEZ or Fishing Zone, the legal status of these claims was uncertain because despite the general acceptance of the EEZ concept there existed the potential for much debate as to how the regime should actually operate. The entry into force of UNCLOS will therefore give further content to the laws which states have adopted to manage their marine living resources within their EEZ. This is not to suggest that all EEZ disputes will be resolved. There exist numerous bilateral disputes between neighbouring states over alleged illegal fishing activities.\(^\text{17}\) The EEZ provisions in Part V, UNCLOS anticipate cooperation between coastal states and third states that seek access to EEZ areas. In this regard, Article 62 is particularly important as it includes provisions which deal with the obligations of the coastal state to recognise certain third states rights to excess stock within the EEZ. The extent of coastal state laws and regulations which can be enacted to control foreign fishing activity within the EEZ are also listed in great

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content. There is already some evidence that states in the Asia Pacific have attempted to give effect to these provisions.  

Dispute Resolution

A further impact of UNCLOS upon maritime security within the region is the impact that it has and will have upon dispute resolution. This occurs in a number of areas. The first, and most obvious, is that by clarifying the extent of coastal state rights and obligations over a range of maritime zones the Convention assists to resolve disputes between coastal states and maritime states over a range of maritime zones. Second, the Convention also includes a number of provisions which expressly deal with dispute resolution. The most obvious of these is those provisions dealing with maritime boundary delimitation (Arts 15, 74 and 83). This has proved to be an especially sensitive issue in East Asia where a number of EEZ and continental shelf claims overlap in areas that have resource potential. Because a number of these maritime claims also converge on relatively enclosed areas such as the South China Sea and the Sea of Japan, in a number of cases boundary delimitations involve not only the interests of two states but also the interests of adjoining states that may be affected by other boundary delimitations. Some of these boundary disputes also directly relate to contentious sovereignty claims over islands and adjacent areas, of which the most prominent are the Spratly and Paracel islands.

Finally, UNCLOS contains very detailed dispute resolution mechanisms in Part XV. These are another notable aspect of the

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Convention, especially as all state parties are required to accept these provisions without exception. These provisions not only reinforce existing peaceful methods of international dispute resolution that are found in the United Nations Charter (Art.279), but also emphasise a range of other options for states to pursue. The Convention also envisages the establishment of an International Tribunal for the Law of the Sea in accordance with Annex VI. The Tribunal, which is expected to be established in 1996, has the capacity to provide for further maritime security and confidence building measures by becoming the specialist international tribunal for the resolution of law of the sea disputes.

Impact on Maritime Confidence Building in the Asia Pacific

It is possible to identify four broad areas in which UNCLOS will have an impact on maritime confidence building in the Asia Pacific. These areas are:

- the extent of coastal state sovereignty and jurisdiction;
- the extent of third state rights;
- the emphasis on cooperation; and
- dispute resolution.

The first and perhaps the most significant MCBM resulting from UNCLOS is that it assists to clarify the outer limits of coastal state claims to sovereignty and jurisdiction over adjacent maritime areas. For the first time since the law of the sea developed, states have been able to enter into agreement on the outer limit of the most significant of all maritime zones. This has removed as an area of interstate tension the ability of states to proclaim and assert territorial sea claims in excess of at least three nautical miles. As the territorial sea is the most sensitive maritime zone for coastal state national security this is a significant development. The innocent passage regime has also been

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21 For a review of dispute resolution techniques that have been used throughout the region and the potential for UNCLOS to assist in dispute resolution, see Christine Chinkin, *Dispute Resolution and the Law of the Sea: Regional Problems and..."
The Law of the Sea as a Maritime Confidence Building Measure 87

clarified and there is greater certainty as to the rights of the coastal state to enact relevant laws and regulations dealing with the area. The introduction of these objective standards and criteria has also substantially assisted by providing certainty to an area of the law of the sea that has the potential for considerable sensitivity because of the need to balance coastal state rights with those of maritime states. The development in Part IV of a new regime for archipelagic states also has had a significant MCBM impact. Prior to agreement being reached in UNCLOS, archipelagic claims by Indonesia and the Philippines resulted in considerable tension within the region.22 The effect of Part IV has been not only to legitimise these claims but also to provide states from both within and beyond the region with an assurance that the limits of such claims have now been set and that in conjunction with the guaranteed navigational freedoms that exist through archipelagic sea lanes there has been an accommodation of the concerns of all interested states. The determination in Part V of the EEZ concept also further enhances maritime confidence building in the region. Because of the wide variety of coastal state claims to EEZ and fishing areas during the 1970s and 1980s, the Convention’s EEZ provisions have assisted by giving definite content to an area of international law that would have taken many years to have met the required standards of customary international law.

Second, UNCLOS has also acted as a MCBM by confirming third-state rights and thereby relieving tensions with coastal states because of uncertainty over the rights and duties of each. There are a number of examples. Part II of the Convention has reaffirmed the regime of innocent passage. Most importantly the meaning of innocent passage has been defined, as have the duties of the coastal state towards vessels engaged in passage. Even more significant for the region has been development of the transit passage regime for international straits. While the transit passage regime is not flawless, it does provide the basis for reconciliation of strait state rights and maritime state rights. The provisions of Article 44 especially are an


unequivocal assertion of the freedom of navigation through international straits and need to be contrasted with the equivalent provisions that apply for the territorial sea. Just as important as the effect of Part III, the archipelagic regime in Part IV clearly determines the ability of maritime states to enjoy certain navigational freedoms through newly enclosed archipelagic waters. Once again, provision is made for archipelagic sea lanes passage to be non-suspendable, thereby providing major maritime powers with an assurance that in return for their recognition of the extensive archipelagic baseline claims of Indonesia and the Philippines their right of continuous transit through these waters would remain in place. Finally, the recognition granted to third-state access rights to surplus stock within EEZ areas is a further MCBM for the region. This is especially notable when it is recalled that there exist within East Asia landlocked and geographically disadvantaged states for which special access provisions exist (Arts 69 and 70).

Third, UNCLOS also acts as a MCBM by its continued emphasis on maritime cooperation. States are to reach cooperative agreements in determining their maritime boundaries (Arts 74 and 83); they are to cooperate with respect to the utilisation of EEZ living resources (Art.62); high seas living resources are to be subject to cooperative arrangements for their conservation and management (Art. 118); and global and regional cooperation is emphasised in regard to the protection and preservation of the marine environment (Art. 197). Of all the provisions in the Convention which place an emphasis on cooperation, perhaps the most important for the Asia Pacific is those found in Part IX dealing with 'Enclosed or Semi-Enclosed Seas'. The two articles in this part of UNCLOS seek to encourage enhanced cooperation between states which border enclosed or semi-enclosed seas. These are areas which are surrounded by two or more states and may consist entirely or primarily of the territorial sea or EEZ of these states (Art. 122). There exist a number of possible enclosed or semi-enclosed seas in the region. States which border these areas are encouraged to cooperate through regional organisations concerning...
management and conservation of living resources, protection and preservation of the marine environment, and joint programmes of scientific research (Art. 123).

Finally, UNCLOS assists in acting as a MCBM through its dispute resolution provisions. The most recognisable of these provisions are those found in Articles 74 and 83 dealing with EEZ and continental shelf maritime boundary delimitation. By removing reliance upon the median line and equidistance principles found in the 1958 Geneva Conventions, UNCLOS provides that states can rely upon a range of methods to resolve their maritime boundary disputes providing international law is relied upon to arrive at an equitable solution. Given the remaining unresolved maritime boundary disputes in the region these provisions can act as a MCBM as states can be assured that providing they rely upon international law methods a vast range of boundary settlement options are open to them. The provisions of Part XV also act as a MCBM by reinforcing the need for peaceful settlement of disputes. To that end the Convention canvasses a range of peaceful international dispute settlement options. These provisions are some of the most extensive found in any international convention.24 States who are engaged in law of the sea disputes will be aware that there are a range of options open to them in which their disputes can be settled peacefully without the need for regional tension or an ongoing and bitter dispute with a neighbour. The compulsory procedures established under Section 2 of Part XV particularly have the potential to implement various dispute resolution mechanisms and thereby resolve long-standing disputes. This is not to suggest that all law of the sea disputes will be settled by this method. There exist some significant exemptions in Articles 297 and 298 to these provisions. Nevertheless, the provisions under Part XV which allow for the establishment of permanent bodies such as the International Tribunal on the Law of the Sea and the Sea-Bed Disputes Chamber can only result in greater confidence that law of the sea disputes will be speedily and effectively settled.

24 Merrills, International Dispute Settlement, p.178.
Conclusion

It is clear that UNCLOS has considerable potential to act as a maritime confidence building measure in the Asia Pacific. Notwithstanding the Convention only entering into force in 1994, it has already made such a contribution. Coastal state claims to a variety to maritime zones have been clarified. Claims by certain states to enclose their archipelagic waters have been accepted while navigation rights have also been guaranteed. The clarification of coastal state and third-state rights to living and non-living resources within the region has also assisted to reduce tension in some areas. UNCLOS also has comprehensive dispute resolution procedures, which while yet to be comprehensively implemented have the potential to resolve maritime disputes peacefully and speedily. However, while UNCLOS does make many contributions to maritime confidence building it is wrong to expect too much of the new law of the sea. Gaps exist throughout the Convention and there have already been a number of incidents which demonstrate problems with some of the navigational provisions. The Convention is also unable to solve long-simmering disputes over islands such as the Spratly and Paracels. Nevertheless, through the greater certainty given to the law of the sea by UNCLOS, a legal framework has been created around which MCBMs can be developed. Ultimately, however, the capacity of UNCLOS to act as a MCBM will depend on the level of acceptance and respect which the new law of the sea receives. For many states in the Asia Pacific region this will be a test of their political will.

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25 One clear gap is the failure to regulate high seas fishing, which the United Nations has sought to resolve through the Conference on Highly Migratory Species and Straddling Stocks.

PART THREE

SHIPPING
CHAPTER 8

MARITIME TRANSPORT AND COMMUNICATIONS - INCLUDING MARINE SAFETY AND SLOC SECURITY

Sumihiko Kawamura

Introduction

At the present, maritime instability is growing in the region while the United States and Russia are reducing their naval strength. The People's Republic of China (PRC) seems to have become aware of the importance of sea power which it had neglected until recent years. The steady expansion of the PRC naval strength is creating an atmosphere of tension and insecurity, and other regional states are seeking to strengthen their maritime forces in response to concerns over territorial disputes such as those in the Spratly and Paracel islands. Thus, in the future there will be more maritime forces of consequence on the scene, as the People's Republic of China, India, the Republic of Korea (ROK), Taiwan (ROC) and the ASEAN countries, such as Indonesia, Thailand and Malaysia, develop their navies.

However, much mutual suspicion exists among the regional states and there is a relatively high risk of misunderstanding and miscalculation among maritime countries, especially around choke points and territorially disputed areas. Should conflict break out in the region, it would inevitably have a maritime dimension including the interruption of the sea lines of communication (SLOCs) which are vitally important to all countries in the region.

The regional states have fears for the vulnerability of the SLOCs in the South China Sea. Also there is a fear among Japanese that the same atmosphere of tension and insecurity will be seen in the East China Sea before too long. Thus, in terms of insurance to prepare for unstable and unpredictable situations, or for the emergence of new threats, the value of international maritime cooperation in the Asia Pacific region is even more important than in the past.
Assumptions

I would like to proceed from the following assumptions:

1. There is an increased likelihood of an outbreak of instability as a result of incidents involving armed refugees and other disturbances caused by regional disputes.

2. The law-enforcement role will become more important because it is anticipated that piracy or other illegal acts will continue, or grow as problems.

3. Deterrence provided by the United States will remain indispensable and critically important to the stability of the region. Even more than during the Cold War, the US military presence is recognised as vital and welcome by almost all the states concerned. No other country can assume that US role.

4. As long as it is an ally of the United States, Japan need not become a military superpower, but Japan almost certainly needs to continue to maintain a military deterrent or crisis-limiting capability under the auspices of the US-Japan Security Treaty or the United Nations.

5. In the post-Cold War era a similar offensive-defensive role sharing regime, between the United States and Japan respectively, is still judged appropriate for deterrence and crisis management. Japan should allow its defensive assets to be utilised outside the close environs of Japan if it is going to cooperate with the United States and/or with the United Nations in a flexible alliance or peacekeeping relationship.

6. On the high seas, more international cooperation is required for law enforcement, the protection of freedom of navigation and the deterrence of armed conflicts among regional maritime forces.

The Future of Maritime Transport and Communications

At present, the Asia Pacific region is the most dynamic area of the world as far as economic development is concerned. The GNP of
the East Asia region (Japan, the People's Republic of China, the Republic of Korea, Taiwan and ASEAN) is 60 per cent of that of the European Community. In the 1990s, even though economic growth rates in the rest of the world have been sluggish, the countries of the Asia Pacific region have continued to achieve high annual growth rates of six to seven per cent. The region is expected to act as the engine for the world economy.

The 1995 edition of the Economic and Social Survey of Asia and the Pacific, compiled by the United Nations' Economic and Social Commission for Asia and the Pacific (ESCAP),\(^1\) estimated the combined GDP growth rate of the developing nations in the ESCAP region at 7.7 per cent for 1994. Compared with the estimated world growth rate of 2.2 per cent for the same period, the Asia Pacific region is growing at a dynamic rate. According to the UN survey, the region's growth was helped by increased exports and further liberalisation of trade under the World Trade Organisation should enable the region to continue expanding its level of exports.

It is needless to repeat that maritime transport and communications are indispensable to support the global trade network. There is little that needs to be added to the conclusion reached by Vice Admiral Mitsuo Kanasaki (JMSDF, Ret.) that:

The shipping business is undergoing structural recession closely related to the recession in recent years. It is difficult to assert that an excess of shipping, shortage of skilled seamen (which could be potential factors increasing accidents and raising insurance costs), and rising operational costs will not unfavourably influence seaborne trade in the future. Some parts of the shipping industry are likely to be downsized and some rationalisation of shipping organisations and fleets on an internationally cooperative basis is also likely.\(^2\)

According to Vice-Admiral Mitsuo Kanasaki, the outlook for seaborne trade is as follows:

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\(^1\) (UN ESCAP, Lake Success, 1995.)
As global circumstances play out and change, the roles of seaborne trade may decline to some extent but the roles which seaborne trade presently possesses cannot be replaced completely by other means. Relating to future changes in economic and industrial structures, the main actors in the international economy must substitute service trade and capital investment for physical distribution. However, service trade and capital investment cannot exist without physical distribution. For this reason, seaborne trade will keep its own position permanently as an important factor in the global economy.

Seaborne trade is indispensable for the prosperity and existence of all mankind, and an international cooperative organisation for dealing with contingencies must be prepared at the earliest opportunity during peace time.

The total number of merchant ships of countries in the Asia Pacific region has doubled - from 3,105 ships and 11.76 million tons in 1980 to 6,863 ships and 20.95 million tons in 1990 - in the last 10 years and is equivalent to that of all the countries in Europe if vessels with flags of convenience are excluded.

The very significant increase in the Asia Pacific region's share of world trade - from 10.8 per cent in 1970 to 19.9 per cent in 1990 - will result in a huge growth in seaborne trade transiting the Pacific basin.

Threats to Maritime Transport and Communications

The Asia Pacific countries rely heavily on international trade for their economic development, and the trade routes of Asia Pacific countries extend all over the world. The ability of these countries to access their overseas markets depends on the freedom and safety of navigation. But no single country, not even the United States, can ensure the freedom and safety of navigation of the entire global trading network by itself.

One example of the more complicated and unstable trends, which increase the risk of incidents involving maritime forces in the region, is the so-called Tanker War during the Iran-Iraq war, when tankers from the oil-importing countries were drawn into unrelated
conflicts and were damaged by mines and attacked by fast attack craft in relatively confined waters.

The ongoing conflicts over natural resources and sovereignty of some islands in the South and East China Seas have the potential to spark an open conflict. Such conflict might not interdict maritime transport in the region, but could result in the re-routing of seaborne trade on a large scale and thus bring about significant increases in freight and operating charges.

The issue of piracy has attracted attention as a never-ending menace hindering the freedom of navigation. When national governments deal with organised defiance of the law such as piracy and terrorism, they are often frustrated by the inability to strike at the source of the threat. However, judging from the recent experience of Japan in the East China Sea, it is highly likely that close cooperation among the regional countries aimed at increasing SLOC security will provide the basis for combined operations against those who break the law.

The waters of the East China Sea near Ikinawa, Japan, were infested with what were presumably Chinese vessels having neither national flags nor ship names. Approximately 60 ships have been chased, inspected, fired upon or otherwise threatened by unidentified vessels since March 1991. There was a substantial upsurge in incidents in 1992 and 1993 (see Table 8:1 and Figure 8:1). However, since the conclusion in June 1993 of an agreement on the security of the high seas of the East China Sea between law enforcement authorities of Japan and the People's Republic of China, the number of incidents has been sharply reduced.
### Table 8.1 Incidents in the East China Sea, 1992-93 (as of 10 February 1993)

<table>
<thead>
<tr>
<th>Date</th>
<th>Ship Name (Type)</th>
<th>Nationality</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APR 9</td>
<td>LUNA (CARGO)</td>
<td>PANAMA</td>
<td>Δ</td>
</tr>
<tr>
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<td>RYOEI-MARU NR.5 (FISHING)</td>
<td>JAPAN</td>
<td>O</td>
</tr>
<tr>
<td>MAY 19</td>
<td>TAKARA-MARU NR.5 (FISHING)</td>
<td>JAPAN</td>
<td>O</td>
</tr>
<tr>
<td>MAY 20</td>
<td>VINH (CARGO)</td>
<td>VIETNAM</td>
<td>Δ</td>
</tr>
<tr>
<td>JUL 24</td>
<td>DAE BONG NR.1</td>
<td>ROK</td>
<td>O</td>
</tr>
<tr>
<td>OCT 2</td>
<td>GYOSEI-MARU NR.56 (FISHING)</td>
<td>JAPAN</td>
<td>O</td>
</tr>
<tr>
<td>OCT 28</td>
<td>SHOTOKU-MARU NR.21 (FISHING)</td>
<td>JAPAN</td>
<td>O</td>
</tr>
<tr>
<td>OCT 29</td>
<td>YAHATA-MARU (FISHING V)</td>
<td>JAPAN</td>
<td>O</td>
</tr>
<tr>
<td>OCT 29</td>
<td>TOSAN-MARU NR.25 (FISHING)</td>
<td>JAPAN</td>
<td>ψ</td>
</tr>
<tr>
<td>NOV 3</td>
<td>TOSAN-MARU NR.21 (FISHING)</td>
<td>JAPAN</td>
<td>Δ</td>
</tr>
<tr>
<td>NOV 4</td>
<td>DAIKICHI-MARU NR.16 (FISHING)</td>
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<td>O</td>
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<tr>
<td>NOV 12</td>
<td>KWAEKI 616 (FISHING V)</td>
<td>TAIWAN</td>
<td>O</td>
</tr>
<tr>
<td>NOV 12</td>
<td>CHOSEI-MARU (FISHING V)</td>
<td>JAPAN</td>
<td>ψ</td>
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<tr>
<td>NOV 14</td>
<td>TAIYO-MARU NR.8 (FISHING)</td>
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<td>O</td>
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<tr>
<td>NOV 18</td>
<td>EISHIN-MARU NR.36 (FISHING)</td>
<td>JAPAN</td>
<td>ψ</td>
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<tr>
<td>NOV 19</td>
<td>SHOEI-MARU (FISHING V)</td>
<td>JAPAN</td>
<td>ψ</td>
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<td>O</td>
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<td>MATSUYSHI MARU (FISHING)</td>
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<td>ψ</td>
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<td>O</td>
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<td>INDONESIA</td>
<td>Θ</td>
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<td>DEC 18</td>
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<td>ψ</td>
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<tr>
<td>DEC 19</td>
<td>MANILA SHINE (CARGO)</td>
<td>JAPAN</td>
<td>Δ</td>
</tr>
<tr>
<td>DEC 25</td>
<td>HOSE-MARU NR.21 (FISHING)</td>
<td>JAPAN</td>
<td>O</td>
</tr>
<tr>
<td>DEC 26</td>
<td>OFUNAYAMA-MARU (CARGO)</td>
<td>JAPAN</td>
<td>Δ</td>
</tr>
<tr>
<td>DEC 27</td>
<td>HOSEI-MARU (FISHING V)</td>
<td>JAPAN</td>
<td>O</td>
</tr>
<tr>
<td>DEC 28</td>
<td>SHINANOGAWA-MARU (TANKER)</td>
<td>JAPAN</td>
<td>Δ</td>
</tr>
<tr>
<td>DEC 30</td>
<td>HARIMATUN (CARGO)</td>
<td>PANAMA</td>
<td>Θ</td>
</tr>
</tbody>
</table>
1993

JAN 1  BOHAI 2 (CARGO)  PANAMA  Θ
JAN 7  SHINKAI-MARU (SURVEY SHIP)  JAPAN  Ψ
JAN 14 PACIFIC QUEEN (CARGO)  HONDURAS  Δ,Θ
JAN 14 GENVUKU-MARU NR.73 (FISHING)  JAPAN  Θ
JAN 31 UCHIMURA-MARU NR.83 (FISHING)  JAPAN  Δ
FEB 2  YUSHOU (CARGO)  JAPAN  Θ
FEB 2  ORANGE OCEAN (CARGO)  JAPAN  Θ
FEB 3  TENRYU-MARU NR.7 (TANKER)  JAPAN  Θ
FEB 4  BECCLES (CARGO)  PANAMA  Ψ
FEB 4  SUKHNICHI (CARGO)  RUSSIA  Θ
FEB 6  RYUZAN-MARU NR.15 (CARGO)  JAPAN  Ψ

TOTAL: 45 CASES

Δ = Vessel inspected involuntarily
Θ = Vessel chased
Ψ = Vessel approached
X = Vessel received shots without warning
Θ = Vessel received warning shots across the bow
Figure 8:1 Incidents in the East China Sea, 1991-93 (as of 10 February 1992)
With regard to the safety of navigation, I would like to raise two other serious problems. One concerns the poor management of old ships and the other the danger of SLOC congestion.

In relation to the first problem, Sam Bateman has stated that:

The problem of safety of merchant shipping confronts us all these days and may even be more serious. Due to the increasing age of the world merchant fleet and the pressure on shipowners to cut costs to the absolute minimum, there seems to be a growing number of sub-standard merchant ships at sea which are potentially unseaworthy and often operated by poorly trained crews. There are ships which endanger the lives of those who serve in them and present major risks to the marine environment and port facilities of the countries they visit.3

As for the danger of SLOC congestion, Malcolm J. Kennedy has declared that:

The success of economic development has had a range of consequential problems for shipping in the region. The existing volume of shipping in the region is already causing concern. This is not surprising, since the key straits are amongst the busiest strategic waterways in the world; some 37,000 super tankers and container ships transit the straits each year. Japan, South Korea, the PRC and Taiwan now build over 60 per cent of the world’s commercial shipping; completing some 30 million gross tones in 1991, and with strong orders over the next several years, the quality of the region’s shipping should continue to improve provided the aging carriers are scrapped.4

At present, the safety of navigation is one of the greatest concerns among the littoral states, and they are making every effort to establish measures to cope with high shipping traffic densities and difficult navigational conditions in those vital but relatively confined and most potentially dangerous waters. More consideration and

cooperation should be given by littoral states to vital areas such as the Malacca Strait.

SLOC Security

Other long-standing regional problems with a potential to destabilise SLOC security also persist. Factors such as the proliferation of advanced military technology via arms sales, ethnic tensions in multinational countries, and the growing prominence of new regional powers such as India, all contribute to regional anxiety.

Economic assistance to developing countries will be a major factor in enhancing regional stability. But the development of an international cooperative scheme for SLOC security will also aid the goal of deterring local conflicts and preserving regional stability. Such a scheme should have as its goal freedom and safety of navigation to ensure smooth economic access in the region. On the other hand, in order to encourage a widespread desire for a degree of cooperation among countries in the region, a cooperative international scheme is desirable.

Taking the aforementioned factors into account, there is a need to establish a new regional scheme for international cooperation in order to ensure the security of the SLOCs in the Asia Pacific region. The entity of the new scheme should be organised on a burden sharing basis.

The assumption of greater responsibility for SLOC protection and direct contributions to SLOC maintenance can have long-term implications for world peace and can thereby contribute to the national interests of participating countries of the region.

An international cooperative SLOC security scheme can be established by placing the United States at its core (key strategic player) and having the Asia Pacific region countries share the responsibilities of areas and functions in accordance with their capabilities and geographic conditions. In order to select the most appropriate burden sharing formula, I would like to suggest the following three roles in accordance with capabilities and geographic locations:
• maintenance of sea control throughout the Pacific Ocean including the Indian Ocean and the Persian Gulf;
• protection of shipping, surveillance and search and rescue (SAR) in regional areas such as the Northwest Pacific, South Pacific, or the ANZAC area; and
• protection of shipping, surveillance and SAR in coastal waters.

Maintenance of Sea Control throughout the Pacific

Only the US Navy has the capability to maintain sea control throughout the Pacific. It is in the economic interests of the United States to preserve peace and stability in the Pacific. United States interests in the Asia Pacific region will remain similar to those the United States has pursued in the past, namely supporting global deterrence, preserving political and economic access, maintaining a balance of power to prevent the rise of a regional hegemon, and ensuring the freedom of navigation.

The US naval presence has been the backbone of the strategic balance in the Asia Pacific since the Second World War. Virtually all Pacific Asian countries want the United States to maintain a credible presence in order to prevent the creation of the vacuum which would result if the United States withdrew its naval strength. In this regard, the recent US Defense Department report titled US Security Strategy for the East Asia Pacific Region,5 which clearly commits Washington to a continued role as the guarantor of security for Japan and the rest of East Asia, has been welcomed by the countries in the region as a most reassuring statement.

Any attempt to assume the US role by the People's Republic of China, by India or by Japan is unlikely to be welcomed.

Protection of Shipping and Surveillance in Regional Areas

With the exception of the US Navy (USN), the Royal Australian Navy (RAN) and the Japan Maritime Self-Defense Force

Calming the Waters: Initiatives for Asia Pacific Maritime Cooperation

(JMSDF), most regional navies are oriented toward coastal defence or other immediate sovereignty protection roles. Along with the United States, Australia and Japan have sufficient capabilities for long-range surveillance and shipping protection.

As a result of its 1981 commitment to protect its sea lanes to 2,000 miles from Japanese territory, Japan is able to conduct regular maritime surveillance of its neighbouring seas and its sea lanes using maritime patrol aircraft (MPA) and naval vessels.

In the Northeast Pacific, Japan now has the capability to take responsibility for regional shipping protection and surveillance under the auspices of overall sea control provided by the US Navy.

In the South Pacific or ANZAC area, Australia is the most suitable nation from the point of view of capability and national will to take responsibility for regional shipping protection and surveillance.

Protection of Shipping and Surveillance in Coastal Areas

The surveillance of coastal seas and local shipping protection must be borne by littoral states. From a geopolitical point of view, all countries which have representatives at this meeting can play a major role in SLOC security because these countries have favourable locations from which to control local sea traffic. They are well equipped to manage traffic in their local seas, specifically:

The ROK: in the Korea Strait (Nishi Suido - Western Channel)
Japan: in the Tsushima, Tsugaru and Soya straits
Taiwan: in the Taiwan Strait and Bashi Channel
Philippines: in the Bashi Channel
Malaysia: in the Malacca Strait
Singapore: in the Malacca Strait
Indonesia: in the Malacca, Sunda, and Lombok straits

These countries can contribute to global SLOC security by providing control in their local areas. It is highly desirable that each country assume individual responsibility in protecting its neighbouring seas effectively.
In the Asia Pacific region, there has never been a common threat perception held by all countries concerning the military threat from the former Soviet Union or from other sources of instability. Nor has there ever been large-scale multinational maritime cooperation. Therefore, for the foreseeable future, the United States remains the sole national entity with the naval capability and sense of national purpose necessary to play a major role in military cooperation on a regional basis.

Conclusion

During the Cold War, the United States placed emphasis on ensuring the supply and reinforcement of its forward deployed forces in Japan and the Republic of Korea in case of an emergency with the Soviet Union, and on the protection of its seaborne trade with countries in the Asia Pacific basin. In the same era, Japan, the Republic of Korea and Taiwan were especially worried that the growing Soviet threat could interdict the SLOCs on which they heavily depended. On the other hand, Southeast Asian countries were less concerned about SLOC security because they had yet to become dependent on the safety of the global trade network. At present, economic development in the Asia Pacific region is the most dynamic in the world and the region has become deeply dependent on international trade as the trade routes of these countries extend all over the world.

The security of maritime transport and communications is of vital importance to the prosperity and well-being of these countries. As the most economical and most efficient means of transporting large volume/heavy weight cargoes, maritime transport will continue to grow beyond the century.

However, before countries can take part in international cooperation, they must first share some common objectives and a common perception that such cooperation will be of some benefit to their national interests. In this regard, the 1982 UN Convention on the Law of the Sea, which came into force in November 1994, poses some potential problems for international cooperation. This is because the new regime lacks the clarity necessary to remove all the uncertainties regarding the rights of coastal states over littoral waters and requires them to compromise on new, overlapping maritime boundaries.
Many potential problems are anticipated and realising effective cooperation will not be easy and could take a long time. Despite these difficulties, the potential rewards for endeavouring to establish a new maritime cooperative scheme covering some of the activities identified in the first meeting of the Maritime Cooperation Working Group are large. It is my strong belief that the Maritime Cooperation Working Group can play an important part in the future assurance of SLOC security.
CHAPTER 9

REGIONAL EFFORTS IN HANDLING MARINE EMERGENCIES: A SINGAPORE PERSPECTIVE

Lui Tuck Yew

Introduction

Singapore is at the cross-roads of one of the most important maritime traffic routes, straddling the shortest route between the Indian Ocean and the sea lines of communication in the South China Sea and the Pacific Ocean. As a maritime nation, Singapore sees a substantial volume of merchant shipping transiting through and stopping at its port. This movement of merchant ships is expected to increase in view of the anticipated growth in the Asia Pacific economies and the importance of trade in fuelling this growth. With such heavy traffic, the potential for accidents at sea, particularly in the narrow waters of the Singapore and Malacca straits, is, not surprisingly, high. Indeed, several recent accidents have highlighted the dangers and problems faced by ships passing through the waterways in this region, in particular the Malacca Strait. In this chapter I discuss the potential for sea accidents in the Malacca and Singapore straits. More importantly, I give a Singaporean perspective on the range of cooperative efforts by Singapore and her neighbouring countries to enhance navigational safety and handle marine emergencies when they arise in these areas.

Maritime Shipping in the Region

To begin with, we need to size up the situation in the region with regard to traffic density. In 1994, more than 400 vessels traversed the Singapore Strait daily with an average of 80 per cent calling at the port of Singapore. This is equivalent to one vessel passing through the Singapore Strait every five minutes. Over the past five years, an average yearly increase of between eight and fifteen per cent has been
recorded in the number of vessels using the strait. Cross-channel traffic within the Singapore Strait is also showing signs of strong growth as economic development takes off in the growth triangle between Johore, the Riau Islands and Singapore. As for the Malacca Strait, this 1000 kilometre long international waterway is also heavily used and the number of vessels traversing the waters is increasing every year.

Maritime Incidents

With such heavy traffic, the potential for accidents in both straits is high. This problem is further aggravated by the limited manoeuvring space caused by the shallow waters and the narrowness of both straits. At their narrowest points, the Malacca Strait measures no more than eight nautical miles wide and the Singapore Strait only five nautical miles wide. Both straits are also relatively shallow, averaging about 25 metres. Although well charted and adequately marked, they are pocketed by numerous sandbars and reefs. These conditions impose considerable constraints on manoeuvrability, particularly for vessels with deep draught.

There are two main types of possible marine emergencies. The greatest threat to the marine environment comes from an oil spillage. Because of the amount of crude carried by the very large crude carriers (VLCCs), and the narrow confines of the straits, a spillage could cause serious pollution to a large portion of the regional waters, affecting not only the marine eco-systems but also the coastal regions of littoral states. Such an incident could result from a maritime accident between two ships or from an unintentional grounding of the VLCC. On a smaller scale, the illegal discharge of waste and sludge by ships in the straits and South China Sea also affects the environment.

Indeed, concern over maritime safety, especially in the Strait of Malacca, has been intensified by a recent spate of accidents along that waterway. The most serious accidents involved two Singapore-registered ships, the *Maersk Navigator*, a tanker carrying some 200,000 tons of light crude, and the *Sanko Honour*, which collided off the northern tip of Sumatra, near the entrance to the Malacca Strait on 21 January 1993. This collision resulted in a major oil slick in the Bay of Bengal. Several serious accidents at sea occurred in 1992. In June, an American destroyer, the *Ingersoll*, collided with a Singapore-registered
Regional Efforts in Handling Marine Emergencies

The loss of lives in any maritime accident is also a cause for concern. Singapore and the countries around it have become popular destinations for cruise ships. Indeed, this is one sector in tourism which is expecting rapid growth. Compared to an accident involving merchant ships, which are usually manned by very small crews, any such occurrence involving a cruise ship could entail the loss of many lives. In August 1992, a collision occurred between a Taiwanese fishing vessel and a cruise ship, the Royal Pacific, in the Malacca Strait, resulting in the loss of several lives with many more missing. Thus regional efforts at preparing for and directing search and rescue (SAR) operations must ensure that the responses to such calls for help are timely.

Coordinated Efforts to Curb the Problems

This recent chain of collisions in the Straits of Malacca has led to calls, especially by many non-governmental and media organisations, to ensure greater navigational safety along the waterway as well as better preparedness and more responsive mechanisms to deal with marine emergencies and combat maritime pollution.

To take stock, we note that in 1981 the three coastal states, namely Singapore, Malaysia and Indonesia, jointly commissioned a Traffic Separation Scheme, based on the International Maritime Organisation's routing system, to help regulate traffic and minimise potential sea accidents. Along with this, the three countries have also implemented a scheme to ensure that there is a minimum under-keel clearance of 3.5 metres for all ships transiting the straits. Over the past decade since its implementation, there have been fewer serious shipping casualties. It is therefore reasonable to surmise that the scheme has been relatively successful.

Other recent preventive measures taken to ensure the safety of the waters around the region have been the coordinated bilateral patrols by the navies of states littoral to the Malacca and Singapore straits to combat the threat from sea robbers. The dangers posed by
these sea robbers extend well beyond the possible loss of lives and property. The three countries have recognised that in the course of an attack, the crew of the ship being assaulted could be rendered incapable of navigating the ship and dealing with any emergencies which may arise. Collisions and groundings could result. Recent cooperative efforts to jointly patrol waters prone to attacks by sea robbers, such as the Indonesia-Singapore Coordinated Patrols, have contributed much to safe passage by virtually eliminating the occurrence of such acts within the Singapore Strait and its immediate approaches.

While the preventive measures like the Traffic Separation Scheme, better navigational aids, more accurate and updated sea charts and coordinated patrols are certainly necessary, corrective measures are also important in order to speedily deal with any emergency and limit the consequent damage. We note that at the ASEAN level, there has been close cooperation between the six governments in combating maritime pollution. The ASEAN Oil Spill Response Action Plan serves as a prime example of regional cooperation to limit the consequences of oil spillage resulting from accidents at sea. The Action Plan provides a tiered response procedure to enhance the ability of a country to respond to a spill which may be beyond the countrys national capability. Periodic testing of the Action Plan has since been implemented to ensure its effectiveness and readiness.

More recently, in response to calls for greater safety of navigation and preparedness to handle marine emergencies, Malaysia and Indonesia have set up a joint team known as the Maritime Operational Planning Team to coordinate non-defence activities in their maritime borders, including the Strait of Malacca. Its terms of reference include the provision of emergency aid to fishing vessels and merchant ships when called upon to do so.

With regard to regional cooperation on search and rescue operations, we note that Singapore has been participating, on a regular basis, in bilateral SAR exercises or SAREX with both Malaysia and Indonesia. The Indopura SAREX and the Joint Malaysia-Singapore SAREX series serve to improve the inter-operability amongst the national SAR set-ups and ensure that joint SAR operations can be mounted swiftly and efficiently when the need arises.
Regional Efforts in Handling Marine Emergencies

The Western Pacific Naval Symposium, of which most countries in the Asia Pacific are members, has initiated the formation of a Maritime Information Exchange Directory or MIED, to provide a channel for the reporting of marine accidents and oil pollution incidents between navies. This complements local maritime surveillance efforts and information obtained can be forwarded to local civil authorities so that suitable responses can be taken rapidly. While the contributions from this initiative have not been fully felt, this mechanism has some potential as it provides the foundation and framework on which to expand future cooperative efforts in the Asia Pacific region.

Singapore's Contributions

As with other countries in the region and the international community, Singapore has a firm stake in ensuring and maintaining the safety of passage in the Malacca and Singapore straits. Where accidents cannot be prevented, it seeks to contribute in all ways possible to limit the consequences of any serious accidents occurring within these straits.

Amongst Singapore's modest contributions, the Vessel Traffic Information System or VTIS, installed since 1990, has complemented the Traffic Separation Scheme in enhancing navigational safety within the Singapore strait by providing much-needed advisory services. Encouraging results have been obtained since the implementation of the system because of good cooperation from the shipping community. This has also helped reduce the threat of pollution, either from groundings or collisions.

The Port of Singapore Authority, or PSA, the leading agency in dealing with marine emergencies in Singapore, has also been noted for being well geared to mount a prompt and effective response whenever required with the cooperative efforts of our neighbouring countries. It has in place a comprehensive set of Marine Emergency Action Procedures which can and will be activated to deal with maritime emergencies such as collision, grounding, oil pollution and fire incidents.

Recognising the serious consequences of oil spills resulting from accidents at sea, a joint task force comprising personnel from the
Port of Singapore Authority, the Ministry of Defence, the Police Coastguard, the Ministry of Environment and the oil companies have been set up to immediately combat and arrest maritime pollution threats as they surface. Its inventory includes fully equipped tugs, oil booms, oil recovery equipment and even a sophisticated PC-based modelling system to track oil spills. This task force holds regular exercises and updates relevant authorities in Indonesia and Malaysia on the developments during the course of the exercise to test the effectiveness of communications links.

In the area of search and rescue, a maritime SAR team can be activated at any time to mount an effective and rapid response in the event of a sea accident within the Singapore Search and Rescue Region, which coincides with the Singapore Flight Information Region. The team, when activated, will have at its disposal support units, infrastructure and equipment from the Civil Aviation Authority, the Navy, the Air Force and the Police Coastguard.

However, the Centre can only react as fast as it can receive distress signals or requests for initiation of SAR activities. To elicit a faster response, a more comprehensive system of monitoring has been identified. The Port of Singapore Authority has established another advisory and monitoring service in the form of the Ship Reporting System. Information pertaining to a ship's movement, intentions and periodic position reports, if supplied to the system even when the ship is at a distance many hundreds of miles from Singapore, can be utilised to aid SAR operations by:

- first, reducing the gap between the loss of contact with a vessel and initiation of SAR activities in instances where no distress signals have been received;
- second, allowing for the coordination of vessels best situated to provide assistance; and
- finally, making possible the establishment of search areas of manageable size, in instances where the exact position of the distress vessel is not known.

This system, similar to those employed by the United States and Australia, has the proven potential to ensure early arrival of help at the scene of maritime incidents. For obvious reasons, it is even more
effective when ships provide the required information at greater distances from Singapore.

Conclusion

In conclusion, we note that, over the next decade, a further increase in the number of ships plying this area is likely following the regional economic boom. The potential for sea accidents can be minimised despite the expected increase in traffic through further improvements to existing navigational safety enhancement schemes and through the development of new ones. Nevertheless, to limit the consequences of marine emergencies resulting from accidents at sea, we still need to be better prepared and equipped. Singapore, as a maritime nation, contributes to this cause by gearing itself for prompt and effective response through contingency planning and preparation. Yet that responsibility is not ours alone and a united effort is needed to ensure that a safe passage is available for all and assistance is always available when needed. Regional cooperation can and will ensure that marine emergencies are kept to the minimum and their effects speedily and effectively dealt with.
PART FOUR
MARINE ENVIRONMENT
CHAPTER 10
ENVIRONMENTAL, CONSERVATION AND PROTECTION ISSUES WITHIN THE CONTEXT OF MARITIME COOPERATION AND SECURITY IN THE ASIA PACIFIC REGION

Grant J. Hewison

Traditional military tension and conflict within the Asia Pacific region is becoming increasingly associated with access to and control over resources and, to a more limited extent, with environmental degradation. In many ways, the dispute over the Spratly Islands reflects concerns related to these issues. Claims to the islands involve access to and control over resources such as fisheries, petroleum and minerals, and also to concerns for protection of the ecosystems of the islands. Restrictions on the passage of vessels through the maritime zones claimed adjacent to the islands threaten navigation and, in the case of passage by oil tankers, energy security interests. Military action to enforce claims has the potential to damage existing oil exploration and production facilities, and produce widespread pollution. There is also a danger, with any increasing tension in the area, that commercial vessels may be involved in accidents. In other examples, degradation of the environment coupled with rapidly increasing populations in many countries within the region may lead to a new generation of 'environmental' refugees taking to boats in an effort to settle in less populated or less polluted areas within or outside the region. National energy policies will also come to depend, not only on the supply of fossil fuels, but on the regional and global environmental consequences of the use of this form of energy and the security of sea lanes through the region. Global environmental problems caused by factors outside the region, such as climate change, also have the
potential to disproportionately affect the territorial integrity of certain coastal areas within the region.¹

Many of the existing models used to explain national security behaviour ignore or give only scant regard to issues such as access to resources and degradation of the environment. Some analysts have now become concerned that traditional approaches to international or national security do not accord enough significance to these issues.² This, they argue, raises the question whether traditional approaches to understanding and addressing security concerns are adequate for managing the increasingly complex international situations compounded by resource scarcity and environmental degradation. Other analysts, on the other hand, believe there is a danger in defining national security so as to include non-military threats. They argue that no significant change in perception or the 'way of doing things' is required to account for environmental and resource control issues.³

Nonetheless, it is submitted that questions of resource ownership and environmental protection are important to the security analysis being undertaken by the Council for Security Cooperation in the Asia Pacific (CSCAP), especially if they are recognised as part of larger questions, such as population growth, security of energy supply, poverty, and inequitable social systems. It is further suggested that a


clearer understanding is required of the kinds of environmental threats to Asia Pacific regional security, and in particular, of the opportunities for reducing or resolving these threats.

The mandate of this paper, however, is more limited than a general study of environmental security in the Asia Pacific region. This paper will canvass a range of environmental, conservation and protection issues within the context of maritime cooperation and security in the Asia Pacific region and seek to identify those that warrant further study. It should also be noted that the issues covered in this paper may overlap with the study being carried out in other CSCAP Working Groups and, in particular, the Working Group on Comprehensive and Cooperative Security.

Resource and Environmental Threats in the Asia Pacific Region

Resource and environmental threats have been loosely grouped by analysts into several categories. Within the Asia Pacific region these resource and environmental concerns might be categorised as follows:

Resources as Strategic Objectives

Tension over access to renewable and, in particular, non-renewable mineral and energy resources is of historic and continuing importance to the Asia Pacific region. Japan's advances into the region during the Second World War were, to a significant extent, based on an effort to take control of the rich mineral and energy resources of the region. Access to and control over these resources remains a significant source of tension within the region today, especially where sovereignty over the resources is in dispute.

Some analysts have argued that this connection between access to resources and international conflict is weakening as the world

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6 See, for example, Leifer, 'The Maritime Regime'; Cordner, 'Regional Resilience'.
trading system becomes more integrated and as nations become less dependent on and find substitutes for non-renewable resources. While there are moves in this direction, it is also clear that certain resources, such as oil, are becoming more, not less important. In the Asia Pacific region, tension over access to energy resources is becoming acute. There are fears among several nations in the region over the security of their energy supply. While Japan, for example, is able to obtain oil from many sources, it is still dependent on continued supplies from the Middle East. The security of maritime passage of oil from the Middle East to Japan through the South China Sea is a further concern. Although Japan has sought to find substitutes for fossil fuels, particularly by substituting nuclear power for thermal power generation, this source of energy has its own difficulties. International and regional protest has, for instance, been vocal over Japanese shipments of plutonium.

Military tension in the Asia Pacific region can also be attributed directly to unresolved sovereign claims over areas, such as the Spratly Islands, that have recently been recognised as potentially resource rich. Deposits of oil, other minerals and significant fishing grounds have heightened tension between the claimants to these and other disputed islands within the region.

The inequities in resource use and consequent environmental degradation have also gained the attention of analysts. Two issues arise in this regard: the growing disparity between developed and developing nations, characterised by huge per-capita differences in resource consumption and energy use; and the global environmental degradation caused by the industrialised nations, but felt more severely by the less developed. The difficulties developing countries have in adapting economically to or preventing the worst impacts of

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8 See, for example, Leifer, 'The Maritime Regime'; Cordner, 'Regional Resilience'.
10 See, for example, Leifer, 'The Maritime Regime'; Cordner, 'Regional Resilience'.
11 See, for example, Leifer, 'The Maritime Regime'; Cordner, 'Regional Resilience'.

environmental degradation, such as sea level rise, further exacerbate these problems.

For countries in the Asia Pacific region, it is not only these differences that are at issue, but also the restraints being placed on the choice of resource use because of growing concerns about global environmental degradation. For example, questions have been raised about the global environmental efficacy of China fully exploiting its coal reserves. In Malaysia, the global environmental concerns associated with forestry have been a source of tension. For Taiwan and Japan, trade embargoes have been threatened because of their use of unacceptable high seas fishing gear. Other nations in the region will also face questions about whether their use of resources is appropriate at a time of heightened global and national environmental concern.

Resources as Military Targets

Certain strategic resources, such as power stations and energy distribution facilities, have always been considered targets in the event of conflict. Nuclear power plants and research reactors may be especially targeted because of their links to the production of nuclear weapons, and the damage that would be caused if radioactive materials were released during an attack. The Israelis, for instance, destroyed the Osirak nuclear power plant outside Baghdad in June 1981 in an attempt to stop a suspected Iraqi nuclear weapons programme. Iraqi nuclear facilities were also a particular concern during the 1991 Persian Gulf war. Large hydroelectric power dams were also regularly attacked in the Second World War and during the Korean War.

Of concern at present in the Asia Pacific region would be deliberate military action or unintentional action taken against oil exploration or production facilities within disputed maritime areas in the South China Sea. The Chinese blockade of the Vietnamese oil rig

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12 See Kriangsak Kittichaisaree, 'Trade Sanctions and Subsidies to Achieve Environmental Objectives', SEAPOL Newsletter, No.13, June 1993, pp.1-4. The excerpt is also published as a full-length article in the 1993 edition of the Colorado Journal of International Environmental Law.

operating in the Crestone concession area in 1994, for instance, had the potential to escalate to the point where the rig or wellhead was damaged. Action of this kind could lead to serious oil pollution over wide areas of ocean within the region, particularly if the action culminated in an uncontrolled 'blow out' of a facility.

Military Action as a Source of Environmental Degradation

The build-up of military forces and military action has also now been recognised as a significant source of environmental degradation. The financial and material resources routed to the manufacture and purchase of military equipment has, for instance, long been decried as an inappropriate use of resources. In the Asia Pacific region, the rapid escalation of arms purchases has diverted financial resources away from other economic activity. Military facilities also contribute to the production of toxic wastes, air and water pollutants, and solid wastes. Outdated or damaged military equipment and materials that are considered dangerous are often dumped into ocean areas.

On the other hand, military activities have also in recent times been diverted for use in environmental monitoring and clean-up. There is also much potential for cooperation between defence forces in finding ways to reduce their impact on the environment.

Resources and the Environment as Military Tools

Non-military tools, such as economic and trade embargoes, are being used to achieve strategic or military ends. In rare situations, direct manipulation of the environment or resources has also be used as a means of political threat or for actual military purposes. In the Persian Gulf war, oil was spilled by Iraqi forces into the Gulf as a means to thwart military progress by the opposing forces.

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15 See, for example, Major Terry McCullagh, 'Is there a Strategic Justification for the Increase in Southeast Asian Maritime Capabilities?', Journal of the Australian Naval Institute, Nov. 1994/Jan. 1995, pp.7-16.
16 See, for example, Wade Greene, 'An Idea Whose Time is Fading', Time Magazine, 28 May 1990, p.90.
This kind of manipulation of the environment or resources for military advantage was considered a serious enough threat in the 1970s for the United Nations to conclude a treaty on the issue. The 1976 Environmental Modification Convention (ENMOD) prohibits military use of techniques which alter the dynamics, or structures of the Earth, including its animal and plant life, atmosphere, oceans, land forms and outer space. Some of the techniques devised included the stimulation of earthquakes or volcanoes, the generation of large tidal waves, and the modification of climate conditions. Noting that many important cities within the Asia Pacific region are on the coast, the use of military techniques to stimulate large tidal waves could be a concern.

Degradation of Environmental Services

Degradation of the services provided by the environment, such as the benefits of clean air and water, the waste-absorbing capacities of natural ecosystems, the tourism potential of non-degraded areas and vulnerable marine animals, and the sustainable use of renewable resources has also been considered a security concern by some analysts.\(^\text{17}\) In the Asia Pacific region, a growing set of pervasive environmental problems involving fundamental alterations of biological and geophysical conditions are undermining economic growth and creating societal disruption. There is even the potential for conflict from the degradation of environmental services in border areas. A particular concern for the Asia Pacific region has been its rapid development and industrialisation at the expense of vital environmental services.\(^\text{18}\) From a coastal or maritime perspective, critical concerns include the following:

- **Land-Based Sources of Marine Pollution.** A range of industrial and agricultural activities are having a detrimental effect on the coastal and marine environment of the Asia Pacific region. Most of the activities take place on land, but almost all are

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\(^{18}\) See, for example, Leifer, 'The Maritime Regime'; Cordner, 'Regional Resilience'; Chou, 'Marine environmental issues of Southeast Asia'; Morgan and Valencia (eds), *Atlas for Marine Policy in Southeast Asian Seas*. 
connected finally to the sea. These polluting activities or their sources include industrial estates, thermal and nuclear power stations, terrestrial and offshore mines, agriculture and forestry operations, as well as domestic and industrial sewage. Terrestrial mining, with uncontrolled dumping of spoil, and poor forestry practices, are considered to be the single most important source of marine pollution in the region, leading directly to accelerated sedimentation of shallow coastal waters.  

- **Vessel Source Pollution.** The waters of the Asia Pacific region are a major ocean highway for maritime trade. The most important thoroughfares in the region are the Malacca and Singapore straits, and to a lesser extent the Lombok and Makassar straits. The route through the Malacca and Singapore straits is one of the most heavily used waterways in the world. The economic and strategic significance of these straits has long been recognised, with their susceptibility to pollution from collision, groundings, discharges from tank cleanings, leaks or human error a major concern. Indeed, the establishment of traffic separation schemes and under-keel clearance requirements in the straits of Malacca and Singapore was precipitated by the grounding of a large oil tanker in 1975.  

- **Hydrocarbon Pollution.** Hydrocarbon pollution is a potentially serious problem in the region in view of the extensive activities being planned or taking place in drilling, transportation, and refining. Hydrocarbons are toxic to almost all marine organisms. Low levels of oil in the oceans can affect biological processes, create unsightly slicks in coastal waters and virtually destroy tourism. In addition to the oil itself, there are other pollutants associated with economic exploitation of petroleum. Drilling muds and residues from the refining process are also toxic, and their disposal must be controlled to avoid polluting coastal waters. As the pace of offshore oil exploration increases and progresses into deeper and less well-
known areas, the possibility of accidents and resultant oil spills will increase.21

- **Destruction of Mangrove Forests and Coral Reefs.** Mangrove forests and, to a more limited extent, coral reefs occur throughout the Asia Pacific region. Both mangrove forests and coral reefs are immensely rich marine ecosystems, providing stability for coastal zone environments and nurseries for a wide variety of valuable finfish. They are also used for construction materials and as tourist attractions. In the region, many extensive areas of mangrove forest have been damaged or destroyed through uncontrolled cutting, reclamation for agricultural and aquaculture use, pollution, urban and harbour development, and for use as dumping sites and for construction materials. Coral reefs are also being damaged throughout the region by changes in the deposition and erosion of coastal environments, by their over-exploitation (particularly for use in construction materials), and by pollutants. Damage through siltation and sedimentation, which is irreversible, is considered the greatest threat.22

- **Decline or Extinction of Vulnerable Marine Animals.** The Asia Pacific region is home to, or the migratory route for, many vulnerable marine animals, including sea turtles, crocodiles, dugong, seabirds, shore birds, whales and dolphins. As most of these species live, at least for part of their life cycle, in estuarine, coastal or river mouth areas, it is clear that increasing coastal urbanisation and its consequent pollution will affect the viability of these species. Added to this problem is the damage being done to the habitat of these species and intentional or unintentional killing for food or hides. Despite legislation in many countries of the region, the capture and killing of these animals continue.23

- **Marine Reserves and Tourist Sites.** Although there are a significant number of marine and tourist reserves located in the region, the intensity of coastal development, tourism and urban sprawl has placed these areas under tremendous

21 ibid.
22 ibid.
23 ibid.
pressure. It has also been noted that important areas still remain to be brought under protection or management.24

Environmental Confidence Building and Cooperation: Conclusions and Recommendations

Although it appears that the environment and access to resources have been in the past, and will continue in the future to be, potential sources of conflict in the Asia Pacific region, there are also opportunities for environmental issues to be the focus of confidence building and cooperation.

In the Spratly Islands dispute, for example, participants have identified environmental issues as a means of building understanding, cooperation and confidence. In particular, joint scientific surveys of the biodiversity of the islands' marine and terrestrial ecosystems, of fisheries and also of potential oil and gas reserves, have been promoted as a means of confidence building among the disputing parties.25

It may also be useful, particularly for environmental problems in the marine environment, to engage naval forces and/or staff from the region directly in joint scientific research exercises, observation/surveillance and enforcement exercises (particularly for existing regional or bilateral agreements), assessment and review of existing environmental cooperative arrangements, regional environmental emergency response planning (particularly for oil pollution emergencies from tankers or platforms), environmental scoping studies, or rehabilitation projects.26

Simply identifying environmental issues that impact jointly on countries within the region and those that will require a joint and common response, particularly with involvement from defence forces, might be useful in building confidence and cooperation. Of special note here is the opportunity for regional cooperation in oil pollution

24 ibid.
25 See, for example, in this volume, the chapters by David Ong and B.A. Hamzah, and by Mark J. Valencia.
26 See also, in this volume, the chapters by David Ong and B.A. Hamzah, Mark J. Valencia, Lui Tuck Yew and Nit Srisomwong.
prevention and emergency response. Other opportunities might exist in regional control and monitoring of vessel source pollution.\textsuperscript{27}

Opportunities to expand regional cooperation to protect and sustainably utilise the marine environment exist under both regional and international agreements. The ASEAN Agreement on the Conservation of Nature and Natural Resources, for instance, provides opportunities for many countries in the region to cooperate on environmental matters. Some thought might be put to expanding the agreement to include Asia Pacific parties outside ASEAN membership or for the agreement to be linked with other similar agreements in the region. Regional approaches to, or regionally negotiated implementation programmes for, international agreements, such as the Biodiversity Convention or Chapter 17 of Agenda 21, might also be used to foster regional cooperation and confidence building.

Determining those military facilities that contribute to the production of toxic wastes, air and water pollutants, as well as solid wastes in the region may also be another useful cooperative exercise, particularly if coupled with programmes that would seek to reduce this type of impact on the environment.

As an integral part of the Middle East peace process, the Environmental Law Institute of the United States sponsored and published a book titled \textit{Protecting the Gulf of Aqaba: A Regional Environmental Challenge}.\textsuperscript{28} The book was authored by environmental specialists, both within and outside the Middle East region, and focused on the need for cooperation and communication between the parties if they were to protect the unique characteristics of the Gulf of Aqaba. It also provided suggestions for how these goals might be achieved. There seem to be opportunities for similar processes within the Asia Pacific region, particularly over trouble spots, such as the Spratly Islands. The Gulf of Aqaba exercise also highlighted the role that can be played by non-governmental organisations in security matters.

There also appear to be opportunities for further analysis of energy security and the security of energy transport within the region,

\begin{footnotesize}
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\item \textsuperscript{27} See, in this volume, the chapter by Lui Tuck Yew.
\item \textsuperscript{28} Deborah Sandler, Dr Emad Adly, Mahmoud A. Al-Khoshman, Philip Warburg and Tobie Bernstein (eds), \textit{Protecting the Gulf of Aqaba: A Regional Environmental Challenge} (Environmental Law Institute, Washington DC, 1993).
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especially the maritime transport of energy sources. While this concern overlaps to some extent with studies on sea lines of communication, there is some justification in treating energy security independently of SLOCs.

Threats to the Asia Pacific maritime environment from tension arising out of disputes over the ownership or use of resources, land-based sources of marine pollution associated with industrialisation and population growth, expansion of military forces, inequitable and wasteful use of resources, degradation of environmental services and the potential for degradation caused by military action are increasing. The debate about whether there is an environmental component to security is, at least in the view of the present author, redundant. Resources and the environment are becoming an essential element of the security question, both in terms of creating insecurity and as a means of developing cooperation or building confidence. As noted above, there are many opportunities to utilise concerns for the environment as mechanisms for building confidence. On the opposite side of the coin, however, there is the potential for environmental problems to create or contribute to insecurity unless they are addressed soon.
CHAPTER 11

MARITIME AND COASTAL ZONE DEVELOPMENT AND MANAGEMENT

Nit Srisomwong

Introduction

The Asia Pacific region is important in terms of both economy and natural resources. In the past, the economic structures of most countries in the region relied heavily on agriculture. For an extended period, these countries served as the source of raw materials for the industrial powers. They also served as markets for the industrial powers which had monopolised the market for centuries. We must accept the fact that the abundant natural resources of the region have been exploited for a long time. More recently, when most countries in this region have tried to change their economic structures from agriculture to industry, the emphasis has been placed on production for exports in search of greater wealth from international trade. These developing countries had previously given only minimal attention to the surrounding seas. But with more than ninety per cent of their international trade being seaborne, the seas have become vital import and export trade routes. They are also more than ever before one of the main sources of raw materials and energy for industrial production. Not surprisingly, the exploitation of the sea has become a worldwide phenomenon, resulting in the degradation of the marine environment. As commercial competition between countries increases in intensity, degradation of the marine environment is becoming more commonplace throughout the region. Unfortunately, existing measures to solve the problem have been implemented in a limited and uncoordinated manner, with inadequate techniques, improper management, and insufficient funds to realise efficient management.
Types of Problems and Their Results

To gain some is to lose some' is a fact of life. I would like to use Thailand as an example. During the past ten years, the country has succeeded in developing its economy. Its growth rate has been amongst the highest in the world. Industrial production for export has leapt eighty per cent, far outpacing the growth of agricultural production. The export value at present has topped one trillion bahts or US$ 40,000 million and is expected to double by the year 2000. This astronomical growth has in turn led to an increase in the rate of exploitation of natural resources, especially land, forests, minerals, water resources, fisheries, natural gas and oil. This, coupled with the insufficient management of natural resources in the past, has seen a rapid and increasing degradation of these resources. Although some raw materials and energy supplies have been imported, these imports serve only to ensure uninterrupted production and trade, and do not solve the problem. We agree that trade and industry is vital to our economy and must continue to grow. But that growth must take place in an environment that is better managed.

The development of large industrial estates in the Thai coastal zones, on the so-called Eastern and Southern Seaboards, and the construction of several ports and facilities around the Gulf of Thailand and along the Andaman Sea to handle the rising volume of trade, have totally changed the coastal environment. The congestion caused by large cargo carriers in these areas has also resulted in serious pollution. At the time of writing oil patches about 100 kilometres in length have been discovered along the eastern shoreline. There was no confirmed explanation about the origin of these spills. This incident was the second to occur in the past month. Officials rushed to clean up the spillage only to find that due the size of the spill they were unable to deal adequately with the problem. The city administration later asked the Royal Thai Navy to help clear the spillage. I am proud of the important role that the Royal Thai Navy plays in fighting this type of problem and of the assistance it was able to provide in this instance.

Improperly treated water and contaminated waste from factories located along the banks and shorelines have given rise to many problems. The necessity for industrial powers to relocate their manufacturing base to the developing countries has resulted in plans to promote investment in countries such as Thailand. Polluting
factories have been relocated to these countries to take advantage of outdated and lax environmental legislation and regulations. Such a move has only aggravated the degradation of the marine environment. The tourism boom, together with the growth in the population, which increases the demand for land, have also contributed to a wide variety of pollution problems, such as water pollution, air pollution, noise pollution, waste and contaminated water. The water quality of Thailand's major rivers, such as the Chao Phraya River and the Chin River, and of coastal waters, particularly those close to tourist spots, is far below standard.

Both the degradation of natural resources and the environmental problems are the outcome of the rapid industrial growth and the rapid growth in trade. Similar developments to those witnessed in Thailand can be found in all the countries of the region, especially the developing ones. The seriousness of these problems, however, concerns every country. In addition to those problems that are the result of human intervention, there are other problems caused by natural phenomena, such as erosion, and natural oil spillage and seepage. These problems can be grouped as follows:

- the decline - both quantitative and qualitative - of coastal habitats, such as coral reefs, sea grass areas, and mangrove forests;
- diminished bio-diversity such as the extinction of certain species of fish, marine mammals, and sea birds;
- over-exploitation of fishery resources;
- serious pollution of water surfaces as a result of siltation, turbidity, agrochemicals, industrial and other pollutants, and increasingly salination;
- shoreline erosion, which threatens tourism, recreational areas, cultural areas, and coastal habitats; and
- natural disasters such as earthquakes, storms, typhoons and floods.
Guidelines for Solving the Problems

Past campaigns to raise public awareness of the importance of environment preservation at all levels of both government and the private sector have shown satisfactory results. Offices have been established to take direct responsibility for the alleviation and prevention of pollution. In the private sector, foundations have been set up to deal with the problem and to cooperate with other agencies. A number of laws to enforce and punish negligent polluters have been drafted and passed. Nonetheless, it is easy to understand why some polluters do not comply with these laws, rules and regulations, since to do so requires them to make additional investment and to incur higher costs, resulting in reduced profits. But we remain hopeful that raising the awareness of everyone concerned, including businessmen, and exerting more pressure on them will help improve the environment to some extent.

Laws can be enforced more strictly to preserve endangered areas, particularly marine natural parks. In Thailand, many mangroves and coral reefs have already been preserved and existing laws are being more strictly enforced.

The oil spill problem in Thailand is also being taken seriously and has raised considerable concerns. A central organisation with authority over the different government agencies concerned, such as the Harbour Department and the Royal Thai Navy, has been established to coordinate efforts aimed at solving the problems. Various oil producers in the private sector (namely, Bangchak, BP, Caltex, Esso, Mobil, PTT, Shell, and Thai Oil) have also founded an organisation called the Oil Industry Environment Safety Group (IESG) to prevent and treat water pollution caused by oil spills. The results so far have been quite impressive. Because oil spills affect a lot of countries in the region, Indonesia, Malaysia, and Singapore have agreed to work together to solve the problem. Despite concerted efforts on the part of the three countries, however, this initiative was not so successful in fighting the oil spill that occurred in the Malacca Straits in 1993. I hope that with the inclusion of more participants and the provision of adequate manpower, equipment, funds and technology, this cooperative effort will be able to achieve its goals more effectively.
In terms of the development and preservation of maritime and coastal zones, each country is trying to solve its own problems. At present, there are a lot of agencies who can provide assistance in solving these problems, such as UNEP, ASEAN, ESCAP, USAID, and other international sponsors. In fact, quite a number of rehabilitation projects are being carried out in this region. These include:

- The ASEAN/Australia cooperative programmes on marine science, both for regional ocean dynamics and for live coastal resources.
- The ASEAN/Japan network for environmental management.
- The ASEAN/USA environmental improvement project.
- The ASEAN/Canada cooperative programmes on marine science, Phase II, on establishing environmental criteria for the development of live resources and human health protection.
- The programme covered by the East Asian Seas Trust Fund.

One proposal engineered to cope with these regional problems seems to have more strength and create closer ties than the past experiences. I refer to the success of the cooperation between countries in the Mekong Basin. We can take this as a case study: arrange for cooperation in the form of a treaty or an agreement, establish an organisation, assign personnel, prepare strategic approaches, allocate budgets, and determine the duration of the work together. This type of cooperation can achieve success.

In conclusion, the Royal Thai Navy has played an important role in managing and developing the coastal and marine environment as a part of the government sectors. It has used its existing personnel, tools, ships and funds to implement the Project for the Preservation and Development of the Marine and Coastal Environment. In accordance with this Project the following six projects are being implemented:

- Marine National Park in the Gulf of Thailand and the Andaman Sea Project;
- Coral Reef and Marine Flora Rehabilitation Project;
- Mangrove Forestation Project;
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- Sea Turtle Preservation Project;
- Topshell Preservation Project; and
- Cleaning Up Oil Spills in the Sea and along the Coastline Plan.

Conclusion

The successful management and development of the coast and seas both at national and international levels in the future will depend on the appropriateness of the management and development plan, of the funds provided to implement it, and of the plan's duration. The public at large must be made aware of these invaluable coastal and marine resources and learn to guard and protect them from any harm or hazards.
PART FIVE
MARINE SCIENCE
CHAPTER 12

COOPERATION IN MARINE SCIENTIFIC RESEARCH AS A CONFIDENCE BUILDING MEASURE

Mark J. Valencia

Introduction

The world and the Asia Pacific region in particular are witnessing a renewed interest in multilateralism. Some argue that multilateral norms and institutions can make significant contributions toward stabilising the peaceful transformation of the international system and that they are likely to become increasingly important in the management of change at the regional level. Indeed, regional arrangements can render great service by contributing to a deeper sense of participation, consensus and democratisation in international affairs. Developing states in particular are increasingly attracted to regional arrangements because they perceive the potential of regionalism to promote their economic development and to mitigate their disadvantaged position in the international system.

A characteristic of Asia Pacific multilateral cooperation has been the development of both formal and informal channels of communication, an essential step in the process of institutionalisation. For example, through ASEAN, habits of consultation and even a nascent feeling of regional identity were built up, increasing

1 The theoretical aspects of this paper are excerpted from Mark J. Valencia, *Northeast Asia: Building Maritime Regimes* (Oxford University Press, in press).
sensitivities within the governmental élites to each other's interests and developing some norms for how to conduct their relations with each other.

Indeed, the first step toward the peaceful settlement of international conflicts is the creation of a sense of international community. Such a sense of international community may be enhanced when central intellectual players in the region form an epistemic community which coordinates their activities and attempts to translate their beliefs into public policies furthering cooperation. Such communities are identified by the presence of a broadly shared set of normative and principled beliefs, combined with an internalised and self-validating set of causal and methodological principles and a common policy goal. They operate within a set of formal, semiformal and informal institutions and networks that, in a period of dramatic historical change and uncertainty, can provide the framework within which to broker a set of policy options drawn from their normative beliefs and amenable to their causal and explanatory principles.

These communities have enormous value for international and regional organisations because their loyalties are more to the production and application of their knowledge than to any particular government. Through networks and 'invisible colleges' these communities seek to promote cooperation across national boundaries. Often, the epistemic communities are able to introduce values and

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9 Higgott, 'Economic cooperation', p.114; Michel Foucault may have invented the term 'epistemic community' in his The Order of Things (Random House, New York, 1970). However, as Ernst Haas has argued, Foucault's usage is indistinguishable from what might be called 'ideological communities'. For the meaning, definition, role, value and examples of who may or may not constitute an epistemic community, see Burkhart Holzner and John H. Marx, Knowledge Application (Allyn and Baron, Boston, 1979), p.108; Ernst Haas, When Knowledge is Power (University of California Press, Berkeley, 1990), pp.40-6; and Peter M. Haas, 'Introduction: epistemic communities and international policy coordination', International Organisation, Vol.46, No.1, 1992, pp.1-36. The term epistemic community was first applied to international relations by John G. Ruggie, 'International responses to technology, concepts and trends', International Organisation, Vol.29, No.3, Summer 1975, pp.569-70. See also Peter M. Haas, 'Do regimes matter? epistemic communities and Mediterranean pollution control', International Organisation, Vol.43, No.3, Summer 1989, pp.377-403.
visions that can capture the imagination of decision makers who, on the basis of their new understanding, may redefine their interests so as to enhance collective human interests across national borders. The challenge for the region then is to find a variety of multilateral arrangements that will demonstrate that a habit of dialogue and working together can build common security. Tactical learning - in which the behaviour of states towards cooperation is changed - must eventually give way to complex learning in which values and beliefs about reaching goals through cooperation are changed.\textsuperscript{10}

The growing acceptance of the notion of comprehensive security is a case in point.\textsuperscript{11} Comprehensive security implies that security should and can be achieved through a web of interdependence including, for example, cooperation in scientific research. It is not simply unconventional sources of conventional conflict. In this perspective, military might alone does not define security nor ensure long-term peace. This notion gives positive impetus to regime building in general, and maritime regime building in particular.

But where to begin? A functional approach - cooperative marine scientific research on common or shared problems - could help the growth of positive and constructive common work and of common habits and interests, decreasing the significance of boundaries or conflicting claims by overlaying them with a natural growth of common and cooperative activities. It is in this context that cooperation in this seemingly innocuous field can build confidence, dampen frontier tension and improve relations in this region so critical to world peace and prosperity. Indeed, successful cooperation in marine scientific research can build the confidence necessary for initiatives in other spheres, and establish the basis for a jump from tactical to complex learning.\textsuperscript{12} For example, many of UNEP’s regional

\textsuperscript{10} Higgott, ‘Economic cooperation’, p.105.
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seas programmes were initiated only after scientific revelations of regional contamination. And the most successful ones satisfied three preconditions:  

- first, the existence of a strong, indigenous regional community of able marine scientists interested in environmental management applications of their work;  
- second, the respect of political decision makers for the authority and expertise of these scientists; and  
- third, the existence of actual channels of contact or influence between the scientific community and national policy makers.

In fact, the real utility of UNEP's action plans has been to transfer marine science technology and build up capability in developing countries.

Fundamental to regime formation in other spheres is sufficient concern and capacity. Asymmetrical information is an obstacle to regime building because those with less information will be reluctant to make agreements with more knowledgeable actors, or the more knowledgeable may be unwilling to reduce their advantage by sharing. Cooperative marine scientific research can spread concern and equalise capacity, and thus reduce the asymmetry in information by upgrading the general quantity and quality of information, and reduce uncertainty and disagreements due to misperceptions or deception. Scientific information can heighten state concern by revealing causes and consequences of pollution, thus magnifying public pressure, and providing domestic factions and sectors of the bureaucracy with ammunition. Scientific monitoring can help reassure nations that they

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will not be cheated, thus making state commitments more credible and valuable and enhancing the overall contractual environment.

**Integrative Forces Favouring Cooperation in Marine Scientific Research**

Extension of jurisdiction creates the opportunity - perhaps the necessity - for cooperation in marine scientific research. When all the coastal nations of the region have formally extended their maritime jurisdictions to 200 nautical miles or more over resources and many activities, almost no marine area will be left unclaimed and many claims will overlap. But large marine ecosystems, fish and pollutants will still be transnational in character. In this region, there is clearly an insufficient understanding and consideration of the transnational and interdependent character of the ocean environment and the living resources that it harbours and supports. Technological change and increasing maritime use and user conflicts make the need for regional cooperation in marine scientific research even more obvious.15

The coming into force of the Convention on the Law of the Sea16 may give impetus to regional cooperation in marine scientific research. The Treaty has been ratified by Indonesia, the Philippines and Vietnam and is likely to be ratified by China, Japan, and South Korea in 1995.17 With the implementation of the Treaty, the venue for addressing issues of ocean law and policy is moving from the global to the regional and bilateral level. The Convention serves as a framework within which nations can carry out their ocean management rights and responsibilities.18 The importance of enclosed or semi-enclosed seas like the South China Sea, the East China Sea, the Yellow Sea, and the

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18 Hayashi, 'The 1994 agreement for universalising the new Law of the Sea'; 1982 Convention, Article 122.
Sea of Japan in the management of marine regions is particularly emphasised. Article 123 of the Convention holds that states bordering an enclosed or semi-enclosed sea should cooperate with each other in the exercise of their rights and in the performance of their duties under this Convention. To this end they shall endeavour, either directly or through an appropriate regional organisation, to coordinate their scientific research policies and undertake, where appropriate, joint programmes of scientific research in the area; and to invite, as appropriate, other interested states or international organisations to cooperate with them in doing so. The problem lies in identifying, agreeing on, and implementing specific joint programmes of scientific research.

Disintegrative Forces Inhibiting Cooperation in Marine Scientific Research

Arrayed against these positive forces are serious obstacles to cooperation in marine scientific research. Knowledge can be power - power in obtaining access to resources, power in boundary negotiations, and power in obtaining or retaining military advantage. Witness the bitter debate in the Law of the Sea Conference between the developed and developing nations over access for marine scientific research in EEZs. The result was a strict coastal state regime requiring permission for access by other nations for scientific research. Thus states must overcome their suspicions. Clearly, adversaries or potential adversaries will find it difficult to cooperate in this sector.

It must always be borne in mind that there are both pros and cons of more scientific information. The general hypothesis is that more knowledge of a disputed area - particularly knowledge of resource quantities and distribution - is beneficial to a stable and equitable solution. This might be so if all negotiators had equal and perfect knowledge. But this is rarely the case. Lack of knowledge can actually enhance the possibilities of boundary settlement. If the existence and location of resources are unknown, it is easier to draw a boundary line. For example, this lack of knowledge may account for Indonesia's successful boundary negotiations with its neighbours.\(^{19}\) In

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contrast, in the Mediterranean, the equalisation of knowledge among the littoral countries led to the realisation that pollution was by and large not transnational in distribution and that it was localised in the developed countries on the northern rim.\(^\text{20}\) This in turn led to the willingness of the developing countries on the southern rim to participate in the regime because all knew that the developed countries would have to pay the most to clean up their own pollution. On the other hand, without perfect knowledge, claimants - in the event of allocation - cannot be sure if their allocated area will contain a bonanza or a bust. Indeed, even an originally agreed allocation solution might become unstable if it turned out that most of the resources were in one nation's area. This uncertainty explains the tendency of the rival claimants to procrastinate, to be suspicious of each other, and, if pressured, to lean towards joint development.

In regard to marine scientific research, there is a conceptual dichotomy inherent in the Law of the Sea Convention. On the one hand the Convention enjoins its ratifiers to cooperate in marine scientific research in semi-enclosed seas. However, on the other hand, Article 56 gives the coastal state jurisdiction over marine scientific research. Because all Asian waters will be partitioned into the territorial seas and EEZs of the littoral states, the provisions of Article 56 could represent a serious obstacle to regional cooperation unless and until the littoral states agree to cooperate.

In fact, marine science is increasingly influenced by politics. Some argue that the Convention has caused a decrease in multinational regional 'expeditions' under the auspices of international organisations since it is difficult for a host state to refuse access to waters under its jurisdiction to only some of the participating states.\(^\text{21}\) For this reason host states now tend to prefer separate bilateral agreements with interested governments, each of which specifies its requirements and assures mutual benefits. On the other hand, a shift has taken place from expeditions to regional programmes such as

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WESTPAC (Western Pacific), which lead a more or less continuous existence and serve as a framework for smaller exercises, eventually even on a national basis. More important, however, is increased stress on problem-oriented programmes.

Another problem is the competition between the large powers, such as China and Japan, both reluctant to participate in marine scientific research regimes unless they can dominate them. In general, most big powers prefer to avoid multilateral regimes in which smaller nations can form blocks against them. It will be necessary to present a convincing argument that such major powers can gain more from a multilateral regime than from bilateral agreements which they can dominate. Then there is the difficulty of involving both China and Taiwan in any multilateral marine science regime covering areas claimed by both. However China and Taiwan have agreed to cooperate in offshore oil exploration in both the South China and East China seas. Finally, the territorial and maritime boundary disputes that plague the region may inhibit cooperation in marine scientific research particularly in areas of high petroleum or fisheries potential.

Marine Science Cooperation: Status, Problems, Possibilities

Notwithstanding these disintegrative forces, the complex and interrelated nature of the geological, physical and biological oceanography of Asian seas, the incomplete understanding thereof, and the necessity of continuous and synoptic measurements for achieving understanding, mandate cooperation in scientific research and the sharing of information between the coastal countries and some progress is being made.

Northeast Asia: Status

All countries are members of the 19-nation Working Group for the Western Pacific (WESTPAC), which was established by UNESCO at its Tenth Assembly in 1977 to plan and coordinate multilateral ocean science programmes. WESTPAC has focused on intercalibration exercises, with the collaboration of the Global Investigation of

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Pollution in the Marine Environment (GIPME) and the International Oceanographic Commission (IOC) Group of Experts on Methods, Standards, and Intercalibration (GEMSI). At the WESTPAC III meeting (September 1983), it was concluded that a major emphasis of initial WESTPAC programme activities should address the overall need for training in bioindicator sampling techniques and contaminant analysis, particularly for organochlorine and hydrocarbons, and that national centres should be identified. The Programme Group also recommended that the WESTPAC Task Team on Marine Pollution Research and Monitoring Using Commercially Exploited Shellfish as Determinants should participate actively in the IOC's Marine Pollution Monitoring Programmes (MARPOLMON).

The North Pacific Marine Science Organisation (PICES) has goals, objectives, interests and scientific projects similar to some of those of the North-West Pacific Action Plan (NOWPAP). These include data and information exchange, common assessment methodology for marine pollution, marine pollution monitoring techniques such as mussel watch and sediment monitoring, land-based sources of pollution, fluxes and their impacts on the marine environment, cross-boundary transportation of contaminants from the Northwest Pacific region to the open ocean, intercalibration exercises and development of environmental criteria and standards. PICES/Marine Environment Quality Scientific Committee will focus on algal blooms and priority chemical and biological contaminants in the whole North Pacific region.

The Advisory Committee on Protection of the Sea (ACOPS) programme in the Northwest Pacific is an extension of its Arctic programme which was the subject of a conference held in Arkhangelsk, Russian Federation, in July 1993. The ACOPS 1994 programme concentrated on the overlap between the Russian Far East and the Northwest Pacific. Land-based sources of marine pollution is a priority topic.

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24 ibid.
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With the assistance of the World Bank, both China and South Korea have drafted an Action Plan for Monitoring and Protection of the Yellow Sea Large Marine Ecosystem (YSLME). A conference on the protection of the Yellow Sea Large Marine Ecosystem was held in June 1993 at Qingdao, China. The large marine ecosystem is a new concept linking exploitation, development and administrative efforts. This concept sets aside national rights and interests to consider the whole ecosystem of the Yellow Sea. The goal is to establish bilateral cooperation to protect the ecosystem and make possible sustainable utilisation of the biological resources of the Yellow Sea.

The North-West Pacific Region Action Plan (NOWPAP)

Of the several ongoing multilateral cooperative efforts focused on or including marine environmental protection, the most advanced is the United Nations Environment Programme (UNEP)'s NOWPAP as part of UNEP's Regional Seas Programme. General objectives include monitoring and assessment of the state of the regional marine environment; creation of an efficient and effective information base; integrated coastal area planning; integrated coastal area management; and establishment of a collaborative and cooperative legal framework.

More specifically, agreed objectives are:

1. To assess regional marine environmental conditions by coordinating and integrating monitoring and data gathering systems on a regional basis, making the best use of the expertise and facilities available within the region on a consistent and collective basis.

2. To collate and record environmental data and information to form a comprehensive database and information management system which will serve as a repository of all relevant, available data, act as the sound basis for decision-making, and serve as a source of information and education for specialists, administrators, and others.

3. To develop and adopt a harmonious approach towards coastal and marine environmental planning on an integrated basis, and in a pre-emptive, predictive and precautionary manner.

4. To develop and adopt a harmonious approach towards the integrated management of the coastal and marine environment and its resources, in a manner which combines protection, restoration, conservation and sustainable use.

5. To develop and adopt a regional framework of legislative and other agreements for mutual support in emergencies, collaboration in the management of contiguous bodies of water, and cooperation in the protection of common resources as well as in the prevention of coastal and marine pollution.

**UNDP/GEF Programme on Prevention and Management of Marine Pollution in East Asian Seas**

In response to a number of requests from East Asian nations regarding the management of the marine environment, the United Nations Development Programme, Regional Bureau for Asia and Pacific, Regional Programme Division with support provided from the pilot phase of the Global Environment Facility is formulating a programme entitled Prevention and Management of Marine Pollution in East Asian Seas. This Asia Pacific Regional Environment Facility would be administered by the Asian Development Bank with Japan as a major contributor. The countries to be included in this regional programme are ASEAN (Philippines, Malaysia, Indonesia, Brunei Darussalam, Singapore, Thailand), China, North Korea, Vietnam, and Cambodia. The approved budget totals US$8 million with an additional cost-sharing contribution from the Government of Australia of $A5 million.

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The long-term objective of the programme is to support the efforts of the participating governments in the prevention, control and management of marine pollution, at both the national and regional levels, on a long-term and self-reliant basis. The programme concept at the moment includes four main project areas, defined by the following objectives:

1. To assist in the prevention, control and management of marine pollution problems through a proper assessment of the state of marine pollution, including the effects of marine, coastal and other land-based activities on biodiversity and environmental quality.

2. To assist in the development of policies, plans, and programmes on the prevention, control and management of marine pollution including measures for their support and implementation at both the national and sub-regional levels.

3. To strengthen national and sub-regional institutional infrastructures and implementing mechanisms and upgrade technical skills and management capabilities on prevention/control of pollution, and management and enhancement of the marine environment.

4. To establish appropriate financial arrangements and/or mechanisms for the long-term sustainability and self-reliance of national and sub-regional efforts at protection of the marine environments.

North Korea subscribes to the objectives of the East Asian Seas Marine Pollution Programme and intends to participate. It is particularly interested in participating in the proposed network of information management and marine pollution monitoring centres and wants assistance to upgrade the equipment and facilities of the West Oceanographic Research Institute to enable its participation.
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Northeast Asia: Problems

Redundancy, Lack of Coordination, Unequal Capacity, Lack of Relevance, and Myopia

There is considerable redundancy of activities envisaged under the auspices of WESTPAC, UNDP/GEF, PICES and UNEP’s North-West Pacific Action Plan (NOWPAP). WESTPAC anticipates conducting training in the modelling of coastal circulation in order to predict and control accidental oil spills. It is also developing a WESTPAC Action Plan as a follow-up to UNCED. Both activities appear to be similar to activities contemplated by NOWPAP. However, WESTPAC activities can also complement the strong national marine scientific and technological capabilities in Northeast Asian states. Moreover, WESTPAC’s SEAWATCH programme may be helpful in the implementation of NOWPAP. Work by Northeast Asian WESTPAC members (which includes all six states that participate in NOWPAP) on continental shelf circulation, ocean dynamics, paleogeographic mapping, tectonics and coastal zones, and on musselwatch and harmful algal blooms, are all either more active in Northeast Asia than in East or Southeast Asia, or are implemented on a Western Pacific-wide basis without sub-regional focus. The objectives of the UNDP/GEF Programme also seem to greatly overlap those of the NOWPAP and the Programme also includes North Korea and China in its terms of reference. A mechanism may be needed to coordinate WESTPAC and UNDP/GEF activities with NOWPAP, similar to the Coordinating Body on the Seas of East Asia (COBSEA) operative in Southeast Asia.

Despite these initiatives, there is a general dearth of capacity and will to undertake regional cooperative marine scientific research. There is no formal infrastructure to bring about the critical mass of international collaboration and cooperation in monitoring and research activities that would, for example, delineate the spatial distribution of a contaminant and its subsequent effects and, in particular, establish whether it would cross national boundaries. The lack of such a structure prevents the development of well-coordinated cooperative baseline studies and coordination in emergencies (such as a spill of oil or other toxic and hazardous materials). Monitoring and research programmes are ineffective, because they stop at artificial, politically determined borders.
In Northeast Asia, there is a wide discrepancy among the countries in the level and effectiveness of marine scientific research capability. Japan is clearly far superior in terms of marine scientific knowledge and technology. Russia has the capability but neither the will nor the means to fully utilise it. Although China has carried out extensive surveys and research in its 'offshore' areas since the early 1970s, the quality of the data and analysis are unclear. Comprehensive marine research programmes in South Korea and Taiwan have begun more recently. North Korean capacity is poorly known but likely to be deficient.

Scientific questions on factors affecting the health of marine species and ecosystems are, in general, poorly articulated. Moreover, a review of national environmental legislation shows little evidence of laws and regulations being developed with specific relevance to natural features or processes that may affect pollutant transport, circulation, transformation, and dispersion. For example, the northern and southern parts of the Sea of Japan differ sharply with respect to hydrography, circulation, continental shelf width, submarine topography, and coastal geomorphology. Indeed, hydrography and circulation in the sea resemble that of a 'mini-ocean' with regard to temperature and salinity differentials between northern and southern zones, circulation patterns, and zonal mixing. There are also contrasts between the narrow continental shelves and smoother coastline with its complex links between coastal and submarine geomorphological processes in places like the Yamato Basin and Toyama Bay. Moreover, laws and policies are couched in terms that separate legal justification and intent from the reality of people, ecosystems, and place. This is not unique to this region but is more important here, because the apparent failure to relate law more directly to nature through improved scientific understanding supports a general impression of regional disinterest in marine environmental issues.

The more obvious problems, and the initial effects of new ones, are most likely to arise in waters close to land, and national attention is therefore concentrated on the coastal waters rather than the offshore, especially in enclosed and semi-enclosed seas. Moreover,

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28 ibid., p.139.
countries generally resist involvement of other nations in their coastal waters, no matter how well intentioned. Aside from physical and ecological degradation of the coastal and near-shore zones, and of course nuclear waste dumping, pollution from land-based sources is at present the single most important threat to the Northeast Asian marine environment, contributing some 70 per cent of the pollution load of the oceans. Intensified human activities in the coastal zone there cannot be supported if the marine environment is considered as an 'infinite sink' or receptacle for wastes and an endless free supply of resources.

But prospects for improved transnational cooperation in resource development and use may depend upon better understanding of the causes and consequences of marine pollution in both coastal and open-sea areas. Indeed increased knowledge is extremely important to the creation of regimes and accounts for the expansion and strengthening of marine pollution regimes worldwide.\textsuperscript{29} The most successful efforts to deal with marine environmental problems appear to have been carefully nurtured with simultaneous scientific activities, institution building, and treaty drafting at the regional level, but this can come about only with strong and sustained littoral state support and state or international organisational leadership.

\textit{Northeast Asia: Possibilities}

\textit{Cooperative Research on Nuclear Waste in the Sea of Japan}

The news that the former Soviet navy dumped 18 decommissioned nuclear reactors and 13,150 containers of radioactive waste from 1978 to the present, most of it in the Sea of Japan, created an uproar in the world environmental community. It particularly jolted nuclear-sensitive Japan and South Korea, and even drew a rare comment from North Korea.\textsuperscript{30} Adding fuel to the fire, a Russian naval

\textsuperscript{29} Boleslaw A. Boczek, 'Concept of regime and the protection and conservation of the marine environment' in Elisabeth Mann Borgese and Norton Ginsburg (eds), \emph{Ocean Yearbook 6} (University of Chicago Press, Chicago, 1986), pp.271-97.

vessel dumped nearly a thousand tons of low-level waste in the Sea of Japan shortly after Russian President Boris Yeltsin's visit to Japan.

Japanese Foreign Minister Tsutomu Hata warned his counterpart Andrei Kozyrev that if Russia proceeded with its plans to dump another 900 tons of similar waste, 'the foundation of a new Japan-Russia relationship ... will crumble'. But in a stunning case of 'the pot calling the kettle black', Japanese Science and Technology Agency Chief Satsuki Eda admitted that Tokyo Electric Power Co. dumps 10 times more radioactive waste each year into the Sea of Japan than the 900 tons dumped by the Russian Navy. South Korea strongly protested the dumping by both countries.

Although most scientists agree that the dumped waste provides no immediate threat to the environment or humans, the longer term effects are unknown, particularly after the containers corrode. Regardless of the facts, consumers may avoid marine products taken from the Sea of Japan.

This shock may be the critical spur needed to forge cooperation in marine scientific research among the coastal countries. The initial report of Russian dumping prompted cooperation to deal with this specific issue at hastily arranged bilateral Japan/Russia meetings of relevant ministers and experts, proposals for joint South Korea/Japan/Russia surveys at specific dump sites, and a call by Japan for an international cooperative fund to help Russia treat its nuclear waste. North Korea even offered to host an international seminar on regimes for pollution control.31

In March 1994 a joint Japan-South Korea-Russia-International Atomic Energy Agency expedition began a search for signs of radioactive waste contamination in the Sea of Japan. The scientists used a Russian vessel and shared the costs of the expedition equally.32 More recently, it has been revealed that chemical munitions were also dumped up until the mid-1980s in the seas of Japan and Okhotsk.33 Obviously a long-term cooperative research programme is required to

monitor the waste and its effects, and to determine the best methods of dealing with it.

More generally, because of the emerging common interest in waste disposal, the coastal countries should agree to work together on investigating ocean disposal as a waste management option, keeping in mind that the seas are shared by all. A first goal should be that all countries become members of the London Dumping Convention in order to take advantage of the information available through it.

Policy issues for cooperation in marine scientific research include the following:

- How can information and basic data on all issues regarding the sea best be compiled and exchanged? Could a dynamic interactive integrated database or atlas on the sea be built? What kinds of data should most urgently be included in such an atlas? What are the conditions - for example, technical, institutional, diplomatic - which should be satisfied to build such a database?

- How can an interdisciplinary network of institutions conducting research on the different issues regarding the sea be built? What kinds of research institutions exist in and out of the region? What kinds of scientific cooperation (bilateral and multilateral) exist among the countries bordering the sea? Is it better to organise networks, discipline by discipline, issue area by issue area, or in an interdisciplinary fashion?

- How can systematic joint research be developed among the nations bordering the sea on jointly agreed priority issues? Could a regional project be conceived? Would a joint survey cruise among all coastal states be feasible, say, using a Japanese or Russian research vessel? Is it sufficient to develop projects on specific issues in the different issue areas? Or is it necessary to examine issue linkages within an integrated regional system? How can this effort be opened to extra-regional scholarship while encouraging intra-regional cooperation?

Cooperative efforts might eventually lead to the establishment of a Regional Marine Science and Technology Centre as called for in
the Convention on the Law of the Sea. Such a research centre might combine the efforts of NGOs, universities, the United Nations University, UNEP, IOC, IMO and industrial enterprises. This centre might initially be attached to a university and nurtured into independence. It might assist in fulfilling the tasks delineated by UNEP’s incipient Regional Seas Programme for the Northwest Pacific:

- To assess regional marine environmental conditions by coordinating and integrating monitoring and data gathering systems on a regional basis, making the best use of the expertise and facilities available within the region on a consistent and collective basis.

- To collate and record environmental data and information to form a comprehensive database and information management system which will serve as a repository of all relevant, available data, act as the sound basis for decision making, and serve as a source of information and education for specialists, administrators, and others.

- To develop and adopt a harmonious approach towards coastal and marine environmental planning on an integrated basis, and in a pre-emptive, predictive and precautionary manner.

- To develop and adopt a harmonious approach towards the integrated management of the coastal and marine environment and its resources, in a manner which combines protection, restoration, conservation and sustainable use.

- To develop and adopt a regional framework of legislative and other agreements for mutual support in emergencies, collaboration in the management of contiguous bodies of water, and cooperation in the protection of common resources as well as in the prevention of coastal and marine pollution.

A plan of action might include:

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34 1982 Convention, Articles 275-277 (establishment of national centres; establishment of regional centres; functions of regional centres).

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- the establishment of a computer-based, dynamic, interactive, integrated atlas of Northeast Asian seas;
- the establishment of coastal and sea use management plans;
- the assessment of priorities for marine resource management and areas of the coast and the sea most at risk; and
- the initiation of national and international workshops to discuss the shared resources, conduct research, and make available the findings to interested parties.

A Cooperative Marine Scientific Regime for Northeast Asia

Three Northeast Asian seas are candidates for inclusion in a multilateral marine scientific research regime - the Sea of Japan, the Yellow Sea and the East China Sea. The three seas are both physically and biologically connected - by the movement of water and biota, particularly migratory fish. Thus there should be an overarching consultative mechanism which includes all Northeast Asian entities, but comprised of two working committees - one for the Sea of Japan which would include China, Japan, North Korea, South Korea, Russia, and perhaps China, and one for the Yellow Sea/East China Sea which would include China, Japan, North Korea, South Korea and Taiwan. Since the China/Taiwan relationship makes policy coordination in the East China Sea particularly troublesome, the initial focus of the latter working committee would be on the Yellow Sea, and perhaps it would include Taiwan only as an observer. Although the East China Sea presents formidable jurisdictional problems, these can be finessed by ad hoc arrangements such as those existing between China and South Korea, which do not specify who has jurisdiction over which area - only that the partners collectively have jurisdiction over the entire area. The outer boundary of the geographic scope of the working committee does not have to be precisely defined, but the core area must be agreed upon by the participants. Japan should be included at an early stage because of its fishing, oil development, and shipping interests in the Yellow Sea, because of the apparent connectivity of the waters and ecosystems, and because of its ability to supply money,

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technology and knowledge to the regime. The two working committees would be related - via their common members - South Korea, North Korea and Japan - and by annual reports to the plenary body.

There is a convergence of factors which makes formation of a marine scientific research regime in the Sea of Japan more likely now than ever. Only four states border the sea, thus lowering the complexity of the bargaining process. First, there is a growing recognition that successful efforts in marine scientific cooperation could have spillover effects to other spheres closer to the core of international relations, such as security and trade. Its unsettled maritime frontiers may offer an opportunity for innovative management approaches. The interconnectivity of the waters and their biota, including fisheries resources, are increasingly apparent and understood. Moreover, the Sea of Japan is considered relatively unspoiled and therefore a prime candidate for preservation. The nuclear waste disposal controversy is an exogenous shock to the system that can enhance regime formation and speed it along. It has raised public awareness and placed the issue of marine pollution on the national policy agenda. Moreover it is creating an epistemic community of scientists and environmentalists in the bordering countries who are pressing for policy action.

Stimulants include fear and uncertainty regarding the long-term effects of radioactive pollutants, and the high cost of gathering information - as well as the necessity to cooperate when undertaking research beyond national jurisdiction. Finally the obvious need for continuing management and enforcement of anti-dumping regulations - and, indeed, broader pollution monitoring and control measures - argues for a mechanism to coordinate policies and approaches. Pressure to cooperate will increase further when the Law of the Sea Convention comes into force, thus obliging ratifying nations to protect the marine environment and providing further ammunition to NGOs to persuade them to do so.

A different but equally strong argument can be made for the establishment of a cooperative marine scientific research regime for the Yellow Sea. This sea is showing signs of industrial and oil pollution

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and contains significant fisheries and ecological resources. It is increasingly clear to policy makers - particularly in China and South Korea - as well as the public that with the quickening pace of economic development, pollution will continue to increase, and damage those resources. Only three countries border the sea although a fourth - Japan - has activities and interests there. Discussions of jurisdictional issues are ongoing between China and South Korea, and settlement - or provisional arrangements in lieu of a settlement, as urged by the Convention\(^{38}\) - could include a marine scientific research component. Of course the North/South Korea dynamic is an obstacle but if the nuclear impasse is successfully resolved, cooperation in marine scientific research matters would be an opportunity to feel each other out and to build confidence for cooperation on a broader front.

Because of tentative relations, competition, sensitivity regarding national jurisdiction, and mutual suspicions, the regime should initially be consultative and one of self-help - each country must research its own waters. But a loose consultative mechanism should discuss common policies, cooperative research, education and training. Here the lead of a capable medium power, such as South Korea, might be acceptable to all parties. South Korea - as it has historically - can serve as a buffer between the major powers and mitigate their reluctance to follow each other's lead. To decrease sensitivities, areas of overlapping claims (around Tok Do/Takeshima and the Kurils/Northern Territories) might be initially excluded from the purview of the consultative mechanism.

This consultative mechanism could also become the focal point for rationalising the various international organisation initiatives with marine scientific research content and for coordination of implementation of Law of the Sea marine science research responsibilities. As confidence builds and a habit of consultative and cooperative behaviour gains a foothold, an organisation could be added.

\(^{38}\) 1982 Convention, Article 83(3).
There is a long list of international bodies that undertake or sponsor marine scientific research in Southeast Asia. They include ASEAN's Council on Petroleum (ASCOPE), the ASCOPE Experts Group on Marine Pollution, the Fisheries Development Centre (AFDC), Committee on the Environment, the Experts Group on the Environment (AEGE), and the Oil Spill Contingency Plan and Working Group on Marine Science.

Relevant United Nations-sponsored marine scientific research is undertaken under the auspices of the UN ESCAP - Regional Mineral Resources Development Centre (RMRDC); the FAO/IPFC - Committee for Development and Management of Fisheries in the South China Sea (CDMSCS); the FAO/IOC/ASFIS - Regional Centre in Thailand; the IOC-CCOP Joint Working Group on Studies of East Asian Tectonics and Resources (SEATAR); the UNEP East Asian Action Plan and its Coordinating Body on the Seas of East Asia (COBSEA); and the UNEP/IMO Sulawesi Oil Spill Response Network Centre (Davao, Philippines) and Action Plan.

UNESCO's major Inter-Regional Project on Research and Training on Integrated Management of Coastal Systems (COMAR) in Asia and the Pacific concentrates essentially on mangroves, coral reefs, and related coastal marine systems, which are also subject to activities of ESCAP's Environmental Coordinating Unit. Other relevant international agencies include the Southeast Asian Fisheries Development Centre (SEAFDEC); the Committee for Coordination of Joint Prospecting for Mineral Resources in East Asian Offshore Areas (CCOP/EA); the Southeast Asian Tin Research and Development Centre (SEATRADC); the Malaysia-Thailand Joint (Continental Shelf) Authority (MTJA); the Council for the Safety of Navigation and the Control of Marine Pollution in the Straits of Malacca and Singapore; and the International Hydrographic Organisation (IHO) Regional Commission for East Asia.

Relevant NGOs include the International Centre for Living Aquatic Resources Management (ICLARM, Manila); and the Association of Southeast Asian Marine Scientists (ASEAMS).

The Indonesian-sponsored track-two South China Sea process has focused on cooperative marine scientific research as one of the paths to building confidence. While no single discipline has dominated the discussions, members of the regional scientific community set the tone on environmental issues. Marine scientific research cooperation was first raised as a means to undertake joint measures for environmental protection. The subject then became more distinct, and emerged at the third workshop in Yogyakarta as one of the first subject areas for consideration by a Technical Working Group of experts.

The first meeting of this Technical Working Group on Marine Scientific Research was convened in Manila in 1993. Dominated by oceanic and environmental scientists, the meeting identified a number of areas for potential cooperation. In a second meeting of the group, a representative from each country gathered simultaneously with the first session of the Surabaya workshop in August 1993. It was decided that three topics - biodiversity, the effects of changes in sea level, and data collection and exchange - would form the subject matter of concrete proposals for cooperation in the South China Sea. A third meeting in Singapore in 1994 developed the ideas and prepared them for consideration by a more formal intergovernmental meeting, after which the three topics are to be submitted for funding by an appropriate agency. Leading papers on the three topics were prepared by experts from Vietnam, Indonesia and the People's Republic of China.

The participants at the Singapore Workshop\(^\text{41}\) formulated a project proposal on biodiversity for submission to the Fifth Workshop on Managing Potential Conflicts in the South China Sea, scheduled for later this year. The proposed project would review and analyse the existing scientific information on the biodiversity of the South China Sea, leading to recommendations for possible future collaborative research; determine gaps in the information base, and determine what


\(^{41}\) *Report of the South China Sea Workshop on Cooperation in Marine Scientific Research* (Asian Legal Studies Centre, University of British Columbia, Vancouver, 1994).
other research should be conducted to fill these gaps; identify habitats in the South China Sea which are critical for the protection, conservation, and replenishment of ecologically and economically important species; and recognise the need for some standing arrangements to facilitate and coordinate research activities.

The participants also agreed on the need to establish a mechanism for database and information exchange, and networking on marine research in the South China Sea, and to facilitate and promote the utilisation of marine data and information. They underlined the need to establish a comprehensive database which may be useful for future cooperative projects. Accordingly, the participants agreed to recommend the establishment of an appropriate number of Responsible Data Centres (RDCs) which would serve a clearing house function. The participants also agreed on the need to develop local capability and capacity in marine data and information management and dissemination. To prepare for the establishment of RDCs, it was agreed that a project planning meeting would be held after completion of an assessment of the existing marine data information programmes and capabilities in the region. The participants formulated a project proposal for submission to the Fifth Workshop on Managing Potential Conflicts in the South China Sea.

The participants agreed to collaborate in sea level monitoring in the South China Sea region, essentially using existing equipment and facilities, but agreeing on some basic data standards. They also agreed to exchange data from existing tidal stations. The participants further agreed to promote marine science development and common understanding of the South China Sea as a unique environment, to build knowledge of the tidal regime of the South China Sea, to study the characteristics of sea level variation, and to standardise methods of measurement, format of tidal data presentation, and analysis.

**Southeast Asia: Possibilities**

*Joint Assessment and Survey of Hydrocarbon and Mineral Potential in the Multiple Claim Area under the Auspices of CCOP*

The nations claiming the central South China Sea and the oil companies have speculated extensively regarding the oil and gas potential of the central South China Sea. Indeed, the view that the
region may harbour significant oil resources underpins the intensity as well as the inflexibility of the claims in the area. But still unknown is the answer to the fundamental question - what is the mineral and hydrocarbon potential of the area? The field of petroleum geology has advanced to the point where educated guesses can be made of the petroleum potential in frontier areas where drill holes are few or nonexistent. Moreover, considerable geophysical work has been undertaken in the area in recent years - by research institutions such as China's South China Sea Institute of Oceanography and its Ministry of Geology, the Lamont-Doherty Geological Observatory, Germany's Federal Geological Survey, and France's Institute of Petroleum. Previous work has also been done by various private companies such as Amoco, Salen, and Shell. Current concession holders in the general area include Kirkland, Vaalco and Crestone.

Advances in technology, the acquisition of new data, and bilateral and multilateral dialogue indicate that the time is right for an update and comparison of thinking regarding the petroleum geology of this area to assess the oil and gas potential there. Such an evaluation must be produced by neutral experts, with no vested interest in a particular conclusion. A workshop could begin with presentations by internationally known geologists on the regional petroleum geology setting and the geological origin of the central South China Sea. These sessions would be followed by a series of papers from each relevant national and private oil company regarding the petroleum geology of the area. The next session would be a modified delphi approach to estimating the hydrocarbon resources in the area and their distribution. The final session would present and critique various models for joint development of the area, particularly including the distribution of responsibilities.

A follow-up basin evaluation study should be able to identify the hydrocarbon potential of a particular area. Nevertheless, the evaluators must be familiar with all modern techniques, and have a proven track record of compiling disparate data sets and producing reliable results based on the integration of all available data. If the conclusions of the evaluation are positive, the nations concerned could then consider cooperative exploitation.

The next step might be seismic and aeromagnetic surveys to identify areas where detailed exploration should be focused and other
areas that do not deserve exploration. CCOP - the Committee for the Coordination of Joint Prospecting for Mineral Resources in Offshore Areas - has proposed just such a joint survey of a loosely defined area to estimate its resource potential. All claimants except Taiwan are members of CCOP. Also involved would be an analysis of Portland cement, limestone, phosphates, aggregates, manganese nodules, and mineral sands. The claimants would need to discuss the terms of reference of such endeavours, including whether to undertake the efforts using their own pooled resources or by tapping financial and technical assistance from international institutions, or by implementing joint ventures with outside states.

A South China Sea Institute for Marine Resources Management (SCIMARE)

The South China Sea countries could establish a South China Sea Institute for Marine Resources Management (SCIMARE) to undertake basic and applied research in the area. The UNCLOS came into force on 16 November 1994. The obligations of the developed countries that have ratified the Convention include the establishment of national and regional marine scientific and technological centres in the developing world. Among the functions of such regional centres are:

- Training and educational programmes at all levels on marine biology, including conservation and management of living resources, oceanography, hydrography, engineering, and geological exploration of the sea bed; mining and desalination technologies; management studies; the protection and preservation of the marine environment; and the prevention, reduction and control of pollution.
- The organisation of regional conferences, seminars and symposia.
- The acquisition and processing of marine scientific and technological data and information.
- The prompt dissemination of results of marine scientific and technological research in readily available publications.

42 1982 Convention, Articles 275-277.
The publication of national policies with regard to the transfer of marine technology, and systematic comparative study of those policies.

The compilation and systematisation of information on the marketing of technology and on contracts and other arrangements concerning patents.

Technical cooperation.

SCIMARE could undertake research and education/training in the region, for the region, and as far as is feasible, by nationals from South China Sea countries. The Institute would not be narrowly and esoterically individualistic and scientific, but would focus international, multidisciplinary teams on resource exploration, assessment, sustained development, and management in support of regional goals. These teams would provide technical support to formal and informal regional committees and respond to ad hoc requests for resource management studies. Highest priority would be on truly shared resource management problems that can only be solved by gathering data from several countries' claimed areas. Priorities among shared resource management problems would be strongly influenced by the size of the potential economic benefits and the number of member-countries that would directly benefit by a solution to the problem. Second priority would be on issues held in common but not transnational in themselves, and again priorities among common problems would be influenced by the potential economic benefit and number of member-countries desiring the research. Research to only one nation's benefit would be of lowest priority and undertaken on a rotating basis. The Institute would serve as a node and clearing house for access for requests for scientific research by foreign nations and international organisations, and offers of and requests for technical assistance. Such research and technical assistance would have to fit the Institute's existing research agenda. The Institute would also be a central data bank, and a coordinator and implementor of human resource development for marine resource management.

Because most marine science data in the region has been and is still collected and analysed by scientists of countries external to the region, SCIMARE would be a focal point for a massive marine science knowledge and technology transfer to, and sharing within, the region. It would be a facility where knowledge and personnel could be pooled.
to carry out research and development on problems of common interest. Cooperative research would help in the development of any resources in the core area.

The research agenda would include as overarching themes the present and potential economic costs and benefits of exploration/exploitation of the known or expected resources; the present and projected role of marine resources in development; multinational sea-use planning and management; the role of marine resources such as oil, minerals, fisheries, and sea lanes in the implementation of the Pacific Community; and identification and evaluation of possible consortia of developed and developing Asia Pacific countries to manage these new resources.

Sector themes would include fisheries, hydrocarbons and minerals, environment, climate/weather, and shipping. Research in fisheries would include the assessment of shared stocks, such as scads, mackerels, sardines, and tunas; the evaluation of 'surplus'; the harmonisation of fisheries management regulations and techniques; the amelioration of transnational fisheries conflicts; and the identification and evaluation of possible Asia Pacific cooperation in fish catching, processing, distribution, and marketing. Research in hydrocarbons and minerals would include the assessment of resources in the area; cross-jurisdictional research of plate tectonics and its relation to hydrocarbon and ore generation; and the identification and evaluation of enhanced Asia Pacific cooperation in hydrocarbon and mineral exploration, refining, and marketing.

Environmental research would include the standardisation of sampling and analytical techniques and equipment; the assessment of marine environmental quality in shared and adjacent areas; the assessment of pollution effects on shared and common living resources; the assessment of the transnational effects of deterioration of national marine ecosystems; the harmonisation of regulations; and the identification and evaluation of possibilities for Asia Pacific cooperation in marine environmental protection and management. Research in climate/weather would include typhoon generation; tsunami generation; El Niño effects; disaster preparedness; and the monitoring of major oceanographic systems and weather forecasting. Research in shipping and navigation would include surface circulation; tides and tidal phenomena; the safety of navigation; oil
spill preparedness; and the identification and evaluation of possible Asia Pacific cooperation in shipping.

A number of policy questions would need to be addressed before SCIMARE could be implemented. Should potential funders such as the United States, Japan, Canada, and the European Community be asked to participate and contribute accordingly? Would indigenous funding be in cash or in kind; up front, or later; necessary, desirable, or likely? How much initial capital would be required to form a critical mass of staff and facilities, and how much would be required for annual operations? After raising the initial capital, would it be preferable to support operations by interest from a trust fund - as does the United Nations University - or by grants for specific projects, or both?

What would be the criteria for membership and what should be the status of developed countries who wish to contribute to and/or work with the organisation? How should the organisation be governed? What criteria should be used in determining specific research priorities? How much effort should be devoted to scientific research, how much to policy studies, and how much to education/training? Should SCIMARE offer degrees or certificates?

Given SCIMARE's mission of technology and knowledge transfer, it may be impractical to begin initially with a staff comprised solely of all South China Sea country nationals. If so, what should be the indigenous/exogenous proportions of staff in research, education/training, and administration? Should salaries be on an international scale or on a par with comparable host country positions? The views of both potential member-countries and potential donors should be sought on these and other funding and organisational questions in a feasibility study. On this basis, a concrete proposal could be developed and promoted by potential member countries in their dealings with maritime powers active in the South China Sea.
The Ideal Marine Scientific Research Regime

Based on Young and Osherenko’s analysis and considering regional characteristics, the ideal maritime regime would have many of the following distinctive features:

- The objectives and functions of the regime would be sector specific; for example, marine scientific research.

*In terms of structure:*

- The regime would be uncomplicated but not loose. It would define geographical scope, membership, rules and regulations, procedures, decision making, and - if an organisation is necessary - financial matters and staffing.

- Geographically the regime would fit the natural system on which it focuses, although its exact boundaries would be ambiguous to mute jurisdictional concerns. It would also initially be a sub-regional effort rather than emphasise comprehensiveness.

- Decision making would be decentralised. A coordination regime would establish rules and procedures while leaving each member free to implement them in their own way.

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43 Oran R. Young and Gail Osherenko, 'International regime formation: findings, research priorities and applications' in Oran R. Young and Gail Osherenko (eds), Polar Politics: Creating International Environmental Regimes (Cornell University Press, Ithaca and London, 1993), pp.223-262. Young and Osherenko coordinated a project in which five Arctic or Arctic-related environmental and resource regimes were selected for a careful case study analysis of established hypotheses of regime formation. The cases were the regime for the conservation of North Pacific fur seals, the Svalbard regime, the regime for conservation of polar bears, the regime for the protection of stratospheric ozone, and a comparison of the problem of Arctic haze produced by air pollutants with the regime for long-range transboundary air pollution among industrialised Northern Hemisphere countries. The project confirmed some hypotheses and disconfirmed others, and drew important lessons for successful regime formation that are useful to this study of maritime regime building in Northeast Asia.
In terms of process:

- First and foremost, a positive perception of cooperation would exist throughout the region as a foundation for forming and nurturing a regime. Public and private institutions would have established regional links, and an epistemic community would have developed that is committed to the concept of regionalism. The regime would thus be supported by a significant political constituency.

- The member countries would perceive that the benefits of participation outweigh the costs. Such benefit/cost considerations would include direct benefits like better use of marine resources, as well as indirect benefits such as the advancement of state aspirations for regional leadership. However, in the initial stages of cooperation, the economic and political costs would be kept as low as possible.

- A shock or crisis exogenous to the negotiating process would enhance regime formation or speed it along once the process had begun, and the participants would be prepared to make the most of such 'windows of opportunity'. Such an event would stimulate the emergence of the political will necessary to address the issues in integrative bargaining and thus open windows of opportunity so that the regime could form. Such factors might include broad shifts in values and ideas, such as a growing environmental consciousness, changes in the political system, such as the end or muting of the Cold War, or specific events, such as an environmental crisis, the 'coming out' of North Korea, or a change of key officials.

- Expectations of progress would be reasonable. Progress would be slow, but steady and perceptible; otherwise the movement toward cooperation could be weakened or its objectives altered.

- The regime would form in stages, beginning with a limited and temporary regime and moving eventually to a broader convention.

- The regime would concentrate on problem solving and be negotiated by skilled diplomats.
Negotiations would eventuate in one or more explicit agreements.

The issues would be defined at the outset rather than allowing the process to naturally correct faulty initial formulations. Objectives and functions would be clear. Objectives would include conservation, management and/or development; protection of state interest; or provision of greater equity. Functions would initially include service; information exchange; data gathering and analysis; consultation; facilitation and coordination of programmes; joint planning; and technical assistance. Eventually they could involve operation of an organisation; management of resources; and exploration and exploitation. Ultimately the functions could include norm creation; compliance; allocation; and rule observance.

There would be no explicit or unsubtle attempts to use power in institutional bargaining. Although issue-specific hegemony is possible - for example, a hegemon can use its dominance in scientific research as well as its diplomatic expertise to impose its preferred outcome - this may produce reticence and non-compliance. Thus power must be used with care, even by a hegemon. Nevertheless, the distribution of power and authority within the regime would be clear.

There would be willing and able national leadership. But some countries would also be prepared to play the role of effective follower in order to make the process work. Strong leadership is both affected by and affects power relationships, and also shapes values and ideas. The major powers would participate, and a middle power would assume a key role by, for example, offering to host and chair meetings, thereby enabling the major powers to avoid appearing too dominant or assertive. Not all relevant parties would need to participate in the initial formation of the regime. Nor must the issue be either a commonly high or low priority on all national agendas. Indeed the issue would be a high priority for one or more parties but a low priority for others.

A strong individual leader would provide impetus and direction for the regime.
Conclusions

Existing regimes are inadequate. There is considerable redundancy,44 no coordinating mechanism - especially necessary for transboundary research, a wide discrepancy among countries in the capacity for, and effectiveness of scientific research, a myopic nearshore focus, and a poor understanding of the causes and consequences of marine pollution in both coastal and open-sea areas. Marine awareness and concern in the region must be further raised, and new institutional arrangements developed.

The ideal marine regime must satisfy many theoretical needs as well as national interests. Above all it should rectify existing inadequacies. It should rationalise the redundancy of the existing and proposed international programmes. It should provide the consultative channels or infrastructure for cooperation to enable synchronic monitoring, coordinated baseline studies, and transboundary research. It should provide the knowledge necessary for policies and regulations to fit natural features and processes, such as current systems and ecological zones - nearshore, offshore, temperate and boreal. It should foster the coordination and sharing of results of research in individual zones. It should serve to educate the public and policymakers as to the distribution, causes and consequences of marine pollution and thus even up the degree of knowledge and concern among the various countries, particularly for the offshore living resources and ecosystems. Perhaps most important, it must provide opportunities to upgrade the marine scientific research capacities of the low-capacity countries to assess, monitor, prevent, control and combat marine pollution. Indeed this may be the major incentive for the participation of 'low capacity' countries in a regional marine science research regime. Moreover, the increased scientific knowledge can reduce ecological and economic uncertainty regarding the distribution, effects, and costs of pollution.45

The most successful efforts in marine scientific research have been carefully nurtured with simultaneous institution building activities at the regional level, but this goal can only be achieved with strong and sustained littoral state support and state or international organisational leadership. The process of marine scientific research regime creation should proceed with this goal in mind. The natural course of events should be recognised and the regime should be allowed to form in stages; that is, to evolve. It should begin as it is now with a limited and temporary focus on research into dumped radioactive materials. But policy makers should be prepared to move rather quickly beyond this limited ad hoc arrangement to a broader coordination regime which would agree on rules and procedures while leaving each member free to implement them in their own way at their own pace.

Perhaps most important, the level of marine scientific expertise must be evened up throughout the region. The overall objective of the arrangement is to improve the knowledge of the marine environment of Asian seas. But a not-so-hidden agenda will be the provision of greater equity - equity in the sense of increased national responsibility and capacity to control pollution with potential transnational effects - and equity in the sense of a transfer of technology and knowledge from the rich to the benefit of all. In short, the major trade-off will be the benefit to the advanced countries of the greater knowledge and understanding of the marine environment in exchange for their contribution to marine science training and technical assistance for the low-capacity countries.
CHAPTER 13

EXPLOITATION OF NATURAL RESOURCES: POTENTIAL FOR CONFLICTS IN NORTHEAST ASIA

Jin-Hyun Paik

This chapter is the first of a two-part series which addresses problems concerning the exploitation of maritime living and non-living resources in the Asia Pacific region. Here I examine the existing and potential disputes related to the exploitation of marine resources in the Northeast Asian region. In a forthcoming paper I will deal with similar disputes in the Southeast Asian region. The chapter is divided into two parts. The first part looks at existing and potential disputes over the exploitation of living resources in the Northeast Asian region while the second part is concerned with disputes over the exploitation of non-living resources in that region.

Living Resources Disputes

Background

It would hardly be an exaggeration to characterise the current fisheries regime in Northeast Asia as fragmented and anachronistic. Despite all the revolutionary changes in international law in this field, fisheries in the Yellow/East China seas, as well as in the East Sea (or the Sea of Japan), are regulated by agreements mostly concluded prior to the United Nations Convention on the Law of the Sea (UNCLOS) III. For instance, the almost four-decade-old 1965 Fisheries Agreement is still in force between Korea and Japan and regulates fishing operations mainly around the southern part of the Korean peninsula. A 1975 Fisheries Agreement, which replaced previous non-governmental agreements begun in 1955, is also still in force in an area mostly west of what would be roughly the median line between China, on the one side, and the other coastal states on the other. These two agreements were the result of long, bitter disputes over fishing rights. There
appear also to be two fisheries agreements between China and North Korea in the Yellow Sea.

There are many limitations to these arrangements. For one thing, none of these agreements is binding on all the coastal states, nor is any state a party to all of them. In addition, no fishery arrangement, governmental or non-governmental, exists between such important coastal states as South Korea and China. As a result, any effort to conserve and manage living resources in the semi-enclosed seas in the region, in particular the Yellow/East China seas, requiring close cooperation among all the littoral states and fishing states, has so far been unsuccessful. Moreover, in most cases, these arrangements only manage fishing by regulating the distribution and quantity of the catch by limiting, among other things, the number of vessels, the duration of the fishing season, and the size of gear. There is no general forum in which management issues or the distribution of catches can be discussed by all interested parties. The existing bilateral fisheries commissions do not even publish decisions or the data upon which they are based.

Despite these insufficient, fragmented and antiquated fishery regimes, it should be noted that chaotic inter-fishing and serious overfishing were not common until recent times. This is all the more surprising when we consider that the region includes several of the world's major fishing states. However, this was the result not so much of the regional states' awareness of conservation and management as of their discreet moves to avoid any conflict among themselves. Given the abnormal and tense political relations that had existed among some of the littoral states for the past few decades, it is understandable that they wanted to avoid any dispute which could easily escalate into major conflict. Thus it is paradoxical, or yet again perhaps understandable, that with the improvement in relations among the coastal states, there have been more instances of foreign over-fishing and inter-fishing in the regional seas.

Current Fisheries Regime and Emerging Problems

The key components of the current Northeast Asian fisheries regime are the 1965 Korea-Japan fisheries treaty and the 1975 China-Japan fisheries agreement. The main features of the Korea-Japan treaty
are first, to authorise each state to adopt an exclusive 12-mile fishery zone along its coast, and second, to establish a joint control zone adjacent to the exclusive zone of Korea. The resources within the joint control zone are to be shared on an equal basis with a maximum annual catch of 150,000 tons (with a 10 per cent fluctuation) for each party for specified major types of fishing. As far as enforcement in the joint control zone is concerned, the flag state principle is applied, thereby denying the coastal state the right of visit and arrest in cases where the other state is in violation of the treaty.

Nonetheless, the treaty, with a couple of unusual features, reflected the political, economic, and legal circumstances of the time. Thus, when the underlying premises upon which the Treaty had been predicated were no longer true, its validity was put into serious question. For instance, the Treaty was drafted essentially to regulate Japanese fishing because Japan's superior fishing capability was then beyond any question. Since the late 1970s, however, more and more Korean fishing boats have been appearing off the area around Hokkaido, which was not regulated under the Treaty, and competing with Japanese fishermen. The increasingly frequent appearance of these boats led local fishermen to demand the enforcement of Japan's exclusive fishery zone against Koreans as well as Russians. Since 1980, both states have taken voluntary measures to restrain their fishing within each other's waters to avoid collision and other damaging incidents. However, as a result of the increasing number of alleged violations of these voluntary measures by Korean fishing vessels over the past few years, Japan is reported to be considering measures to effectively address the problem.

The China-Japan Fisheries Agreement is similar to the Korea-Japan Treaty in that its main purpose is to regulate Japanese fishing in what would be the Chinese side of a rough hypothetical median line. The Agreement established the motor trawling prohibition line which motor-driven fishing boats over 600 horse power are not allowed to cross. The Agreement also established several closed areas and conservation areas where fishing is regulated in terms of seasons and numbers of vessels. Thus, fishery relations between China and Japan are mainly regulated through consultations under the 1975 Agreement. However, China, which for a long time had been a coastal fishing country, has expanded its offshore and distant-water fishing operations since the middle of the 1980s to meet its growing domestic
food and export needs. As a result, many Japanese and Chinese fishermen now compete for the same resources in the areas of the East Sea (Sea of Japan) and the Pacific Ocean west of Japan, often causing damage to one another. Tokyo is now reported to be pressing Beijing to take effective measures to restrain Chinese fishing, particularly dragnet fishery, in Japanese coastal waters where Japanese dragnet fishery is banned.

One of the most serious problems in this regard, however, is that posed by Chinese fishing vessels operating along the Korean coastal waters in the Yellow Sea area.

According to the National Fisheries Administration (NFA) of Korea, in 1993 1,302 Chinese fishing vessels violated either the territorial waters or the Fishery Resources Protection Zone of Korea while the number of Chinese fishing vessels which took alleged emergency refuge in Korean ports in that same year reached 7,779. These numbers are expected to keep increasing unless appropriate measures are taken. The situation has recently worsened due to the increasing number of Chinese fishing operations in the militarily sensitive area around the Five Islands in the Yellow Sea off North Korea, where the South Korean government had restricted fishing by even its own nationals for fear of possible conflicts with North Korea.

On the other hand, in 1992 the NFA of Korea revised the regulations on the safe operation of fishing boats in order to expand the fishing grounds for Korean nationals in the East and Yellow seas. As a result, the fishery restraint line drawn in the Yellow Sea was moved an average of 48 kilometres westward, creating an additional 72,000 square kilometres of fishing grounds in this sea, so that it now almost coincides with the China-Japan Fishery Agreement line.

The context in which this problem has arisen is not dissimilar in nature to that of the Japan-China conflict in that the problem itself has been propelled by aggressive fishing in recent times by the Chinese in areas near the coasts of Korea. However, Korea has thus far unofficially recognised and respected the arrangements made in the 1975 Agreement. Although both countries have begun negotiations to conclude a fisheries agreement, little progress has been made. But with the increasing presence of Chinese fishing boats in Korea's offshore areas, particularly in its conservation zone and special
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restriction area, the Korean government may consider employing countermeasures.

Search for a New Fishery Order

These and other developments strongly suggest the need to examine the relevance or validity of the current arrangements and to explore the possibility of an alternative arrangement for fishing in the region. Before proceeding with this investigation, however, I would like to make two rather general observations to support the argument that a new way of regulating fishing in the regional seas is needed.

First, the semi-enclosed seas in the region, in particular the Yellow/East China seas, contain shallow and fertile fishing grounds. Such a favourable natural environment has caused overfishing to the point of low productivity, and by the mid-1960s nearly all major stocks were being heavily fished. The most symbolic and manifest indication of stock decline has been the decline in the numbers of yellow croaker. A sharp decline in production curves over the past three decades is also clearly noticeable in major species of high commercial value such as the large yellow croaker, the little yellow croaker and the hairtail. Although it may be unwarranted to characterise the current state of fish stocks as being near depletion, it is nevertheless generally acknowledged that the situation as regards to the fishery resources in these seas is now very critical. With the depletion of fishery resources, the coastal states are becoming increasingly aware of the character of marine management issues. The existing web of bilateral arrangements and unilateral restraints has proved to be far less than what is required for effective management. There is an urgent need for the littoral states to investigate the possibility of an arrangement that will ensure the effective conservation and management of fishery resources in regional seas.

Second, the legal basis for fishery regulation in the region is currently weak because only North Korea has declared an EEZ. Although both China and South Korea have entered into separate bilateral fisheries agreements with Japan, the legal context in which these agreements were concluded is, as a result of a remarkable development in the law of the sea, outdated, thus raising serious doubts about the soundness and relevance of these agreements. It
should also be noted that the exclusive economic zone is now well established in international law. The main purpose of this zone is, of course, to give coastal states exclusive rights to the resources off their coasts. However, such exclusive rights go well beyond the mere right of exploitation. In fact, as the ways in which the ocean is used have multiplied and that use has intensified, there has been a growing awareness of the negative consequences which unrestricted use of the ocean would eventually have. There has been some recognition that in the absence of any effective restraints, ocean resources may be depleted commercially, if not biologically, by a natural tendency to maximise the short-term exploitation of resources without sufficient attention to the longer term need for conservation. Indeed, it was this type of experience with fishery resources that impelled a number of states to extend their exclusive fishery or economic claims beyond the limits of their territorial seas. The creation of the EEZ, which vests in coastal states sovereign rights regarding not only the exploitation but also the conservation and management of living resources, was thus seen as an appropriate way to address the issues of conservation and management of marine resources.

Any attempt to put these two observations into perspective raises two obvious questions. First, what are the advantages and disadvantages of the introduction of EEZs in Northeast Asia? Second, if the reasons in favour of such a jurisdictional approach are not strong, what alternative should be considered? These are the questions that need to be addressed. The current fisheries regime in Northeast Asia, which is a web of bilateral agreements and unilateral restraints, is faced with serious challenges. It remains to be seen what the appropriate responses to such challenges are.

**EEZ Regime in Northeast Asia: Desirability and Problems**

In contrast to the world-wide acceptance of the EEZ as a sensible system of resource management and environmental protection, the coastal states in the Northeast Asian region have hardly been enthusiastic about embracing this concept. In this region, the former Soviet Union was the first state to introduce a 200-mile exclusive zone of any kind. In 1976 it declared a 200-mile exclusive fishery zone. This was then replaced by a 200-mile exclusive economic zone in 1984. As far as the EEZ itself is concerned, it was North Korea
that first established it in 1977. On the other hand, the three major coastal states bordering the Yellow/East China seas, China, South Korea and Japan, have yet to establish their EEZs, although Japan reluctantly and selectively employed the 200-mile exclusive fishery zone in 1977. There are four principal reasons for this reluctance on the part of the coastal states:

The Delimitation Problem

The coastal states' hesitation may be attributed to their concern about the boundary delimitation problems that might arise as a result of the establishment of EEZs. Because the distance from one coast to another in the Yellow and East seas nowhere exceeds 400 miles, the delimitation of boundaries cannot be avoided. The question of delimitation is particularly thorny in these seas for two reasons. First, there are very difficult territorial disputes such as the Tiao-yu-t'ai/Senkaku Islands in the East China Sea (claimed by both China and Japan) and the Dok-Do/Takeshima in the East Sea (claimed by both Korea and Japan). Unless these territorial disputes are resolved, which is extremely unlikely, the boundaries cannot be delimited.

The second consideration is particularly relevant to the Yellow and East China seas, where continental shelf boundary disputes have existed since 1969. Essentially the cause of these disputes is to be found in the disagreement among the parties concerned as to which principle of international law for delimitation should apply, and in the geophysical nature of the seabed at issue. For instance, China and South Korea have claimed that the principle of natural prolongation should be applied in the East China Sea and that the Okinawa Trough, which allegedly terminates the natural prolongation of the Japanese territory, should therefore constitute a natural boundary between Japan, on the one hand, and China and Korea on the other. However, Japan has disputed the claim that the Okinawa Trough forms the natural limit to its territory and insisted that the equidistance principle be applied instead.

The emergence of the concept of the EEZ, which is based solely on the distance of 200 miles and which covers the seabed as well as the superjacent water, might affect the nature of continental shelf boundary dispute in this region rather substantially. Despite the
disappointing failure so far to find any oil and gas, the interest shown by the coastal states in this area has not abated. Therefore, it would be hardly surprising if those coastal states, whose position on the delimitation issue might be undermined by the introduction of the EEZ, were reluctant to introduce such zones. The overwhelming trend to drawing a single boundary for both the continental shelf and the EEZ has no doubt discouraged those states even further from supporting the adoption of the EEZ.

Although the coastal states have not made known the reasons why they have not yet claimed the 200-mile zones, it appears that their reluctance has been specifically, and perhaps primarily, linked to the difficulty of delimiting maritime boundaries. Unlike the case of the continental shelf, where a boundary issue is largely hypothetical unless seabed resources are proved to exist, the establishment of an EEZ would inevitably raise the question of delimitation. Given the nature of living resources, the boundary issue involved in the establishment of an EEZ is real, and effective management of the zone would not be possible without the drawing of boundaries. Moreover, should any of the coastal states decide to establish an EEZ, it is very likely that the others will immediately follow suit. This has made the coastal states overly cautious about extending their zones.

Fisheries Conservation and Management

The second reason for this reluctance on the part of the coastal states to establish EEZs is concerned with the question of whether the EEZ would in fact be a better alternative for the effective conservation and management of fisheries in the regional seas. From the perspective of ocean management, the EEZ, because it allows for a centralised system of resource management, is expected to lead to a more rational and conservation-minded management system. It was thought that in allocating marine resources to the coastal state and vesting it with the authority to manage those resources, a strong incentive would be given to that state to conserve and manage well the resources under its jurisdiction, the rationale being that in doing so the coastal state was, in fact, furthering nothing other than its own national interest. Prior to the introduction of the EEZ concept at UNCLOS III, the general perception had been that the problem of resource management was due to the lack of control by coastal states
of fish stocks. It was therefore expected that the concept of the EEZ would represent a big step forward in ocean management, and in fishery management in particular.

However, it still remains to be seen whether such expectations have been borne out in reality. In fact, there has been a growing concern, supported by emerging scientific data, that this approach of assigning management authority within the 200-mile zone to the coastal state has not been effective in solving the problems of resource management and conservation. For instance, the extension of national jurisdiction has reduced the problems of foreign overfishing but done nothing to reduce domestic overfishing. On the other hand, many states have simply not been able to capitalise on the new opportunities created by the EEZ due to the lack of investment, knowhow, and the capacity and will to fully exploit marine resources in the extended zone.

Another problem of the EEZ approach is that it results in a fragmentation of authority over stocks which cross the boundaries between national zones or which straddle the outer limit of the EEZ. This fragmentation not only frustrates effective management but adds to the already increasing burdens being placed on the states involved. Such a problem could be most acute in a semi-enclosed sea such as the Yellow Sea or the East Sea where marine living resources often traverse the maritime boundaries of neighbouring states, rendering exclusive national resource management and conservation less than complete and sometimes quite inadequate. Apart from the intractability of boundary delimitation, the answer to the question of why the overwhelming majority of the states bordering a semi-enclosed sea have been reluctant to claim the EEZs could be found here.

Resource Control

The third reason for the reluctance of littoral states to establish EEZs is economic, and is concerned with the issue of resource control or exploitation. As far as the exploitation of fisheries is concerned, it seems that while Japan would suffer somewhat if the era of the 200-mile EEZ were launched in this region, the balance sheets of the other coastal states would not be affected as much. Considering that the
EEZ is a multi-purpose zone, however, such an estimate is too simplistic and constitutes a far from adequate analysis of the impact of the EEZ on the coastal states. For one thing, as has already been mentioned, the introduction of the EEZ would considerably reinforce the position of Japan vis-à-vis China and Korea in the continental shelf resource controversy. The introduction of the EEZ is in no way expected to dramatically change the final balance sheets of the coastal states. The gain or loss on the part of each will be merely relative, depending on the need of each. This may be why the coastal states have so far not disrupted the status quo in the region even though they are obviously entitled to do so.

**Navigation and Environmental Protection**

The fourth reason for the reluctance of the coastal states to establish EEZs could be the fear that such a move might threaten freedom of navigation in the region. The EEZ is a multifunctional zone, and one of its purposes is related to the protection of marine environment. Thus, the exercise of jurisdiction by a coastal state with regard to vessel source pollution may be interpreted by the other states as a potential restriction on their freedom of navigation in the EEZ. The regional seas are an important transit basin for merchant and military vessels, and the economies of most coastal states in the region are heavily dependent on unimpeded passage through the regional waters. Given the vital importance of freedom of navigation in this region, it is only natural that any move which could erode this freedom would not be welcome.

Yet paradoxically the establishment of the EEZ may also increase marine protection. It is widely acknowledged that an extension of coastal state jurisdiction to 200 miles would bring about definite advantages in terms of the protection of the marine environment. In fact, there appears to be a growing awareness that the EEZ may be an effective instrument for environmental management, especially in areas with heavy pressure from maritime traffic, and states which have not established fully-fledged EEZs are currently considering creating 200-mile zones for the limited purpose of environmental protection.
Evaluation

In sum, the above examination would seem to suggest that in Northeast Asia the existence of EEZs would be more divisive than integrating. For economic and realistic (fishing), practical (delimitation), scientific (resource management), political and strategic (navigation) reasons, the coastal states have not yet established EEZs. While a move to establish EEZs should, and could, not be precluded in the future, the reasons outlined above are likely to remain relevant for some time yet.

Concluding Remarks

In exploring the possibility of a regime for the effective conservation and management of fishery resources in Northeast Asia, more emphasis should be placed upon the geographical characteristics of the regional seas as semi-enclosed seas. As such, the appropriate reference for the littoral states may not be Part V (EEZ) but Part IX (Enclosed or Semi-enclosed Seas) of the UNCLOS. As we have already seen above, the establishment of EEZs in Northeast Asia is likely to lead to conflicts over boundary delimitation, the appropriation of resources, navigation rights and so on, and thus would by no means be an adequate answer to the challenges facing the current fisheries regime. Those challenges have been propelled by the change in the dynamics upon which the current regime is predicated. In the search for a long-term solution to the conservation and management issue, therefore, it is legitimate to acknowledge the need to revise and complement any existing arrangement. The specific way to do this would be to work out a multilateral arrangement in which all the interested coastal states in the region can participate. So far agreement on such a multilateral regional arrangement has not been possible, not the least because of the intricate nature of political relations among the littoral states. However, the thaw in the long-lasting Cold War politics in the region will surely open a window of opportunity for regional cooperation.
Non-Living Resources Disputes

Background

It has been already more than two decades since the possible presence of oil in the East China Sea was hinted at in the 1969 report by the UN Economic Commission for Asia and Far East (ECAFE). As has become well known since, this report instantly stirred up much euphoria among the oil-hungry coastal states and triggered a bitter resource dispute in the East China Sea, which had hitherto lain undisturbed by men. With the exception of the Japan-Korea Joint Development Agreement of 1974, however, little progress has been made in the settlement of offshore boundary disputes, which have prevented the active search for oil in the area. It is surprising that many of the conflicting claims have lain dormant for such a long time and have been neither aggravated nor resolved.

In the early 1970s, the littoral states have taken diametrically opposing positions with regards to resources in the East China Sea. The issue has essentially been that of continental boundary delimitation. South Korea, Taiwan and China, on the one hand, have relied on the so-called principle of natural prolongation, while Japan, on the other, has subscribed to the equidistance principle. The main point of contention in their different interpretations of the geographical surroundings of the East China Sea has been the Okinawa Trough, which lies immediately westward of the Japanese island of Kyushu and the Ryukyu chain. The trough has a maximum depth of approximately 2,717 metres near its southern end and shallows rapidly to 800 metres at its southernmost Ryukyu Islands. South Korea, Taiwan and China, have argued that this trough terminates the natural prolongation of the Japanese territory and thus constitutes a natural boundary between Japan and themselves. Japan, on the other hand, has refused to accord such effect to the Okinawa Trough and has insisted on the application of the equidistance principle. Such acute confrontation was eventually solved at least partially by the Joint Development Agreement between South Korea and Japan. However, the agreement brought an immediate protest from China, who saw it as an infringement of its sovereignty.
Impact of Legal Evolution on Seabed Disputes

The principles and rules for the delimitation of the continental shelf in the 1970s obviously favoured the legal positions of the three states. The 1974 Korea-Japan Agreement establishing the Joint Development Zone, which is situated entirely on the Japanese side of what would be the median line between Japan and South Korea, should be understood in this context. However, these principles and rules have undergone substantial changes over the last two decades. Such a change emanated essentially from two important developments in the law of the sea: the emergence of a new definition of the continental shelf, in particular the distance criterion, through UNCLOS III; and the establishment of the 200-mile EEZ regime which covers both the seabed and the water column. Now that the 200-mile distance is the legal basis for continental shelf rights in most cases, geological or geomorphological factors would appear to have no place in most cases of delimitation. In the East China Sea where the distance between the littoral states does not exceed 400 miles, the geophysical character of the seabed such as the Okinawa Trough would not affect the delimitation under the international law of today. In contrast to the decrease in the importance accorded to geological or geomorphological considerations, there would appear to have been an increase in the importance of the geographical settings in the case under examination here. For instance, the marked difference in the lengths of the coastline between China and Japan would have to be properly reflected in the delimitation. When the coastal states do establish EEZs some time in the future, there will be little reason for EEZs boundaries to be any different from the continental shelf boundaries.

Recent Development

On 30 June 1992, the China National Offshore Oil Corporation (CNOOC) invited foreign oil interests to bid for exploration rights in two special seabed areas in the East China Sea, namely the Northern Acreage and the Southern Acreage. Unlike Bohai Bay, the Yellow Sea and the South China Sea, the East China Sea had been closed to foreign participation. In two places, however, the Northern Acreage encroaches into the area that has been claimed by South Korea, with
the area in dispute totalling some 24 square kilometres. Ultimately, however, what really matters is not the physical size of these overlapping claims but the oil that may lie underneath them, and these areas and those in their immediate vicinity are reported to be potentially rich in oil and gas.

**Observation**

The Korea-Japan Joint Development Agreement will remain in force for a period of 50 years, after which it may be abrogated at any time. Full-scale exploration began in September 1979. So far, many wells have been drilled but no oil has been found. Despite the recent moves by China to promote oil exploration, the prospects of a major oil discovery in the area are estimated to be low. There is therefore little likelihood of an oil dispute in the immediate future. The problem of the overlap between the area claimed by China and the Korea/Japan Joint Development Area appears to arise not so much from a difference over which legal principles should apply as from a difference over the measuring basepoint.
CONCLUSION

SUMMARY REPORT OF THE FIRST MEETING

The CSCAP Working Group on Maritime Cooperation met 2-3 June, 1995 under the chairmanship of Commodore (Retd.) Sam Bateman of Australia, with apologies from Co-Chairman Admiral Sunardi (Indonesia), Dr Lianna McManus (Philippines), Dr George (Australia) and Professor Ian Townsend-Gault (Canada).

Nineteen participants from eleven countries attended the meeting. Twelve papers were presented covering the following themes:

- Maritime Security and Defence
- Maritime Confidence and Security Building
- Shipping
- Marine Environment
- Marine Science

Maritime Security and Defence

Four papers were presented in Session One on Maritime Security and Defence, two on general aspects of regional security, covering Northeast and Southeast Asia, one on Disputed Claims over Offshore Territory in the Asia Pacific, and a paper on non-traditional concerns of maritime security, namely piracy, drug smuggling and refugees.

The pertinent issues examined under this session were the following:

- The problems of conflicting maritime territorial claims in the Asia Pacific region - particularly in the South China Sea - are

1 Editors' note: We have reproduced here the summary report agreed to by participants of the first meeting.
destabilising to regional security. Hence the need to establish mechanisms to manage these disputes.

- The difficulties in resolving territorial problems have wider consequences since they involve further questions of extended maritime jurisdiction. The less contentious issues, such as problems pertaining to resource competition, rather than sovereignty issues may be easier.

- In particular, the problems relating to the Spratly Islands need to be considered within the overall context of regional maritime security.

- The competing jurisdictional problems in the Asia Pacific region could confound the management of piracy, drug trafficking, marine pollution, as well as refugees. The impact of these on regional security was noted.

- It was also noted that the way forward in promoting regional security would involve a broader examination of maritime security issues to include non-traditional military concerns.

- The relevance of 'track two' initiatives such as CSCAP and the Indonesian-brokered workshop process on the South China Sea were noted. The Working Group noted that there seems to be a general consensus on the need to enhance these initiatives in order to assist the policy making process.

Maritime Confidence and Security Building

The session on Maritime Confidence and Security Building Measures (MCSBMs) examined the various forms of MCSBMs and their possible relevance to the Asia Pacific region. The overall need for Confidence Building Measures (CBMs) in the region was acknowledged but the straightforward replication of extra-regional mechanisms was eschewed. For example, although certain types of CBMs were successful in reducing the possibility of military conflict in Europe, the strategic environment in the Asia Pacific region requires a different outlook.

This session underlined certain principles that could lead to a more manageable CBM process. Transparency was considered an
essential ingredient of mutual restraint for any CBM process entered into. Information sharing on maritime surveillance and enforcement could enhance transparency and facilitate the management of national maritime activities. The need for proposed measures in this field to take account of wider political factors was noted.

Perhaps the time has come for some countries in the region to institutionalise the mechanisms for information sharing and/or exchange. This could take the form of a maritime information database covering all non-sensitive maritime issues (including marine scientific research).

Shipping

In the session on Shipping, the Working Group took note of the importance of seaborne trade to regional maritime security. The security and safety of shipping were therefore considered essential to the achievement of this objective.

The increasing international interdependence of the shipping industry was noted. The Working Group also noted that consequential jurisdictional issues were complicated by the fact that the means of enforcement were still nationally based.

The valuable initiatives of the Western Pacific Naval Symposium (WPNS) were welcomed. However, regional discussions which were less constrained by national policy and which covered the wider fields of shipping, the marine environment and science were needed.

Marine Environment

The session on the Marine Environment began with a discussion on the incorporation of environmental security within the concept of comprehensive security. Disputes over access to scarce natural resources and environmental degradation, especially those which cross national boundaries, can become wider regional security issues. Resources may be seen as strategic objectives, instruments of leverage, possible conflict issues and thus military targets.
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On the other hand, environmental security issues can present opportunities for constructing environmental management regimes which are useful means of economic cooperation and confidence building between parties.

They also represent opportunities for 'third track' NGO interaction which are useful for enhancing overall security.

Marine Science

The session on Marine Science opened with the recognition by the Working Group that marine scientific research is a major priority of the region and a higher level of coordination and cooperation would be advantageous. It could also provide an important means of involving China in multilateral cooperation. However, the Working Group noted that international regimes for the conduct of marine research lack clarity.

Furthermore, it was felt that maximum strategic and political value was not necessarily attained from the bilateral/multilateral marine scientific research being conducted in the region at the present time.

The Working Group also noted that the exploitation of marine resources and the protection of the marine environment was complicated by the deficiencies and uncertainties in the relevant legal regimes. Countries bordering semi-enclosed and enclosed seas have problems with the EEZ regime. They therefore may not consider the EEZ regime an effective alternative for the exploitation and conservation of marine resources.

The Way Ahead

The Working Group identifies a number of areas for future work on the basis of the scope they provided for cooperation and their contribution to a stable maritime regime in the Asia Pacific region. These issues are listed below, along with the individual country CSCAP Working Group representatives who were proposed as paper presenters in the next Working Group meeting.
Conclusion: Summary Report of the First Meeting

1. Marine Scientific and Environmental Matters:
   - Marine Scientific Research (Australia and the Philippines);
   - Marine Environmental Security (New Zealand and Malaysia);
   - Education and Training (the United States).

2. Shipping and Seaborne Trade:
   - Security (Japan);
   - Marine Information Data Exchange (Australia);
   - Safety, Search and Rescue (the United States and Indonesia).

3. Regional and Naval Cooperation:
   - Regional and Naval Cooperation (Europe, Singapore, Thailand, Malaysia and Australia):
   - Incidents at Sea (INCSEA) Agreements (the United States).

4. The Resolution of Marine Resource and Boundary Disputes:
   - Resource Management Regimes (South Korea and Canada);
   - Offshore Territorial Disputes (the United States and Indonesia).

The papers presented at the next meeting should be more focused than those at the first meeting, with specific proposals for enhanced cooperation. Agreed proposals would be put to the CSCAP meeting in June 1996.

The Working Group decided not to proceed with future work on the law of the sea issues because they would duplicate topics covered by other forums, and secondly, because of the difficulty of formulating any practical policies for policy consideration. However, law of the sea issues would still be considered wherever they arise in the above topics.
The Working Group acknowledged the assistance of ISIS Malaysia with the conduct of its first meeting.

The Australian CSCAP Committee undertook the responsibility for publication of the papers prepared for this first meeting of the Working Group.

The Working Group welcomed the offer by Dr B.A. Hamzah, Director-General of the Malaysian Institute of Maritime Affairs (MIMA) to provide facilities and support for the next Working Group meeting which will be held in Kuala Lumpur during February/March 1996.

Summary

The meeting was useful and productive. The papers presented covered the full gamut of regional maritime affairs and provided members with an excellent basis from which to develop their specific proposals for the next meeting.

Finally, the opportunity for detailed discussion amongst participants with a wide variety of maritime and national backgrounds in itself constituted a contributed to the process of building mutual confidence within the region.
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The establishment of a Working Group on Maritime Cooperation by CSCAP, as part of its initial work programme, is a reflection of the importance of the maritime environment in the security deliberations of Asia Pacific countries. The Asia Pacific region is distinctively maritime in nature.

The sea, and issues to do with the sea, are an important part of international relations in the region, both between regional countries themselves, and between these countries and the rest of the world.

The importance of maritime cooperation in the Asia Pacific region flows from the nature and complexity of the regional geographical environment, and the propensity for illegal activities and disputes to occur at sea.

Maritime cooperation will contribute to regional stability by easing tensions and reducing the risks of conflict while helping to promote a stable maritime regime in the region with the free and uninterrupted flow of seaborne trade, and nations able to pursue their maritime interests and manage their marine resources in an ecologically sustainable manner in accordance with agreed principles of international law.

The CSCAP Maritime Cooperation Working Group has adopted a broad view of security, which encompasses a range of small ‘s’ security issues, such as maritime safety, resources conservation, coastal zone management and unlawful activities at sea (such as drug smuggling, illegal population movements and piracy), as well as more conventional maritime security issues.

A comprehensive approach to security was explicit in the Group’s first meeting programme, which included sessions on shipping, marine science, and the marine environment.

The papers in this volume provide a comprehensive review of the main maritime security concerns in the region.