

East-West Environment and Policy Institute

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Research Report No. 2

# Maritime Jurisdiction in Southeast Asia: A Commentary and Map

by J. R. V. Prescott



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East-West Center  
Honolulu, Hawaii

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William H. Matthews, Director  
East-West Environment and Policy Institute  
East-West Center  
1777 East-West Road  
Honolulu, Hawaii 96848

# **Maritime Jurisdiction in Southeast Asia: A Commentary and Map**

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**J. R. V. Prescott**

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J. R. V. Prescott, Reader in Geography, University of Melbourne, was a Fellow at the East-West Environment and Policy Institute from 15 November 1979 to 15 February 1980.

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## FOREWORD

Changing national perceptions of the ocean are resulting in the unilateral extension of national claims to ownership of resources in the seabed and the watercolumn up to 200 nm from national baselines. Nevertheless, many marine resources such as fish, oil, and environmental quality are transnational in distribution; the ocean, a continuous fluid system, transmits environmental pollutants and their impacts; and maritime activities such as scientific research, fishing, oil and gas exploration and transportation often transcend the new national marine jurisdictional boundaries. Management policies for these national zones of extended jurisdiction may be developed and implemented with insufficient scientific and technical understanding of the transnational character of the ocean environment. Such policies may thus produce an increase in international tensions, misunderstandings, and conflicts concerning marine activities, resources, and environmental quality.

These issues form the conceptual framework for the EWEAPI Project "Marine Environment and Extended Maritime Jurisdictions: Transnational Environment and Resource Management in Southeast Asian Seas." The goals of the project are to provide an independent, informal forum for the specific identification and exchange of views on evolving East-West ocean management issues and to undertake subsequent research designed to provide a knowledge base to aid in the international understanding of these issues.

Transnational ocean management issues have three fundamental components—the natural environment, political-socioeconomic factors, and the juridical regime, including jurisdictional boundaries, content, and disputes over management issues.

The superposition of a mosaic of national jurisdictional content—often with overlapping claims—on a continuous fluid medium containing and supporting transnational resources and activities is the background of ocean management issues. The juridical regime will determine the "how" and "who" of ocean management. The objectives of this part of the Project are to (1) map and display in detail national claims to jurisdictional boundaries and jurisdictional content, and (2) to analyze and summarize the jurisdictional claims and content with respect to present and potential disputes regarding management of transnational resources and activities.

The first task, then, was to set out and describe the various areal maritime claims of political entities bordering the South China Sea. The Institute was fortunate to be able to attract Dr. J. R. V. Prescott, Reader in Geography, University of Melbourne, who ably undertook the baseline study reported on in this EAPI Research Report.

Dr. Mark J. Valencia  
Project Coordinator





# Maritime Jurisdiction in Southeast Asia: A Commentary and Map

by  
J. R. V. Prescott

## ABSTRACT

*National jurisdiction over maritime areas in Southeast Asia is depicted on a map of the region and accompanied by a detailed commentary (with ten map details) which explains the large map and gives general information on national claims and on agreed international maritime boundaries. Also included are basic facts about problem areas where a conflict between national interests has developed or could occur. Information for the map and commentary is derived both from government documents and from inferences based on hypothetical boundaries separating the jurisdictions of adjacent or opposite countries. No judgments of an individual government's claims are made, nor are conflicting arguments over the same area weighed. The commentary is factual. Problem areas treated include: the Gulf of Tonkin, the maritime area claimed by the Philippines, the northern Andaman Sea, the Gulf of Thailand, the Spratly Islands, the seabed boundary between Indonesia and Malaysia, Brunei's maritime limits, the waters between Miangas and Mindanao islands, and the Timor Sea.*

## INTRODUCTION

This commentary is designed to explain and amplify the information portrayed on the map dealing with national jurisdiction over maritime areas in Southeast Asia (Map 1). The information on the map falls into two categories. First, there is information that has been derived directly from government documents; some contain the declaration of a single government and define baselines or the seabed area that is claimed, while others contain the agreement of two or more governments regarding the definition of some maritime limit. Second, there is information that has been inferred. With a single exception, such information concerns hypothetical boundaries separating the jurisdiction of adjacent or opposite countries.

While such boundaries must be agreed on by the two countries concerned, it is reasonable to assume that they will be based either on grounds of equity or equidistance or some combination of both. Because there can be no precise definition of equity, only lines of equidistance have been

shown. In some cases, where very small islands are involved or where an island belonging to one country lies close to the coast of another, more than one line of equidistance has been drawn to show the effect of discounting the small or detached island. The single exception is the hypothetical baseline of China, which has been copied from work by the geographer of the United States Department of State (USDS).<sup>1</sup>

The amplification provided in this commentary is of a factual nature. No attempt is made to judge the claims of individual governments nor to weigh and strike a balance between conflicting arguments when the same area is claimed by more than one country.

The commentary is organized into three sections. The first provides a general examination of national claims, while the second reviews agreed international maritime boundaries. The third section provides basic facts about problem areas in the region where a conflict of national interests has developed or where such a conflict could occur.

## **NATIONAL MARITIME CLAIMS: A GENERAL VIEW**

This survey begins with a consideration of straight baselines claimed by countries in the region and then continues by examining groups of countries that have made similar claims.<sup>2</sup>

### **Claims to Baselines Other Than a Low Water Mark**

The three smallest countries in the region, Brunei,<sup>3</sup> Singapore, and Taiwan, have not proclaimed any segments of straight baselines and presumably measure their maritime claims from one of the low water lines that occur around their coasts.

The remaining nine countries can be divided into two major groups. China and Vietnam, which make one group, have published regulations that govern the construction of straight baselines but have not published maps showing baselines that might have been selected. In a declaration of 4 September 1958, China noted that its maritime claims were measured from baselines connecting points on the coast with the outermost coastal islands, and that straight baselines also applied to island groups in the South China Sea. In similar fashion, Vietnam, on 12 May 1977, announced that its baseline linked the farthestmost parts of the coast and the outermost points of offshore islands, and that baselines could be drawn around all the islands and archipelagos situated outside Vietnam's territorial waters. The coast of Mainland China offers many opportunities for

drawing straight baselines because the coastline is either deeply indented and cut into or fringed with islands in its immediate vicinity. By contrast, only comparatively short sections of Vietnam's coast meet these conditions; the most obvious lie east of Hanoi and between parallels 11° south and 14° south. If the coast of the Mekong River delta were considered highly unstable, however, Vietnam could draw a straight baseline connecting appropriate points along the farthest seaward extent of the low water line and maintain that baseline if there were any regression of the coast.

It is not clear which section of the *Draft Convention on the Law of the Sea* (informal text) (*DCLS*), issued by the United Nations in Geneva on 27 August 1980, could be relied on to construct baselines around detached island groups belonging to mainland countries. It is clear, however, that at least three countries have proclaimed such sets of straight baselines, apparently without challenge. In 1970, Norway proclaimed a straight baseline that enclosed a major part of the Svalbard group, and in 1963 and 1971, respectively, Denmark and Ecuador completely enclosed the Faeroes and Galapagos islands within straight baselines. Each of these three island groups is comparatively compact, and this is a characteristic shared by the Paracel Islands, which are claimed by both China and Vietnam and occupied by China. The other major group in the South China Sea claimed by both countries is called the Spratly Islands. This group, which consists of dozens of small islands, is very widely scattered, and it would be difficult to justify any system of straight baselines comprehending all or most of the group according to the terms of the *DCLS*.

The seven countries of the second group have published descriptions and maps of their claimed baselines. An immediate distinction must be made between the baselines proclaimed by Indonesia and the Philippines and those selected by Australia, Burma, Kampuchea, Malaysia, and Thailand. Indonesia and the Philippines have proclaimed archipelagic baselines, and although they did so in 1960 and 1961, respectively, long before the current rules regarding archipelagos were proposed, their baselines conform to the rules with one minor exception. The exception is the segment of the Philippines' baseline that closes Moro Gulf. It measures 136 nms, which is 11 nm longer than the proposed maximum; it would be simple to adjust the segments and reduce the distance to 125 nm. Presumably, Indonesia intends to adjust its baseline in the future to incorporate the eastern part of Timor; this could be accomplished by connecting Luhulele with the eastern tip of Timor.

The Burmese baseline, proclaimed on 15 November 1968, extends along the entire coast of Burma. In 1977, it was slightly amended in the

vicinity of the Tenasserim Coast to include West Canister Island as a turning point instead of Cabusa Island (Map 5). In 1968, the construction of the baseline was justified by reason of "the geographical conditions" prevailing along the coast and for safeguarding vital economic interests according to the Declaration of the Burmese Government that defined the baseline. Some sections of the baseline would be difficult to justify in terms of current (1981) proposals before the United Nations Conference on the Law of the Sea. For example, the closing line across the Gulf of Martaban measures 222 nm, which is much longer than the proposed maximum closing lines for bays of 24 nm. Of course, the gulf could be claimed as an historic bay, although Burma might not wish to rely on this vague formula.

Because of the recent changes of government in Kampuchea (Cambodia) and the important role Vietnam is currently playing in that country, it is not clear whether the baseline proclaimed for Kampuchea in 1969 is still effective (Map 6). This baseline extended along the entire coast of Kampuchea and surrounded Dao Phu Quoc, an island which then, as now, was occupied by Vietnam. In 1969, Kampuchea claimed Dao Phu Quoc, but there were unconfirmed reports that Kampuchea abandoned this claim during talks with Vietnam from 4–18 May 1976. If those reports are accurate, then the 1969 baseline will need to be modified to exclude Dao Phu Quoc, which was not included in a list of Kampuchean islands published by that country in May 1977 (see p. 29). The sections of the baseline that pass through the islands named Kusrovie and Prins would be hard to justify in terms of the *DCLS* because the baseline departs to an appreciable extent from the general direction of the coast, and the islands are not in the immediate vicinity of the coast.

Malaysia has never promulgated straight baselines, but their positions can be inferred by examining recent maps that show the outer edge of Malaysia's territorial waters.<sup>4</sup> All the outer edges consist of straight line segments, and therefore the baselines from which they must have been measured can be discovered by drawing parallel lines 12 nm closer to the coast. Some sections of these inferred baselines cannot be justified according to existing or proposed rules for drawing straight baselines. In the Strait of Malacca, the baseline links the remote islands called Perak and Jarak and results in claims to territorial waters that in one place are 59 nm from the nearest fragment of Malaysian territory. The baseline along the eastern coast of Peninsula Malaysia links the outer edge of islands which some might argue fringe the coast. The baseline along Sarawak's coast links headlands, but only the short segment linking Tanjong Sipang and Tanjong Po, near Kuching, seems justified, since these headlands enclose a legal bay. The baseline along the coast of Sabah links the islands called

Keraman, Labuan, and Mangalum; it is then extended west of Keraman toward Brunei and east of Mangalum to the treaty limits of the Philippines. These extensions do not terminate on land; they are located in the sea, and the effect of the eastward extension is that Malaysia claims territorial waters 57 nm wide when measured from Malaysian territory. The baseline off southern Sabah, in the Celebes Sea, could be justified by the existence of fringing islands.

With the exception of the section off the north coast of Sabah, those inferred baselines are confirmed by the list of DAFTAR base points issued by Malaysia. The base points nominated for the north coast of Sabah all lie on islands and east of Mangalum Island; they do not justify the territorial waters claimed on Malaysian charts.

In September 1959, Thailand claimed the Bight of Thailand as an historic bay. The decree noted that the waters north of the closing line are territorial waters of Thailand; in fact, such waters would be considered internal waters, and Thailand's territorial waters would be measured south of the baseline closing the bight. On 12 June 1970, Thailand proclaimed three segments of straight baselines along its coast; two were on the west and east coast of the Gulf of Thailand, while the third followed the coast in the northern reaches of the Strait of Malacca. Each of these segments connected offshore islands with the coast, and, with the exception of part of the baseline off the western coast of the Gulf of Thailand, the baselines conform with the proposals contained in the *DCLS*.

Australia has proclaimed only two short baseline segments. In October 1974, baselines were proclaimed along the southern coast of New South Wales and around the southern shores of Tasmania. Along the New South Wales coast, the lines were drawn across bay mouths less than 24 nm wide. Around southern Tasmania, the line connected some offshore islands, but it was constructed very conservatively and could have been extended seaward without compromising the spirit or letter of proposed rules for drawing baselines. The Australian federal government, in consultation with state governments, is completing the identification of baselines around the rest of the coast, and only problems in federal-state relations have delayed publication of the new lines. Many areas around the Australian coast are appropriate for baselines, but none would give Australia an advantage in the negotiation of boundaries with Indonesia.

### Claims to Maritime Zones

Only three countries have claimed the entire suite of maritime zones consisting of territorial waters, contiguous zone, exclusive economic or

fishing zone, and continental shelf; they are Burma, Kampuchea (Cambodia), and Vietnam. The claims were made in April 1977, January 1978, and May 1977, respectively; in each case the countries claimed territorial seas measuring 12 nm, contiguous zones of the same width, and exclusive economic zones (EEZ) of 200 nm. While Burma and Vietnam cast their claims to the continental shelf in terms identical to the *DCLS*, Kampuchea referred only to the natural prolongation of its territory; it did not specify a distance of 200 nm where the shelf was narrower than this distance. In 1972, however, the government of Kampuchea, then still called Cambodia, specified the outer limits of its continental shelf claim (Map 6). It is not known to what extent the present government of the country still regards the 1972 claims as being correct. If, as noted earlier, Kampuchea has abandoned its claim to Dao Phu Quoc, then the 1972 claim will have to be modified in the southern sector.

Australia, Indonesia, Malaysia, the Philippines, Taiwan, and Thailand have each claimed three of the four possible zones; none claims a contiguous zone. All the countries claim an EEZ 200 nm wide with the exception of Australia, which claims only a fishing zone of that width. The claims have been made recently; the Philippines in June 1978, Taiwan in September 1979, Australia in November 1979, Indonesia in March 1980, Malaysia in April 1980, and Thailand in May 1980.

Only slight differences exist in the claims to the continental shelf. Australia, Malaysia, Taiwan, and Thailand are parties to the 1958 Convention on the Continental Shelf. Taiwan made two reservations when it adhered to the Convention. First, it insisted that the shelf boundaries between adjacent and opposite countries be determined in accordance with the principle of the natural prolongation of their land territories, thus following the lead of the International Court of Justice in the North Sea case of 1969 (*West Germany v. Denmark and the Netherlands*) and foreshadowing the proposals at the United Nations Law of the Sea Conference. Second, Taiwan noted that exposed rocks and islets shall not be taken into account in determining the continental shelf of Taiwan. This reservation seems designed to protect Taiwan's position if Japan successfully claims the T'iao-yutai Islands, which lie north of Taiwan; China also claims these islands. The other two countries, Indonesia and the Philippines, claim the continental shelf in terms that could be adjusted easily to fit existing or proposed definitions.

Malaysia and Thailand, however, have unilaterally claimed areas of the seabed. Thailand's claim was made in May 1973 to seabed areas underlying the western part of the Gulf of Thailand. It seems likely that this claim was in response to those made earlier to parts of the gulf's seabed by South Vietnam in June 1971 and by Kampuchea in July 1972. It is not known

whether successor governments to those administrations have maintained the claims. The rival claims are considered in detail later (see section on Gulf of Thailand).

Malaysia's unilateral claim to the continental shelves off the east coast of Peninsula Malaysia, Sarawak, and Sabah was published in 1979 on a map of two sheets with a scale of 1:1.5 million. Off the east coast of Peninsula Malaysia, the unilateral boundary has been drawn northwest and then southwest from the terminus of the continental shelf boundary agreed between Malaysia and Indonesia in October 1969. Malaysia appears to have ignored all islands in drawing equidistant boundaries with the mainlands of Thailand and Vietnam. This selective equidistant boundary lies closer to Thai and Vietnamese islands than it does to any part of Malaysia in some parts of its course. The boundary claimed for Malaysia's continental shelf north of Sarawak and Sabah also proceeds eastward from the terminus of the boundary agreed with Indonesia east of the Natuna Islands in October 1969 (Map 7). The boundary passes through some equidistant points if it is assumed Malaysia owns some of the Spratly Islands, and terminates at the southwest corner of the treaty limits of the Philippines. This particular alignment is considered in more detail in the sections concerning Indonesia and Malaysia, and the one on Brunei. South of Sabah, Malaysia appears to have claimed areas that lie closer to Indonesian and Philippine islands than to any Malaysian islands.

Indonesia, Malaysia, Taiwan, and Thailand claim territorial waters 12 nm wide, while Australia claims only 3 nm. The Philippines' claim to territorial waters needs special mention. The waters are defined as those between the archipelagic baselines and the limits set in treaties between the United States and Spain in 1898 and 1900 and between the United States and Britain in 1930 (Map 3). This means that the territorial waters of the Philippines have a maximum width of 284 nm and a minimum width of 0.5 nm.

China also claims the same three maritime zones proclaimed by the six countries just considered. The Chinese fishing zone, however, is only 12 nm wide and coincides with its territorial waters.

The two remaining countries, Brunei and Singapore, claim only territorial waters 3 nm wide. Brunei's narrow claim might reflect its dependent status vis à vis Britain, which still claims only 3 nm while Singapore's narrow claim may reflect acceptance of its zone-locked condition.

## AGREED INTERNATIONAL MARITIME BOUNDARIES

Fourteen international agreements currently define maritime boundaries located in the southern portion of the region being studied.<sup>5</sup> Of the twenty-three boundary segments defined by these agreements, only two extend into the South China Sea; they are the Indonesian – Malaysian seabed boundaries, which lie between Peninsular Malaysia and the Natuna Islands, and between the Natuna Islands and Sarawak (Map 8). All the other boundary segments are located in and south of the waters of Southeast Asia.

Eleven of the fourteen agreements deal with continental shelves, while two settle territorial sea limits; the remaining one, between Australia and Papua New Guinea, defines boundaries between territorial seas, fishing zones, and the continental shelf. Twelve of the treaties involve two countries and the remainder were signed by three governments. When participation in these agreements is examined, it is apparent immediately that Indonesia has played a prominent role in promoting the settlement of boundaries, for it is a signatory to twelve of the fourteen agreements. Thailand has been involved in five of the agreements, Australia and India in four each, Malaysia in three, and Papua New Guinea and Singapore each in one. The countries of the region not involved in any international maritime boundary agreements in the South China Sea or the seas of Southeast Asia are Brunei, Burma, China, Kampuchea, Taiwan, and Vietnam. It should be noted that the colonial powers drew some boundaries through seas in Southeast Asia, and it is possible that some of them might survive ensuing events. On 3 August 1924, Britain drew a boundary through Johore Strait and allocated the islands in the strait to either Singapore or Malaya; it is not known how the present governments of Malaysia and Singapore regard that boundary. On 2 January 1930, Britain and the United States drew a boundary separating islands in the Sulu Sea; it is possible that Malaysia or the Philippines, or both, regard this line as the maritime boundary between their areas of jurisdiction. This matter is examined in the next section. Finally, in 1958, a British Order in Council fixed seabed boundaries between Brunei, Sabah, and Sarawak to the 100 fathom (fm) isobath (Map 9); it is not known whether the governments of Brunei and Malaysia accept those limits, which are also examined in the next section.

When the chronology of the agreements is considered it seems that the *conclusion of one treaty encourages negotiations for adjoining areas*. For example, in 1975 and 1977, respectively, Indonesia negotiated seabed boundaries with Thailand and India, but their termini could not be made coincident because that required agreement on the tri-junction by all



three countries. This agreement was reached in June 1978, and on the same day India and Thailand agreed to their seabed boundary.

When the twenty-three boundary segments constructed by these agreements are tested to discover the principle or principles on which they were constructed the result is inconclusive. Nine of the segments appear to be lines of equidistance, while ten seem to possess no equidistant properties, and therefore, presumably were based on equitable principles. The remaining four segments include some equidistant points. Only the agreement between Australia and Papua New Guinea creates enclaves of maritime jurisdiction. In Torres Strait, seven Australian islands lie on the seabed within the fishing zone awarded to Papua New Guinea; a further seven islands lie on part of Papua New Guinea's continental shelf. It should be noted also that one of the four points that define the boundary between the territorial waters of Indonesia and Singapore lies within Indonesia's archipelagic baseline.

All the agreements make provision for the determination of points defining the boundary by methods agreed on by competent authorities, and the competent authorities are usually defined in the agreement. This device avoids the possibility of serious technical differences over surveying methods. The agreement between Australia and Papua New Guinea varies slightly from the usual formula by defining the coordinates of the Johnston Geodetic Station in the Northern Territory of Australia from which boundary points will be fixed by reference. The equatorial radius of the earth and the degree of flattening of the earth at the poles are also defined. This same treaty makes the most precise definitions of territorial waters; for example, the waters around Turnagain Island, which is 3.8 nm long, are fixed by seventy-four points.

The twelve treaties that deal with seabed boundaries all contain clauses that provide for negotiation between the parties if any hydrocarbon deposit straddles the boundary; such a clause now seems to be standard in all seabed boundary agreements. The Australia – Papua New Guinea agreement, already noted as distinctive in a number of ways, is the most comprehensive of the fourteen treaties. Not only does it provide for boundaries separating territorial waters, fishing zones, and the seabed, it also prescribes regulations governing the exploitation of the mineral and biological resources of these zones. Furthermore, both countries pledge themselves not to extend their present territorial waters in certain specific areas of Torres Strait. The agreement also defines a protected zone which will safeguard the traditional way of life and livelihood of the local inhabitants in both countries and contribute to the preservation of the marine environment and indigenous flora and fauna. It remains to be seen how the problems raised in implementing the treaty are overcome.

The two agreements dealing with territorial waters were signed by Indonesia with Malaysia on 17 March 1970 and with Singapore on 25 May 1973. The former agreement defines a line measuring 174 nm through the Strait of Malacca; the latter defines a boundary of 24 nm through the western end of Singapore Strait. At present, there is a gap of 17 nm between these two sections of boundary, and the three countries will eventually have to agree on boundary segments linking the two existing sections and extending the line through Singapore Strait. A disagreement exists between Malaysia and Singapore over the ownership of the waters and seabed surrounding the Horsburgh Light situated at 1°19.8' north and 104°24.4' east. This navigation aid has been supervised and maintained by Singapore for many years and, in consequence, is claimed by that country. Malaysia, however, claims the feature on which the light stands and has shown it as lying within the continental shelf boundary published in 1979 by Malaysia. Both countries stress their confidence that the matter can be amicably resolved.

One final development must be mentioned. Malaysia and Thailand signed a memorandum of understanding on 21 February 1979 to establish a joint authority for the exploitation of seabed resources in the Gulf of Thailand. This agreement recognizes that there are overlapping claims on their adjacent continental shelves in the gulf and that negotiations to solve the problem might continue for some time. In order to exploit the seabed resources as soon as possible, the overlapping area has been defined by seven points. A joint authority, composed of equal numbers of members from each country, will exercise all powers necessary for regulating the exploration and exploitation of the seabed in the defined zone, although it will not affect or curtail the validity of concessions or licenses already issued. The joint development area, which is a pentagon measuring about 2100 nm<sup>2</sup>, has been divided by a single line to separate the Thai and Malaysian areas of criminal jurisdiction. It is specifically noted, however, that this line should not be construed in a way as indicating the eventual seabed boundary. The arrangements have a proposed life of fifty years, but if the boundary has not been settled in that time the existing arrangements shall continue. Once again, provision is made for consultation if any hydrocarbon deposit straddles the boundary of the joint development area. This is not the first time that a joint development area has been established, but it seems to be the first time this device has been used while negotiations continue for a final boundary. It is an imaginative arrangement that other countries might wish to emulate when negotiations over maritime boundaries between friendly states become protracted.

## PROBLEM AREAS

This section provides basic facts about regions where a conflict of national interest has occurred or where it might develop.

### The Gulf of Tonkin

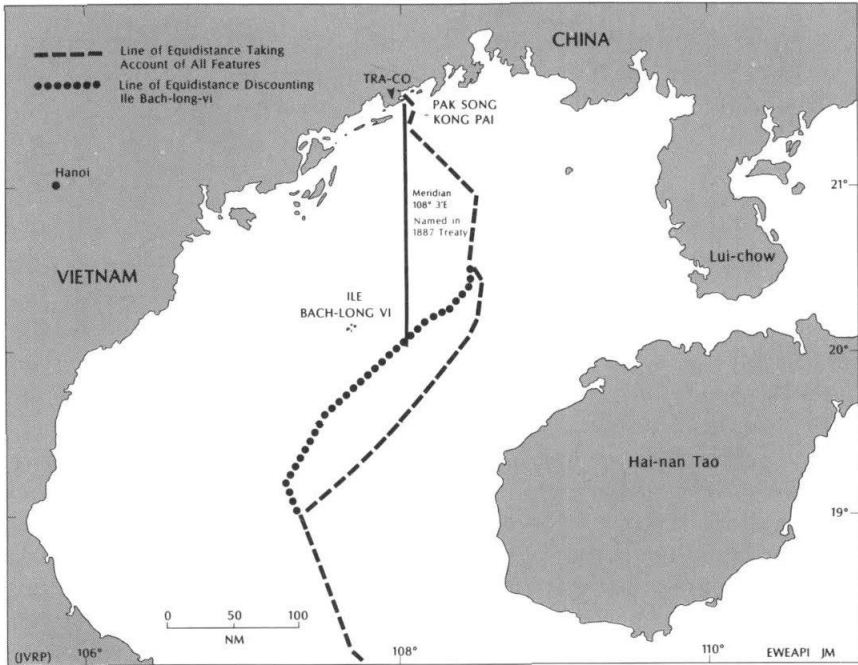
The Gulf of Tonkin, which is called Beibu Gulf by the Chinese and Bac Bo Gulf by the Vietnamese, has an area of 24,000 nm<sup>2</sup>; it is bounded by the northern coast of Vietnam, the Chinese peninsula of Lui-chow, and the Chinese island of Hai-nan (Map 2). The gulf has a maximum depth of about 80 meters (m), and the topography of its seabed is fairly smooth. Beneath much of these shallow waters is located the Lui-chow sedimentary basin, which has characteristics sure to encourage oil exploration.

Chinese authorities have reported that, since 1974, there has been a disagreement between the two countries over the correct location of the maritime boundary through the gulf.<sup>6</sup> The Chinese authorities insist that the maritime boundary is an unresolved issue; the Vietnamese authorities insist that the maritime boundary was settled by the Sino-French Treaty signed in Peking on 26 June 1887.

The relevant section of the treaty on which the Vietnamese rely contains the following description, which has been translated from the French version.

The islands which are east of the Paris meridian of 105°43' east [108°3' east of Greenwich], that is to say the north-south line passing through the eastern point of Tch'a Kou or Quan-Chan [Tra Co], which forms the boundary, are also allocated to China. The island of Gotho [Kao Tao] and other islands west of this meridian belong to Annam.<sup>7</sup>

Four difficulties arise when interpreting these sentences as referring to a maritime boundary. First, the meridian, which lies 108°3' east of Greenwich, has no termini. If it were projected northward of Tra Co it would intersect the coast of China; if it were projected southward it would intersect the coast of Vietnam between Hué and Da Nang. Because the text does not mention the Gulf of Tonkin, it is difficult to contend that the meridian was to terminate at the mouth of the gulf, even if it was possible to establish general agreement on the location of that feature. Second, if the meridian was the boundary, it would deny any territorial waters to the eastern end of Tra Co. Third, if the meridian was devised as a maritime



Map 2. The Gulf of Tonkin.

boundary separating a major area of sea, it was quite out of character with prevailing concepts of maritime sovereignty at that time, when the height of national maritime ambition was a territorial sea measuring 3 nm and some exclusive fishing zones for mollusks off the coasts of Sri Lanka and Australia. If this treaty marked such a novel development it is surprising that it was not specifically mentioned. Fourth, there is nothing in this treaty to distinguish the use of this meridian from the use of straight lines by colonial powers in other treaties to separate island groups. Such lines were used as a form of geographical shorthand to avoid the necessity of naming all the islands. This technique was used by Britain when it annexed the Torres Strait islands in 1879; by Britain and Germany when they divided the Solomon Islands in 1899; by Spain and the United States when they defined the islands of the Philippines in 1898; and by the French governor general of Indochina when he allocated islands to Cambodia and Vietnam, then Cochin China, in the Gulf of Thailand in 1939.

If the Vietnamese view prevails, that the boundary was settled by the 1887 agreement, two problems will be faced. First, it will be necessary to

agree on the location of the eastern point of Tra Co as it existed in June 1887. This step is necessary because the meridian has been defined in two ways: first, as lying 105°43' east of Paris, and then, as the north-south line passing through the eastern end of Tra Co. No doubt the negotiators were certain these two definitions were identical, and, if so, this problem disappears. If the eastern end of Tra Co in June 1887 was not located 105°43' east of Paris, however, it will be necessary for China and Vietnam to decide which of the definitions will prevail. The second problem will concern agreement between the two countries on the survey techniques to be used to fix the meridian through the Gulf of Tonkin and the points at which the boundary will commence and terminate.

If the Chinese view prevails — that the maritime boundary through the Gulf of Tonkin is an unresolved issue — there is one possible difficulty: the importance attached to Ile Bac-long-vi, which is a small Vietnamese island extending 56 m above the waters of the gulf. Because of its detached location, 38 nm from the nearest Vietnamese territory near the center of the Gulf of Tonkin, this island deflects the line of equidistance between the two countries in Vietnam's favor. The existence of the island at that point enables it to claim 1700 nm<sup>2</sup> that would not be available if the island were discounted. In view of the continuing debate over the merits of equidistant and equitable principles at the United Nations Conference on the Law of the Sea, it would be possible for China to argue that the location of Ile Bac-long-vi constitutes special circumstances that render a line of equidistance inappropriate. China could rely on a number of existing agreements in the Persian Gulf, the Adriatic Sea, and Torres Strait to justify this argument, but it would have to consider the basis of all its maritime claims first, to ensure that recourse to arguments about equity here does not adversely affect its claims along other sections of its coast. Reliance on lines of equidistance throughout Vietnam's negotiations with adjacent and opposite countries would ensure the largest possible area for that state.

Because both China and Vietnam have considerable areas of untested continental shelves suitable for exploitation, there will be no pressure to reach a rapid settlement in the Gulf of Tonkin to secure firm drilling rights.

### **The Maritime Area Claimed by the Philippines**

The Philippines' claim to maritime zones has been established by four acts or decrees during the period from 1961 to 1978; careful interpretation of these documents does not allow the identification with absolute

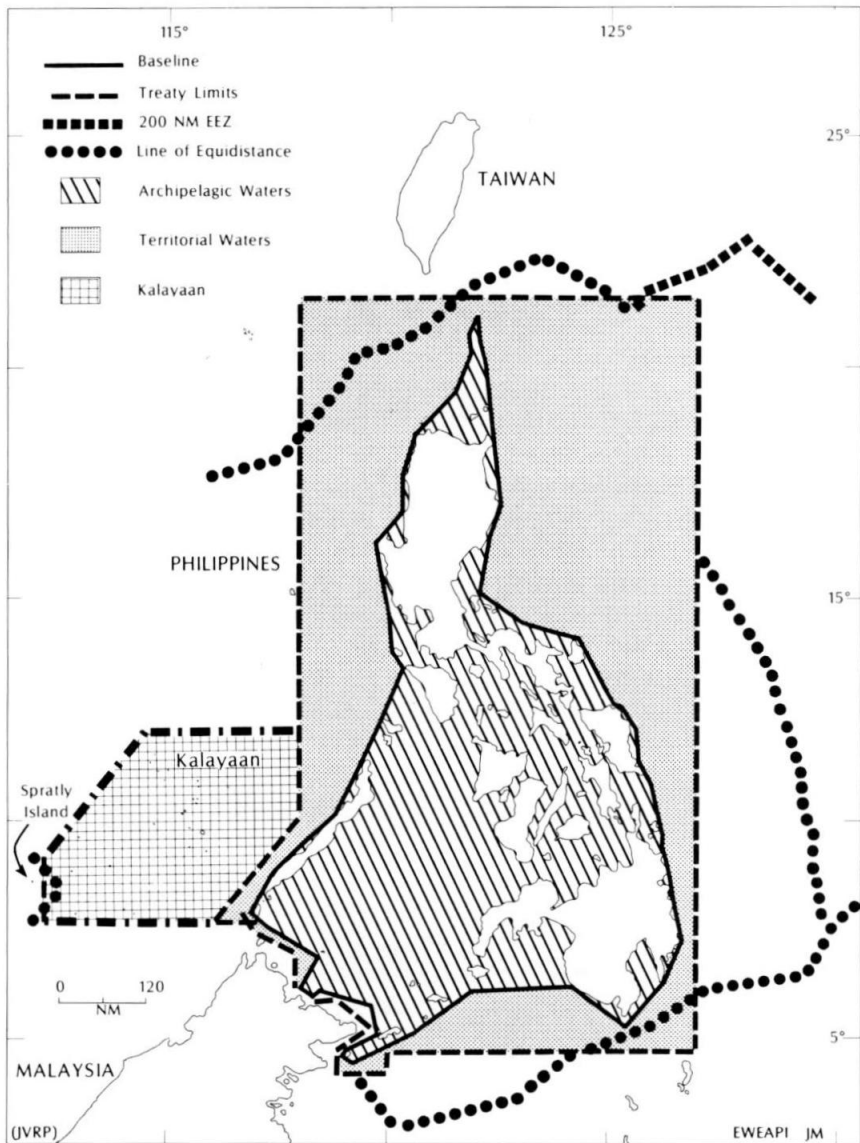
certainty of all the zones claimed. Each of the documents will be considered in turn and problems of interpretation noted.

By Act 3046 on 17 June 1961, as amended by Act 5446 on 18 September 1968, the Philippines established its archipelagic baselines and defined its internal and territorial waters. Apart from a segment of baseline closing Moro Gulf that is longer than 125 nm, the Philippines baseline meets all the requirements of archipelagic baselines subsequently proposed in the *DCLS*. It would be simple to adjust the particular segment to ensure that the baseline conforms in every respect.

No problem is presented by the use of the term *internal waters* rather than *archipelagic waters* as now proposed, to describe the waters within the straight baseline, but there is a problem about the definition of *territorial waters*. These waters are defined as lying between the outermost islands of the archipelago, effectively the straight baseline, and the limits of the Philippines established in three international treaties (Map 3). All the treaties were concluded by the United States; the first two with Spain and the third with the United Kingdom. On 10 December 1898, in Paris, the United States and Spain signed a peace treaty. Part of that treaty involved the cession of the Philippine archipelago by Spain in the following terms: "Spain cedes to the United States the archipelago known as the Philippine Islands and comprehending the islands lying within the following line."<sup>8</sup> The line was defined by seven points identified by coordinates and only one of the seven segments did not follow a meridian or a parallel. It was soon discovered, by the United States, that some islands within the archipelago had been excluded by this definition, and a second treaty with Spain was concluded on 7 November 1900. This document identified the islands to be included in the Philippine archipelago as Cagayan Sulu and Sibutu Island and their dependencies.<sup>9</sup> These islands are situated in the southwest of the archipelago. The imprecision of this definition of the additional islands was corrected on 2 January 1930 when the United Kingdom and the United States agreed on a line, which was generally described in the following terms:

It is hereby agreed and declared that the line separating the islands belonging to the Philippine archipelago on the one hand and the islands belonging to the State of North Borneo, which is under British protection, on the other hand shall be and is hereby established as follows.<sup>10</sup>

The line was then defined by eleven points, for which coordinates were given; the two terminal points were located on the line defined in the 1898 treaty. Further clarification was provided by stipulations that all islands



Map 3. Maritime zones claimed by the Philippines.

and rocks intersected by the boundary, if such features existed, belonged to the Philippine archipelago, and that in two distinct areas the lines should follow channels between nominated islands and reefs.

There are three problems related to the use of the limits established by the treaties in 1898 and 1930 as the outer edge of the Philippine territorial sea. First, the treaties refer only to the islands either comprehended by the line or separated by the line; there is no reference to waters related to the lines and therefore, by themselves, the treaties can only be used with some difficulty to justify claims to territorial waters up to the treaty limits.

Second, the 1898 treaty contains an ambiguous definition of the northern limit, which is described in the following terms:

A line running from west to east along or near the 20th parallel of north latitude and through the middle of the navigable channel of Bashi from the 118th to the 127th degree meridian of longitude east of Greenwich. . . .<sup>1</sup>

Now it is impossible to draw a straight line trending west-east through the Bashi Channel, which is along or near parallel 20° north, because the channel lies 80 nm north of that parallel. This means that two interpretations of this description are possible. The first is that the treaty draftsmen made an error and genuinely thought they were carefully describing a straight line by two compatible methods. They would not have been the first boundary makers to have assumed that two definitions are always better than one, if in fact they were describing a straight line. The second explanation is that the treaty editors did not make an error because they were not describing a straight line. It is possible to draw a line that proceeds for two parts of its length along parallel 20° north and for a third part through the Bashi Channel.

There are difficulties for the Philippines in whichever explanation it supports. If it is decided the line was straight but the specification of 20° north an error, it will be necessary for the Philippine authorities to prove that satisfactorily. It would be equally reasonable for Taiwan to argue that it was the reference to Bashi Channel that was wrong. It is not seriously suggested that Taiwan might thereby lay claim to the Philippine Islands lying north of parallel 20° north, but Taiwan could argue that the Philippines cannot simply substitute parallel 21° 30' north in the treaty's description and then claim it as the outer limit of its territorial sea.

If the second explanation is accepted, there is still the problem of selecting the point on parallel 20° north at which the line diverges to pass through Bashi Channel, and the point where this curved line rejoins the parallel. Official maps of the Philippines show the northern limit as a straight line through Bashi Channel, between meridians 118° east and 127° east in the vicinity of parallel 21° 30' north. It is possible the Philippines could argue that even though the line shown on charts cannot be



reconciled with the treaty's description, it has been claimed without objection from other states for a sufficiently long time to become established in international law.

The third problem that arises from using the treaty limits as the outer boundary of the territorial sea is that they enclose areas that lie closer to the territory of other countries than they do to any part of the Philippine archipelago. A claim to territorial sea is also a claim to the seabed and subsoil under the waters and to the air space above the waters. If the Philippines' neighbors accepted the treaty limits as the outer edge of the Philippines' territorial waters, they would all be yielding waters and seabed they would be entitled to claim according to the principle of equidistance. The most obvious case involves Indonesia, which possesses the island called Miangas inside the treaty limits. Miangas had already been incorporated into the Indonesian baseline system a year before the Philippines' declaration, and this question is the subject of a separate study (Map 10). If Malaysia accepts the treaty limits as the outer edge of the Philippines' territorial sea, it is prevented at different points from claiming 12 nm of territorial waters and areas of sea and seabed outside those territorial waters closer to Malaysian territory than to Philippine islands. In this sector of the treaty limits, however, there are also areas where the Philippines' potential claim to territorial waters is restricted by treaty limits, notably off Sibaung and Siluag islands. It is possible to calculate the different areas involved, but this is a fruitless exercise at present because, if the two countries decided to negotiate a maritime boundary, Malaysia would almost certainly proclaim a straight baseline around the coast of Sabah. This indented coastline, with fringing islands in some locations, clearly justifies the use of a straight baseline, and Malaysia constructed straight baselines along its fairly smooth coasts on Peninsula Malaysia and Sarawak prior to its negotiations over the seabed boundary with Indonesia in 1969.

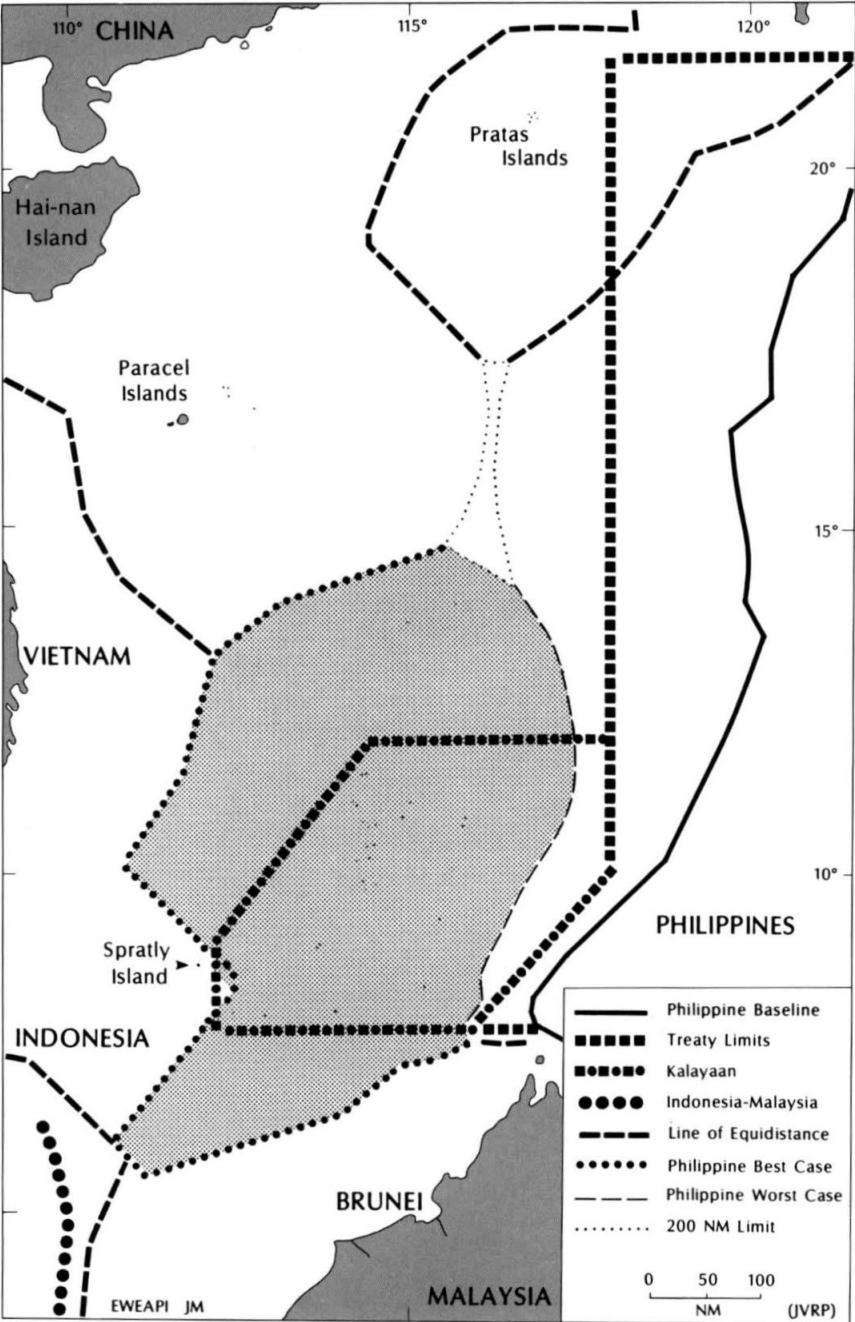
If Taiwan accepted the treaty limits as the outer edge of the Philippines' territorial waters, it would be abandoning claims to about 14,400 nm<sup>2</sup> of sea and seabed, which could be incorporated into its EEZ if the boundary of that zone with the Philippines' claims was based on the line of equidistance. There is also a small area, 600 nm<sup>2</sup> within the treaty limits, that could be claimed by Japan from Nansei Shoto. The treaty limits would also restrict the Philippines' claim to an EEZ; there is a triangular area lying between the regions that could be claimed by Taiwan and Japan and which lies outside the treaty limits, that could be claimed by the Philippines according to the principle of equidistance. This triangular area measures about 3,870 sq nm. When referring to the size of these areas which could be claimed according to the principle of equidistance, it is

important to avoid the suggestion that the size of the region is the most critical factor to be considered. The quality of the resources contained in the sea and on and under the seabed is a more important consideration. It is also pertinent to recall that the strategic significance of a particular area of ocean might be the most relevant factor in the view of a single country.

By Presidential Proclamation 370 on 20 March 1968, the Philippines claimed the surrounding continental shelf where water depth permits exploitation of the seabed and subsoil. Such a claim follows part of the definition set out in the 1958 Convention on the Continental Shelf, and it presents no particular problem as far as the Philippines is concerned. It does present the general difficulty that such a claim does not refer to a fixed boundary; a boundary defined in such terms will always advance seaward as mining techniques improve.

On 11 June 1978, Presidential Decree 1596 became effective, and under its terms the Philippines claimed an area of the South China Sea measuring 70,150 nm<sup>2</sup>.<sup>12</sup> The area was defined by straight lines joining six points for which the coordinates were specified. Two segments of this hexagon coincided with sections of the treaty limits laid down in 1898. This decree claims the area within these boundaries including the seabed, subsoil, continental margin, and air space. The claim to air space throughout the region means that the Philippines is claiming the entire water area as territorial waters. There are three problems associated with this particular claim.

First, all the islands enclosed within this area are claimed by China, Taiwan, and Vietnam; Vietnam occupies four of them and Taiwan occupies one. Second, by claiming the entire area as territorial seas, the Philippines is claiming territorial seas that are 146 nm wide in the northeast of the area and up to 78 nm wide in the western part. Third, it is not clear whether the area claimed represents the total extension the Philippines wishes to make to its maritime domain. In short, it is not clear whether the proclaimed limits restrict the claims the Philippines would be able to make from the twenty-five islands in the area if its sovereignty over them was accepted by the other countries concerned. This is an important question as Map 4 shows. The map has been constructed to indicate the area the Philippines could claim if it owned all the islands in Kalayaan, as the new region is called, and the area that would remain if the Philippines owned none of those islands. In the diagram, each island has been treated as a separate basepoint. As noted later, in the section dealing specifically with the Spratly Islands, it would be possible for the Philippines to incorporate the islands it claims into its archipelagic baseline system without infringing any of the proposed rules set out in the *DCLS*. The shaded area on Map 4 between the maximum and minimum Philippines' claim (the best



Map 4. The Philippines' potential maritime claims.

and worst case respectively), which is shaped like the helmet of a suit of armour, measures about 124,000 nm<sup>2</sup>. The map does not show three rocks called Swallow, Royal Charlotte, and Louisa reefs, which lie south of Kalayaan, and which are claimed by Malaysia (Map 7). If Malaysia's claim to these rocks were accepted by other countries, it could claim territorial seas and contiguous zones around them. Because the *DCLS* does not make it clear how boundaries should be constructed between islands belonging to one country and rocks belonging to another, it is not possible to forecast whether zones claimed around these rocks would lie as enclaves within the EEZ claimed from the southern Spratly Islands, or whether Malaysia's ownership of these rocks would limit the EEZ that could be claimed from the southern Spratly Islands.

On the same day that Kalayaan was claimed, Presidential Decree 1599 established an EEZ measuring 200 nm wide around the Philippine archipelago.<sup>13</sup> This zone is measured from the baselines; however, the claim is made without prejudice to earlier claims to territorial waters, and thus, where the territorial waters are wider than 200 nm, that claim is maintained. There is no problem about defining the EEZ to the east of the Philippines; however, to the north and south it will be necessary to agree on common boundaries with Taiwan and Japan and with Malaysia, Indonesia, and the Trust Territory of the Pacific Islands, respectively. In these latter cases, the complication of the treaty limits possibly restricting claims by the Philippines has already been noted.

It is not possible to be certain where the EEZ will extend to the west of the Philippines. The first reason for this is the uncertain status of the Philippines' claim to the Spratly Islands and has already been considered. It only remains to be noted in this connection that Presidential Decree 1599 referred only to EEZs measured from the baselines; it made no specific mention of Kalayaan. The second reason for uncertainty is Scarborough Reef, which is located 10 nm outside the Philippines' treaty limits on parallel 15° north. This feature is described in the USGPO's *Sailing Directions for Western Shore of South China Sea*:

SCARBOROUGH SHOAL (15°08'N., 117°45'E.) consists of a narrow belt of barely submerged reef enclosing a lagoon which is almost completely filled with subsurface coral heads at about 50 foot intervals. On the belt are scattered rocks which are visible at some distance. The shoal is clearly marked by a line of breakers, which have been seen at a distance of 10 miles. Over twenty rocks, standing about 5 to 8 feet high, stand on the southwest corner of the shoal.

South Rock stands at the southeast corner of the shoal. Close northward of

South Rock is an opening into the lagoon, which is 400 yards wide and has general depths of 7.3 m (4 fm.) to 9.1 m (5 fm.), but is encumbered with reef patches with depths as little as 2.7 m (9 ft.). The ruins of an iron frame work tower, about 25 feet high, stands close by the opening.<sup>14</sup>

The feature is called Huang Yen Tao by China, which claims it in common with Taiwan.<sup>15</sup> Now, because this feature lies outside the treaty limits and the boundaries of Kalayaan, it has not been claimed by the Philippines. Therefore, if the claim by China or Taiwan succeeds, it will be important to establish whether this feature is considered to be an island or a rock. While the *Sailing Directions for Western Shores of South China Sea* indicate clearly that only rocks stand above high water, it is more relevant to know how China and Taiwan regard this feature. If they consider it an island, they are entitled to claim territorial waters, a contiguous zone, an EEZ, and a continental shelf around Scarborough Reef. If they consider the feature only a collection of rocks, then only territorial waters and a contiguous zone could be claimed. Even in this case, however, there is the problem of deciding how maritime boundaries should be drawn between rocks belonging to one country and islands belonging to another. It is also possible that a cay will eventually form on Scarborough Reef, and such a development would permit the whole suite of maritime zones to be claimed from that feature.

There is no information available to show which country was responsible for erecting the tower on Scarborough Reef. Such information would be relevant if a territorial dispute developed between the Philippines and China or Taiwan over Scarborough Reef, because a survey of boundary disputes and settlements by John N. Moore indicates that the building and maintenance of structures on islands and rocks constitute powerful arguments on behalf of the country concerned.<sup>16</sup>

There is a third reason complicating the Philippines' claims westward: it is provided by the deep channel that marks the western rim of the archipelago. This feature, which extends to depths of 2600 fm, could complicate any definition of the natural prolongation of the Philippines into the South China Sea.

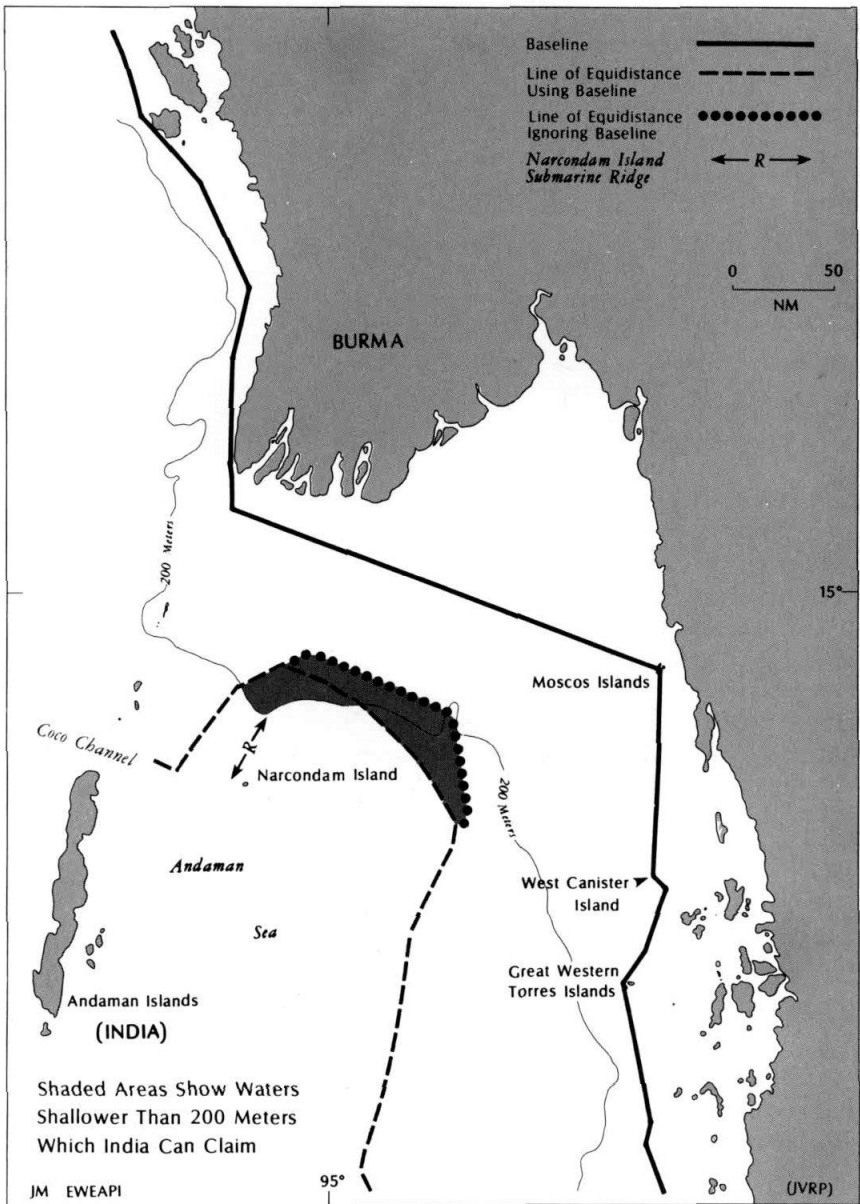
This review of the Philippines' maritime claims makes it clear that only the declaration of archipelagic baselines can be interpreted without difficulty. There are many problems to be solved before the Philippines' maritime limits will be settled definitely, and the process will require negotiation with all the Philippines' neighbors and resolution of the thorny problem presented by claims and counterclaims to the Spratly Islands.

## Northern Andaman Sea

Burma and India proclaimed definitions of their territorial waters, contiguous zones, EEZs, and continental shelves in 1977 and 1976, respectively.<sup>17</sup> The claims are made in almost identical language, and it will be necessary to define a boundary separating their EEZs and continental shelves east of meridian 90° east. In the vicinity of the Coco Channel it will also be necessary to draw boundaries separating territorial waters and contiguous zones. Between 90° east and the Coco Channel there do not seem to be any difficulties in fixing maritime limits. East of the Coço Channel, however, in the northern part of the Andaman Sea, there are three circumstances that will complicate the construction of common maritime limits (Map 5). First, the Burmese claim is measured from an exceptional baseline that closes the Gulf of Martaban. Second, India's claim may be measured from a small, isolated, uninhabited volcanic island called Narcondam. Third, an Indian claim from Narcondam will extend onto the continental shelf of the Irrawaddy Delta. Each of these complications must be considered in turn.

Burma's baseline was first proclaimed on 15 November 1968. It measured 826 nm and was formed by twenty-one segments which fronted the entire coast, apart from 30 nm. The baseline along the Tenasserim Coast was altered slightly in 1977 when West Canister Island was substituted for Cabusa Island; this alteration shifted an 88 nm segment seaward, at the southern end, by nearly 10 nm. The baseline falls into three sections: the northerly one occupies the Arakan Coast and measures 305 nm; the central section, which is 222 nm long, closes the Gulf of Martaban; and the third section bounds the Tenasserim Coast and measures 299 nm. It can be demonstrated that most of the baseline cannot be justified by reference to the proposals for drawing straight baselines contained in Article 7 of the *DCLS*, but with respect to the construction of boundaries with India, it is only necessary to consider the line closing the Gulf of Martaban and the longest segment of the baseline along the Tenasserim Coast.

The closing line across the Gulf of Martaban is the longest segment of straight baseline in the world. It is not specifically justified in the 1968 proclamation, which simply notes that straight baselines will be drawn when prevailing geographical conditions make it necessary.<sup>18</sup> If it were considered necessary to defend the closing line against challenges by other countries, arguments might be found in the realm of history and in the economic use of the bay by Burmese. If no challenge has been made since it was proclaimed, that lapse of time might also be used to justify the continued existence of the line. It would seem possible, however, for



Map 5. The northern Andaman Sea.

Indian authorities to assert that there is an important difference between accepting the baseline for the measurement of internal and territorial waters and agreeing to its unqualified use in constructing an international boundary with a neighboring country. The baseline segment measuring 88 nm long between Long Island and West Canister Island on the Tenasserim Coast does not follow the general direction of the coast as proposed in the *DCLS*. Instead, it makes an angle of about  $14^\circ$  with the coast's general azimuth. It would be more in keeping with the spirit and letter of these proposals if the baseline passed through South Moscos and Tavoy islands. The combined effect of these two baseline segments is to deflect the line of equidistance with India southwestward, transferring 1375 nm<sup>2</sup> to the Burmese side of the line; but it should be stressed that it is the closing line across the Gulf of Martaban that causes most of the deflection.

The second complicating circumstance is the nature of Narcondam Island, which could provide the basis of Indian claims to waters and seabed in the northern Andaman Sea. Narcondam Island is a craterless, extinct volcano with an area of 7 km<sup>2</sup>. It stands 710 m above sea level and is bounded by wave-cut cliffs 100 m in height. According to the Indian census of 1961, the island is not inhabited. While there has been much debate at the United Nations Conference on the Law of the Sea about the extent to which islands can be used to make claims to maritime zones, the current proposals in the *DCLS* would permit India to claim the entire suite of maritime zones from Narcondam Island. Certainly, from India's viewpoint, Narcondam Island is a valuable outlier as a point from which maritime zones can be claimed. In view of the major effect the island has in determining the line of equidistance between Indian and Burmese territory, it would be possible for Burma to argue that the effect of the island should be discounted. Such arguments would rely on the use of equitable principles in fixing the common boundary. No doubt the Burmese authorities would draw attention to the occasions in the Adriatic Sea, the Persian Gulf, and Torres Strait when the effects of islands have been discounted.

The third complication arises from the fact that the line of equidistance based on Narcondam Island encloses part of the continental shelf, south of the Irrawaddy Delta, underlying water depths of 200 m. If the line of equidistance is related to the Burmese baseline, then the area enclosed is 580 nm<sup>2</sup>; if the median line is drawn between Narcondam Island and the Burmese coast, then a further 595 nm<sup>2</sup> fall on the Indian side. The *DCLS* proposes that countries should be allowed to claim the continental shelf throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to 200 nm where the margin does not extend to that distance. Although the term *natural prolongation* is an



imprecise term, there can be little question that the areas totalling 1175 nm<sup>2</sup> referred to earlier form part of the continental margin that extends seaward from the Irrawaddy Delta. Unfortunately, for any case that Burma might seek to establish, the clear edge of the margin south of the Irrawaddy Delta is broken at one point by a submarine ridge connecting it with Narcondam Island.

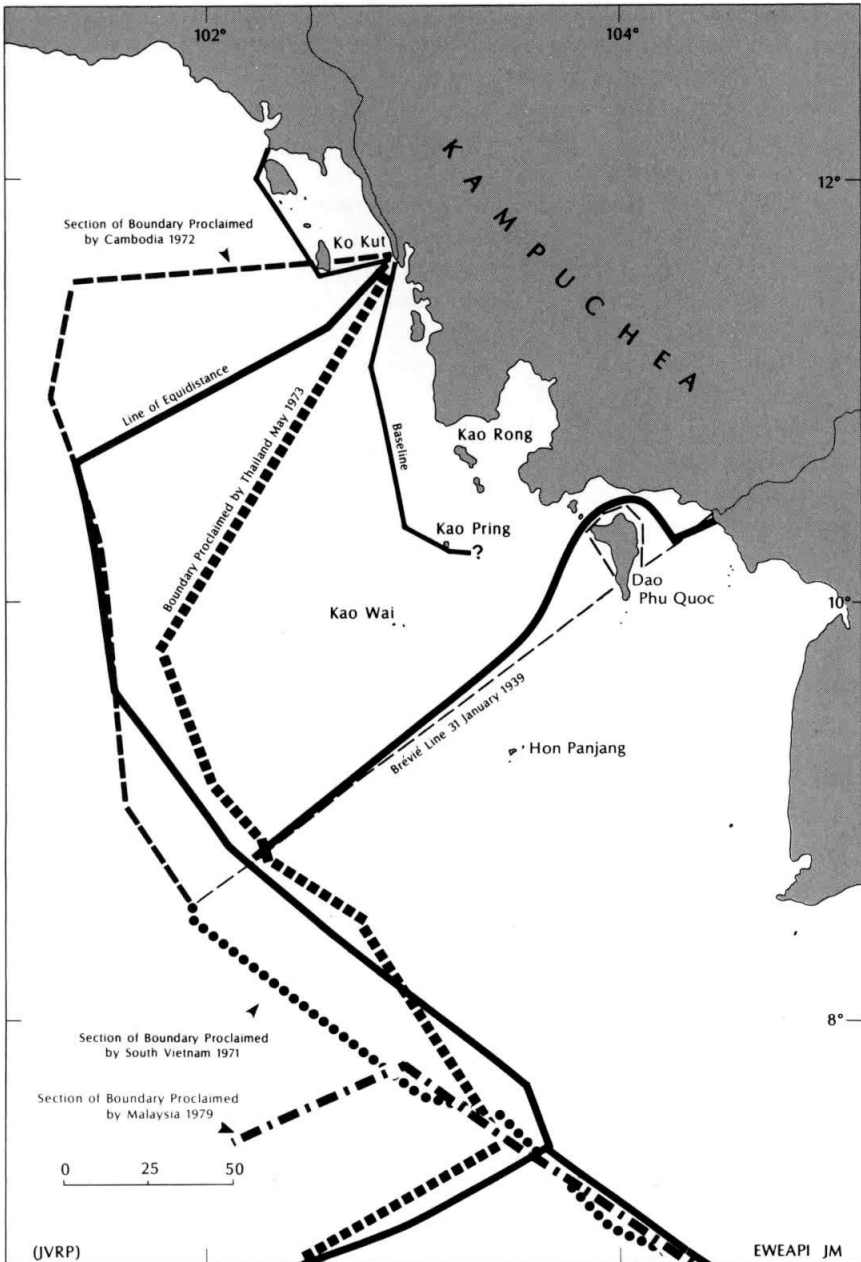
Finally, it must be noted that any resolution of the seabed boundary would still leave the problem of drawing a boundary separating Indian and Burmese control over the superjacent waters. Because the bases on which claims are made to EEZs and continental shelves are different, boundaries relating to the waters and the seabed will only coincide when the seabed boundary is a line of equidistance. For example, if India agreed to forego its claim to the segment of the continental margin south of the Irrawaddy Delta by discounting the effect of Narcondam Island, it would still be possible for India to request an equidistant line separating the EEZs of the two countries. Indonesia is making such a claim to waters over seabed areas in the Timor Sea that were awarded to Australia in 1972. If such an Indian claim succeeded, it would control the economic use of waters lying over seabed areas allotted to Burma.

This problem would become difficult, despite the complicating circumstances, only if one or both of the countries adopted an inflexible bargaining position that resulted in feelings of injustice. Providing both countries approach the eventual negotiations in a spirit of compromise, there is plenty of scope in the northern Andaman Sea for mutual compensations.

## **The Gulf of Thailand**

At the beginning of 1975 it was possible to be precise about the conflict of national interests in the Gulf of Thailand (Map 6). Kampuchea (Cambodia), South Vietnam, and Thailand had each announced unilateral claims to the seabed lying off their coasts, and these could be accurately charted and compared. It is no longer possible to be so certain about the extent and location of overlapping claims. South Vietnam has been incorporated into Vietnam; there have been two changes of government in Kampuchea; Vietnamese forces are now present in large numbers in Kampuchea; and the relationship between Vietnamese and Kampuchean authorities is uncertain. It is not clear to what extent the successor governments in Kampuchea and South Vietnam have maintained or modified the earlier seabed claims.

The construction of maritime boundaries in the Gulf of Thailand (the



Map 6. The Gulf of Thailand.

seas lying north of a line linking the southern tip of Vietnam with Kota Bharu on the Malaysian coast) should be a less complicated matter than in the South China Sea. First, there are only three countries involved, and none claims the entire area as China, Taiwan, and Vietnam do in the South China Sea. Second, there are no islands in the middle of the gulf, and the dispute over the ownership of islands concerns only two countries, namely Kampuchea and Vietnam. Third, there are far fewer islands in the Gulf of Thailand than in the South China Sea, and they are all clearly defined in contrast to the myriad islands, rocks, cays, and reefs in the South China Sea. Fourth, the submarine topography of the Gulf of Thailand lacks the diversity of the South China Sea; it consists of a uniform continental shelf that continues southeastward to the Sunda Shelf.

By May 1973, when Thailand announced its unilateral claim to the seabed of part of the Gulf of Thailand (following the earlier proclamations of South Vietnam in June 1971 and Kampuchea in July 1972), it was possible to identify four overlapping claims. The area of each overlapping zone is shown in the following table.

<i>Claimant States</i>	<i>Area (nm<sup>2</sup>)</i>
Kampuchea – South Vietnam	14,580
Kampuchea – Thailand	5,798
Thailand – South Vietnam	233
Kampuchea – Thailand – South Vietnam	3,610
Total	24,221

Apart from 67 nm of the boundaries claimed by Kampuchea and South Vietnam, the unilateral boundaries did not coincide with the line of equidistance drawn between Thailand to the west and Kampuchea and South Vietnam to the east. A careful examination of these unilateral boundaries shows that each of the authorities chose an interpretation of lines of equidistance that gave the maximum area of seabed to the claimant state. For example, Thailand appears to have drawn its boundary as a line of equidistance between the Thai mainland and those large islands, such as Kaoh Rong, which are close to the Kampuchean and Vietnamese coast. Such a procedure involves the complete discounting of the Thai islands of Ko Kra and Ko Losin, the Kampuchean islands Kao Wai, and the Vietnamese islands Hon Panjang. Because the islands of the other two countries are farther from their coasts than the Thai islands are from the Thai coast, this discounting shifts the boundary eastward in Thailand's favor. Between 7° 30' north and 9° 30' north, the boundaries proclaimed for Kampuchea and South Vietnam totally ignored the Thai islands Ko

Losin and Ko Kra, and this device moved the boundaries westward to Thailand's disadvantage. Even in these biased interpretations, however, the various authorities were not consistent. For example, the Thai boundary, as it proceeds southwestward from the Thai-Kampuchea land boundary terminus, bears no relation to the line of equidistance and appears to be reproducing the azimuth of the final segment of the land boundary. The northern limit of the claim made on behalf of Kampuchea intersected the Thai island Ko Kut. This island was retroceded to Thailand by France in the boundary treaty dated 23 March 1907.

The French Government cedes to Siam the territories of Dan-Sai and Kratt, whose boundaries are defined in Clauses I and II of the aforementioned Protocol [annexed to treaty], also all the islands situated to the south of Cape Lemling as far as and including Koh-Kut.<sup>19</sup>

It is possible that the Kampuchean authorities projected the seabed boundary through Ko Kut because the island was also mentioned in the Protocol attached to the 1907 treaty.

The boundary between French Indo-China and Siam leaves the sea at the point opposite the highest point of Koh-Kut island.<sup>20</sup>

There is nothing in the text of the treaty to suggest that the land boundary was continued seaward through Ko Kut island, and so it is not known how this northern limit can be justified. The western terminus of this northern segment is situated midway between the Thai baseline and the Ilot Kusrovie, but such an interpretation ignores not only Ko Kut but also the entire Thai coast in the northeast of the Gulf of Thailand. A curious feature of the original Thai claim is that the unilateral boundary failed to extend as far east as the line of equidistance in the southern part of the gulf; subsequently the claim was expanded in this area.

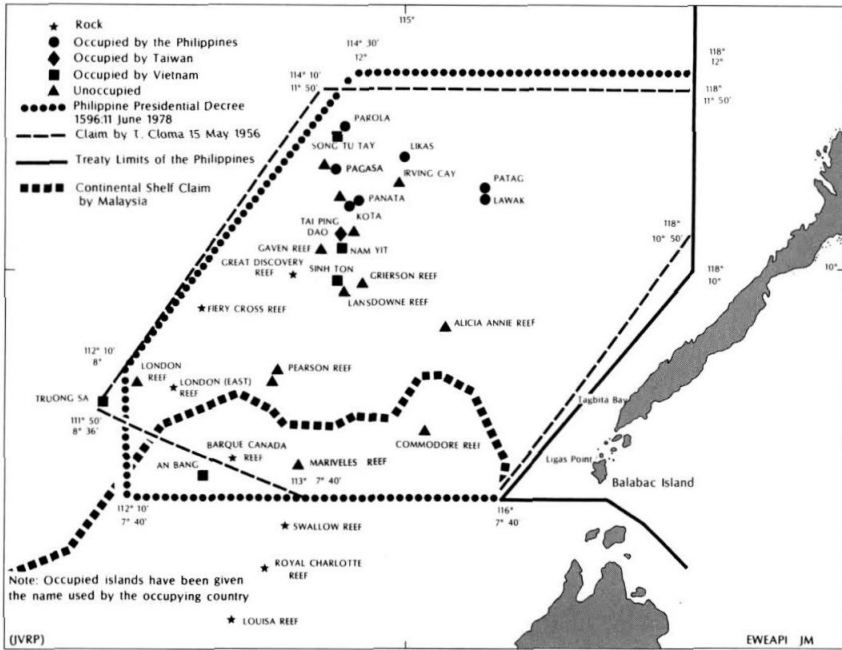
Two recent developments deal directly with the delimitation of maritime boundaries in the Gulf of Thailand. First, in January 1978, following the visit of the Vietnamese foreign minister to Thailand, a joint communiqué noted that the two countries' rival claims in the gulf would be settled on the basis of equitable principles.<sup>21</sup> No reports of progress in settling the issue have been made. Second, during discussions between representatives of Kampuchea and Vietnam in May 1976, Kampuchea abandoned its claim to Dao Phu Quoc. A dispute over this major island together with some nearby small islands had persisted since 1913, and the establishment of the Brévié Line in 1939 had not settled it.<sup>22</sup> The Brévié Line, named after the French governor general who proclaimed it on 31 January 1939,

followed an azimuth of  $126^\circ$  from true north from the point where the land boundary between Kampuchea and Cochin China met the coast. This line intersected the southern part of Dao Phu Quoc, but the governor general stipulated that the entire island would be administered as part of Cochin China. Today, Cochin China forms part of Vietnam. Although the governor general made it clear that he was making an administrative decision that did not touch the question of sovereignty, it now appears that the Brévié Line has provided the basis for allocating sovereignty over the islands in the eastern part of the Gulf of Thailand. Kampuchea's concession over Dao Phu Quoc was confirmed when it published, on 28 May 1977, a list of islands in its territorial waters that did not include the large island.<sup>23</sup> Reports of the May 1976 meeting state that Vietnam is also prepared to accept the Brévié Line as allocating islands to the two countries; however, Vietnam is not prepared to accept Kampuchea's proposal that the Brévié Line should mark the maritime boundary between the two countries.<sup>24</sup> Vietnam's reluctance to accept the Kampuchean proposal is not surprising because a line of equidistance between Kampuchean and Vietnamese islands lying north and south of the Brévié Line, respectively, would give Vietnam an area of sea and seabed measuring about 860 nm<sup>2</sup> that would be forfeited to Kampuchea if the Brévié Line became the maritime boundary.

Although it is not known how the governor general or his aides selected the bearing  $126^\circ$ , it is possible the decision was related to the desire to award the Iles des Pirates, near the coast, to Cochin China and Angkrang, also near the coast, to Kampuchea. It is a curious fact that the projection of the Brévié Line intersects the trijunction, which is equidistant between the nearest points on the territory of Kampuchea, Thailand, and Vietnam; this point occurs at  $102^\circ 8'$  east and  $8^\circ 44'$  north.

### The Spratly Islands

The warning "Dangerous Ground," which is written across charts of the Spratly Islands, should be heeded not only by navigators but also by scholars interested in questions related to the law of the sea. No other part of the world possesses the difficult combination of a plethora of claims and a lack of precise, basic geographical information that exists there. In order to avoid the political and academic traps that abound in this subject, this commentary considers only four aspects. First, it notes briefly the location of the islands in terms of the surface and topography of the South China Sea. Second, it records the islands that are occupied by different countries and those that are unoccupied. Third, the claims of countries to



Map 7. The Spratly Islands.

the Spratly Islands are recounted, and, where possible, the basis of the claim is identified. Fourth, possible problems associated with using the Spratly Islands as the basis for maritime claims are examined.

There is no agreed definition of the area occupied by the Spratly Islands or of the constituent members of the group. For the purposes of this commentary they are considered to be those islands in the South China Sea south of 12° north and east of 111° east, excluding those contained within the treaty limits of the Philippines or within 40 nm of the coasts of Malaysia and Brunei. There are thirty-three islands, cays, and rocks here that stand permanently above sea level, and twenty-two of them are located along the main axis of the group between meridians 113° 30' east and 115° east (Map 7). This axis measures 315 nm between Louisa Reef in the south and Northeast Cay in the north. The greatest east-west extent of the group measures 240 nm between the meridians passing through Spratly Island in the west and Flat and Nanshan islands in the east.

The seabed of the South China Sea falls into three major topographic zones. First, there is the continental shelf lying beneath waters shallower than 180 m. This feature is broadest on the Sunda Shelf, between Viet-

nam to the north and Malaysia and Indonesia to the south. This part of the shelf consists of two principal basins lying on either side of a swell connecting Mui Bai Bung with Tanjong Datu via the Natuna Islands. Stretching north from the Sunda Shelf there is a continental shelf of moderate width fringing the coasts of Vietnam and China; this segment of shelf attains its greatest width east of Hai-nan Island. Trending northeast from the Sunda Shelf the continental shelf narrows rapidly in the vicinity of Brunei, Sabah, and the Philippines. Second, there is an oval area of abyssal plain, which extends from a point north of Spratly Island, in a northeasterly direction, toward the northernmost tip of the Philippines. Connecting the shelf and the abyssal plain is a third zone of confused topography. Parts can be identified as continental slopes, other areas appear to be continental rises, and an important region has hilly characteristics where seamounts and plateaus stand above the sea floor and, in some cases, break the surface of the sea as islands and reefs. The Spratly Islands are located in this hilly region. Sediment basins in the intermediate zone between the shelf and the abyssal plain tend to be smaller and thinner than those on the continental shelf. Waters over the intermediate zone extend to depths in excess of 1800 m, which is 500 m deeper than the waters in which the deepest exploratory well has been drilled.

One of the problems in writing about the Spratly Islands is that the different claimant states give different names to individual islands. In the following account the common English name is used, and the name given by the country occupying the island is shown in parentheses. Tables 1 and 2 list thirty-three islands, cays, and rocks and give the known different names. The Philippines occupies seven of the Spratly Islands; it began its occupation in 1968 with Loaita (Kota), Thitu (Pagasa), and Northeast Cay (Parola), and subsequently occupied and fortified West York Island (Likas), Flat Island (Patag) Nanshan Island (Lawak), and Lankiam Cay on Loaita Bank, which the Philippines calls Panata. Vietnam occupies five islands: they are Spratly Island (Truong Sa), Southwest Cay (Song Tu Tay), Sin Cowe (Sinh Ton), Namyit Island (Nam Yit), and Amboyna Cay (An Bang). In 1956, forces from Taiwan occupied Itu Aba Island (Tai Ping Dao).

There are another thirteen unoccupied cays in the Spratly Islands. Bird has described the formation of cays, and, although the particular example he selected is found off the Queensland coast of eastern Australia, the description could equally well apply to cays in the South China Sea.

Various kinds of "low island" have been built up on reef platforms by accumulation of sand, shingles and boulders formed from reef debris that has

Table 1. Spratly Islands

	Location	Names			Description
		Chinese	Vietnamese	Philippine	
Alicia-Annie Reef (C)	9°25'N 115°26'E	Xian o Jiao		Arellano	1.2 m high
Amboyna Cay (C)	7°51'N 112°55'E	An Po Na Sha Zhou	An Bang	Kalantiyaw	2 m high
Comodore Reef (C)	8°21'N 115°17'E	Siling Jiao		Rizal	.3 m high
Flat Island (I)	10°50'N 115°49'E	Fei Xin Dao		Patag	240 m by 90 m subject to erosion
Gaven Reef (D)	10°13'N 114°12'E	Nan Xun Jiao			2 m high white dune
Grierson Reef (C)	9°53'N 114°35'E				
Irving Reef (C)	10°53'N 114°56'E			Balagtas	
Itu Aba (I)	10°23'N 114°21'E	Tai Ping Dao	Thai Binh	Ligaw	960 m by 400 m with trees
Lankiam Cay (C)	10°44'N 114°31'E	Yang Xin Zhou		Panata	
Lansdowne Reef (D)	9°46'N 114°22'E				white dune
Loaita Cay (C)	10°44'N 114°21'E	Nan Yao Zhou			
Loaita Island (I)	10°41'N 114°25'E	Nan Yao Dao	Loaita	Kota	2 m high with trees
London Reef (C)	8°53'N 112°15'E	Yin Qing Qun Jiao		Quezon	.6 m high
Mariveles Reef (C)	7°59'N 113°50'E	Nan Hao Jiao			1.5 m high
Namyit Island (I)	10°11'N 114°22'E	Hung Ma Dao	Nam Yit	Binago	19 m high with trees
Nanshan Island (I)	10°45'N 115°49'E	Ma Huan Dao		Lawak	2.5 m high, 580 m long with coarse grass
Northeast Cay (C)	11°28'N 114°21'E	Pei Zi Jiao	Song Tu Dong	Parola	3 m high, 685 m by 90 m with trees
Pearson Reef NE (C)	8°58'N 113°39'E	Pi Sheng Dao		Hizon	2 m high
Pearson Reef SW (C)	8°55'N 113°35'E	Pi Sheng Dao		Hizon	1 m high
Sin Cowe Island (I)	9°52'N 114°19'E	Jing Hong Dao	Sinh Ton	Rurok	2.5 m high
Southwest Cay (C)	11°26'N 114°20'E	Nan Zi Dao	Song Tu Tay	Pugad	with trees
Spratly Island (I)	8°38'N 114°25'E	Nan Wei Dao	Truong Sa	Lagos	2.5 m high grass covered
Thitu Island (I)	11° 3'N 114°17'E	Zhong Ye Dao	Thi Tu	Pagasa	grass and scrub



Table 1. continued

West York Island (I)	11° 5'N 115° 1'E	Xi Yue Dao	Likas	500 m by 320 m with trees
Cay (near Itu Aba) (C)	10°23'N 114°28'E			3 m high with trees
Cay (near Thitu) (C)	11° 3'N 114°13'E			

(C) Cay, (D) Dune, (I) Island

Table 2. Rocks in the Spratly Group

	Location	Names		Description
		Chinese	Philippine	
Barque Canada Reef	8° 4'N 113°14'E		Mascado	4.5 m high
London (East) Reef	8°52'N 112°46'E	Yin Qing Qun Jiao	Silangan	1 m high
Fiery Cross Reef	9°40'N 113°E	Yung Shu Jiao	Kagilingan	
Great Discovery Reef	9°59'N 113°51'E	Da Xien Dao	Paredes	
Louisa Reef	6°20'N 113°14'E	Nan Tong Jiao		1 m high
Royal Charlotte Reef	7°N 113°35'E	Huang Lu Jiao		.6 – 1.2 m high
Swallow Reef	7°23'N 113°59'E	Dan Wan Jiao		1.5 – 3 m high

been eroded by wave action and cast up on the platform. . . . The prevailing winds here are the SE trades and the islands have generally been built near the NW corner of the reef platform, because debris eroded from the reef is washed across the platform by waves from the SE at high tide. Refraction of waves around the reef platform produces a convergence on the lee side, building up waves in such a way that they prevent the reef debris from being swept over the lee edge of the platform. At first the island is nothing more than a sandbank or heap of coral shingle awash at high tide, but gradually the sediment accumulates, and the island is built up above high tide level, colonised by grasses and shrubs, and then by trees, notably palms (*Pisonia* and *Pandanus* species) and Casuarina. An island of this type is termed a cay. It is often elongated at right angles to the prevailing winds, but its configuration is subject to change as erosion and deposition alternate on its shores.<sup>25</sup>

Bird goes on to describe how the secondary deposition of calcium carbonate in the zone of repeated wetting and drying can convert sand to a compact sandstone, known as beach rock, and shingle to a lithified conglomerate. These formations offer greater resistance to erosion than unconsolidated sediments and provide a more stable coastline for the cay. There is every reason to expect that the cays in the South China Sea will include representatives of various stages of the evolutionary process described above. For example, as the final column in Table 1 shows, Gaven Reef and Lansdowne Reef possess cays that are described, in the *Sailing Directions for Western Shores of South China Sea*, as white dunes.<sup>26</sup> Such cays stand in sharp contrast with the cay near Itu Aba, which stands 10 ft high and has trees. It would be unwise to place the various cays on an evolutionary scale simply according to the description in the *Sailing Directions*, but for later discussion it is important to note that cays can be formed on reefs where they did not previously exist, and that the coastline of any cay might be subject to change by erosion and deposition.

Two of the unoccupied cays do not appear to possess names; the first is situated just west of Thitu Island, and the second lies just east of Itu Aba Island. The other cays are either named or take the name of the surrounding reefs; they are Alicia Annie Reef, Commodore Reef, Gaven Reef, Grierson Reef, Irving Reef, Lankiam Cay, Lansdowne Reef, London Reef, Mariveles Reef, and the two cays on Pearson Reef.

It has also been possible to identify seven locations where rocks and boulders stand above the high water level (Table 2). It is not supposed that this is the comprehensive list, since parts of the reef systems have not been thoroughly explored, but it does represent a complete list based on American and British charts of the area and the relevant volumes of the *Sailing Directions*.<sup>27</sup> The possible significance of these rocks to maritime claims will be considered later; for the present it is necessary only to

record that they occur on Barque Canada Reef, the East Reef in the London system, Fiery Cross Reef, Great Discovery Reef, Louisa Reef, Royal Charlotte Reef, and Swallow Reef.

There are seven countries with coasts on the South China Sea, and only Brunei and Indonesia do not make claims to the Spratly Islands. Indonesia's baselines around the Natuna Islands lie 324 nm southwest of Spratly Island, which is the closest in the group (Map 8). Brunei is not yet an independent country, so it is not known whether its rulers might wish to claim some of the Spratly Islands when the colonial connection with Britain is severed.

It is possible to consider the claims of China, Taiwan, and Vietnam together. They each claim all the Spratly Islands and do so on the historical ground that the islands have long been part of their territory. The following quotations from recent published statements by the Chinese and the Vietnamese authorities illustrate the nature of their claims.

A host of historical records and cultural relics unearthed in modern China give ample proof that the Xisha and Nansha Islands [Paracel and Spratly Islands] have been part of China's territory since ancient times.<sup>28</sup>

Both Hoang Sa and Truong Sa [Paracel and Spratly Islands] have, from time immemorial, been part of Viet Nam's territory. The Vietnamese feudal state was the first in history to occupy, claim ownership of, exercise sovereignty over and exploit, in the name of the State these two archipelagoes [*sic*] which had never before come under the administration of any country.<sup>29</sup>

It seems reasonable to assume that the authorities in Taiwan would agree with the sentiments expressed in the Chinese statement.

The most recent justification of its claim by Vietnam shows a close correspondence with the earlier white paper issued by the Ministry of Foreign Affairs of the Saigon government in early 1975,<sup>30</sup> and it is also interesting that various acts by the Saigon government are used by the present government of Vietnam to bolster its case against China.<sup>31</sup> For its part, the government of China is focusing increasingly on statements made by Vietnamese officials in September 1958 and May 1965 that appear to acknowledge that both of the disputed archipelagos belong to China and on Vietnamese and Russian maps produced in 1972 and 1975, respectively, that name the islands after the Chinese fashion and, in the case of the Russian map, indicate they belong to China.<sup>32</sup>

On June 11, 1978, President Marcos signed Presidential Decree 1596, which claimed the Kalayaan Island group for the Philippines.<sup>33</sup> The word *Kalayaan* may be translated to mean "Freedom," and it is interesting that

in 1956 Tomas Cloma claimed a territory, which he christened Freedomland, in the South China Sea west of the Philippines.<sup>34</sup> Cloma was the owner of a fleet of fishing and other commercial vessels, and he also organized a nautical school called the Philippine Maritime Institute. He hoped to establish an ice-making factory and a canning factory on one of the islands and augment his profits by mining guano on some of the small islands.

The area claimed by Cloma is shown on Map 7. Notice that it bears a close relationship with the area annexed by the Philippines in 1978; in terms of islands, the Philippines claimed Amboyna Cay, which was left outside the limits of Freedomland, but did not claim Spratly Island, which had been included by Cloma. The Philippines justified its incorporation of the Kalayaan Island Group on the grounds that it was vital to the country's security and economic survival, that the territory did not legally belong to any other country, that any claims by other states had been abandoned, and that the Philippines had established its sovereignty by history, indispensable need, and effective occupation and control. Apart from Spratly Island, the Philippines does not claim the rocks that stand above high water level on Royal Charlotte, Swallow, and Louisa reefs.

In 1978, a senior government official of Malaysia visited a number of features in the southern region of the Spratly Islands and claimed them for Malaysia. In 1979, maps published by Malaysia showed the continental shelf claimed by that country, and the boundary enclosed the islands at Amboyna Cay (Pulau Kecil Amboyna), Mariveles Reef (Terumbu Mantanani), and Commodore Reef (Terumbu Laksamana) and the rocks on Louisa Reef (Terumbu Semarang Barat Kecil), Swallow Reef (Terumbu Layang Layang), Royal Charlotte Reef (Terumbu Semarang Barat Besar), and Barque Canada Reef (Terumbu Perahu). It is interesting that territorial waters were shown only around Amboyna Cay and Swallow Reef.

Finally, it is necessary to consider questions concerning the use of islands and rocks in the Spratly group as the basis for maritime claims. According to Article 121 of *DCLS* all of the twenty-six islands in the Spratly group, being naturally formed areas of land, surrounded by water, and standing above high tide, may be used to make claims to territorial waters, contiguous zones, EEZs, and continental shelves. The same article stipulates that rocks that cannot sustain human habitation or economic life of their own may not be used to claim EEZs or continental shelves. The seven groups of rocks in the Spratly Islands, all of which stand above high water, would fall into this category. This means that they could be used only to claim territorial seas and contiguous zones. The different rights that attach to islands and rocks raise an interesting question when it is necessary to draw a maritime boundary between a rock owned by one

country and an island owned by another. If the two features were less than 48 nm apart it would be necessary to draw a boundary separating the two contiguous zones. If the features are more than 48 nm apart, however, it appears that only the state owning the island would be able to take advantage of the wider, intervening waters. Theoretically, if the waters between the two features were 224 nm wide, the country owning the rock could claim a combined zone of territorial waters and contiguous zone measuring 24 nm wide, while the state owning the island could claim territorial waters, contiguous zone, and EEZ totalling 200 nm and could claim the continental shelf up to the outer limit of the territorial waters measured from the rock. This problem will arise if different countries own some of the islands and rocks in the Spratly Islands. The question will also be of some interest to Malaysia and Brunei if neither of them own the rocks on Louisa, Royal Charlotte, and Swallow reefs, because it will relate to the construction of the boundary marking the outer edge of the EEZ that they might wish to claim from their mainlands.

Of course, it is always possible a state that owns a rock and is faced with this position will argue that the claim to the EEZ from the opposite island cannot extend beyond the line of equidistance between the two features. Plainly, this problem becomes acute only when the rock is remote from territory of the country that owns it; all that can be done here is to note this situation could obtain within the Spratly Islands or between the Spratly Islands and adjoining coastal states once the question of sovereignty has been settled.

Article 6 of the *DCLS* permits baselines to be drawn around the seaward low water line of reefs that surround islands. All the islands in the Spratly group possess fringing reefs, and countries owning them would be able to invoke this section. In some cases, as on North Danger, the reef system seems to be continuous between two islands occupied currently by different countries.

Because all the islands are surrounded by reefs along which the baseline can be drawn, there appears to be no need to invoke Article 7, which permits straight baselines to be drawn along coasts that are unstable. It was noted earlier that the coastlines of cays might change, but it seems probable that countries would prefer to proclaim baselines around the reef rather than around the cay. There are two possibilities, however, that do not appear to be covered by existing articles in the *DCLS*. First, it is possible that in the case of some small cays, which unusually severe storms could destroy, any land standing above high water might be eliminated. The question then is whether a country, which has successfully claimed and occupied a small cay, can maintain claims based on that cay when it disappears. No definitive answer can be provided, but it would be surpris-

ing if a country faced with this situation did not maintain its claim.

Second, there is the distinct possibility that new cays will be formed. The manner in which such new territories should be claimed is not indicated in the text, and it is not difficult to imagine problems arising from unrestricted competition among countries first to land on and claim newly formed islands. The claims of China and the Philippines preempt this problem. China claims submerged banks and shoals, as well as islands and rocks, in the South China Sea; this means that if any new island forms it must form on a submarine feature already claimed by China. Hungdah Chiu has quoted a Chinese commentator Chu Chu Wu on this question.

Although the Chunsha Islands [Macclesfield Bank] are now submerged beneath the surface of the sea, many years from now they may emerge from the surface of the sea and become islands or sandbanks.<sup>35</sup>

According to the latest *Sailing Directions*, no part of the Macclesfield Bank reaches closer to the surface than 9.1 m. According to Chiu, Taiwan also claims all the submerged shoals and banks in the South China Sea.<sup>36</sup> The Philippines claims an area of the South China Sea and would presumably claim that any new island formed within that area also belonged to the Philippines.

Finally, it is necessary to consider whether the Spratly Islands could be surrounded by archipelagic baselines. In attempting to answer this question, it will be assumed that all the islands, or in the case of the Philippines, all the islands except Spratly Island, belong to a single country. If a new country was created out of the Spratly Islands, as Cloma envisaged in 1956, it would not be able to surround its territory with archipelagic baselines because the ratio of water to land would exceed 9:1, which is one of the conditions laid down in Article 47 of the *DCLS*. If the Spratly Islands belonged to China, Taiwan, or Vietnam, there does not seem to be any way consistent with the text by which straight baselines could be drawn around the islands. None of these states is an archipelagic country, and therefore none would be able to take advantage of Article 47. China and Vietnam, however, in 1958 and 1977 respectively, have described the method by which straight baselines will be drawn along their coasts, and both have noted that the same methods will be adopted in respect of their island groups in the South China Sea.<sup>37</sup>

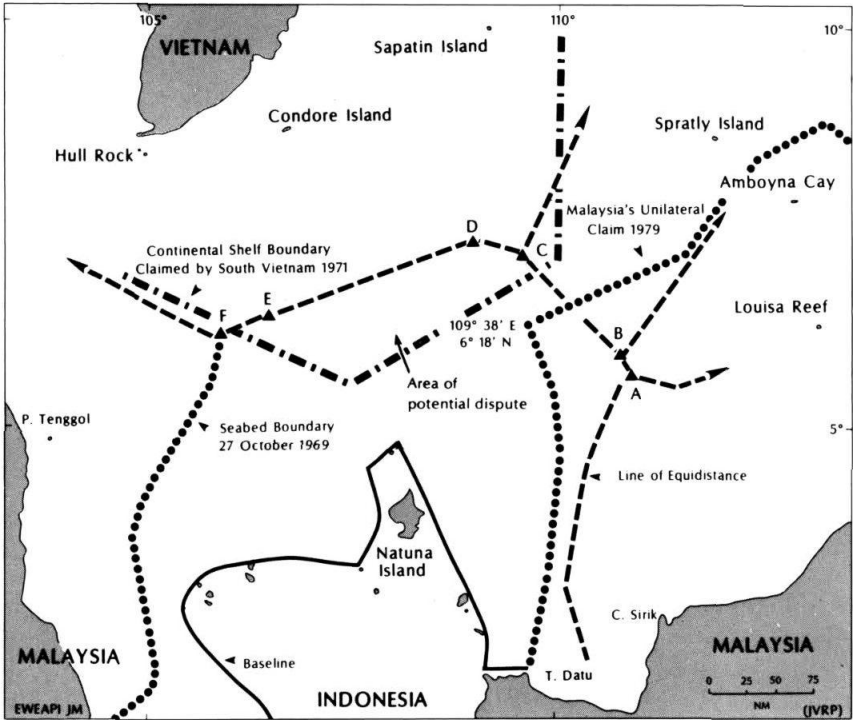
The Philippines declared its archipelagic baselines in 1961. If it owned all the Spratly Islands within the limits by which Kalayaan is defined, it would be able to extend those baselines to take in those islands and still satisfy the requirements of Article 47. The Spratly Islands claimed by the

Philippines could be tied into the existing system by lines connecting Alicia Annie Reef to a point on Palawan just south of Tagbita Bay and Commodore Reef to Ligas Point on Balabac Island. The former line would measure 117 nm and the second would measure 102 nm. The other segments of baseline all measure less than 100 nm. The additional area of water enclosed by the new baseline would measure about 22,800 nm<sup>2</sup>, and when this is introduced into the calculation of the ratio of water to land the answer is 2.1:1. Within the existing baseline system the ratio is 1.8:1.

### **The Continuation of the Seabed Boundary between Indonesia and Malaysia North of Tanjong Datu**

When Indonesia and Malaysia agreed on boundaries separating their areas of seabed on 27 October 1969, it was necessary to define three boundary segments. First, the seabed in the Strait of Malacca was divided by an equidistant line that terminated short of the equidistant tri-junction of Indonesia, Malaysia, and Thailand. Second, the seabed between peninsular Malaysia and Indonesia's Natuna Islands was allocated according to a line of equidistance that terminated at the tri-junction equidistant from Indonesia, Malaysia, and Vietnam. Finally, the boundary between Indonesia and Sarawak, north of Tanjong Datu, was divided by a boundary that increasingly diverged westward, away from the line of equidistance, and terminated at a point that is further from Malaysia than either Amboyna Cay or Spratly Island (Map 8).

The agreed seabed boundary and the lines of equidistance are shown in the accompanying map, which makes it clear that the answer to the problem of how to continue the boundary will depend on whether Malaysia owns Amboyna Cay and Spratly Island. If Malaysia owned both, the boundary could easily be projected northward to intersect the line BC at some point and continued toward the line of equidistance stretching northeastward from point C. If Malaysia owned only Amboyna Cay, and the country owning Spratly Island was able to persuade Malaysia that the seabed boundary should be drawn on the principle of equidistance, it would be necessary to continue the seabed boundary between Malaysia and Indonesia eastward to link up with point B. In fact, Malaysia's unilateral boundary follows this general direction, but, because it passes north of point B, it ensures that Malaysia is claiming areas of the seabed that are closer to Spratly Island than to any fragment of Malaysian territory, even if Malaysia's claim to Amboyna Cay is accepted by China, Vietnam, and the Philippines, which also claim Amboyna Cay. If Malaysia owned nei-



Map 8. Maritime boundaries in the vicinity of the Natuna Islands.

ther Spratly Island nor Amboyna Cay, and the country owning the latter were able to persuade Malaysia that the seabed boundary should be drawn according to the principle of equidistance, it would be necessary for the seabed boundary between Indonesia and Malaysia to link up with point A and pursue the line of equidistance eastward from this point. Of course, if it was decided that the principle of equidistance should give way to equitable principles, then a wide range of solutions becomes available. Because there is no way of forecasting which equitable principles might be used, those possible solutions cannot be explored.

It should be noted that the boundary between Indonesia and Malaysia refers only to the seabed; the question of boundaries separating their newly proclaimed EEZs has not been tackled. Because the basis of claims to continental shelves and EEZs are different, it is open to Indonesia to claim part of the column of water over the seabed north of Sarawak allotted to Malaysia by the 1969 agreement. If Malaysia did not own Spratly Island or Amboyna Cay, it would also be possible for the boundaries of EEZs based on those islands to be drawn on different grounds than



the seabed boundaries from the same islands. Clearly, there is in this area the possibility of confused patterns of maritime control, with one country sometimes owning the seabed and another the waters above. Such a development is always possible where seabed boundaries between adjacent states, or between opposite states, are not based on lines of equidistance.

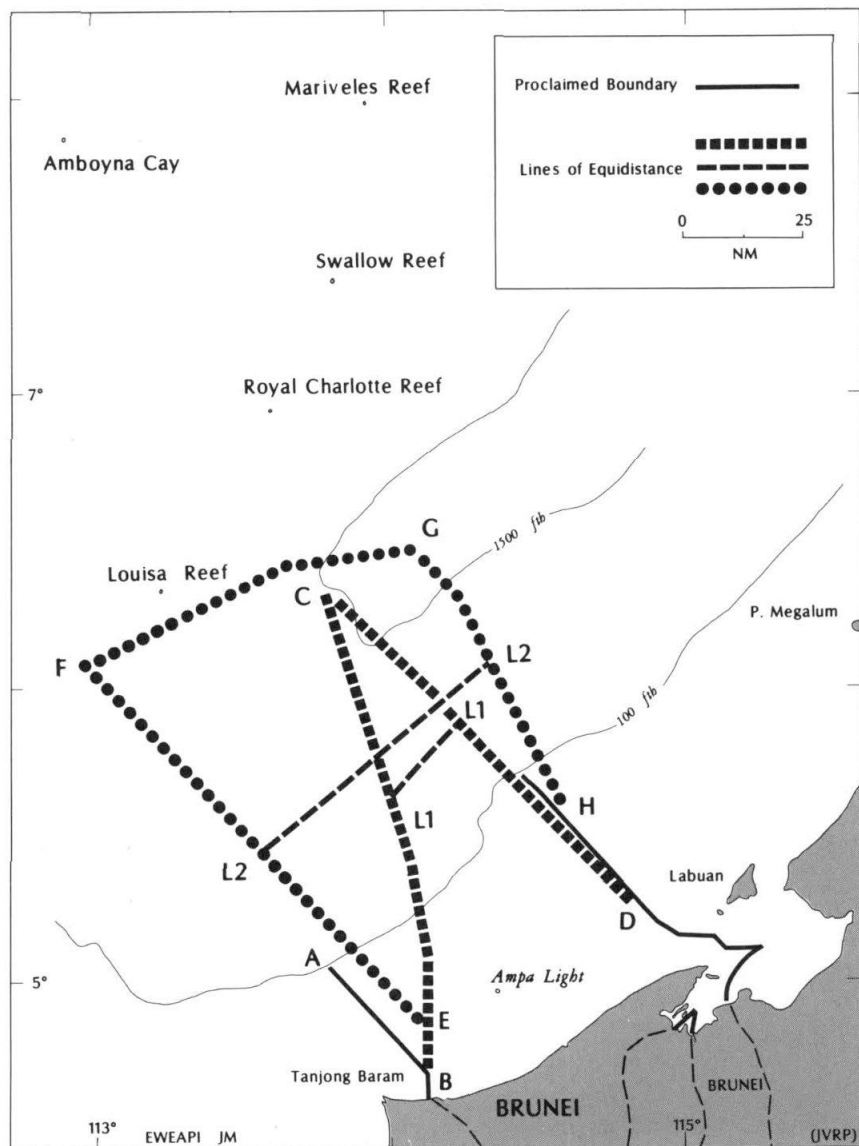
Louisa Reef has not been discussed in this analysis because there only rocks project above the high water level, and rocks may not be used to claim EEZs or continental shelves, according to the *DCLS*. It should not be assumed, however, in the affairs of practical politics, that Louisa Reef would be totally discounted in any negotiations involving Malaysia and some other country which might own the Spratly Islands.

Map 8 records also an area of dispute between Indonesia and Vietnam. On 6 June 1971, South Vietnam claimed an area of continental shelf bounded by thirty-three straight line segments. North of the Natuna Islands the claimed zone lies south of the line of equidistance between Indonesia and the Vietnamese coast and islands. It appears that the government of Vietnam has not renounced this claim. Therefore, it is possible that it will prove difficult for the two countries to negotiate a common seabed boundary, even when political and diplomatic differences are resolved.

### **Brunei's Maritime Limits**

Brunei's impending independence in 1983 raises the question of that country's maritime boundaries with neighboring states. In 1958, two British Orders in Council established boundaries separating the continental shelves of Sarawak, Brunei, and North Borneo, now known as Sabah. Where these boundaries traversed territorial waters they also formed the boundary between the adjacent territorial seas of the three territories. The boundary between Sarawak and Sabah can be ignored for the purposes of this discussion, and it has not been shown on Map 9 because these two territories now form part of Malaysia. It is not clear on what basis these boundaries were constructed, although the eastern limit of Brunei's shelf lies very close to the line of equidistance. Both lines terminate at the 100 fm isobath, which is very close to the 200 m isobath nominated by the 1958 Convention on the Continental Shelf as one of two proposed outer limits. The other limit was the depth at which the seabed could be exploited, and this is plainly not a static line.

There appear to be two major problems connected with Brunei's maritime boundaries: first is the boundary proclaimed by Britain in 1958 that favors Brunei at the expense of Sarawak, and it is not known what



Map 9. Brunei's potential maritime boundaries.

attitude Malaysian leaders adopt to this situation; second is that of deciding where Brunei's seaward limit lies in the direction of the Spratly Islands.

The proclaimed boundary that marks the western limit of Brunei's seabed begins on the coast where the land boundary between Brunei and Malaysia terminates. The coast at this point trends almost exactly east-west, and the proclaimed boundary follows the line of equidistance, which is almost the meridian passing through the boundary terminus, to the 10 fm isobath. The boundary then swings away to the northwest even though the line of equidistance continues northward along the meridian. The total area landward of the 10 fm isobath, which is transferred to Brunei by this deviation, measures about 300 nm<sup>2</sup>. The seabed in this area is level, and hydrocarbons have been found on this shelf. Indeed, when the boundary is drawn on British Admiralty Chart 2109, which is named in the Order in Council, it passes between two wellheads which are only 0.75 nm apart; it is not known whether the desire to apportion one wellhead to each territory was decisive in defining this boundary.

There are two aspects to the problem of defining Brunei's maritime limit vis-à-vis the Spratly Islands. First, there is the difficulty of continuing the proclaimed maritime boundaries seaward of their present limits on the 100 fm line; these termini are marked A on Map 9. While the eastern terminus lies within 4 nm of a line of equidistance whichever baseline features are used, the western terminus is 21 nm from a line of equidistance that ignores the Ampa Light. Of course, this difficulty only exists if Brunei and Malaysia agree to accept the boundary proclaimed in 1958.

The second difficulty consists of three parts. First, there is the question of deciding with which country Brunei will negotiate its seaward limit toward the Spratly Islands. China, Taiwan, and Vietnam claim all the islands, and the first two states also claim all the banks in the South China Sea. The Philippines claims the islands within the boundary of Kalayaan, including Amboyna Cay and Mariveles Reef, that are relevant to Brunei's seaward limit. Malaysia claims Royal Charlotte, Swallow, and Mariveles reefs and Amboyna Cay; it probably also claims Louisa Reef. It is not possible to make any useful comment on this aspect; Brunei will have to wait on the outcome of the competition for the Spratly Islands before it knows with which country it will have to negotiate.

Second, there is the question of deciding which features in the Spratly Islands will be taken into account in fixing Brunei's seaward limit. Map 9 shows five features in the Spratly Islands: Louisa, Royal Charlotte, Swallow, and Mariveles reefs and Amboyna Cay. Only the last two are islands; the first three consist of isolated groups of rocks. Now, according to the *DCLS* only islands may be used to claim the entire suite of maritime zones; only territorial waters and contiguous zones may be claimed from rocks that cannot sustain human habitation or economic life of their own. This difference means that there are two possible solutions to the equidistance

lines involving Brunei's seabed. If it is agreed by the country or countries that own Louisa, Royal Charlotte, and Swallow reefs that such features are rocks *and* that Brunei may claim across the median line between these features and the Brunei baseline, the line of equidistance would be drawn between Brunei and Mariveles Reef. That line is marked on the accompanying map by the letters BCD. It is a triangular area with its apex near the axis of the Palawan Trough where water depths exceed 1500 fm. However, if the country or countries owning Louisa, Royal Charlotte, and Swallow reefs insist successfully that they possess islands rather than rocks *or* that even though they possess only rocks Brunei may not claim beyond the median line between its baseline and these features, the triangular area is truncated. The truncation is caused by the location of Louisa Reef and is marked on the accompanying map by the line L1-L1.

Third, there is the difficulty of deciding the baseline from which Brunei's claim should be measured. Brunei's coast is singularly devoid of offshore features from which maritime claims can be made; there are no islands and Pelong Rock, near the eastern end of the territory, is very close to the coast and was taken into account in drawing the lines of equidistance already considered. The only other offshore feature that might be relevant is called Ampa Patches. This is a shoal of sand and coral that trends northeast-southwest; it is 3 nm long and 2-3 nm wide. There are some low-tide elevations on the Ampa Patches (the most prominent is called Magpie Rock), and there is also a navigation light on a steel tower standing 57 ft above sea level. The Ampa Light is 17 nm from the coast of Brunei.

There appear to be four ways Brunei could use the Ampa Patches as a point on its baseline from which claims could be measured. The first would occur if the present claim to a territorial sea of 3 nm were increased to at least 17 nm. In that case, the low-tide elevations on Ampa Patches would lie within the breadth of the territorial waters and would be eligible to be considered as baseline points. The second would occur if Brunei proclaimed a straight baseline linking the Ampa Light to its coast. Although the coast is not indented or fringed with associated islands, there are many other cases where countries have apparently ignored this requirement, and low-tide elevations may be used as points on a straight baseline if lighthouses or similar installations have been built on them. Third, if China or Taiwan (which base claims on underwater banks) were confirmed as the owner of the Spratly Islands, Brunei would presumably be able to base claims on the Ampa Patches if it negotiated with those countries. Fourth, if a cay developed on the Ampa Patches, it would provide the base from which maritime claims could be made.

Now, if any of these events occurred, and the use of Ampa Patches as a

part of Brunei's baseline was accepted by neighboring countries, it is possible to construct other lines of equidistance. Once again there are two solutions. If the country or countries that own Louisa, Royal Charlotte, and Swallow reefs agree with Brunei that these features are only rocks *and* that Brunei may claim across the median line between Brunei and these reefs, the line of equidistance will be drawn between Brunei to the south and Amboyna Cay and Mariveles Reef to the North. That line is marked by the letters EFGH in Map 9. It encloses a rectangular area, and the northern limit lies close to the axis of the Palawan Trough. However, if the country or countries that own those reefs insist successfully that they are islands *or* that, even though they are rocks, Brunei may not claim across the median line between Brunei and those rocks, the rectangular area is severely reduced. The new northern limit in such cases would be marked by the line L2-L2 shown on Map 9.

Although the preceding analysis has canvassed the main points, four minor points should be mentioned in conclusion. First, if Brunei and Malaysia agree that the western boundary proclaimed in 1958 should be maintained, it must be recalled that this boundary applies only to the seabed outside the zone of territorial waters. This means that it would be possible for Malaysia to claim the seas overlying the seabed awarded to Brunei as far east as the line of equidistance, however that is determined. This is exactly the course being followed by Indonesia south of Timor, where it is claiming waters above the seabed allocated to Australia by the 1972 agreement between the two countries. This possibility arises because claims to continental shelves and EEZs have different bases in the *DCLS*. Such a development is not significant in terms of the eastern proclaimed boundary.

Second, it is possible that Brunei might decide to make a claim in the future to some of the Spratly Islands. Although this does not seem a likely course, it is difficult to understand why a claim by Brunei to Louisa, Royal Charlotte, Swallow, and Mariveles reefs should be less valid than Malaysia's present claims.

Third, if Brunei were unable to make claims from the Ampa Light, and if it were unable to claim beyond the median line separating Brunei from Louisa Reef, it would be shelf locked. It would then be possible for Brunei to argue that its maritime limits should be drawn according to equitable principles rather than the equidistant principle. It is impossible to predict the results of reliance on equitable principles.

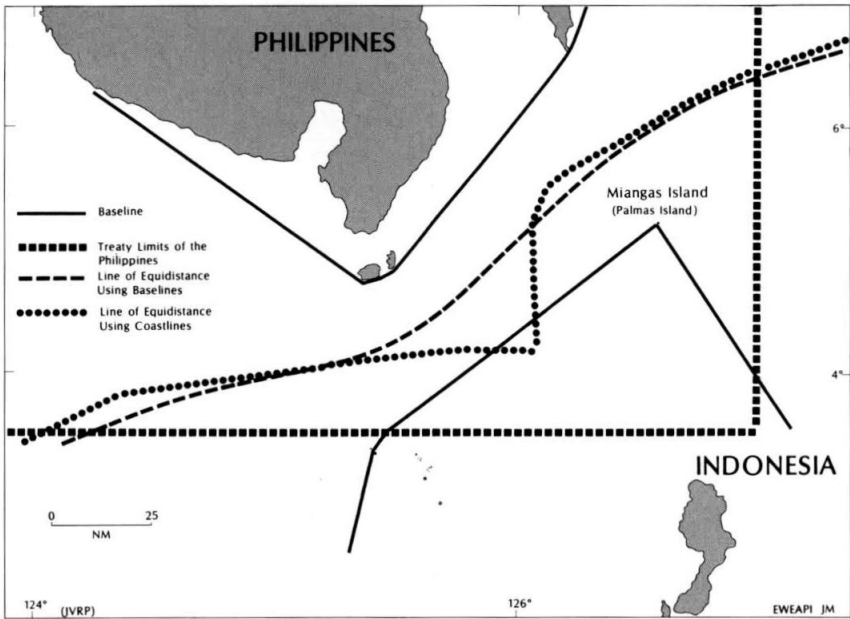
Fourth, the separation of Brunei into two parts by a salient of Sarawak means that Malaysia has rights to areas of the seas and seabed in the eastern part of Brunei Bay. Those rights were recognized by the 1958 British Order in Council, and there seems to be no reason why this arrangement should cause any problems for the two countries.

## The Waters between Miangas and Mindanao Islands

There is a problem in this area because Indonesia owns Miangas Island, formerly called Palmas Island, which lies within the treaty limits of the Philippines (Map 10). These limits were described in the Treaty of Paris between Spain and the United States on 10 December 1898, and they encompassed all the islands transferred from Spain to the United States. The ownership of Miangas Island became the subject of a dispute between the Netherlands and the United States in 1906. The Netherlands' claim was based on long and undisputed authority over the island, and the American case rested on the limits defined in the Treaty of Paris. The question was referred to the Permanent Court of Arbitration at The Hague in January 1925, and Max Huber delivered his judgment in April 1928. He found that the United States' claim rested entirely on Spanish activities and the Treaty of Paris, and decided that Spanish discovery had not been completed within a reasonable period by effective occupation; that the title of recognition by treaty did not apply; and that the title based on contiguity had no foundation in international law. In contrast, he decided that the Netherlands' title of sovereignty had been adequately established by a continuous and peaceful display of authority over a long time, and that the island, therefore, belonged to the Netherlands. Thus, the island formed part of Indonesia when that country became independent.

Both Indonesia and the Philippines proclaimed archipelagic baselines around their islands in 1960 and 1961, respectively. Indonesia's declaration regarding its baseline system fixed Miangas Island as Point 56; it is the most northerly point of the baseline segments that enclose the Molucca Sea. The Philippines' proclamation of its archipelagic baselines also stipulated that all waters between the baselines and the treaty limits were considered to be the territorial waters of the Philippines. This means an ocean area of about 4300 nm<sup>2</sup> in the southeast corner of the treaty limits is claimed by Indonesia as internal and territorial waters and by the Philippines as territorial waters.

The range of possible solutions seems to be bounded by two possibilities. If the existence of the Philippines' treaty limits was considered to be decisive, Indonesia's claims in the region could be restricted to territorial waters around Miangas Island. This would mean that the island and its surrounding waters formed an enclave within the territorial waters of the Philippines. If the Indonesian baseline system was deemed to be paramount, it would be necessary to draw a maritime boundary somewhere between Miangas and Mindanao Islands. If the Indonesian authorities decided, however, that they would only advance a claim to territorial



Map 10. Maritime boundaries in the vicinity of Miangas Island.

waters, the boundary could be fixed by lines parallel to and 12 nm distant from the Indonesian baseline. The Indonesian government, however, wishes to claim other zones beyond the territorial waters, and it will be necessary to consider whether the common boundary should be based on the principle of equidistance or on the principles of equity. Because it is not known what arguments each side might advance in favor of an equitable solution, the following comments are only related to possible lines of equidistance. If a line of equidistance were drawn, it could be related either to the baselines drawn by both countries or to the coastlines of each state. The line related to the baselines would be a smooth, uncomplicated boundary that would give Indonesia rights over about 6200 nm<sup>2</sup> of ocean and seabed within the treaty limits of the Philippines. If the line of equidistance were related to the coasts of both countries, the area that falls to Indonesia is slightly reduced and a less regular boundary is produced. If an equidistant boundary is drawn between the two countries in this area, it would be surprising if these countries, so firmly committed to the propriety of archipelagic baselines, would abandon them to settle a common boundary. Fortunately, the nature of the seabed is unlikely to complicate this question, because it lies beneath 3600 m of water and is not an attractive prospect for hydrocarbon deposits.

## The Timor Sea

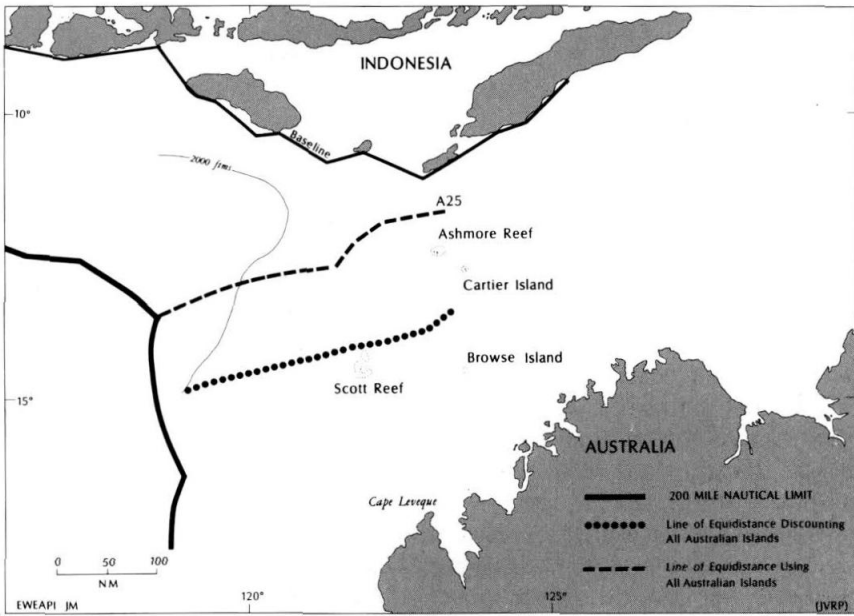
In 1971 and 1972, Australia and Indonesia concluded treaties that established seabed boundaries that extended from Papua New Guinea in the east to the waters between Ashmore Island and Pulau Roti in the west (Map 11). It was necessary to leave a gap in the boundary south of eastern Timor, which was then controlled by Portugal. Now that Indonesia has incorporated eastern Timor, the matter of closing the gap in the seabed boundary is one for the Australian and Indonesian authorities. Formal negotiations between the two countries began in February 1979 and have been widened to include three other topics. The additional topics are: continuation of the seabed boundary west of the 1972 terminus at point A25 south of Pulau Roti; the seabed boundary between Christmas Island and Java; and the boundary separating areas of fisheries jurisdiction. It seems likely that the four issues will be treated as a single package.

On the question of the seabed boundary south of eastern Timor, the two governments are wrestling with the same difference that emerged during the negotiations for the 1972 treaty. Australia argues that there are two continental margins between Timor and Australia. To the south there is the broad Australian margin and to the north there is the narrow Indonesian margin; it is also asserted that they are separated by the Timor Trough, which descends to a depth of 1700 fm. Indonesia makes the counter claim that there is only a single continental margin between the two countries and that the Timor Trough is just a depression in this continuous feature. Accordingly, while Australia would nominate the axis of the Timor Trough as the correct boundary, Indonesia regards the line of equidistance as the proper line. The area bounded by these lines in the gap measures about 12,000 nm<sup>2</sup>. The large size of this zone is made more significant by the existence at its northern edge of two outstanding structures suitable for exploitation.

The difference of opinion in 1972 was resolved when Australia and Indonesia agreed on a boundary that lay on the continental slope of the Australian margin. Indonesia has made it plain that such a compromise will not be satisfactory this time; it now seeks a boundary that would lie on the continental shelf.

The geological evidence is inconclusive. A controversy exists on whether Timor is in a subduction zone underthrust by the Australian plate, or whether it forms the overthrust edge of the Australian plate, with the plate boundary situated north of the island. Fitch and Hamilton hold the former view,<sup>38</sup> while Audley-Charles, Milsom, and Chamalaun take the contrary position.<sup>39,40</sup> Veevers, Falvey, and Robins have pointed out





Map 11. The Timor Sea.

that if the answer to this question is going to be found, it will require research that probes beyond the surface and near-surface layers.

Our work shows that regardless of the deeper structures the surface and near-surface processes active in foredeeps and trenches are essentially the same, and thus cannot be used to distinguish one type of structure from the other.<sup>41</sup>

When the area west of the present terminus at point A25 is considered, there is still disagreement between the two countries, but it has a different cause. Both countries propose that the seabed boundary should follow the line of equidistance, but they have different views about the baselines from which the line should be constructed. The Indonesian authorities propose that the line should be constructed between their archipelagic baseline and the Australian mainland. Such a proposal would discount the Australian islands in that sector and shift the line of equidistance southward in Indonesia's favor. Australia believes that the line of equidistance should give full effect to all Australian islands.

There are four Australian islands that stand like outposts off the north-west coast of the continent. They are Scott and Ashmore reefs and Cartier

and Browse islands. Ashmore Reef, which lies 187 nm from the continent, and Scott Reef, which lies 154 nm from the mainland, have the greatest effect in pushing the line of equidistance between the two countries toward Indonesia and therefore in Australia's favor. When the two lines of equidistance are drawn, one giving the islands full effect and the other discounting them entirely, they bound an area of about 21,600 nm<sup>2</sup> out to the 2000 fm isobath. Ashmore Reef has already been taken into account in fixing the terminus of the 1972 seabed boundary, which is shown on Map 11 as point A25. This terminus is on the line of equidistance, and, if the islands are discounted when any extension is made, it will be necessary to agree on a link between point A25 and the new line of equidistance between Indonesia and the Australian mainland.

With respect to the seabed boundary between Christmas Island and Java, Australia would be prepared to agree to a line that followed the insular margin; however, Indonesia has questioned whether the island generates any rights to continental shelf resources. This view is apparently advanced because Christmas Island lies within 200 nm of Indonesia and is comparatively remote from Australia. There can be no question, however, that this Indonesian query runs counter to the proposals contained in the *DCLS*.

Concerning the final issue, fisheries jurisdiction, both countries believe agreement could be reached on a boundary coincident with the line of equidistance between them. Such agreement, of course, would still depend on a common view of the baselines to be used. An equidistant boundary will lie south of the seabed boundary settled in 1972, and this would mean a division of resource jurisdiction in these areas, with Australia controlling the seabed resources and Indonesia controlling the resources of the overlying waters. Disputes relating to allegations of interference, pollution and harassment might develop in such areas. The special problem associated with Indonesia's traditional fishing industry has been addressed by a special provision in an existing memorandum of understanding.

It would be remarkable if either country achieved all it wanted in connection with these four questions. It seems likely that mutual concessions in separate areas will pave the way for final settlement.

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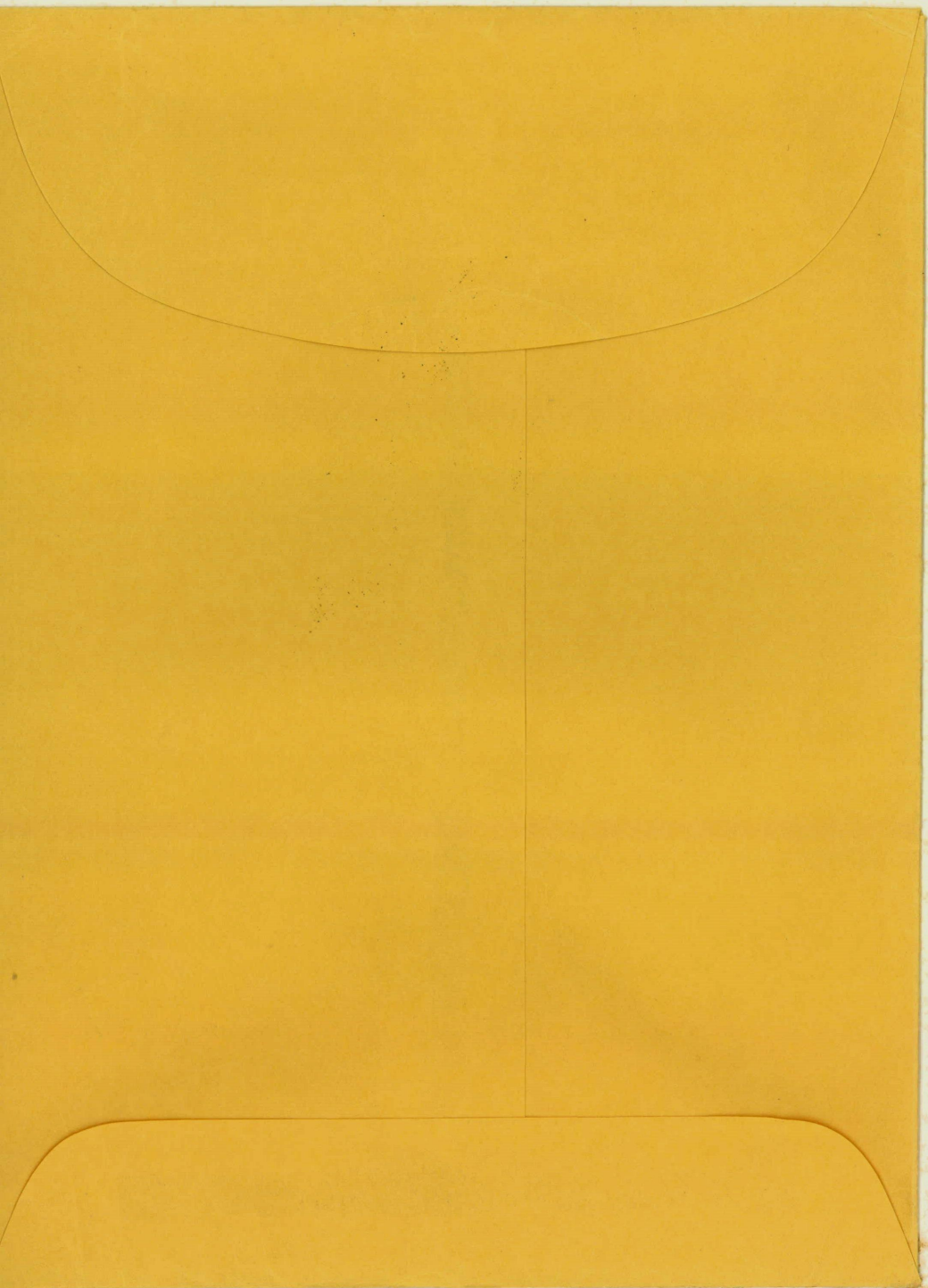
1977b The lofty spirit of patriotism and love for the people and for the revolution of our revolutionary army units defending the territorial waters and islands. Radio broadcast in Cambodian. Reproduced in *Foreign Broadcasting Information Service* 4(104):H2–H3.



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Map 1. Claimed, agreed, and equidistant maritime boundaries.

