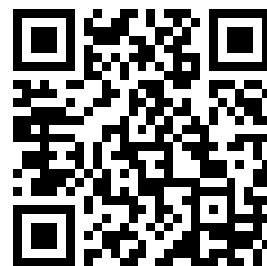

This is a reproduction of a library book that was digitized by Google as part of an ongoing effort to preserve the information in books and make it universally accessible.

GoogleTM books

<https://books.google.com>



Dup OCLC 20116540 ✓

A
0
0
1
0
5
2
7
5
2
1



UC SOUTHERN REGIONAL LIBRARY FACILITY

SOVEREIGNTY OF THE SEA

UNIVERSITY OF CALIFORNIA
LOS ANGELES

JAN 22 1970

— LIBRARY —
GOVT. PUBLICATIONS

GEOGRAPHIC
BULLETIN NO. 3
REVISED OCTOBER 1969

U.S. DEPARTMENT OF STATE

Office of the Geographer

Digitized by Google

DEPARTMENT OF STATE
THE DIRECTOR OF INTELLIGENCE AND RESEARCH

MEMORANDUM FOR THE SECRETARY

Man's ability to use the ocean's resources has been expanding so rapidly in recent years that the well-being of the United States is being increasingly affected by what happens offshore. U.S. foreign relations will continue to involve complex problems relating to the use to which the sea is put. Individuals are looking more and more beyond the shoreline for resources to improve the quality of everyday life.

This Bulletin, a revision of one originally issued in April 1965, primarily concerns the rights which the United States and other countries have on, over, and under the surface of the sea. Precise distinctions of jurisdiction on land areas have their legal counterparts along and off the shores of six continents and hundreds of thousands of islands. This fact is of cardinal importance for several scores of nations whose vessels must operate within the precepts of the law of the sea if international order is to prevail. The growing exploitation of marine resources stemming from our increasing technical capabilities demands a legal framework which will effectively govern the fruit of man's technological genius. The forest of offshore oil derricks and now the advent of floating drill platforms are only illustrations of the dimensions of the problem.

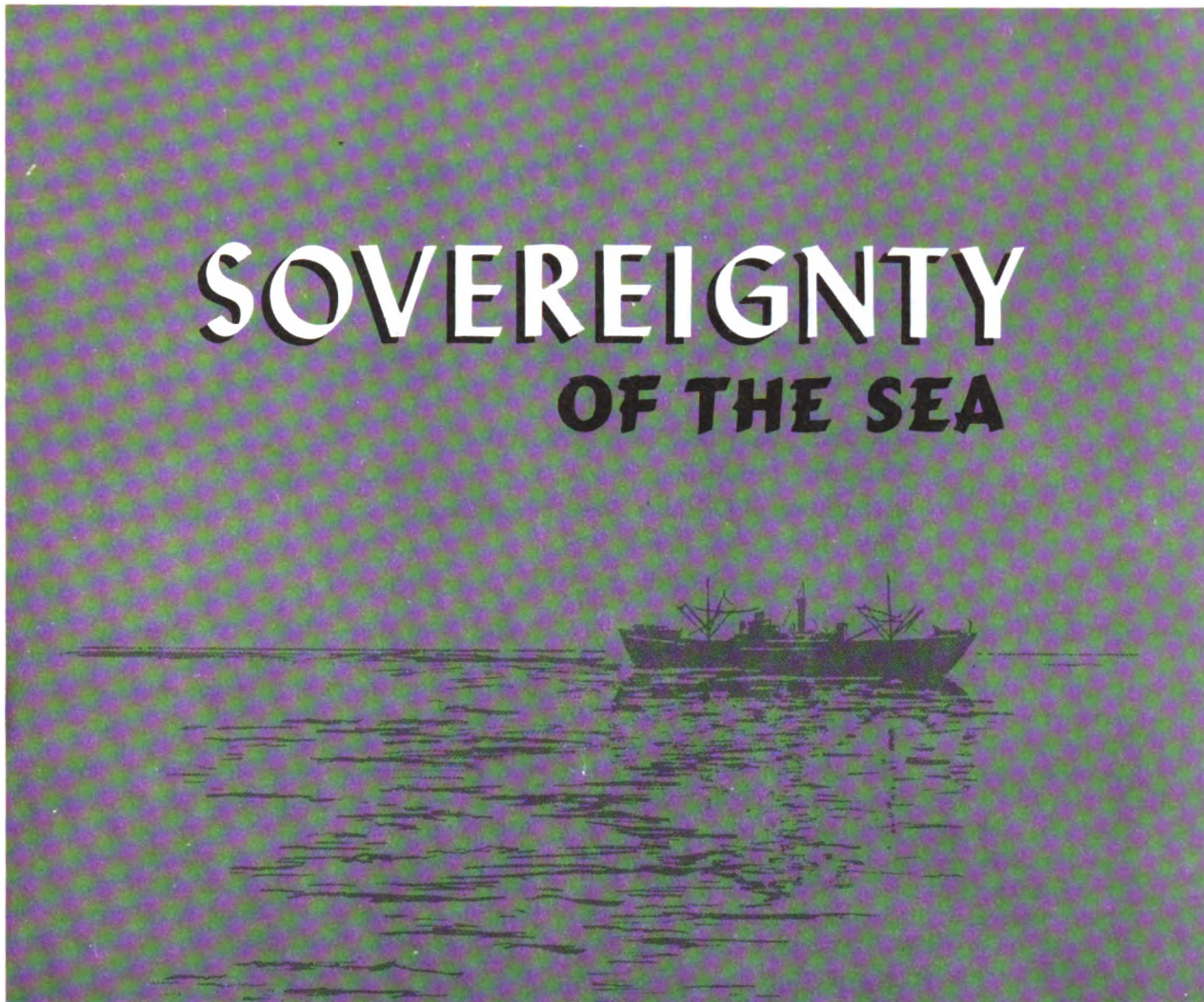
The discussion, technical explanations, tables, and diagrams in the following pages are designed to shed light on the problems of sovereignty over ocean areas. The material should, however, be utilized only for background and reference purposes, and not as a basis for legal decisions or as representing official U.S. policy.

Part I of this Bulletin presents a brief geographic survey of the ocean environment. Part II presents background material concerning the offshore lines of jurisdiction which delineate sovereignty and rights.



George C. Denney, Jr.
Acting

SOVEREIGNTY OF THE SEA



**GEOGRAPHIC
BULLETIN NO.3**

**The Geographer
Office of Strategic and Functional Research
BUREAU OF INTELLIGENCE AND RESEARCH
U.S. DEPARTMENT OF STATE**

Contents

	Page
REALM OF THE SEA	1
The Total Ocean Environment	2
 POLITICAL HORIZONS OFFSHORE	 4
Offshore Jurisdiction	4
Delineation of Offshore Zones of Jurisdiction	6
The Territorial Sea	7
The Continental Shelf	8
Freedom of the Seas	10
Law of the Sea Problems	10
 <i>Appendixes</i>	
A. The Baseline	12
B. Boundaries in the Sea	15
C. Selected Bibliography	17
D. Charts for Identifying Offshore Features	17
 <i>Tables</i>	
I. Areas of the Oceans and Principal Seas	18
II. Coastline Measurements of World's Major Political Entities	18
III. Widths of Selected Straits and Channels	22
IV. Breadth of the Territorial Sea	28
 <i>Charts</i>	
Continental Shelf in Profile	30
The Baseline	31
The Straight Baseline	32
Median Line Boundaries	33

PART I

Realm of the Sea

ONLY IN THE 1950's did the field of oceanography break the bounds of its academic format. Prior to that time scientific investigation was proceeding along conventional lines with emphasis on such topics as chemical composition of sea water, sedimentation, interaction of sea and atmosphere, and marine life. But to most Americans the oceans were of little interest except for recreation. Within the last 15 years, however, the picture has changed considerably. Recent events have brought about new concepts in a general area now labeled as Marine Sciences. Most important, keener evaluation of the resources contained in the 140 million square miles of water covering the globe seems at last to be challenging man's imagination. As one facet of the vigorous new interest, the Federal Government is burgeoning with projects for research, committee action, and other means of furthering the applied aspects of the discipline, though in the final analysis it is mainly private industry upon whom the development of ocean resources will fall.

Of fundamental significance to the earth's inhabitants—who will pass the 4 billion mark soon after the mid-1970's—the land surface offers increasingly limited opportunities for pioneering. Empty land available for agricultural development has virtually disappeared, requiring existing sources of food to meet the needs of ever greater numbers of people. As one step in the direction of combating hunger, the potential for expanding fisheries is now attracting increasing attention. In

addition, advancing technology enables one to conjecture other ways of utilizing this extensive segment of the world's surface. It is now apparent that the oceans and seabeds contain numerous deposits of valuable minerals which will be of increasing importance as land resources are exhausted.

Beginning in the late 1950's the U.S. Government became aware of the ocean's resources and the need to engage in full-scale investigation of the sea's potential. Earlier, the Truman Proclamation of 1945 had resulted from an effort to cooperate with other states in establishing offshore conservation zones for fisheries, clearly a case of sharing the public domain. The Marine Sciences and Research Act of 1961, advanced by President Kennedy, was among the critical measures that gave impetus to recent activity oriented toward the sea. The Act appropriated funds for (a) study and exploration, (b) formation of committees and commissions to carry out programs, and (c) preparation of reports, proposals, and other documents forming a current bibliography in the field. These efforts have already received strong support from top echelons in various agencies in order to emerge with a well-coordinated program in support of international cooperation in law of the sea matters.

Many of the concepts essential to development of marine science already have been proved and widely accepted on the land. Nevertheless, projection of established techniques to a relatively new, and as yet scarcely penetrated, environment de-

depends upon entrepreneurial skill and demands imagination and new approaches. Discovery of untapped resources in the ocean basins and recognition of their great potential have a political and social as well as economic significance to society. However, exploitation of this wealth must face many factors in which technology and cost may prove dominant.

- *Fisheries* have the capability of furnishing protein for increasing millions of hungry people. Further, there is the interesting possibility that direct human consumption of plankton and other fish food may more effectively utilize the sea's potential food supply.
- *Petroleum* is being exploited by drilling farther and farther offshore as technical advances permit. Drilling equipment on platforms can now be profitably operated in water depths of roughly 600 feet.
- *Mineral nodules* on the ocean floor hold promise of future supplies of valuable resources: manganese, iron, cobalt, nickel, copper, etc. Phosphate deposits on the seabed may some day be scooped up, offering another interesting possibility for exploitation when costs are justified.
- As a source of *fresh water* the oceans hold no parallel if large-scale desalinization processes become economical. Present processes, however, are expensive and disposition of the residual salts poses problems.
- *Underwater travel*, particularly for cargo, offers a means of shipping free from hazards of winds, storms, choppy water, and ice.
- Long-range *weather forecasting* will increase in accuracy if meteorological observations cover sea areas, thus permitting a greater range of air mass analysis.
- Improved techniques of *offshore waste disposal* offer a means of solving water pollution problems off the coast. The disposal of highly dangerous nuclear waste in the deeper reaches of the sea also has been the object of study and investigation in order to minimize the dangers of contamination.
- Attractions of the coast and offshore waters have enormous possibilities to stimulate further development of littoral *recreational areas*. More underwater activities including below the surface resorts may prove feasible and popular.
- *Navigational facilities* may continually be improved in the interests of maritime safety.

- Continued *scientific investigation* in oceanography will bring to light greater detail on many features of the sea and reveal new aspects as yet unknown.

The above and other activities associated with the oceans and their beds concern not only the United States, but the other 107 states of the world which face the sea (see Table II). The recently published Report of the Marine Sciences Commission (Appendix C) appreciates the importance to the international community of future action: "Means for reaching reasonable accommodation of competing national interests must be found to achieve efficient and harmonious development of the sea's resources." To reach an equitable distribution of the ocean's resources depends on establishing an agreed boundary for offshore zones subject to coastal state control and an agreed regime for the seabeds beyond, while at the same time preserving the concept of "freedom of the seas."

The Total Ocean Environment

THE SEA COVERS 70.8 percent of the world's surface, an area nearly 15 times greater than the continent of North America. Several other examples of these dimensions may be illuminating. It is possible to be in the ocean on a ship 1,600 miles from the nearest land. At one point in midocean a ship can be more than 3,500 miles from the nearest continental landmass. The Pacific Ocean with some 64 million square miles is more than 21 times as large as the conterminous United States. Allowing for embayments it has straight line dimensions which traverse a distance greater than one-half the circumference of the world. The Atlantic and Indian Oceans together account for another 60 million square miles, each one dwarfing the continent of Eurasia.

That the oceans of the world, in addition to their extensive dimensions, are joined one to another by wide passages leads some oceanographers to speak of "The Global Sea." This concept of a single ocean is indeed well adapted to the modern world in which travel time is becoming less and less and in which states come ever closer in their interspatial relations. Colossal expanses of water off their shores have long intrigued land dwellers. Many have turned to the sea to earn their living in one way or another while countless others have crossed oceans bound from one land area to

another. Nevertheless, the sea to date has failed to receive attention commensurate with its dimensions or with the careful examination given to the land surface.

Oceanographic research, probing deeply in the offshore environment, is taking place under sponsorship of two U.S. Government agencies in particular—the U.S. Naval Oceanographic Office and the Coast and Geodetic Survey. These efforts, along with those of countless private organizations testify to our concern with jurisdictional problems, resource potential, and scientific knowledge resulting from modern survey methods. The Coast and Geodetic Survey, for example, operates 12

oceanographic vessels, equipped with laboratories for carrying on many types of investigation over all parts of the world. One, the *Explorer*, has recently returned from the South Atlantic where it engaged in an exploratory survey to support the theory of continental drift. Another, the *Oceanographer*, completed in December 1967 a year-long, around the world oceanographic voyage following the itinerary of the famous voyage of HMS *Challenger* in the 1870's. Private industry has also shown either direct or indirect interest in the sea and its potential, e.g., offshore drilling, manufacture of marine equipment, and establishment of recreational facilities.

PART II

Political Horizons Offshore

NATIONALISM HAS TRADITIONALLY caused many states to look seaward, either to secure their domain or extend it. In fact, nationalism by its very nature may serve as a stimulus to offshore claims. The emergence of 66 newly independent states since late 1943, each conscious of its national sovereignty, has accentuated the attention given boundaries including those offshore. The major trend in past centuries, however, has been to free the seas from any restrictions on mobility to facilitate an exchange of goods on a worldwide scale. The idea is based on Hugo Grotius' much publicized concept of the *mare liberum*.

In the view of international experts the prime objectives of law of the sea matters have been similar to those of Antarctic and Outer Space treaties in that cooperation among nations is sought and possibility of conflict avoided. The maritime states, centering along the periphery of the North Atlantic, have traditionally championed the need to keep the world's shipping lanes as free as possible. The most highly developed states owe, in large measure, this very status to a free-flowing international trade.

Moreover, they argue that, in pursuit of a realistic jurisdictional pattern for the oceans, it is necessary to take into account a wide variety of objectives and not rely solely on the dictates of narrow national interests in identifying the rights—or lack of rights—of the maritime states. In the same vein, resources found beneath the surface of

the high seas pose the problem of apportioning them in a manner equitable to the world community as a whole.

Offshore Jurisdiction

IDEALLY EVERY PART of the global sea, whether a segment in mid-Pacific or a fragment along an irregular coast such as that of Norway, should be governed by internationally accepted rules. The Law of the Sea Convention of 1958 provides guidance for determining offshore administration and control in principle but not in sufficient detail to take into account the numerous situations found in the planimetric and bathymetric dimensions of the sea. Agreement among states of the world in these matters not only would contribute toward stability in international relations, but would facilitate cooperation in the use of the oceans' resources and shipping lanes.

The 108 sovereign states that face the sea along some 200,000 miles of coastline range from those made up of an island or islands (Iceland, The Philippines) to mainland territory with small maritime strips (Jordan, Democratic Republic of the Congo). In an intermediate position are those with more than a single water body along their shores (Canada, France). Another 28 states are landlocked, yet they demand certain rights with respect to the sea. These examples of coastline

distribution do not include some 15 dependencies and areas of associated sovereignty along the coasts of continental mainlands as well as a highly diverse assortment of islands, parts of islands, and exclaves of varying sovereignty that also face or are surrounded by the sea (Table III gives distances along which various nations face the sea).

Obviously the landward margin of the sea adjacent to a coastal state demands the preponderance of its attention. At the other extreme, all states have interests stretching across the widest of oceans—maritime commerce, resources, and scientific exploration.

Offshore claims vary from state to state. Gaps or vagaries also exist in definitions and means of identification for any given claim. At the same time abuses abound in observance of those acts that have been established as conventional law of the sea rules and procedures. With respect to the geographic situation along the world's seacoasts it must be granted that distribution of land and water and shoreline configuration produce a pattern not duplicated in any other place. It is little wonder, therefore, that application of an effective jurisdictional pattern is complicated and controversial.

The breadth of the territorial sea has long caused controversy among the world's states. Claims vary from 3 miles by the United States and most maritime nations of Europe and the Commonwealth, through 12 miles by the Soviet Union and many others, to 200 miles by some Latin American countries. Differences in fishing interests among states also have created international incidents between vessels on the high seas. Normally, however, fishing rights are settled over the conference table. In recent years, frequent talks at high levels between the United States and other countries over fishing rights have resulted in some agreement on critical issues. Conference agenda have included a variety of items aimed at achieving a balance between fishing rights of the coastal state and the rights of all other states, with emphasis also on matters of conservation. Fisheries problems in the North Pacific have received much attention, especially from the United States, Canada, Japan, and the Soviet Union.

Navigation rights along the periphery of the oceans where shipping lanes converge to traverse straits and channels also result in conflicting national interests. Examples abound, such as the Strait of Gibraltar, Strait of Malacca, Bab el Mandeb, and the Skaggerak. Through such physical bottle-

necks, ocean routes become constricted in the approaches to many world seaports. Maritime commerce depends mainly upon access to the loading dock, usually through a narrow harbor entrance. The millions of square miles of "open seas" are not really open without access to the terminals. Air rights for commercial aviation are less flexible than regulations for water transit, and rigidly restrict air routes to jurisdictional rather than geographic patterns. The right of aircraft to overfly territorial waters is the same as for sovereign land areas of the coastal state since no "right of innocent passage" exists as for surface craft. Precedent for these restrictions goes back to various conventions and agreements made during the first half of the century, particularly the Chicago Conference of 1944. At that time an effort was made to establish air transit rights other than by bilateral agreement. An International Air Services Transit Agreement was enacted and accepted by most members of the International Civil Aviation Organization. It entailed two privileges, known as the "two freedoms": (1) the privilege to fly across the territory of another state without landing; and (2) the privilege to land for non-traffic purposes. Rights granted to aircraft of one state operating in the air space of another, however, are subject to limitations in accordance with the latter's own civil aviation authority. For example, certain air corridors may be designated, or approval for flight may be subject to specific rules or denied at any time. Bilateral agreements are mandatory for carrying passengers, cargo, and mail between states, or for cabotage within a state. Military aircraft cannot fly with impunity over foreign territory, including the territorial sea. Thus, international agreement is the common basis for the world's air route structure.

The major problems of offshore sovereignty reduce to a single, though complex, question: "What state holds jurisdiction over what part of the seas and to what degree?" Even where there may be fairly precise guidelines by which to measure jurisdictional limits, the highly irregular coastal pattern in many areas handicaps any uniform application of them from one part of the world to another. A principal means of identifying various offshore problems and providing background material for their solution lies in hydrographic charting. However, a great deal of work needs to be done. It has been estimated that only about one-third of the continental shelf has been mapped and that 10 years will be required to provide adequate charts

for this shallow segment of the ocean floor alone. For the deep ocean basins the situation is more complex; a program of adequate charting is now only about one-tenth completed and an optimistic view forecasts another 10 years to finish the huge project.

Delineation of Offshore Zones of Jurisdiction

LINES OF JURISDICTION, easily fixed and demarcated on land, do not lend themselves to ready identification on the surface of water bodies. A network of buoys could conceivably serve this purpose though for the most part hydrographic charts are used for discerning various zones and their limits. National mapping agencies seldom issue material upon which jurisdictional limits are shown, but charts officially published form the basis for plotting offshore claims. The zonal pattern over the global sea, as discussed below, may not be regarded as constituting a series of political entities such as might commonly be found over land areas. Rather, the zones are delineated according to textual specifications and represent a frame of reference for authority to carry on offshore activities and from which procedures may be projected. In many instances these specifications do not have details for alignment and measurement, thus requiring some interpretation relative to actual coastal or bathymetric situations.

Offshore zones near the continental margins or major islands are normally small and tightly fitting divisions of water surface, particularly in areas of fringing islands and along irregular coastlines. Lines of contact between jurisdictions of neighboring sovereign states also occasion complexities in the pattern. As distance from a shoreline increases, the interest and concern of the coastal state in offshore matters decreases. In turn, the degree of control also decreases.

Within the idealized zonal pattern under discussion five basic zones may be distinguished, all but the first roughly parallel to the coast: internal waters, territorial sea, contiguous zone, continental shelf, and high seas. In all instances offshore zones are aligned in relation to a baseline, which is the legal version of the coast.¹ The following para-

graphs present highlights of each of the offshore zones as distinguished by jurisdictional function.

Internal waters are those along a coast inside the baseline. They consist of water areas in bays and mouths of rivers, including estuaries as well as certain other hydrographic features fringing the shores. The U.S. Coast Guard uses the term "inland waters" for the same areas. Inland waters may likewise be used, in a non-legal sense, to refer to such features as lakes, rivers, and canals. Along unusually irregular coastal stretches where the straight baseline is applied (see explanation on page 14 and chart on page 32), areas of internal waters may lie seaward of what normally would be the baseline of measurement. Sovereignty over these waters is identical to the land area of the coastal state along which they lie.

The *territorial sea* comprises a zone off the coast of a state immediately seaward from the baseline. Complete sovereignty is maintained over this zone by the coastal state, subject to the right of innocent passage to ships of all states. Although the breadth of territorial sea claimed by various states ranges from 3 to 12 or more miles, the United States recognizes this zone as being no more than 3 miles in breadth.

The *contiguous zone* comprises a band of water outside, or beyond, the territorial sea in which the coastal state may exercise custom control and enforce public health regulations, etc. It is measured from the same baseline as the territorial sea, and may extend no more than 12 miles seaward from it, thus can be as great as 9 miles in width. In all cases the contiguous zone is coextensive with the landward margin of the high seas, and also normally lies over a part of the continental shelf.

The concept of a *fishing zone* has been generally accepted by the community of nations. Offshore placement of this zone corresponds generally to that of the contiguous zone primarily for the purpose of giving exclusive fishing rights to the coastal state. Even though not specifically recognized by the Geneva Convention, a contiguous fishing zone extending no more than 12 miles from the baseline is justified internationally in the negotiating history of the Law of the Sea Conference, and in the practice of nations.

Continental shelf refers to the seabed area beyond the outer limits of the territorial sea and introduces a third dimension in offshore jurisdiction. The term has both physical and legal connotations, as will be described on pages 8-10. Briefly, this zone may be explored and exploited exclusively by the coastal state for mineral and

¹ A technical explanation of these zones, as well as detail on the establishment of the baseline, appears in the appendixes of this Bulletin.

living resources. The latter, as distinguished from fish in general, are identified in the Convention of the Continental Shelf (part of the Geneva Convention, 1958) as follows: "... living organisms belonging to sedentary species, that is to say, organisms which, at the harvestable stage, are either immobile on or under the sea-bed or are unable to move except in constant physical contact with the sea-bed or the subsoil." Superjacent waters of the high seas, including the contiguous and fishing zones, lie over the continental shelf without any conflict of jurisdiction, being subject to different regimes.

High seas refer to all water beyond the outer limit of the territorial sea. Here are the vast ocean areas of the world, for the most part subject to a minimum of control. Surface navigation, aerial navigation, laying of cables, and installation of pipelines exemplify activities which may be carried on by any state in any part of the high seas. Although the high seas are in part coextensive with the waters of the contiguous zone, the fishing zone, and those over the continental shelf, freedom of the seas is not invalidated by the zonal overlap.

Airspace must be added to any full inventory of offshore zones. Airspace rights offer none of the flexibility found on and below the water surface. Overflight of foreign aircraft may not take place over the territorial sea of any state without its consent. It may be said that unrestricted offshore flight of aircraft is coextensive with areas of high seas, unaffected by the existence of jurisdiction associated with contiguous or fishing zones or the continental shelf.

The Territorial Sea

NO STATESMAN OR INTERNATIONAL LAWYER will deny that there is a territorial sea and that it extends along all coastlines of all maritime countries.¹ Such a zone of offshore water is considered that margin of the sea where a state may without interference carry on littoral functions essential to national welfare, including security. This viewpoint conflicts with the desire of other states to engage in world commerce, a desire which implies that territorial waters must be penetrated with a minimum of restrictions. Thus, the "freedom of the seas" concept may well conflict with national policies advocating broad and exclusive claims of sover-

¹ Technical aspects of the territorial sea, including how it is delineated, may be found in Appendix A.

eighty or otherwise creating offshore barriers which curtail free movement.

A major problem of international concern involves the breadth of the territorial sea—how far seaward should a state's sovereignty extend? This specific question, simple though it may appear, has stirred up great controversy, especially plaguing states seeking to uphold freedom of the seas. International incidents involving the activities, or even the presence, of vessels of one country off the shores of another may result from conflicting views on this score. Full-scale international conferences on the Law of the Sea in 1958 and 1960 at Geneva under U.N. auspices failed to resolve this issue or even bring about any compromise among nations.

The primary basis for recognizing any given breadth of the territorial sea as an international norm lies in guidelines provided by the International Law Commission² which, however, do not contain a precise attempt to define a fixed breadth. The result has been interpretation by individual states to support national policies and aspirations. The statements in question are contained in Article 3 of the International Law Commission's report as follows:

- The Commission recognizes that the international practice is not uniform as regards the delimitation of the territorial sea.
- The Commission considers that international law does not permit an extension of the territorial sea beyond twelve miles.
- The Commission, without taking any decision as to the breadth of the territorial sea up to that limit, notes on the one hand, that many States have fixed a breadth greater than three miles and on the other hand, that many States do not recognize such a breadth when that of their own territorial sea is less.
- The Commission considers that the breadth of the territorial sea should be fixed by international conference.

The spirit of the above statements seems to imply 3 miles as the conventional breadth by the phrase, "... many States have fixed a breadth greater than three miles . . ." Three nautical miles has long been the distance generally accepted by those states upholding the concept of the freedom of the seas.³ Conversely, other states have set the breadth

² Report of the International Law Commission, General Assembly, Official Records: 11th sess., Supplement No. 9 (A/3159), United Nations, New York, 1956.

³ Three nautical miles corresponds to 1 league, a former unit of measurement used in marine terminology. Also, a commonly accepted but not necessarily irrefutable statement attributes the 3-mile breadth to the distance a cannonball could be fired.

of their territorial seas at 4, 6, 9, 10, or 12 miles, unilaterally claiming these distances as conforming to the terms specified in Article 3. A few states have also decreed breadths exceeding 12 miles, the figure generally accepted even by countries claiming more than 3 miles as the maximum for offshore sovereignty. Several states, principally among those along the west coast of Latin America facing the unlimited vista of the Pacific, reached the extreme of settling on a territorial sea as great as 200 miles in breadth. Such limits reflect a desire to retain exclusive fishing rights offshore for this distance, but nonetheless they impinge severely on the concept of the freedom of the seas.

During the 1958 Law of the Sea Conference in Geneva delegates from 86 countries failed to agree on an internationally acceptable breadth for the territorial sea. Most countries desired either 3 miles or 12 miles with some in favor of 6 miles. At the second conference in 1960 the U.S. delegation, together with that of Canada, proposed as a compromise a 6-mile territorial sea plus an additional 6-mile exclusive fishing zone. Although the measure narrowly failed passage by the necessary two-thirds majority, the concept of greater control on the part of coastal states remains active. States seeking to extend their offshore claims in this manner have so far favored, with few exceptions, reasonably modest distances. Despite the above-mentioned proposal, U.S. policy since the Geneva Conference of 1960 has been continued adherence to a 3-mile territorial sea.

In recent years more and more states have unilaterally extended their territorial waters to 12 miles. Several newly independent states of Africa, for instance, have acted in this fashion. According to one estimate, if all countries were to extend their territorial waters to this distance, some 3 million square miles would be removed from the high seas. A 12-mile territorial sea covers more than 4 times as much ocean surface as one 3 miles in breadth. Shoreline irregularities characteristically escalate distances offshore of the outer limit of territorial waters. For example, a rock off the coast could have 28.3 square miles of water surface in its 3-mile territorial sea while with 12 miles the same rock could entail sovereignty over 452.4 square miles of water surface. Even within the confines of a 3-mile territorial sea an indented coastline and offshore islands augment considerably the area of territorial waters. For example, Massachusetts with its baseline of 205 miles has the outer limit of the territorial sea extending an *average distance* of 4.65

miles seaward from the baseline if one divides the total area of these waters by the length of the baseline along the mainland coast.

Breadth of the territorial sea thus may have great significance, particularly in areas of narrow seas, which commonly comprise the approaches to port areas. Many of the world's strategic straits and channels along the continental margins and between islands in archipelagoes may be converted from high seas to territorial waters by even modest extension of offshore sovereignty. Examples include the Strait of Dover, Strait of Hormuz, entrance to the Gulf of Bothnia, entrance to the Gulf of Finland, Strait of Gibraltar, Strait of Bab el Mandeb, and passages in the chain of Indonesian islands (see Table III for widths of important straits).

The Continental Shelf

IN CONTRAST TO OFFSHORE ZONES the continental shelf involves three physical dimensions. In addition to length and breadth, the floor of the sea varies in bathymetric relief. Yet still another factor comes into the picture, for the continental shelf as legally defined differs substantially from the geographic definition, which is determined by the physical attributes of this offshore feature. The two concepts are complicated and require careful definition.

In a geographic sense the term continental shelf refers to the shallow part of the ocean floor immediately peripheral to the continental landmasses of the world. In scientific literature a general depth of either 100 fathoms (600 feet) or 200 meters is considered the outer edge of the continental shelf. Beyond this relatively shallow zone a steeper slope leads to greater depths. Maps often show submarine contours of these values, which are then conveniently used to delineate that part of the undersea surface qualifying as shelf. Actually, 100 fathoms equal only about 183 meters, but the location of the break in the slope is so indefinite that it cannot be precisely identified by a fixed numerical value. In fact, the criterion of 100 fathoms tends to be somewhat high since available data show the average depth of the break in slope to lie between the 60- and 80-fathom submarine contours. On the other hand there is evidence of continental shelves at much greater depths, the most extreme being reported as 550 meters for the Sahul Shelf off the coast of northern Australia.

The angle of slope on a physical continental shelf is incredibly small, only about 2 fathoms per mile, or 0.085 degree. The human eye cannot detect a slope of even double this inclination. In many instances, however, the surface of the shelf is not smooth and may be in the form of terraces, ridges, hills, depressions, and canyons. Uneven submarine topography of this type obviously makes the physical shelf difficult to identify, especially where its outer periphery is fractured and defies delineation other than by detailed charting or unrealistic generalization.

On the average the continental shelf extends seaward for about 30 miles. But average width is not very meaningful because of the great variation found from place to place. Along the west coast of South America, for example, where mountains rise sharply from the coast, the submarine surface in turn plunges to great depths with very little trace of a ledge which could be construed as continental shelf. At the opposite extreme, the entire Bering Strait and an area extending 800 miles north of the north coast of Siberia are less than 100 fathoms in depth. At other places, also, the width of the shelf is measured in hundreds of miles, including the Atlantic Ocean off the southern coast of Argentina and the South China Sea off the eastern coast of the Malay Peninsula. The Persian Gulf, some 600 miles long by 230 miles wide is for the most part no deeper than 50 fathoms. Its seabed generally falls into the category of a continental shelf.

In view of current international interest in—and conflict over—law of the sea matters, the question of the continental shelf has strong legal connotations which supplement the usual physical qualities associated with this geographic feature. There must be means of identifying jurisdictionally that zone of water along any coast concerning the right to exploit the resources of its seabed, particularly minerals. Regardless of its location, any given offshore resource must legally appertain to one sovereign state or another, or in the absence of any new agreement be subject to the regime of the high seas and thus accessible to any sovereign state.

Guided by reference to the Report of the International Law Commission of 1956, a legal definition of the continental shelf was promulgated at Geneva in 1958 by the following wording:

... the sea-bed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea, to a depth of 200 meters or, beyond that limit, to where the depth of the superjacent waters admits of

the exploitation of the natural resources of the said areas.

Continuing, the definition applies to islands as well as continental mainland:

... the sea-bed and subsoil of similar submarine areas adjacent to the coasts of islands.

Supplementary to the definition of the continental shelf, the rights of exploration and exploitation were expressly specified:

The coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources.

In light of the above, a coastal state has sovereign rights for the purpose of exploring and exploiting resources on or under the seabed of the shelf. The exact wording of the articles is subject to several interpretations, particularly in regard to the ambiguities surrounding the "adjacency" and "exploitability" criteria in the above definition. For example, a conservative view would seem to indicate that the term *shelf alone* would apply *only to the shelf itself as it physically exists*—to a depth of 200 meters, or beyond to such depth that that there might be resources to exploit. Thus, the extent of the geological shelf must be known irrespective of any cited depths. On the other hand, it has been argued that the expression, "... or beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas ..." gives exploitation rights to the coastal state at any point in the ocean not more than halfway to the coast of the state on the opposite side of the ocean. However, this interpretation ignores the "adjacency" criterion contained in the definition of "continental shelf."

Aside from an imprecisely defined seaward limit, the continental shelf as conceived by international jurists differs markedly from the zone of territorial waters. The latter, including their seabed, are part of the sovereign territory of the state, so that no question arises which might challenge the rights to exploit resources within these limits. It is beyond the outer limits of the territorial sea of any state that the definition of the continental shelf becomes critical.

Full sovereignty over both water and seabed extends from the shoreline (or baseline) to the outer limit of the territorial sea. Seaward from this limit the water falls into the region of the high seas, of free access to all states. But with respect to the seabed and its resources certain sovereign rights

exclusive to the coastal state exist, thus bringing the third dimension into play. In short, beyond the outer limit of the territorial sea any distant state may navigate freely on the water, may engage in fishing (in accordance with any established fishing zones), but may not exploit minerals and certain other natural resources from the seabed and subsoil of the continental shelf.

Freedom of the Seas

THE CONCEPT OF FREEDOM OF THE SEAS relates to the high seas. Here the free movement of ships has been for several hundred years a strong motivating factor in the development of worldwide trade and commerce. First Spain and Portugal, then England, the Netherlands, and France, and more recently the United States and the Soviet Union have taken full advantage of the open seas to establish strong maritime economies. Over, on, or through the vast ocean areas any nation may operate aircraft, surface vessels, or submarines. Neither are there restrictions in the high seas to such activities as laying cables or pipelines. Beyond the outer limits of fishing zones high seas fisheries are open to all nations.

Although the high seas represent the ultimate in opportunities for mobility on an extensive scale, their use for world shipping may be greatly hampered by legal limitation of movement along the margins. A zone of territorial water compounds the restrictive effect of coastal configuration in the narrow seas and along irregular shorelines. Any increase in the width of the territorial sea decreases maneuverability in relation to the coast out of all proportion to the area involved. For example, any straits more than 6 but less than 24 miles in width will have a continuous zone of high seas extending through them if the territorial seas on either side are 3 miles in breadth but not if they are 12 miles in breadth (Strait of Gibraltar, Straits of Malacca).¹

Freedom of airspace over the high seas especially suffers because of flight restrictions over the territorial sea. Unlike ships plying on the surface of the water, aircraft have no "right of innocent passage" over territorial waters. Planes of any given state may fly over the territorial sea of any other state only with its consent. Such privileges are not always assured in the present-day world. Thus the

complicated route structure of international airways with their technical requirements must in all cases conform to the sovereign pattern of land and the marginal seas.

Each mile in the air denied to commercial aircraft, as by greater breadth of the territorial sea, offsets just that much the great advances made by aeronautical technology in the speed and range of aircraft. In frequent instances aircraft must fly many extra miles to avoid overflight of certain territory. For example, a jet aircraft bound from Tehran to Tel Aviv, to avoid flying over Iraq and Syria, will require an extra 245 miles, or about 30 additional minutes flying time. Flight of military aircraft must adhere strictly to practices incorporated in Law of the Sea conventions. In fact, the shooting down of military planes which stray over the territorial waters as well as land territory of an unfriendly state is by no means unknown.

Law of the Sea Problems

THE 1958 LAW OF THE SEA CONFERENCE in Geneva resulted in agreement on many aspects of offshore jurisdiction. Those functions pertaining to administrative routine, such as collection of customs and sanitation regulations, entail little controversy. Also, the pattern of offshore zones and the degree of control within each find widespread approval from state to state. Two serious problems, however, emerged from the 1958 proceedings and continue to obstruct offshore cooperation in the international community. First, the breadth of the territorial sea throughout the world appears to rest upon tradition and unilateral claims rather than willingness to arrive at a universal standard. For example, a state with a 3-mile territorial sea may lie adjacent to one which has claimed a zone 200 miles in breadth as its territorial waters. Second, the question of the outer limit of the continental shelf as identified in conference terminology remains vague in the face of advancing technology which has developed new and better methods of exploiting resources of the sea. For example, a seabed having a depth greater than 200 meters may be subject to question as to whether its resources pertain to the coastal state or to the world community at large.

The U.S. delegation at Geneva traditionally held to a territorial sea 3 miles in breadth, placing the United States with the advocates of a "narrow" sea. This policy conforms with other American concepts and attitudes toward international coop-

¹ See Table III for widths of some of the more important straits.

eration and technical progress in maritime affairs. In brief, the U.S. position:

1. Supports a vigorous international trade and other maritime activities with a minimum of restriction on offshore movement.

2. Permits the maximum number of straits and channels to remain within the regime of the high seas.

3. Favors exploration and scientific investigation, including hydrographic charting, of offshore areas by oceanographers and other professional technicians with a minimum of restriction against freedom of movement.

4. Reduces the expense for patrolling.

5. Allows a flexibility in civil administration by the establishment of special purpose zones beyond the outer limit of the territorial sea.

The United States does not favor, nor does it recognize, any territorial sea beyond a breadth of 3 miles. It has become increasingly apparent that international accord over a uniform breadth is more necessary than ever if further disputes over the extent of territorial waters are to be avoided. Since the last two international Law of the Sea Conferences failed to define the territorial seas, the cleavage between "narrow" and "wide" has worsened by a succession of unilateral extensions. Several Latin American states have claimed 200 miles and other states have unilaterally extended their offshore sovereignty beyond 12 miles (see Appendix A and data in Table IV). Continued encroachment on the high seas weakens the effectiveness of international law as expressed in the articles of the 1958 Geneva Convention.

Apart from the question of offshore sovereignty, the world community faces another array of major international problems relative to rights beyond the outer limits of the territorial sea. In theory, the coastal state has the right to exploit resources on and beneath the seabed of the continental shelf while all states may share resources in the ocean basins beyond. Unfortunately, this vague concept is far from satisfactory and promises to founder because of the conflict of national aspirations with the physical makeup of the sea, its shorelines, and its bed:

1. The outer edge of the continental shelf (Continental Shelf Convention, Geneva Conference, 1958) is ill-defined legally and subject to various interpretations ranging from the 200-meter bathymetric contour to a point in mid-ocean half the distance toward the coast of a differing sovereignty.

Any state would undoubtedly be disposed to legally interpret the extent of the continental shelf in the light of benefits which might accrue to the national welfare.

2. Anticipation of great riches in the sea, a concept now becoming almost a cliché, is causing states to intensify their efforts toward more remote offshore claims.

3. Oceanographic experts state that the potential resources obtainable from the sea are truly great but that economic realization of them on any substantial scale will require many years. Thus, major decisions made within the near future might not prove realistic later when more is known as to the direction exploitation techniques will take.

4. Jurisdiction near the landward margins of the high seas is layered; that is, one set of principles obtain above the sea (overflight of aircraft), one on the surface of the water (ocean navigation), another concerns the water and its contents (fishing), and still another the seabed and its subsurface (mineral rights). Although each pertains to the area of the continental shelf there are inevitably interrelationships which could imply conflicts of interest.

Within the United States these and other problems have been approached at high levels in various Federal agencies in order to establish a policy for "an adequate national oceanographic program that will meet the present and future national needs." In addition to the physical aspects of the marine sciences and utilization of the resources and advantages of the sea by the United States, national policy takes into account broader international problems. A quote illustrates the wide implications of any future treaties in view of potential competition among the states of the world. In a proposal to the Secretary General of the United Nations, Mr. Arvid Pardo, Maltese Ambassador to the United Nations, pleaded for a "Declaration and treaty concerning the reservation exclusively for peaceful purposes of the seabed and the ocean floor underlying the seas beyond the limits of present national jurisdiction and the use of their resources in the interest of mankind."

In geographic terms, these policy issues presuppose an answer to the relatively simple question—at what point offshore does jurisdiction of the coastal state give way to rights for all states? Resolution of this question involves most of the physical extent of the world, most of the people of the world, and, either directly or indirectly, all of the governments of the world.

The Baseline

Data for identifying and projecting baselines in accordance with Part I of the Convention on the Territorial Sea and the Contiguous Zone, adopted by the Conference at the Law of the Sea Convention in Geneva, 1958.

The entire zonal pattern of offshore water must necessarily depend upon some definite base from which the various claims, including the territorial sea, may be measured. The coastline itself serves this purpose, in some ways similar to the way *mean sea level* determines the base for measuring all elevations on land (or for measuring submarine depths). The configuration of the world's coastlines, however, are exceedingly complex in many instances, involving irregularities with tortuous embayments and myriads of offshore islands. Thus, a *baseline*, from which to measure offshore zones, may range from a smoothly curving shoreline offering no problems to a highly complex land-water belt of contact requiring geometric principles by which a theoretical coastline may be established.

The Law of the Sea Conference in Geneva, 1958, adopted the low water line along the coast as the base from which the territorial sea would be measured. In theory, such a line should appear on large-scale hydrographic charts officially recognized by the states concerned. In practice, however, some states produce charts showing the high water line. Also, maps produced may be out of date, with the result that shoreline processes have altered the coastline since any hydrographic survey was made. Again, charts of very large scale show features such as small islets and mud banks which may be missing at smaller scales, further confusing the issue in any attempt for a precise delineation of offshore water. Little choice remains other than to use the best available charts, though the magnitude of offshore problems may justify special efforts toward revising existing charts and making new charts suitable for current requirements.

Coastal Indentations

Where a coastline is broken, as by a bay, mouth of a river, or other indentations it becomes necessary to construct a geometric baseline across the opening by arbitrary means. Solutions may be extremely simple, or may involve intricate computations, depending upon the complexity of the shoreline. Shoreline segments with indentations may fall into types, but in no instances are two ever alike. In all cases a "closing line" must be drawn across the seaward opening of the indentation to simulate a "normal baseline" representing the coast. Otherwise the baseline would extend into land bodies along the banks of rivers and around the shores of bays and inlets.

Rivers seldom present problems of any magnitude. A line drawn directly across the mouth of a river where it empties into the sea usually provides a suitable baseline across a break in the shoreline. Where a river flows first into an estuary or other embayment before emptying into the sea, other techniques come into effect to determine the baseline.

Along any irregular coastline, indentations other than the mouths of rivers and streams fall into two categories: bays and "mere curvatures of the coast." Offshore claims are measured directly from the coast in the latter case, but in the former case closing lines must be drawn. A definite technique has been established and adopted by which a coastal indentation may be identified as a bay. Article 7 in the Convention on the Territorial Sea and the Contiguous Zone stipulates the requirements by which a bay is determined:

... a bay is a well-marked indentation whose pene-

tration is in such proportion to the width of its mouth as to contain landlocked waters and constitute more than a mere curvature of the coast. An indentation shall not, however, be regarded as a bay unless its area is as large as, or larger than, that of the semi-circle whose diameter is a line drawn across the mouth of that indentation.

Regardless of its configuration, however, the mouth of any bay may not exceed 24 miles in width. As set forth in the same Convention, where the natural entrances of a bay are more than this distance,

... a straight baseline of twenty-four miles shall be drawn within the bay in such a manner as to enclose the maximum area of water that is possible with a line of that length.

Where a closing line, or closure, across the mouth of a bay transects an island or islands, the accumulated water distances alone may not exceed 24 miles. Individual segments of the closure must be straight lines but not necessarily aligned one parallel with another. Finally, the water of bays within bays may be included as water surface of the outer bay in determining the dimensions of any coastal indentation.

In some instances bays in their legal as well as physical sense may penetrate the land for many miles. For example, Chesapeake and Delaware Bays each have mouths less than 24 miles in width and extend into the interior about 170 and 70 miles, respectively. Along the New England coast Cape Cod Bay represents a less extreme example of a coastal indentation satisfying the legal requirements for a bay. Its natural entrances lie 15.3 miles apart and the partially enclosed surface area of water exceeds that of a semicircle having a diameter co-extensive with the closing line. In contrast, Santa Monica Bay on the California coast looks like a bay but does not qualify in the semicircle test.

Estuaries may qualify legally as bays though they are essentially wide river mouths subject to tidal action. It may be difficult to distinguish between a bay and an estuary in some instances, as when a river empties into a partially enclosed coastal indentation.

As an exception to these physical considerations for determining a baseline, permanent harbor works which form part of the harbor system are regarded as a part of the coast. Thus, a breakwater or jetty may project the baseline seaward for hundreds of yards. Geometric means of determination, however, do not apply to any bays which qualify as "historic" (determined legally by precedent and not within the scope of this Bulletin).

Insular Baselines

The coasts of islands have baselines, just as does a mainland coast and generally according to the same rules. As the only exception of note, *low tide elevations* (reefs, shoals, drying rocks) in certain instances require modification in baseline construction. The low water line of these features may or may not serve as a baseline from which to measure offshore claims, as set forth in Article 11 of the Convention:

1. A low-tide elevation is a naturally formed area of land which is surrounded by and above water at low tide but submerged at high tide. Where a low-tide elevation is situated wholly or partly at a distance not exceeding the breadth of the territorial sea from the mainland or an island, the low-water line on that elevation may be used as the baseline for measuring the breadth of the territorial sea.

2. Where a low-tide elevation is wholly situated at a distance exceeding the breadth of the territorial sea from the mainland or an island, it has no territorial sea of its own.

In light of the fact that islands occur in groups, or often fringe a mainland coast in strings, their baselines may be so close one to another that their offshore waters coalesce to form part of the territorial sea associated with the sovereignty of the group as a whole. For example, if the territorial sea of a state is 3 miles in breadth, all islands whose baselines lie within 6 miles of the mainland or each other are encompassed by the territorial waters of that state.

Measuring the Territorial Sea

Determination of the outer limits of the territorial sea rests directly on the alinement of the baseline as it would apply on a hydrographic chart at a scale sufficiently large to permit such detail.¹

The standard method for plotting the territorial sea is by compass on hydrographic charts. As an

¹ On a chart at a scale of 1:1,000,000 a 3-mile territorial sea would only be approximately $\frac{3}{16}$ inches wide, hardly a workable dimension for precision since an error equivalent to the width of a line represents a substantial fraction of a mile. On the other hand, charts at a scale of 1:80,000, of which the U.S. Coast and Geodetic Survey has a series for the Atlantic and Gulf coasts of the United States, show a 3-mile zone of water as being nearly $2\frac{1}{2}$ inches wide.

example, to plot a territorial sea with a breadth of 3 miles the compass is set at a scale to indicate that distance on the chart, and arcs of circles swung seaward from all points along the baseline. The envelope formed by these arcs of circles makes up the outer limits of a state's territorial waters, and hence the limit of its sovereignty. The result is a geometrically precise line that can be plotted regardless of any complexities of the baseline. (See chart on page 29 for illustration of this procedure.)

A highly irregular coastline or one fringed with islands will have a territorial sea, the outer limits of which are correspondingly, but to a lesser degree, irregular except in those places where straight closing lines mark the outer limit of internal waters. Geometrically the outer limits of the territorial sea under any conditions will not be as irregular as the baseline from which it is measured, for the method of construction smoothes out such a line—the greater the radii of the arcs swung the smoother the contour of the envelope of arcs. Thus it is geometrically possible to have a 3-mile territorial sea with an area in square miles amounting to a value less than that computed by multiplying the length of the baseline by three.

Straight Baselines

In a legal sense the straight baseline means far more than "a baseline which is straight." Rather, it is a concept for simulating the coastline seaward from the normal baseline. In principle the straight baseline is applied by establishing an arbitrary baseline along the headlands of the mainland and outermost points of fringing islands. Such a line may, according to Article 4 of the Convention, be constructed

... in localities where the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity.

Further,

... the drawing of the baselines must not depart to any appreciable extent from the general direction of the coast and the sea areas lying within the lines must be sufficiently closely linked to the land domain to be subject to the regime of internal waters.

Examples of coastlines where the straight baseline might be applied with validity are found in relatively few areas in the world, such as along the highly irregular and fragmented coasts of Yugoslavia, Norway, and southern Chile. In these in-

stances the margins of the ocean are not well-defined in the sense that the economic regime of a state encompasses nearby offshore islands and the water passages which separate them from the mainland and from each other.

In contrast most coastlines do not lend themselves to the construction of straight baselines. Even though a number of states have made unilateral claims for additional segments of territorial water by the use of straight baselines, this technique can be supported neither by logic nor in accordance with Articles of the Geneva Convention on the Law of the Sea:

1. Offshore islands (except in instances of island-studded archipelagoes such as the Norwegian and south Chilean littorals cited above) have their own normal baselines which project the territorial sea of a state seaward and thus allocate an offshore zone of sovereign water commensurate with the coastal configuration (see chart on page 29).

2. The 24-mile limit for closing lines by which coastal indentations fulfilling the requirements of a bay may qualify as internal water projects the zone of territorial waters seaward to where it parallels the normal direction of the coast independent of the penetrating water bodies. For example, along the coast of Maine a theoretical straight baseline would approximate the regular baseline based upon a rigid application of the Articles of the Geneva Convention.

3. In instances where the curvature of the coast does not constitute a bay the term "highly irregular" would hardly apply.

Archipelago Concept

Straight baselines have also been unilaterally claimed by certain maritime states, though necessarily of a somewhat different geometric design from the type constructed along a continental mainland. Known as the "Archipelago Concept" an insular type baseline adapts the idea of a perimeter around an island or group of islands.

1. Such a line around an island would touch on capes, peninsulas, offshore isles, or other prominent points along the coast.

2. Such a line around a group of islands, or archipelago, would "box in" the ensemble, the straight baseline normally touching at the more prominent geographic features of the outermost islands.

This type of straight baseline is no more justified than a corresponding line along the mainland. Again, each island has its own normal baseline and where islands are close together their territorial

seas tend to coalesce and form a continuous zone of territorial water. Otherwise the situation is that sufficient water distances exist between or among the islands to justify their status as high seas.

APPENDIX B

Boundaries in the Sea

Alinement of jurisdictional or sovereign limits depends upon specific distances from the coast (baseline). In fact, the offshore sovereignty complex with respect to the law of the sea comprises a system of jurisdictional limits separating: (1) water zones of different categories belonging to the same state, (2) water zones of a state from those with no sovereignty (high seas), and (3) water zones of any category belonging to different states. For example, the outer limits of the territorial sea is "x" miles from the coast and runs between a sovereign state and an area without sovereignty. Again, the baseline, in theory at least, represents the coast and separates two areas of sovereign territory within a single state, differing only in types of jurisdiction. There can be no conflict *between* states in the latter instance, although the claims of any state may be *opposed* by another state or other states.

Another set of limits or boundaries also comes into play, namely those which separate the offshore territories of two coastal states. These limits qualify as international boundaries in their function, but in almost all instances are not so marked in the water (as by buoys) or on charts.¹ Four specific types of limits allow for the great majority of situations whereby sovereign and jurisdictional rights between states need be distinguished:

1. Boundaries separating the territorial seas of adjacent coastal states.

¹ Maps and charts frequently show symbolized lines extending through water, as between or among islands or between islands and mainland. Such lines normally do not represent boundaries, and should not be so construed. Rather, they serve as a cartographic device by which to indicate that all land areas on one side belong to one state and all land areas on the other side belong to another state.

2. Boundaries separating the territorial seas of opposite states.

3. Boundaries separating the continental shelves of adjacent coastal states.

4. Boundaries separating the continental shelves of opposite states.

In the cases of the first two types of boundaries the areas separated are sovereign waters of two states, but in the two remaining cases only certain rights of two states are involved. Thus, boundaries through waters above the continental shelf actually extend through the high seas and rights apply only to those which the coastal states have for exploring and exploiting resources of the seabed.

Any two countries with contiguous offshore waters may agree on a common line of demarcation between them, but usually agreements of this type are nonexistent. Most frequently median lines are the means of expressing boundaries between adjacent states, starting at the baseline and extending seaward, first between territorial seas and then between continental shelves of the two states concerned. They also serve to separate the waters of opposite states which have merging territorial seas and/or continental shelves (see chart on page 31).

A median line (at times called "lateral line") has proved to be the best solution for delineating water areas between sovereignties. In both theory and practice the geometrical principle involved in determining the median line is the most satisfactory which has so far been devised, lending itself admirably to the construction of equitable boundaries between states. It depends upon precise measurement rather than subjective factors. Without delving into its technical characteristics, a median line is defined as a line, or boundary, every point of

which is equidistant from the nearest points on the lines from which it is measured. Oddly enough, the technique upon which the construction of such lines depends is purely trial and error, that is, establishment of points contingent upon being so placed that they be no farther from one than from the other fixed point representing the two sovereignties.

Acceptance of the median line concept by the Conference on the Law of the Sea does not preclude other offshore boundary agreements between states. In fact, two Convention articles adopted by the Conference specifically stipulate this condition:

1. *In the territorial sea:*

Where the coasts of two States are opposite or adjacent to each other, neither of the two States is entitled, failing agreement between them to the contrary, to extend its territorial sea beyond the median line every point of which is equidistant from the nearest points on the baselines from which the breadth of the territorial seas of each of the two States is measured.

2. *Over the continental shelf:*

Where the same continental shelf is adjacent to the territories of two or more States whose coasts are opposite each other, the boundary of the continental shelf appertaining to such States shall be determined by agreement between them. In the absence of agreement, and unless another boundary line is justified by special circumstances, the boundary is the median line, every point of which is equidistant from the nearest points of the baselines from which the breadth of the territorial sea of each State is measured.²

² The same concept is employed for that part of the Convention applying to cases where the continental shelf adjoins the territory of adjacent (rather than opposite) States.

Irregular and undemarcated land boundaries as well as complicated coastal configurations produce situations which create many problems apart from straight geometrical computation of median lines. Of particular note, sovereign exclaves and enclaves along a coast may bring about problems extremely difficult to resolve. Impasses may obviously arise in cases of disputed territory, whereby basic premises for constructing median lines then become unacceptable to one or more of the states involved. The Persian Gulf illustrates one of the more complex areas in which to ferret out a workable set of jurisdictional limits. Along its shores lie five independent states, a neutral territory, and several quasi-independent sheikhdoms, while in the water scattered islands of indeterminate sovereignty add to the problems. Conversely, the terminal point of the U.S. (Alaska)–Canadian boundary on the Arctic Ocean represents a situation uncomplicated by problems. The United States (State of Maine) and Canada (Nova Scotia) facing each other across the Bay of Fundy represents a clear-cut example of opposite states where both the territorial sea and continental shelves merge. In this instance an international boundary has been projected through part of the bay.

The spirit of the articles on median lines is to provide a means whereby boundary agreements between states may be facilitated. But since median-line boundaries are objective they can frequently be used at least as a point of departure in the reaching of agreement. Site of known or potential resources, location of a navigation channel, or traditional offshore practices of a state are among special circumstances which may give rise to modifying or even disregarding completely a median line in affixing a boundary. For example, a boundary in the territorial sea may only roughly approximate a median line, compensating for loss of an area in one place by gain in another. Despite such departures from a formula the actual precisely constructed median line stands as a potential means of establishing fair and lasting offshore boundaries.

Selected Bibliography

- ALEXANDER, LEWIS M., "Geography and the Law of the Sea" (Review Article with excellent bibliography), *Annals of the Association of American Geographers*; Vol. 58, Mar. 1968.
- MCDUGAL, MYRES S. and BURKE, WILLIAM T., *The Public Order of the Oceans*. Yale University Press, New Haven, 1962.
- "Our Nation and the Sea," Report of the Commission on Marine Science, Engineering, and Resources; U.S. Government Printing Office, Washington, D.C., Jan. 1969.
- PEARCY, G. ETZEL, "Geographical Aspects of the Law of the Sea," *Annals of the Association of American Geographers*; Vol. 49, Mar. 1959.
- "Measurement of the U.S. Territorial Sea," *Department of State Bulletin*, June 29, 1959.
- SHALOWITZ, AARON L., *Shore and Sea Boundaries*, Vol. 1 (1963), Vol. II (1964), U.S. Department of Commerce, Coast and Geodetic Survey, Washington, D.C.
- "U.N. Conference on the Law of the Sea." Statement by Arthur H. Dean; Text of Conventions, Protocol, and Resolutions, *Department of State Bulletin*, June 30, 1958.

Charts for Identifying Offshore Features

U.S. Coast and Geodetic Survey Charts

- Atlantic and Gulf Coasts of the United States: 1200 series of charts at a scale of 1:80,000.
- Pacific Coast of the United States: Series of charts at scales from 1:175,000 to 1:235,000.
- Alaska: Various series and miscellaneous charts; no consistent coverage.
- Hawaii: 400 series at 1:250,000; also some coverage at larger scales.
- Puerto Rico and other areas of U.S. sovereignty: Detailed coverage.

Charts are available upon request from—

Director, Coast and Geodetic Survey
U.S. Department of Commerce
Washington, D.C. 20235

U.S. Naval Oceanographic Office Charts

Charts for all areas other than those of U.S. sovereignty. Consistent large-scale coverage for many areas.

Charts are available upon request from—

U.S. Naval Oceanographic Office
Washington, D.C. 20390

TABLE I

Areas of the Oceans and Principal Seas

<i>Area</i>	<i>Square miles</i>
Pacific Ocean	63, 985, 000
Atlantic Ocean	31, 529, 000
Indian Ocean	28, 357, 000
Arctic Ocean	5, 541, 000
Mediterranean Sea	1, 145, 000
South China Sea	895, 000
Bering Sea	878, 000
Caribbean Sea	750, 000
Gulf of Mexico	700, 000
Sea of Okhotsk	582, 000
East China Sea	480, 000
Yellow Sea	480, 000
Hudson Bay	472, 000
Sea of Japan	405, 000
North Sea	221, 000
Red Sea	178, 000
Black Sea	168, 500
Baltic Sea	158, 000

NOTE.—The Caspian Sea is normally classed as a lake rather than a sea although its margins are claimed as territorial waters. Its area is 152,123 square miles.

TABLE II

Coastline Measurements of World's Major Political Entities

Explanation of Measuring Techniques

Distances given in the tabulation below represent the extent of each political area's coastline which "faces the sea" exclusive of detailed irregularities. Measurement was effected by swinging a divider over 10-mile intervals on maps at a scale of 1:1,000,000 (the largest for which there is complete world coverage).

Coastline patterns over the world vary one from the other, requiring some latitude in even the most objective measuring techniques. Islands especially create problems with respect to coastal distances. Certain broad principles, however, were followed in measuring the distances, including averaging out

complex coastal configurations within steps of 10 miles, excluding unimportant islands more than 10 miles from the coast, and omitting measurement of insular coastlines facing each other across water passages of 10 miles or less. Closely spaced islands of archipelagoes (within 10 miles of each other) received special attention, namely, their perimeters only were measured to assure generalized distances.

For major political areas with more than one coastline or with other important divisions of coastal features, including offshore islands, supplementary information is included in the tabulation below each pertinent political entity listed.

<i>Country</i>	<i>Nautical miles</i>	<i>Country</i>	<i>Nautical miles</i>
Albania -----	155	Congo (Brazzaville) -----	84
Algeria -----	596	Congo (Kinshasa) -----	22
Angola (including Cabinda—48) -----	806	Costa Rica -----	446
Argentina (shores of Rio de la Plata land- ward to width of 10 miles) -----	2,120	Caribbean -----	116
Australia -----	15,091	Pacific -----	330
Mainland -----	13,971	Cuba (including Isle of Pines, 101) ----	1,747
Tasmania -----	677	Cyprus -----	290
Flinders Island -----	143	Dahomey -----	65
King Island -----	77	Denmark (excluding Bornholm, 50 miles)	686
Melville Island -----	223	Dominican Republic (including offshore islands) -----	325
Bahrain -----	68	Ecuador -----	458
Barbados -----	55	El Salvador -----	164
Belgium -----	34	Equatorial Guinea -----	184
Brazil -----	3,692	Rio Muni -----	90
British Honduras -----	191	Fernando Po -----	94
Brunei -----	88	Ethiopia -----	546
Bulgaria -----	134	Faeroe Islands -----	155
Burma -----	1,230	Finland (including Aaland Islands) ----	735
Cambodia -----	210	France -----	1,373
Cameroon -----	187	Atlantic and North Sea -----	882
Canada (excluding shoreline of Hudson Bay and passages among islands of the north) -----	11,129	Mediterranean -----	266
Atlantic (including Labrador, excluding Newfoundland) -----	3,181	Corsica -----	225
Newfoundland -----	1,303	French Guiana -----	169
Pacific -----	920	French Territory of Afars and Issas ----	132
Arctic -----	5,725	Gabon -----	399
Ceylon -----	650	Gambia, The -----	38
Chile (excluding passages within archi- pelago) -----	2,882	Germany -----	499
China, Communist -----	3,492	East Germany -----	191
Mainland coast and fringing islands -----	3,094	Federal Republic of Germany -----	308
Hainan -----	398	Ghana -----	285
China, Republic of (Taiwan) -----	470	Greece (excluding smaller scattered is- lands in the Aegean Sea) -----	1,645
Colombia -----	1,022	Mainland and fringing islands -----	1,210
Caribbean -----	576	Crete -----	340
Pacific -----	446	Rhodes -----	95
Comoro Islands -----	211	Guatemala -----	178
		Caribbean -----	46
		Pacific -----	132
		Guinea -----	190

<i>Country</i>	<i>Nautical miles</i>	<i>Country</i>	<i>Nautical miles</i>
Guyana	232	Offshore Islands	483
Haiti (including Gonave and other off- shore islands)	584	Ryukyu Islands, Northern ...	337
Honduras	374	Jordan	15
Caribbean	332	Kenya	247
Pacific	42	Korea	1,290
Hong Kong	60	North Korea	578
Iceland	1,080	Republic of Korea	712
India	2,759	Kuwait	115
Arabian Sea	1,453	Kuwait-Saudi Arabia Neutral Zone	40
Bay of Bengal	1,306	Lebanon	105
Indonesia	19,784	Liberia	290
Sumatra	2,270	Libya	910
Java (including Madura, 189)	1,571	Madagascar	2,155
Bali	209	Malaysia	1,853
Lombok	155	Peninsular West Coast	440
Sumbawa	380	Peninsular East Coast	368
Sumba	268	Sarawak	410
Flores	772	Sabah	635
Timor, Indonesian	245	Malta (including Gozo)	50
Borneo (excluding Sarawak, Sabah, and Brunei)	1,551	Mauritania	360
Celebes	2,957	Mauritius	87
Halmahera	848	Mexico (including coast of Gulf of Cali- fornia)	4,848
Ceram	532	Gulf of Mexico	2,234
Irian Barat	2,498	Pacific	2,614
Others	5,528	Monaco	3
Iran	990	Morocco (including Presidios, 32 miles) -	895
Persian Gulf	635	Atlantic	705
Arabian Sea and Gulf of Oman	355	Mediterranean	190
Iraq	10	Mozambique	1,352
Ireland	663	Muscat and Oman	1,005
Israel	124	Netherlands	198
Gulf of Aqaba	4	New Zealand	2,770
Mediterranean	120	North Island	1,413
Italy	2,451	South Island	1,247
Peninsular West Coast	690	Stewart Island	110
Peninsular East Coast	852	Nicaragua	445
Sicily	461	Caribbean	258
Sardinia	408	Pacific	187
Elba	40	Nigeria	415
Ivory Coast	274	Norway	1,650
Jamaica	280	Pakistan	750
Japan	4,842	Arabian Sea	440
Hokkaido	1,028	Bay of Bengal	310
Honshu	2,070	Panama (including Isla Coiba and Isla del Rey)	979
Shikoku	410	Caribbean	337
Kyushu	514	Pacific	642

<i>Country</i>	<i>Nautical miles</i>	<i>Country</i>	<i>Nautical miles</i>
(Panama) Canal Zone -----	14	Arctic Coast (excluding major islands more than 10 miles offshore) -----	8,166
Atlantic side -----	8	Novaya Zemlya -----	1,140
Pacific side -----	6	Wrangel Island -----	193
Peru -----	1,258	Other Arctic Islands -----	3,219
Philippines -----	6,997	East Coast (south of Bering Strait) -----	6,075
Luzon -----	1,480	Sakhalin -----	1,339
Mindoro -----	250	Kurils -----	939
Samar -----	328	Commander Islands -----	172
Leyte -----	260	Black Sea -----	867
Panay -----	322	Spain -----	2,038
Negros -----	313	Mainland -----	1,233
Cebu -----	254	Balearics -----	261
Bohol -----	154	Canary Islands -----	544
Mindanao -----	1,314	Spanish Sahara -----	490
Palawan -----	647	Sudan -----	387
Others -----	1,675	Surinam -----	196
Poland -----	241	Sweden (including Gotland) -----	1,359
Portugal -----	743	Syria -----	82
Mainland -----	398	Tanzania -----	669
Azores -----	278	Tanganyika -----	474
Madeira -----	67	Zanzibar (including Pemba Island) -----	195
Portuguese Guinea (including Bijagos Island) -----	215	Thailand -----	1,299
Portuguese Timor -----	330	Andaman Sea -----	354
Puerto Rico -----	287	Gulf of Siam -----	945
Qatar -----	204	Togo -----	26
Réunion -----	100	Trinidad and Tobago -----	254
Romania -----	113	Trinidad -----	211
Ryukyu Islands, Southern -----	248	Tobago -----	43
Okinawa Group -----	192	Trucial States -----	420
Sakishima Group -----	56	Tunisia -----	555
São Tomé e Príncipe -----	85	Turkey -----	1,921
São Tomé -----	60	Black Sea -----	708
Príncipe -----	25	Sea of Marmara -----	239
Saudi Arabia -----	1,316	Aegean/Mediterranean -----	974
Persian Gulf -----	296	United Arab Republic (Administrative boundary used between UAR and Sudan) -----	1,307
Red Sea -----	1,020	Mediterranean -----	538
Senegal -----	241	Red Sea -----	769
Sierra Leone -----	219	United Kingdom -----	2,790
Singapore -----	28	Great Britain -----	2,076
Somalia -----	1,596	Northern Ireland -----	115
South Africa (including Walvis Bay, 32 miles) -----	1,462	Channel Islands -----	48
Southern Yemen -----	654	Isle of Man -----	56
South-West Africa -----	748		
Soviet Union (Baltic States: Estonia, 418 miles; Latvia, 255 miles; Lithuania, 46 miles) -----	23,098		
Baltic Sea and Gulf of Finland -----	988		

<i>Country</i>	<i>Nautical miles</i>	<i>Country</i>	<i>Nautical miles</i>
Outer Hebrides -----	235	Uruguay (shores of Rio de la Plata landward to width of 10 miles) -----	305
Orkneys -----	115	Venezuela (excluding Isla de Margarita and other offshore islands) -----	1,081
Shetlands -----	145	Viet-Nam -----	1,247
United States (50 states only) -----	11,650	North Viet-Nam -----	382
Atlantic -----	1,612	Republic of Viet-Nam -----	865
Gulf of Mexico -----	1,679	Yemen -----	244
Pacific -----	1,150	Yugoslavia -----	426
Alaska -----	6,544		
Hawaii (8 major islands) ----	665		

TABLE III

Widths of Selected Straits and Channels

<i>Passage (arranged clockwise by major regions)</i>	<i>Sovereignty (on either side)</i>	<i>Geographical situation</i>	<i>Least width (in nautical miles)</i>
ANGLO-AMERICA			
Robeson Channel	Canada/Denmark	Between Ellesmere Island and Greenland.	10
Hudson Strait	Canada	Entrance to Hudson Bay	1 55
Strait of Belle Isle	Canada	Between Labrador and Newfoundland.	9
Jacques Cartier Passage .	Canada	Between Quebec Coast and Anticosti Island.	15
Gaspé Passage	Canada	Between Anticosti Island and Gaspé Peninsula.	38

See footnotes at end of table.

<i>Passage (arranged clockwise by major regions)</i>	<i>Sovereignty (on either side)</i>	<i>Geographical situation</i>	<i>Least width (in nautical miles)</i>
Cabot Strait	Canada	Between Newfoundland and Cape Breton Island.	57
Northumberland Strait . .	Canada	Between New Brunswick and Prince Edward Island.	7
Florida Strait	United States/Cuba . .	Between Key West and Cuba	² 82
Santa Barbara Channel .	United States	Between Channel Islands and California Coast.	11
Strait of Juan de Fuca . .	United States/Canada .	South of Vancouver Island	9
Hecate Strait	Canada	Between Queen Charlotte Islands and Mainland.	24
Dixon Entrance	United States/Canada .	Between Alexander Archipelago and Queen Charlotte Islands.	27
Amukta Pass	United States	Aleutian Islands: West of Amukta Island.	37
Unimak Pass	United States	Aleutian Islands: West of Unimak Island.	10
Shelikof Strait	United States	Between Alaska Peninsula and Kodiak Island.	20
Bering Strait	United States/U.S.S.R .	Between Alaska and Siberia	³ 19

LATIN AMERICA

Yucatan Channel	Cuba/Mexico	Between Cuba and Yucatan Peninsula .	⁴ 105
Northwest Providence Channel.	United Kingdom	Bahamas: Southwest of Great Abaco .	26
Northeast Providence Channel.	United Kingdom	Bahamas: Between Great Abaco Island and Eleuthera.	⁵ 29
Crooked Passage	United Kingdom	Bahamas: Between Long Island and Crooked Island.	26
Mayaguana Passage	United Kingdom	Bahamas: Between Acklins Island and Mayaguana Island.	⁶ 39
Caicos Passage	United Kingdom	Bahamas Area: Between Mayaguana Island and Caicos Islands.	35
Windward Passage	Cuba/Haiti	Between Cuba and Hispaniola	45
Turks Island Passage . . .	United Kingdom	Between Turks Islands and Caicos Islands.	13
Mouchoir Passage	United Kingdom	Near Turks Islands	23
Mona Passage	U.S./Dominican Rep . .	Between Dominican Republic and Mona Island (P.R.).	33
Virgin Passage	United States	Between Culebra (P.R.) and Virgin Islands.	⁷ 8
Anegada Passage	United Kingdom	Between Anegada and Sombrero . . .	⁸ 48
Guadeloupe Passage	France/United Kingdom.	Between Guadeloupe and Montserrat .	28
Dominica Channel	France/United Kingdom.	Between Marie Galante (Guadeloupe) and Dominica.	16
Martinique Passage	France/United Kingdom.	Between Dominica and Martinique . .	22

See footnotes at end of table.

<i>Passage (arranged clockwise by major regions)</i>	<i>Sovereignty (on either side)</i>	<i>Geographical situation</i>	<i>Least width (in nautical miles)</i>
LATIN AMERICA—Continued			
St. Lucia Channel	France/United Kingdom.	Between Martinique and St. Lucia . .	17
St. Vincent Passage	United Kingdom	Between St. Lucia and St. Vincent . .	23
Dragon's Mouth	Trinidad and Tobago/ Venezuela.	Between Trinidad (Chacachacare Island) and Peninsula of Paria.	6
Serpent's Mouth	Trinidad and Tobago/ Venezuela.	Between Trinidad and Coast of Venezuela.	8
Aruba-Paraguana Passage.	Netherlands/Venezuela .	Between Aruba and Paraguana Peninsula.	15
Estrecho de la Maire . . .	Argentina	Between Tierra del Fuego and Isla de los Estados.	16
Strait of Magellan	Argentina/Chile	Between Tierra del Fuego and Main- land South America.	2
EUROPE			
Bosporus	Turkey	Between Turkey in Europe and Anatolia.	(8a)
Dardanelles	Turkey	Between Gallipoli Peninsula and Anatolia.	(8a)
Kárpáthos Strait	Greece	Dodecanese: Between Kárpáthos and Rhodes.	23
Kásos Strait	Greece	Dodecanese: Between Kásos and Crete.	26
Strait of Otranto	Albania/Italy	Between Albania and Italian Peninsula.	41
Strait of Messina	Italy	Between Sicily and Italian Peninsula .	2
Malta Channel	Italy/United Kingdom .	Between Malta (Gozo) and Sicily . .	44
Strait of Sicily	Italy	Between Pantelleria and Sicily	55
Strait between Elba and Italy.	Italy	Between Elba and Italian Peninsula .	5
Strait between Corsica and Elba.	France/Italy	Between Corsica and Elba	27
Strait of Bonifacio	France/Italy	Between Corsica and Sardinia	6
Freu de Minorca	Spain	Between Majorca and Minorca	20
Strait of Gibraltar	Morocco/Spain	Between Morocco and Spain	8
Strait of Dover	France/United Kingdom.	Between England and France	18
The Solent	United Kingdom	Between Isle of Wight and English Mainland.	2
St. George's Channel . . .	Ireland/United Kingdom.	Between Ireland and Wales	9 42
North Channel	United Kingdom	Between Northern Ireland and Scotland.	11
Little Minch	United Kingdom	Between Outer Hebrides and Island of Skye.	10
North Minch	United Kingdom	Between Outer Hebrides and Main- land of Scotland.	10 20

See footnotes at end of table.

<i>Passage (arranged clockwise by major regions)</i>	<i>Sovereignty (on either side)</i>	<i>Geographical situation</i>	<i>Least width (in nautical miles)</i>
EUROPE—Continued			
Pentland Firth	United Kingdom	Between Orkneys and Mainland of Scotland.	¹¹ 5
The Hole	United Kingdom	Between Orkneys and Shetland Islands (Fair Isle).	23
Skagerrak	Denmark/Norway	Between Denmark (Jutland) and Norway.	61
Ore Sund	Denmark/Sweden	Between Sjaelland and Sweden	2
Bornholmsgat (Hambarne).	Denmark/Sweden	Between Bornholm and Sweden	19
Kalmar Sund	Sweden	Between Öland Island and Swedish Mainland.	2
Entrance to Gulf of Bothnia.	Finland/Sweden	Between Aland Islands and Sweden . .	¹² 17
Entrance to Gulf of Finland.	Estonia/Finland	Between Estonia and Finland	17
FAR EAST			
Kuril Strait	U.S.S.R.	Between Kamchatka and Kuril Islands.	6
Etorofu Kaikyo	U.S.S.R./U.S.S.R. Administration.	Between Etorofu and Uruppu	22
Kunashiri Suido	U.S.S.R. Administration.	Between Etorofu and Kunashira	12
Shikotan Suido	U.S.S.R. Administration.	Between Shikotan and Taraku (Habomai Islands).	12
Taraku Suido	U.S.S.R. Administration.	Habomai Island: Between Taraku and Shibotsu.	6
Notsuke	Japan/U.S.S.R. Admin .	Between Hokkaido and Kunashira . .	9
Soya Kaikyo (La Perouse Strait).	Japan/U.S.S.R.	Between Hokkaido and Sakhalin . . .	¹³ 23
Tsugara Kaikyo	Japan	Between Honshu and Hokkaido	10
Eastern Chosen Strait . .	Japan	Between Iki (Off coast of Kyushu) and Tsushima.	25
Western Chosen Strait . .	Japan/Korea	Between Korea and Tsushima	¹⁴ 23
Cheju Haehyop	Korea	Off Southern Coast of Korea (Cheju Do to Haem Sō).	12
Maemul Suido	Korea	Off Southwest Coast of Korea (Maemul To to Yōngsan Do).	13
Huksan Chedo	Korea	Off Southwest Coast of Korea	8
Pohai Strait	China	Entrance to Pohai Bay	22
Osumi Kaikyo (Van Dieman Strait).	Japan	Between Kyushu and Ryukyus	16
Tokara Kaikyo (Colnett Strait).	Japan	Ryukyus: Between Osumi Gunto and Tokara Gunto.	22
Formosa Strait	China	Between Taiwan and Mainland China .	¹⁵ 74
P'enghu Shuitao (Pescadores Channel).	China	Between Taiwan and P'enghu (Pescadores).	17

See footnotes at end of table.

<i>Passage (arranged clockwise by major regions)</i>	<i>Sovereignty (on either side)</i>	<i>Geographical situation</i>	<i>Least width (in nautical miles)</i>
FAR EAST—Continued			
Lema Channel	China/United Kingdom .	Between Hong Kong and Lema Islands.	6
Hainan Strait	China	Between Hainan Island and Mainland China.	10
SOUTHEAST ASIA			
Babuyan Channel	Philippines	Between Babuyan Islands and Luzon .	15
Polillo Strait	Philippines	Between Polillo Island and Luzon . .	10
Maqueda Channel	Philippines	Between Cataduanes and Luzon . . .	4
Verde Island Passage	Philippines	Between Luzon and Mindoro (Verde Island to Mindoro).	¹⁶ 4
San Bernardino Passage	Philippines	Between Luzon and Samar	8
Mindoro Strait	Philippines	Between Calamian Islands and Mindoro (from Apo I. to outermost of Calamian Islands).	¹⁷ 20
Surigao Strait	Philippines	Between Leyte and Mindanao	10
Basilan Passage	Philippines	Between Mindanao and Sulu Archipelago.	7
Balabac Passage	Malaysia/Philippines . .	Between Palawan and Sabah (Island of Borneo).	¹⁸ 27
Sibutu Passage	Philippines	In Sulu Archipelago near Borneo . .	18
Bangka Passage	Indonesia	Between Bangka Island and offshore islands to north.	19
Selat Grehund	Indonesia	Between offshore islands of Celebes to east.	10
Makassar Strait	Indonesia	Between Borneo and Celebes (without regard to offshore islands).	¹⁹ 62
Koti Passage	Indonesia	Off northwest coast of Borneo	10
Serasan Passage	Indonesia	Off northwest coast of Borneo	23
Api Passage	Indonesia	Off northwest coast of Borneo	16
Selat Ombai	Indonesia/Portugal . . .	Between Alor and Portuguese Timor .	16
Selat Roti	Indonesia	Between Roti and Timor	6
Selat Sape	Indonesia	Between Komoda and Sumbawa . . .	8
Selat Alas	Indonesia	Between Lombok and Sumbawa . . .	5
Selat Lombok	Indonesia	Between Bali and Lombok	11
Selat Bali	Indonesia	Between Bali and Java	2
Selat Sunda	Indonesia	Between Java and Sumatra (not taking into account Pulau Sangiang in middle of strait).	12
Gaspar Strait	Indonesia	Between Bangka and Billiton	²⁰ 8
Selat Bangka	Indonesia	Between Bangka and Sumatra	8
Berhala Strait	Indonesia	Between Singkep and Sumatra	²¹ 9
Strait of Malacca (North) .	Indonesia/Malaysia . . .	Between Malaysia and Sumatra . . .	20
Strait of Malacca (South) .	Indonesia/Malaysia . . .	Between Malaysia and Sumatra opposite Singapore.	8

See footnotes at end of table.

<i>Passage (arranged clockwise by major regions)</i>	<i>Sovereignty (on either side)</i>	<i>Geographical situation</i>	<i>Least width (in nautical miles)</i>
OCEANIA			
Alenuihaha Channel . . .	United States	Between Hawaii and Maui	25
Alalakeiki Channel . . .	United States	Between Kahoolawe and Maui	6
Kealaikahiki Channel . . .	United States	Between Kahoolawe and Lanai	15
Auau Channel	United States	Between Lanai and Maui	8
Pailolo Channel	United States	Between Molokai and Maui	8
Kalohi Channel	United States	Between Lanai and Molokai	8
Kaiwi Channel	United States	Between Oahu and Moloaki	22
Kauai Channel	United States	Between Kauai and Oahu	63
Kaulakahi Channel . . .	United States	Between Kauai and Niihau	15
Apolima Strait	Western Samoa	Between Savai'i and Upolu (not taking into account Apolima Island in center of strait).	4
Indispensable Strait . . .	United Kingdom	Between Guadalcanal and Malaita	²² 19
Manning Strait	United Kingdom	Between Choisel and Santa Isabel	6
Bougainville Strait . . .	United Kingdom	Between Bougainville and Choiseul	15
St. George's Channel . . .	Australia	Between New Britain and New Ire- land.	8
Goschen Strait	Australia	Between New Guinea and D'Entrecas- teaux Islands.	7
Dampier Strait	Australia	Between New Britain and Umboi	13
Vitiaz Strait	Australia	Between New Guinea and Bismarck Archipelago.	24
Cook Strait	New Zealand	Between North Island and South Island.	12
Banks Strait	Australia	Between Australia and offshore islands (near Tasmania).	8
Floreaux	New Zealand	Between South Island and Stewart Island.	²³ 15
MISCELLANEOUS			
Kara Strait	U.S.S.R.	Between Novaya Zemlya and Ostrov Vaygach.	19
Palk Strait	Ceylon/India	Through Adams Bridge	3
Strait of Hormoz	Iran/Muscat and Oman	Entrance to Persian Gulf	21
Bab el Mandeb	France/Yemen	Southern Entrance to Red Sea	²⁴ 14

¹ Entrance to Hudson Strait between Resolution Island and Button Islands (off Labrador Coast), 37 miles.

² Distance between Bimini (Bahamas) and Florida, 43 miles.

³ Distance given in table is that between Big Diomed Island (U.S.S.R.) and Mainland Siberia. Other distances: (1) Between Little Diomed Island (U.S.) and Big Diomed Island, 2 miles. (2) Between Little Diomed Island and Mainland Alaska, 20 miles. (3) Between Mainland Alaska and Mainland Siberia, 45 miles.

⁴ Distance given is that from Contoy, an island about 6 miles off the Yucatan coast.

⁵ Distance between Great Abaco Island and Royal Island, off Eleuthera coast, 26 miles.

⁶ Distance between Acklins Island and Plana Cays, 12 miles; between Plana Cays and Mayaguana Island, 21 miles.

⁷ Distance given in table is from Culebrita, an islet east of Culebra.

⁸ Distance between Sombrero and Horse Shoe Reef, a breaking reef running southeast of Anegada and attached thereto, is 42 miles.

^{9a} Less than a nautical mile.

⁹ Distance given in table is between mainlands; between South Bishop Rock (Wales) and Tuskar Rock (Ireland), 36 miles.

¹⁰ Between Shiant Island and mainland of Scotland, 17 miles.

¹¹ Between Pentland Skerries and mainland of Scotland,

4 miles. Stroma Island, which also lies in Pentland Firth, is not considered in the computation.

¹² Distance given in table approximately correct; several small islands in strait makes precise measurements difficult.

¹³ Distance between Hokkaido and Ostrov Kamen' Opasnosti, 20 miles; on to Sakhalin, 9 miles.

¹⁴ Measured from island off the coast of Korea.

¹⁵ Distance is 68 miles if offshore islands are taken into consideration.

¹⁶ Distance between Luzon and Verde Island, 3 miles.

¹⁷ Distance between Mindoro to Apo Reef, 15 miles.

¹⁸ Distance given in table is that measured between Balabac, largest of the major islands south of Palawan, and Balambangan, closest of the major islands of Sabah.

¹⁹ Distance between Borneo and Pulau Tuguan, 55 miles.

²⁰ Distance given in table is that measured across Maclesfield Strait portion of Gaspar Strait.

²¹ Distance from Sumatra to Berhala, in middle of strait, 9 miles; from Berhala to Singkep, 10 miles.

²² Distance given in table is that measured between Malaita and Nura Islands, the latter 10 miles from Guadalcanal.

²³ Distance between Centre Island (4 miles off South Island) and Stewart Island at west end of strait, 13 miles. At east end of strait the recommended channel for ships between Dog Island on the north and Ruapuke on the south, the channel is 11 miles wide.

²⁴ Distance given in table is between mainlands; between Perim Island and African continent, 11 miles; between Perim Island and French islets to south, 9 miles.

TABLE IV

Breadth of the Territorial Sea¹

(As of October 1, 1969)

NOTE.—This table gives the basic claims of various states relative to the breadth of the territorial sea over which sovereignty is claimed. It indicates the prevailing concept of offshore policies, distinguishing the states favoring a narrow zone of territorial waters from those with strong national aspirations for extended offshore sovereignty and jurisdictional rights.

Although comprising the best available information as of the date indicated above, the table *does not* represent the official view of the United States or any other country in the matter of sovereignty. Neither does it give full detail on ramifications of the various claims, such as exceptions and qualifications of specific values.

Some of the principal dependent areas are listed in the table. For those not listed the claimed breadth of the territorial sea commonly corresponds to that of the metropole. Claims for some dependent areas are not known (see NOTE at end of table).

<i>Country</i>	<i>Claim</i>	<i>Country</i>	<i>Claim</i>
Albania -----	10	China, Republic of -----	3
Algeria -----	12	Colombia -----	12
Argentina -----	200	Comoro Islands -----	3
Australia -----	3	Congo (Brazzaville) -----	N.A.
Barbados -----	3	Congo (Kinshasa) -----	3
Belgium -----	3	Costa Rica -----	3
Brazil -----	12	Cuba -----	3
British Honduras -----	3	Cyprus -----	12
Brunei -----	3	Dahomey -----	12
Bulgaria -----	12	Denmark -----	3
Burma -----	12	Dominican Republic -----	6
Cambodia -----	12	Ecuador -----	200
Cameroon -----	18	El Salvador -----	200
Canada -----	3	Equatorial Guinea -----	6
Ceylon -----	6	Ethiopia -----	12
Chile -----	50 kms.	Fiji -----	3
China, Communist -----	12	Finland -----	4 ²
		France -----	3
		French Guiana -----	3

¹ As claimed by selected states in nautical miles unless otherwise indicated. One nautical mile equals 1.15 statute miles, or 1.85 kilometers.

² Three miles around the Aaland Islands.

<i>Country</i>	<i>Claim</i>	<i>Country</i>	<i>Claim</i>
French Polynesia -----	3	Papua and New Guinea -----	3
French Territory of Afars and Issas ----	3	Peru -----	200
Gabon -----	12	Philippines -----	— ³
Gambia, The -----	6	Poland -----	3
Germany, East -----	3	Portugal -----	No Claim
Germany, Federal Republic of -----	3	Puerto Rico -----	3
Ghana -----	12	Réunion -----	3
Gibraltar -----	3	Romania -----	12
Greece -----	6	Ryukyu Islands, Southern -----	3
Guatemala -----	12	Saudi Arabia -----	12
Guinea -----	130	Senegal -----	12
Guyana -----	3	Seychelles -----	3
Haiti -----	6	Sierra Leone -----	12
Honduras -----	12	Singapore -----	3
Hong Kong -----	3	Somalia -----	12
Iceland -----	4	South Africa -----	6
India -----	12	Southern Yemen -----	N.A.
Indonesia -----	12	South-West Africa -----	6
Iran -----	12	Soviet Union -----	12
Iraq -----	12	Spain -----	6
Ireland -----	3	Spanish Sahara -----	6
Israel -----	6	Spanish Territories in northern	
Italy -----	6	Morocco -----	6
Ivory Coast -----	6	Sudan -----	12
Jamaica -----	3	Surinam -----	3
Japan -----	3	Sweden -----	4
Jordan -----	3	Syria -----	12
Kenya -----	12	Tanzania -----	12
Korea, North -----	12	Thailand -----	12
Korea, Republic of -----	3	Togo -----	12
Kuwait -----	12	Tonga -----	3
Lebanon -----	N.A.	Trinidad and Tobago -----	3
Liberia -----	12	Tunisia -----	6 ⁴
Libya -----	12	Turkey -----	6
Madagascar -----	12	United Arab Republic -----	12
Malaysia -----	12	United Kingdom -----	3
Maldives -----	3	United States -----	3
Malta -----	3	Uruguay -----	12
Mauritania -----	12	Venezuela -----	12
Mauritius -----	3	Viet-Nam, North -----	12
Mexico -----	9	Viet-Nam, Republic of -----	3
Monaco -----	3	Western Samoa -----	3
Morocco -----	3	Yemen -----	12
Muscat and Oman -----	3	Yugoslavia -----	10
Nauru -----	3		
Netherlands -----	3		
New Caledonia -----	3		
New Zealand -----	3		
Nicaragua -----	3		
Nigeria -----	12		
Norway -----	4		
Pakistan -----	12		
Panama -----	200		
(Panama) Canal Zone -----	3		

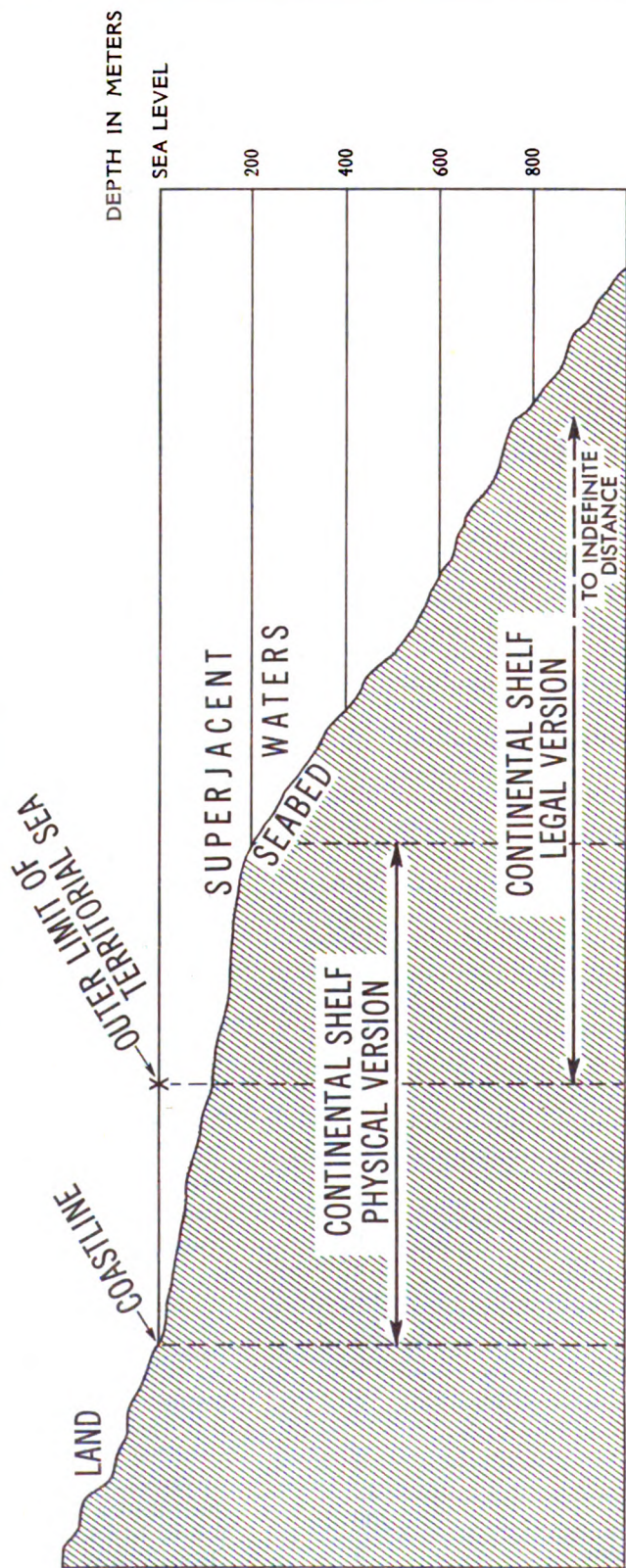
³ Waters within baselines joining appropriate points of the outermost islands are considered internal waters; waters between these baselines and the treaty limits of the Philippines (1898, 1900, and 1930) are considered territorial waters.

⁴ Follows the 50-meter isobath for part of the coast; maximum 65 miles.

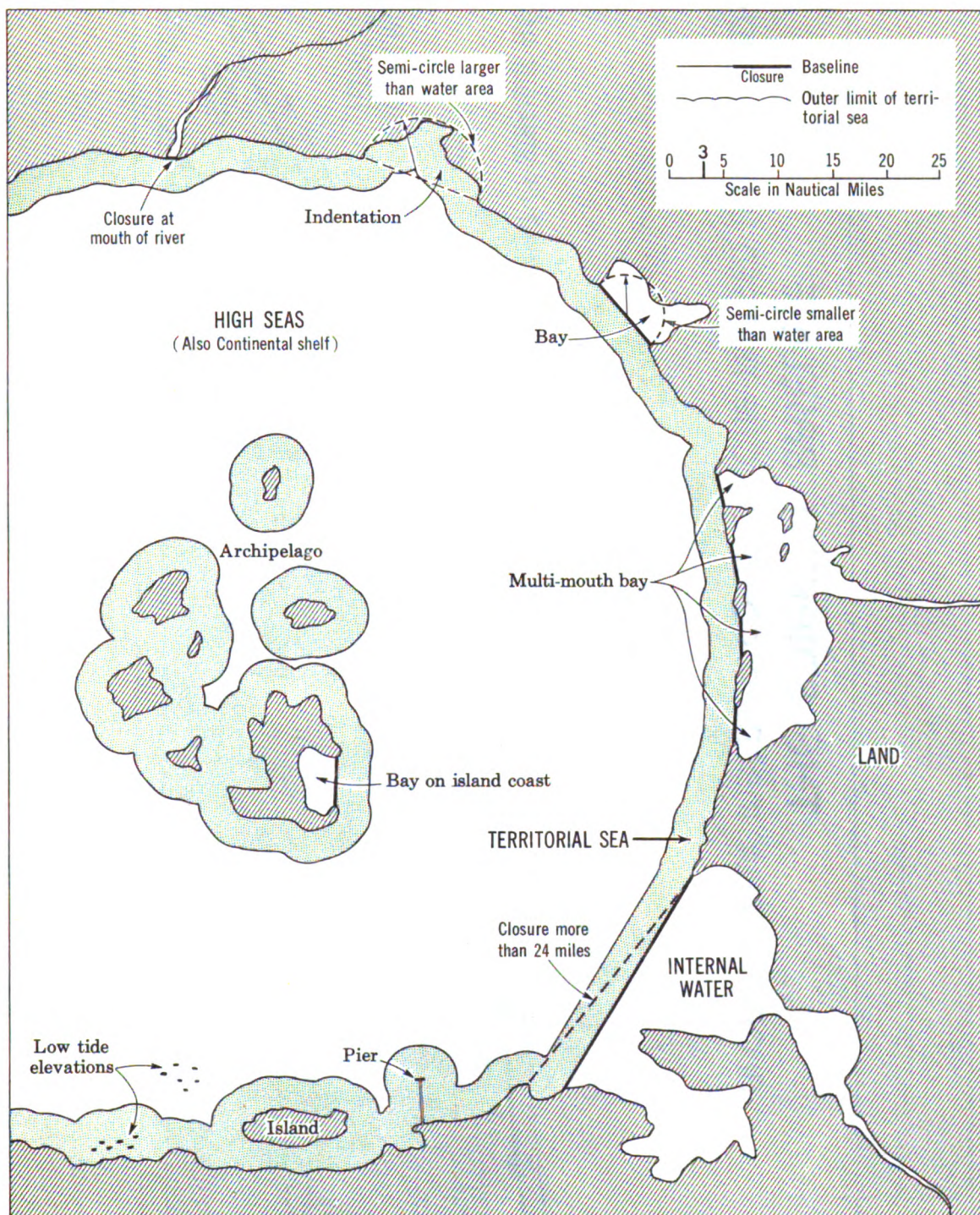
NOTE.—Breadth in miles for the territorial seas of the following dependent areas not available: Bahrain, Bouvet Island, Faeroe Islands, Greenland, Jan Mayen, Qatar, Trucial States, and all Portuguese dependencies.

CONTINENTAL SHELF IN PROFILE

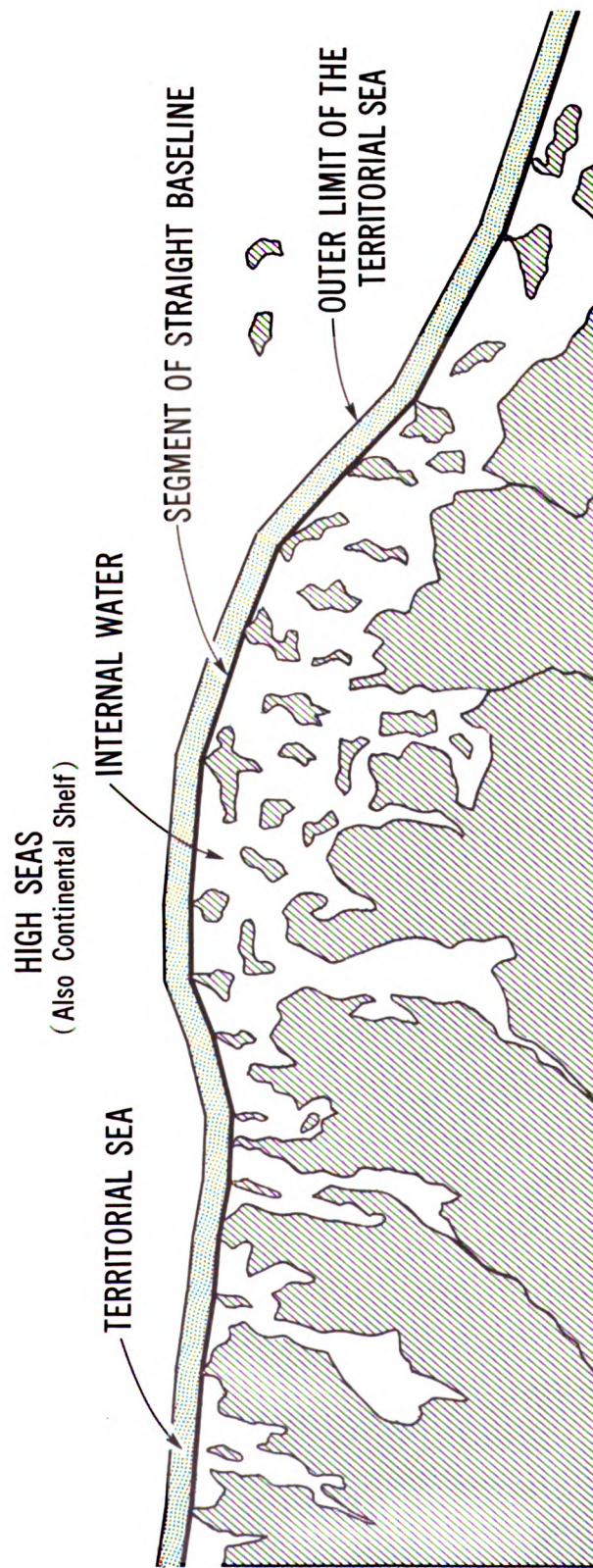
(VERTICAL SCALE EXAGGERATED)



THE BASELINE FROM WHICH THE TERRITORIAL SEA IS MEASURED

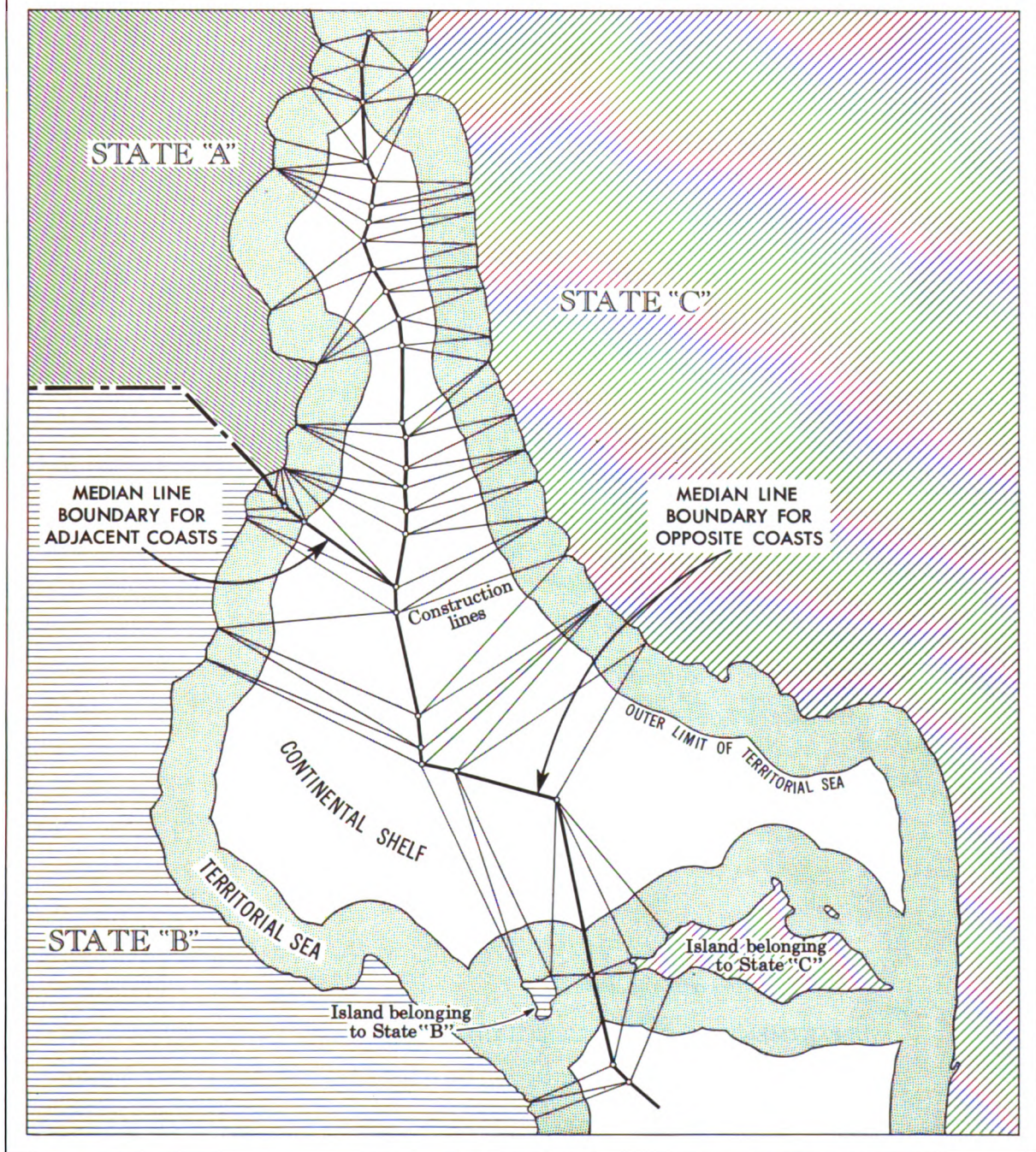


THE STRAIGHT BASELINE ALONG DEEPLY INDENTED COAST OR ONE FRINGED WITH ISLANDS



MEDIAN LINE BOUNDARIES BETWEEN SOVEREIGN STATES

- ADJACENT COASTS • OPPOSITE COASTS •



RETURN DIRECTLY TO

Geographic Bulletin No. 3

DEPARTMENT OF STATE PUBLICATION 7849

Released December 1969

GEOGRAPHIC BULLETINS

The following Bulletins have been prepared by The Geographer, Office of Strategic and Functional Research, Bureau of Intelligence and Research, Department of State.

No. 1 Profiles of Newly Independent States. (Revised.) Pub. 7874. 25¢.

No. 2 Status of the World's Nations. (Revised.) Pub. 7862. 25¢.

No. 3 Sovereignty of the Sea. (Revised.) Pub. 7849. 40¢.

No. 4 Survey of the French Republic. Pub. 7868. 25¢.

No. 5 United States and Outlying Areas. Pub. 7852. 20¢.

No. 6 Africa: Pattern of Sovereignty. (Revised.) Pub. 7994. 20¢.

No. 7 States and Regions of Latin America. Pub. 8279. 20¢.

No. 8 Commonwealth of Nations. Pub. 8398. 35¢.

