10 SEA GRANT
EXTENSION MARINE ADVISORY PROGRAM
Number 10 Man and His Ocean Publication

# OCEAN ZONES AND BOUNDARIES

## INTERNATIONAL LAW AND OCEANS



The manuscript for this publication was prepared at the University of Oregon School of Law, one of the participants in the Oregon Sea Grant program. Its production was supervised by the Oregon State University Sea Grant Extension Marine Advisory Program.

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An old joke has a couple on their first ocean voyage. She, looking out across the moonlit sea, sighs, "Oh, Henry, the ocean is so *big*." He: "Yeah, and that's just the top of it."

To an ocean scientist, at least, the joke is not so funny. To the extent that it contains any humor at all, it depends on the two-dimensional view of the sea held by land-lubbers and ship-travelers. The oceanographer, however, is trained to look at the ocean as a vast living mass with great depth as well as length and breadth. Henry is simply recognizing a basic truism.

This truism is coming to be recognized today by more and more people. Man's technology will soon make it possible for him to exploit much of the sea's natural resources and may, in the not-too-distant future, allow him actually to live for long periods of time within the ocean. As man increasingly descends into the sea and continues to travel its surface, he takes more and more of his society with him—sort of like the early settlers of the Old West.

The extension of man's society outward from land and, now, into the depths of the ocean necessarily carries with it the laws and regulations which form the organization of that society. For example, consider that recent technological developments are enabling us to extract oil and other resources from the seabed farther out from dry land and deeper than ever before. The resulting ocean activities have shown an acute need for regulatory systems (sets of laws) for the exploration and exploitation of the ocean bottom. Various regulatory schemes for just this purpose are now being proposed and enacted.

It must be remembered, when considering legal rules for ocean activities, that civilized man has traditionally placed the prime responsibility for the formal organization of his society in various sovereigns or governmental authorities. It therefore is very important to know or to decide which governmental authority, if any, has the power to regulate ocean activities in any given area.

It is not uncomplicated.


### TRADITIONAL ZONES: BACK TO TWO DIMENSIONS (MORE OR LESS)

Actually, of course, man has been using the ocean for a good many centuries for fishing, for transportation of himself, his goods and his messages, and for carrying out his interminable wars. During this time, he has found it necessary to delineate certain zones of authority. Because marine activities were for so long limited almost entirely to the surface, these established zones of authority tended to "float" on the waves and, until lately, showed little more than a technical concern

with the subsurface. The current expansion of undersea technology has, however, caused the technical third dimension of the old "surface" zones—depth—to begin taking on real significance.

The traditional surface zones are essentially three: internal waters, territorial seas, and high seas. Another surface zone of more recent creation will also be discussed: the contiguous zone.

## Internal Waters

The term "internal waters" refers not only to certain oceanic waters but also, and even more clearly, to lakes and rivers and streams. As the term implies, internal waters are those watery areas recognized to be entirely within the boundaries of a nation and completely subject to the nation's control. For example, Lake Tahoe —which straddles the border between California and Nevada—is subject to the control of no *nation* other than the United States. (Of course, there are some conflicts between the states of California and Nevada, but this is a non-international matter. Nevertheless, keep in mind the added complexities which our federal system of government presents.)

But Lake Tahoe is by no reasonable definition an "ocean" and we are supposed to be discussing ocean zones. So let's look at *bays*. Is a bay a lake or part of the ocean, or something different? Whatever a bay is physically (and whether it is called a sound, an inlet, an estuary, or something else), if it occupies a sufficiently deep indentation into a nation's coastline and presents a sufficiently narrow mouth to the open sea, it is legally internal waters. That is, it is subject to the exclusive control of the nation, like a lake. San Francisco Bay is a good example. A map of the California coast will show immediately that the Bay makes an exceptionally deep gouge into the coastline and meets the open sea at a very narrow mouth which we know as the Golden Gate. San Francisco Bay is, therefore, internal waters of the United States and, as to other nations, subject to the complete sovereignty of the United States. Ships of other nations can enter the Golden Gate only with the permission of the United States and under any conditions the United States wishes to impose.

So internal waters are, in regard to the extent of governmental authority exercised over them, identical to the land territory of a nation: subject to complete sovereignty.

## Territorial Seas

How do territorial seas differ from internal waters? Doesn't a coastal nation exercise complete sovereignty over its territorial sea? In a word, no.

The territorial sea is a belt of ocean bordering a nation's coastline. Its width (distance from shore to outer edge) varies among coastal nations; the U. S. territorial sea is three nautical miles. Many people are used to thinking of the territorial sea as the edge of a nation's existence—that the outer edge of the territorial sea is the outer boundary of the nation. To a large extent, this is true; but to the extent that this conception of the territorial sea leads one to believe that the waters within the territorial sea are subject to the same scope of governmental control as the nation's land or internal waters, it is not quite accurate. Actually, the only real difference between internal waters and territorial sea is that ships of other nations have the right of "innocent passage" through territorial seas. This basically means that a ship of one nation may "legally" (in the international-law sense) pass, in a non-hostile manner and for a non-hostile purpose, through the territorial sea of another nation without having first to ask permission or put up with any but minimal and reasonable conditions of passage. Except for this right of innocent passage, a nation's territorial sea is just like internal waters: the water and everything in, on, above, or beneath it is subject to the nation's complete sovereignty.

The historical development of the territorial sea concept (along with the concept of freedom of the high seas) is fascinating, if sometimes obscure. Unfortunately, there is hardly space here to go into it. Let us just say the territorial sea probably emerged originally to serve one or both of two purposes: (1) To assert the exclusive right of the nation claiming the territorial sea to fish in the claimed area; (2) To define in wartime the extent of a neutral country's neutrality. Especially with regard to this latter purpose, it is no doubt true that the range of the eighteenth-century land-based cannon (about three nautical miles) had something to do with establishing the width of the early territorial seas. This was the maximum width a nation could claim with any real authority. In fact, Thomas Jefferson, in asserting the young United States' claim to a three-mile territorial sea, referred to the "cannon-shot rule."

However, it is clear that in this day of intercontinental ballistic missiles the cannon-shot rule no longer serves as the justification for a nation's territorial-sea width. If it did, the United States' territorial sea would, of course, encompass all bordering seas—and then some. Today the breadth of any nation's territorial sea depends on many complex factors, some more important to certain coastal nations than to others. For example, the United States continues to claim a rather narrow three-mile territorial sea largely because it is a sea and air power: it wants to discourage all coastal nations from claiming wider areas of the oceans so that the U. S. Navy and Air Force will have more non-territorial ocean space in which to maneuver. On the other hand, a nation which has great economic dependence on its coastal fisheries will want to claim a broad territorial sea for the purpose of excluding other nations from fishing off its shores. An extreme example is Peru, which claims sovereignty out to 200 miles (but this claim is generally not officially recognized as "legal" by the international community).

Though there is today no established agreement among nations on what the width should be, the definite trend is toward wider territorial seas. Two conferences of nations, one in 1958 and one in 1960, were called to attempt to establish some agreement on this problem;

but in both cases, the delegates failed to reach any consensus on territorial sea width. It was agreed, however, that any claims beyond twelve miles should not be recognized as valid. Partly as a result, more and more nations are claiming twelve miles as the breadth of their territorial seas. The United States itself may be well down the road to such a claim. But, as of this moment, the official claim of the United States is that put forth by Thomas Jefferson: three miles.

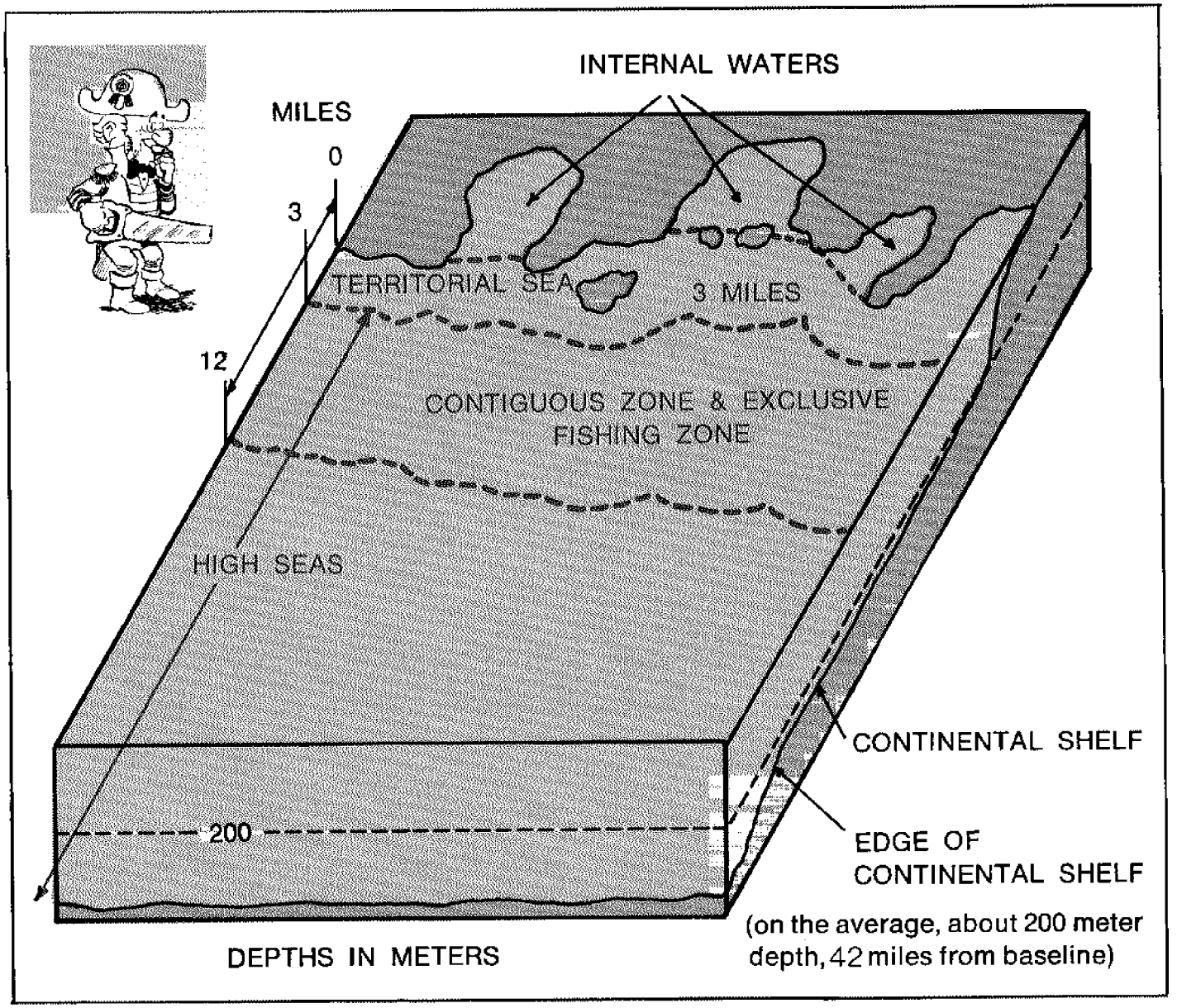
## The Contiguous Zone

The term "contiguous zone" has got to be one of the least descriptive terms in the English language. "Contiguous," of course, literally means "adjoining" or "next to"—so we have here an ocean zone which is "next to" something. As might be guessed from the organization of this discussion, the contiguous zone is a zone next to or adjoining the territorial sea on the ocean side.

The contiguous zone pretty much originated in the agreement of coastal nations at an international conference on the Law of the Sea held in Geneva in 1958 (the same 1958 conference mentioned before). There were earlier similar concepts of international law, but the 1958 conference was responsible for both the name of the zone and its present accepted meaning.

A contiguous zone, according to the 1958 treaty, is a zone of the high seas, contiguous to a coastal na-

**(Below) Cutaway diagram illustrates boundaries that determine ocean zones in international law. Geographical and political interpretation of these boundaries by individual nations account for the lack of truly international standards. Increased utilization of our ocean's resources points up the need for further standardization.**



tion's territorial sea, in which the coastal nation may exercise the control necessary to

(a) prevent infringement of its customs, fiscal, immigration or sanitary regulations within its territory or territorial sea;

(b) punish infringement of the above regulations committed within its territory or territorial sea.

Thus, a coastal nation has a recognized right to exercise its governmental authority to a limited extent outside its land territory or territorial sea. Remember that the territorial sea is, except for the right of innocent passage, subject to the complete sovereignty of the coastal nation and is therefore properly viewed as being within the nation's boundaries. On the other hand the contiguous zone lies *outside* these boundaries but is an area in which the coastal nation may exercise certain limited rights for special purposes. For example, a coastal nation could "legally" (under international law) carry out anti-smuggling operations outside its territorial sea and within the contiguous zone.

Which raises the next question: How wide is the contiguous zone? The 1958 treaty specifically states that a nation's contiguous zone may not extend more than twelve miles from the nation's coastline. Therefore, the United States' contiguous zone occupies a belt nine miles wide along the outer border of the three-mile territorial sea. It should be noted that nations which claim a twelve-mile territorial sea would of course have no right to claim a contiguous zone.

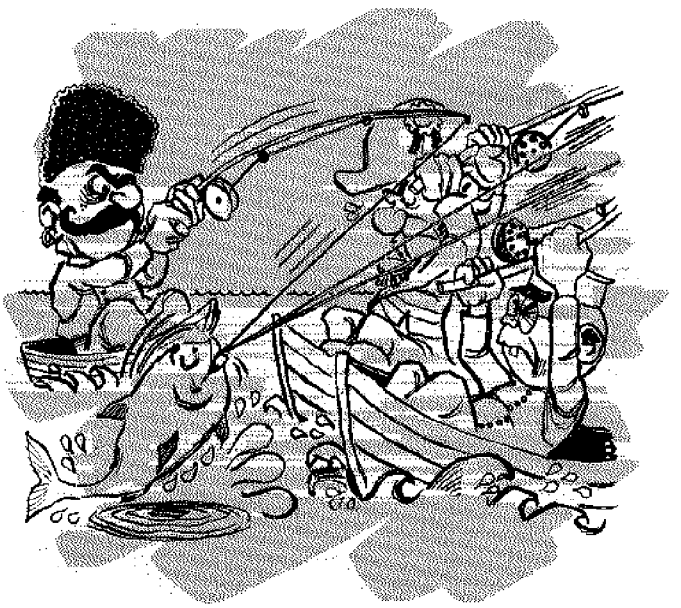
## The High Seas

The high seas are all waters beyond the outer limit of the territorial seas. This again is a definition supplied by a treaty arising from the 1958 Geneva Conference of nations, although it is simply a restatement of a long-recognized concept. Notice that the definitions of both the high seas and the contiguous zone contemplate that the contiguous zone overlaps and is part of the high seas.

The high seas encompass the vast majority of the waters of the world ocean. These are the waters outside the exclusive control of any nation and therefore not part of any nation's territory. For centuries, a concept called "freedom of the seas" has been recognized on the high seas. While freedom of the seas has many meanings in many contexts, it basically guarantees to all nations certain important rights to the use of the high seas without restriction or control by any other nation or authority. These rights include the rights to surface and air navigation; the right to fish; and the right to lay submarine cables and pipelines.

Of course, sea-faring nations may agree among themselves to certain restrictions and regulations concerning their own use of the high seas. Fishing treaties are a good illustration of these "contracts" between nations. For example, the North Pacific Fisheries Convention is a 1952 fishing treaty among Japan, Canada, and the United States. Part of the agreement among these nations, all of whom fish extensively in the North Pacific, was that where one member-nation manages and fully utilizes a certain species of fish, the other members will abstain from fishing that particular stock of fish. Thus, the American salmon, spawned and developed in the United States, could be fished only by U. S. fishermen if the salmon stock were "fully utilized" by the United States. It must be noted, however, that such international agreements on the use of the high seas are binding only on the nations which are parties to the agreements. All other nations have the right to freedom of the seas, including the freedom to fish.

Today, as territorial seas tend to widen and as developed nations look increasingly to the deep sea and seabed as sources of food and mineral wealth, the concept of freedom of the seas is in jeopardy. Many of us will probably live to see the day when what we now refer to as the high seas is subject to the control of a few nations or to the regulatory power of an international organization.



## THE NEW "RESOURCE" ZONES

One of the many recent by-products of the post-World War II technological explosion has been the expanded capability of developed nations to exploit the sea's natural resources. Japan and Russia now have fishing fleets which roam the world, freezing and canning their catches in huge factory vessels. American companies drill for oil and gas on the world's continental shelves at depths undreamed of a few years ago. The relatively near future will see man begin to recover the vast mineral wealth from the deep seabed itself, and he will gradually change from a hunter of wild fishes to a raiser and herder of domestic sea animals. Growing and farming microscopic plankton someday will become an economic reality.

Present and potential conflicts among nations over

the control of the sea's natural resources have led to the rather recent creation of two ocean zones. These are (1) the continental shelf zone, and (2) the exclusive fishing zone.

## The Continental Shelf Zone

A geologist would define the continental shelf as that extension of the continental land mass which underlies the sea from the shoreline out to the point where the land mass breaks sharply and plunges to the deep seabed. This sharp break occurs at an average depth of about 200 meters (about 600 feet or 100 fathoms).

An international lawyer, when asked to define the continental shelf, would refer to yet another 1958 Geneva treaty and come up with a slightly different definition:

> "[T]he seabed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea, to a depth of 200 metres or beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas."

Two important points, which might tend to be obscured by the "legalese" of this treaty language, should be noted:

(1) This legal definition of the continental shelf has nothing to do with the geologist's definition, except that it borrows the average depth of all physical continental shelves to establish the initial 200-meter mark. On any particular shelf, the 200-meter line probably seldom coincides with the actual edge of the geological shelf.

(2) *There is no definite outer boundary of the continental shelf;* the minimum 200-meter boundary is supposed to be pushed outward as man's capabilities for resource exploitation lead him deeper than 200 meters.

There are many complicated reasons—too many to go into here—why these two factors were built into the legal definition of the continental shelf. Both were the result of compromise, which seems to be the guiding principle for law-making on any level.

One more point should be made before we ask why the continental shelf zone exists: It is very important to realize that almost everywhere the continental shelf, as legally defined (that is, 200 meters), projects beyond the outer limits of the territorial sea. The 200-meter depth line may be anywhere from 0 to 800 miles from shore; the average distance is 42 miles. Most territorial seas are, as previously noted, 12 miles or less in width.

Now, to show why this is important, let's ask the crucial question: What is the continental shelf zone good for? It's not good for much of anything unless you happen to be a coastal nation—if you are, it may be worth quite a bit. Again in the language of the 1958 treaty, the

*Continued page 6*

## IS "INTERNATIONAL LAW" REALLY LAW?

Can there be any law in a society which has no legislature, no police force, no executive head, and whose only court cannot compel anyone to appear before it? The community of nations is such a society, and yet we often hear reference to "international law." Where does it come from? Who "makes" international law?

In general, there are five sources of modern international law:

(1) *Treaties.* Two or more nations can—and often do—enter into agreements regarding certain subjects of mutual concern. These treaties resemble private contracts in our own society; and, like a contract, a treaty establishes rules binding on the parties to the agreement.

(2) *Custom.* The customary practice of nations in their relations with one another provides a prime source of international law. To the extent that such a practice is widely recognized, it provides evidence of a general rule of law applicable to all nations.

(3) *Common principles of law.* This basically means those principles generally recognized and applied in national courts in cases involving international relations.

(4) *Judicial decisions.* Although the decisions of the single international court (the International Court of Justice located at The Hague) and of national courts are technically binding only on the parties to each particular case, these decisions are accorded considerable weight in similar subsequent international-law cases. It is also noteworthy that submission of controversies to the International Court of Justice is voluntary.

(5) *Text-writers.* The opinions of eminent international-law scholars are considered to be at least secondary evidence of legal principles.

These then are the main sources of international law applied by the International Court, by national courts in international-relations cases, and by nations in their dealings with one another. Some persons would prefer to call it a system of ethics or morality rather than "law." However "international law" is classified semantically, it seems to work pretty well in providing an organizational base for most relations among the nations of the world.

For a good readable treatment of the subject, see *The Law of Nations,* a small classic by J. L. Brierly, published by the Oxford University Press.

coastal nation "exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources." What this means is that a coastal nation owns the natural resources of its continental shelf to the exclusion of all other nations. It may sell those resources to others or sell the right to extract the resources from the seabed or subsoil of the shelf. The government of the United States does this by leasing sections of the shelf to developers for the purpose of taking oil and other minerals. Note that the right granted by the 1958 treaty encompasses *all* resources—living as well as mineral—which exist on or under the shelf itself.

The 1958 continental-shelf treaty does *not* affect the status of the waters above the shelf, which are high seas and outside the boundaries of any nation. This is so because the treaty defines "continental shelf" as the seabed and subsoil "outside the area of the territorial sea," while the high seas are, as noted, all waters beyond the territorial seas. Thus we have the rather anomalous situation on the continental shelf where nations exclusively own and control valuable resources beyond the limits of their boundaries.

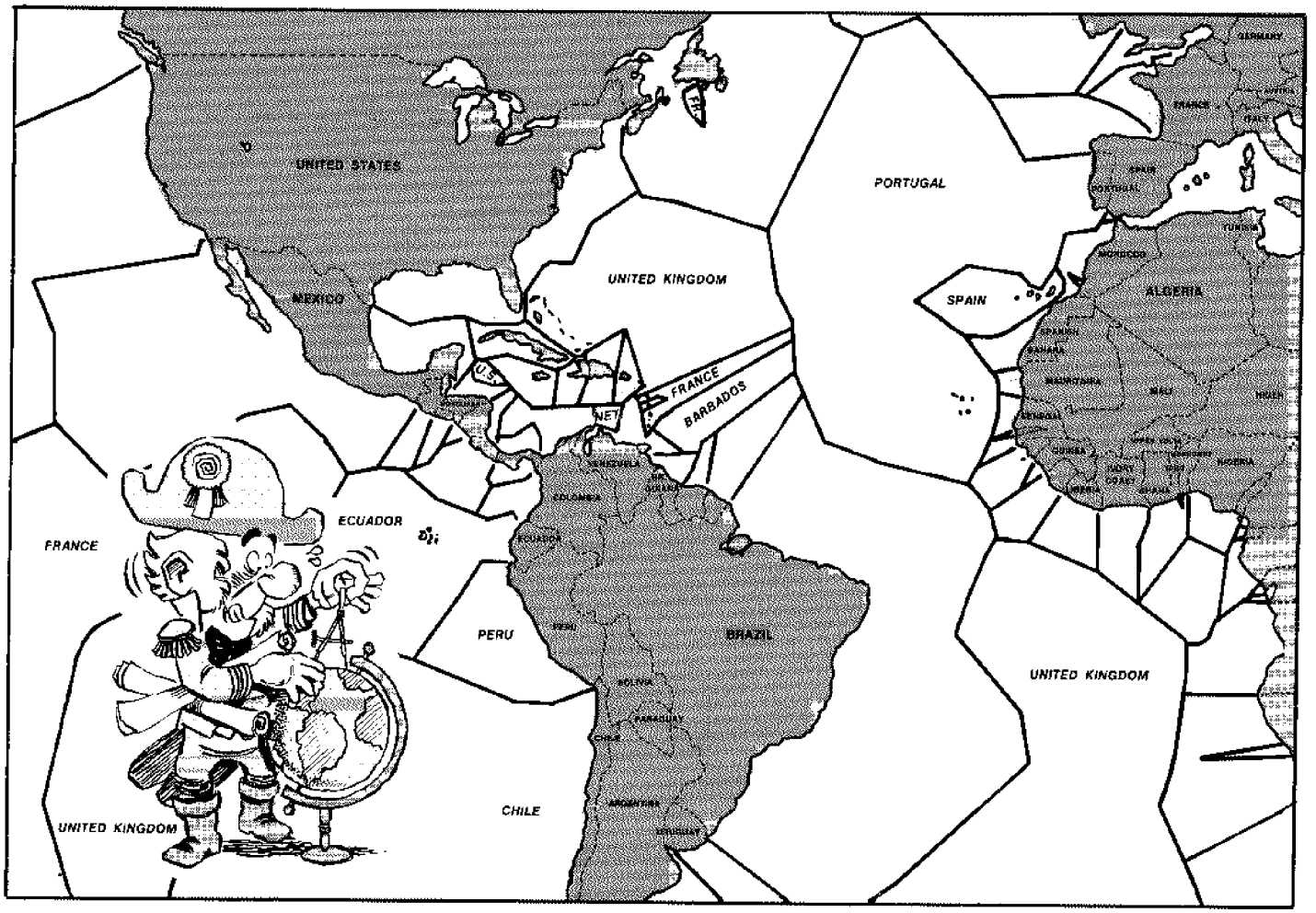
With the great increase in man's ability to recover these resources and the growing demand for them, the continental shelf zone is today taking on greater significance. However, mainly because of the fuzzy definition of the shelf's outer boundary, the 1958 treaty may soon be superseded by new, more specific language better suited to this ocean age.

## The Exclusive Fishing Zone

The exclusive fishing zone is the most recently established U. S. ocean zone. It is also unique in at least one respect: it was not created or specifically authorized by any of the Geneva treaties.

The U. S. exclusive fishing zone and the contiguous zone are exactly co-extensive—they both occupy a nine-mile belt along the outer edge of the three-mile territorial sea. So the outer boundary of the exclusive fish-

**(Below) This map illustrates how a portion of the sea floor might look if it were divided among the world's coastal nations along lines equidistant from the closest points of adjacent or opposite nations and islands—a method arguably authorized by the 1958 Geneva treaty on the continental shelf. This was adapted from a world map prepared for the Law of the Sea Institute, University of Rhode Island, to point out the incongruities of such a method of apportioning rights to the floor of the sea.**

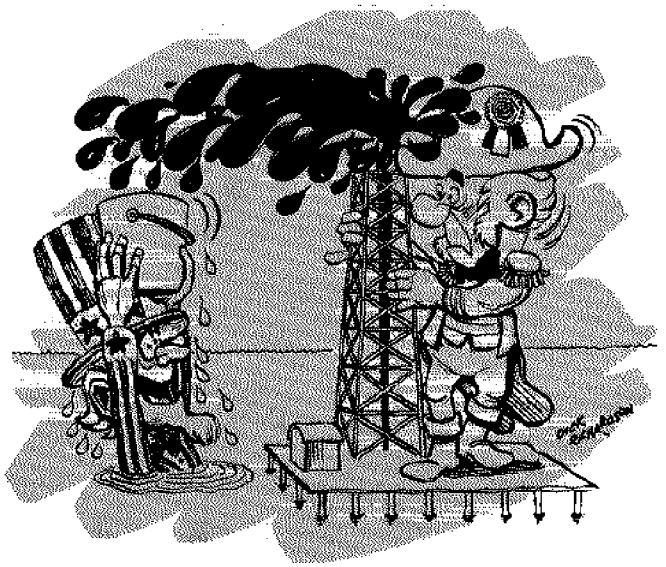


ing zone is twelve miles from the coastline.

Also, like the contiguous zone, the exclusive fishing zone is a "special purpose" extension of U. S. national authority into the high seas. That is, the fishing zone is not a claimed area of total U. S. sovereignty, as is the territorial sea (except, of course, for innocent passage).

The exclusive fishing zone was established by a 1966 act of the United States Congress which asserts to the world that the United States has the exclusive right to the living resources of the waters out to twelve miles from shore. According to the Congressional act, then, no other nation has a right to fish closer than twelve miles from the U. S. coast without United States permission. (There are exceptions for those nations who had traditionally fished in the new nine-mile zone prior to its establishment.)

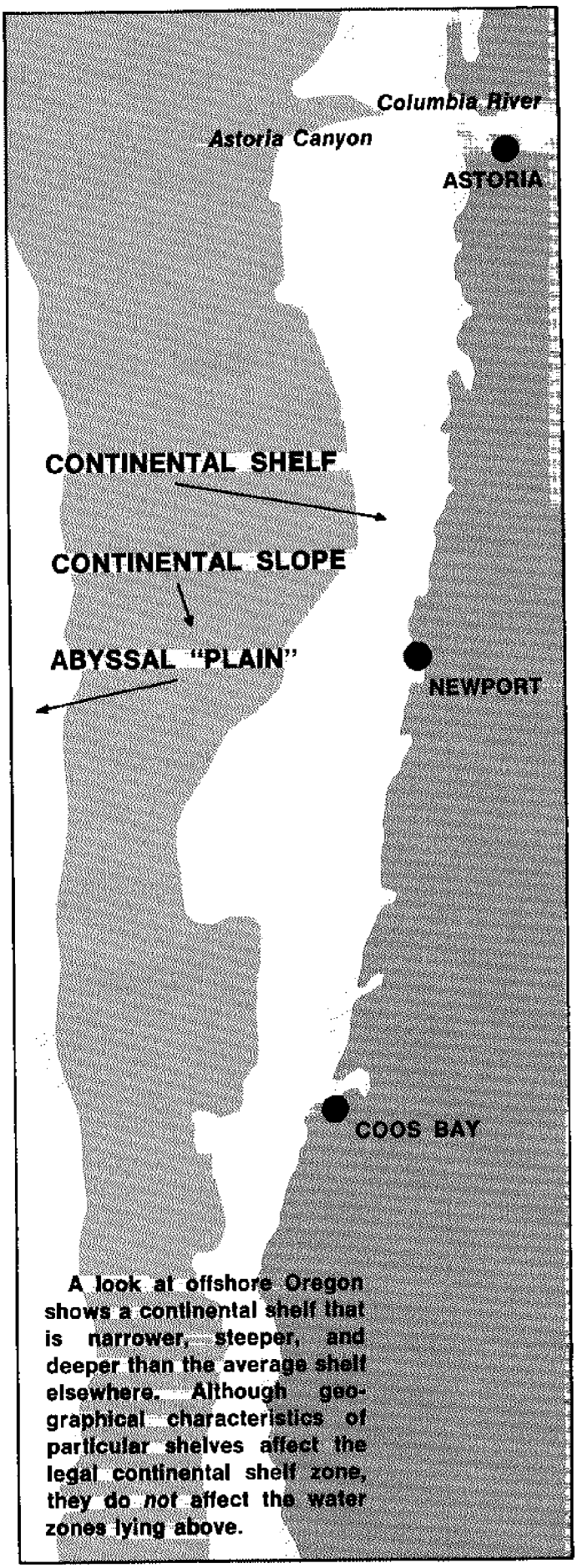
The exclusive fishing zone is, along with the contiguous zone and the continental shelf zone, an extension of U. S. authority beyond the traditionally recognized sea boundary.



## THE SPECIAL ROLE OF THE STATES

Several years ago, the United States Supreme Court caused quite a stir when it announced that all submerged lands under the territorial sea were owned by the federal government and not the states. Congress' response was the Submerged Lands Act of 1953, which deeded outright to the coastal states title to all submerged lands within three miles of their respective coastlines. (For historical reasons, Texas' and Gulf-side Florida's ownerships extend nine miles from shore.)

Therefore, it is clear that each state has the exclusive right (as against the federal government) to sell the natural resources or sell the right to extract the resources of its offshore land areas, while the federal government has these rights as to the resources of the outer continental shelf. Naturally, this situation sometimes gives rise to boundary disputes between the federal government and the states. This kind of friction is not likely to decrease in the future.




**A look at offshore Oregon shows a continental shelf that is narrower, steeper, and deeper than the average shelf elsewhere. Although geographical characteristics of particular shelves affect the legal continental shelf zone, they do *not* affect the water zones lying above.**

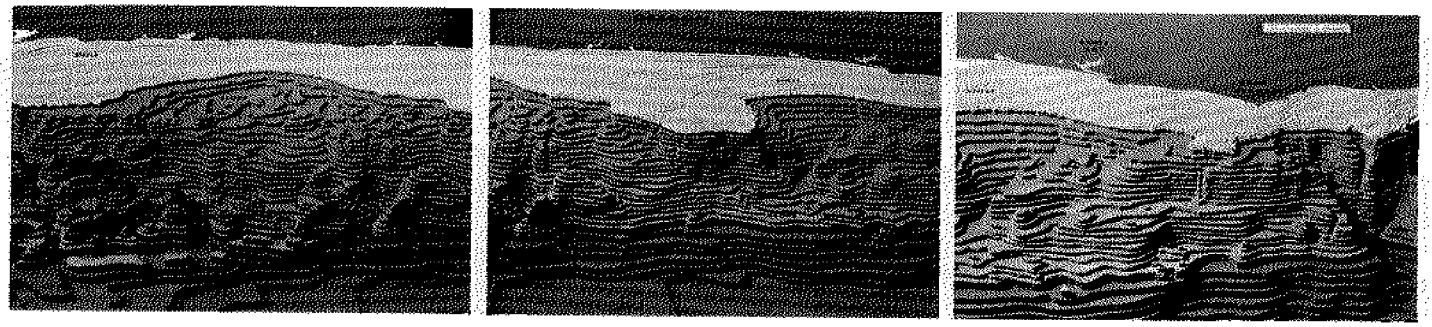
This information is published by Oregon State University as part of the Department of Commerce National Oceanic and Atmospheric Administration Sea Grant Program.

Cooperative Extension work in agriculture and home economics, Lee Kolmer, director, Oregon State University and the U.S. Department of Agriculture, cooperating. Printed and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914.

## SUMMARY

Taken together, the special-purpose extensions of U. S. jurisdiction beyond the territorial sea take a fair-sized chip out of the ancient freedom-of-the-seas doctrine. When it is realized that every coastal nation is entitled to the contiguous zone and the continental shelf zone, and that an increasing number of nations are either widening their territorial seas or claiming exclusive fishing zones, the erosion of the old concept of freedom of the high seas is seen to be considerable. No longer does any nation of the world have the freedom to take any of the sea's natural resources beyond territorial-sea limits. The rights of coastal nations beyond the traditional boundaries of their sovereignty must now be recognized.

Perhaps the new realization that the sea's natural resources are not inexhaustible provides some justification for discarding the notion of freedom of the seas altogether. At least this is something ocean lawyers are beginning to give some serious consideration. At any rate, it is almost certain that man's expanding ocean involvement will soon force some changes in his traditional scheme of ocean-use regulation. What these changes will be is impossible to foresee with any particularity, but it is a fairly safe prediction that the situation will not be simplified. That is not the nature of man or the ocean.



**(Above) Photos show portions of a three-dimensional model of Oregon's off-shore geography on display in the public wing of Oregon State University's Marine Science Center at Newport, Oregon. The center (aerial photo, right) is engaged in research, teaching, marine extension, and related activities under the National Oceanic and Atmospheric Administration Sea Grant program.**

**The center, located on Yaquina Bay, attracts thousands of visitors yearly to view the exhibits of oceanographic phenomena and Oregon aquaria.**



Supported in part by the NOAA (maintained by the U.S. Dept. of Commerce) Institutional Sea Grant 2-35187



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