

MANAGING THE OCEANS

by Ann L. Hollick

On April 30, 1982, the United Nations voted to adopt the Law of the Sea treaty that had been under negotiation for more than 10 years. The tally was 130 in favor, four opposed, and 17 abstaining. The United States was one of the four states in opposition. In the aftermath of this vote, proponents and opponents of the treaty began wielding their pens, variously campaigning to reverse or to reinforce the U.S. position.

By December, when 143 national delegations gathered at Montego Bay, Jamaica, for the signing ceremony, the Reagan administration's position had not changed. On this occasion, representatives of 119 nations signed the 320 articles of the United Nations Convention on the Law of the Sea. The United States did not, dissenting both on pragmatic grounds and on grounds of principle. While Washington endorsed those portions of the treaty dealing with boundaries and issues of jurisdiction—President Ronald Reagan described them as “consistent with United States interests”—it could not accept the provisions on deep-sea-bed mining.

Under the UN treaty, an International Sea-Bed Authority would be created both to undertake and oversee the recovery of minerals from the sea-bed beyond the areas claimed by coastal states. Among other things, the Sea-Bed Authority would enjoy taxing and licensing powers, operate a mining company, and be provided with ocean-exploiting technology developed by the industrialized countries, “whenever the Authority so requests.”

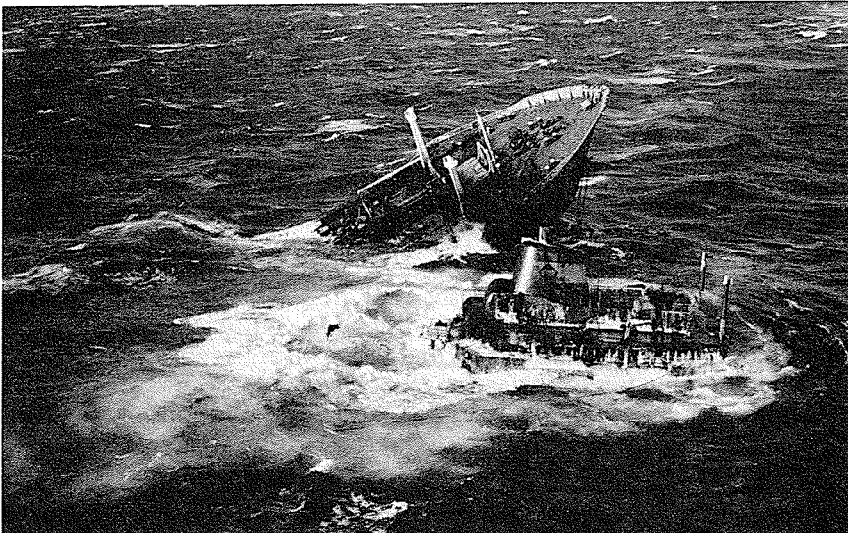
Twenty-two nations joined the United States in withholding signatures from the final version of the treaty.* Within a year, mining consortia from eight countries—the United States, Great Britain, West Germany, France, Japan, Italy, Belgium, and the Netherlands—reached an agreement that eliminated overlaps among their preferred sea-bed mining sites; the governments of the same eight nations in turn negotiated a Reciprocating States Agreement that allowed them to recognize one another's sites. These actions, though not necessarily inconsistent with the Law of the Sea treaty, have left open the possibility

*Some governments did so for reasons other than antipathy toward the treaty's deep-sea-bed provisions. Venezuela and Turkey, for example, were dissatisfied with the way boundary issues were handled in the treaty. Israel objected to a reference in the document to the Palestine Liberation Organization.

that the industrialized nations might take a separate course as far as sea-bed mining is concerned.

The Reagan administration's decision to pursue an independent course stirred criticism, both at home and abroad. Ambassador Elliot L. Richardson, a Republican who headed the U.S. delegation to the third United Nations Conference on the Law of the Sea (UNCLOS III) during the Carter years, called Washington's actions "self-defeating." He contended that the Law of the Sea treaty "clearly benefits a large number of national interests" and represented "our only means of assured access" to strategic sea-bed minerals. Defending the Reagan administration, White House counselor Edwin Meese countered that, by creating an international agency whose "authority over sea-bed mining would have been virtually complete," the sea-bed provisions jeopardized "the future national and economic security of the United States."

Whatever the merits of such arguments, or of thoughtful variants on them, the fact remains that the Law of the Sea treaty is only one part of a continuing process. Though the treaty may never come into force, the world's governments will continue to try to establish internationally recognized legal principles governing the



Grounded tanker Argo Merchant breaks in two off Nantucket in December 1976, spilling 7.3 million gallons of heavy industrial fuel. Tanker accidents account for only five percent of petroleum pollution in the oceans. Motor vehicles indirectly account for 29 percent.

use of the oceans and their resources. There is simply no peaceful alternative. The only question is whether a legal framework is put into place by means of practice, custom, and limited negotiations, or assembled in a single comprehensive treaty.

Before considering in more detail the recent efforts to fashion an all-embracing Law of the Sea treaty, let us look at the marine resources and activities that are now, or are potentially, at stake.

■ *Fish.* Thanks to increasing technological sophistication, including the advent of factory trawlers and the use of sonar to locate fish stocks, the world fish catch more than tripled between 1950 and 1970. It has currently leveled off at about 75 million metric tons annually, but with prudent management the yearly world catch could perhaps be maintained at 100 million metric tons. Fish are important not only as a source of protein—they are a dietary staple in countries as diverse as Norway, Portugal, Brunei, and Japan—but also as a source of animal feed and fertilizer. As an export commodity, fish earned \$15 billion worldwide in 1982.

Most—more than 90 percent—of the world's fish are caught within 200 miles of shore. With some 20 percent of the world's fisheries, the North American coastal waters are particularly fertile, thanks to the upwelling of nutrients on the west coast and the broad continental margin on the east coast. For most of history, fishing vessels from any nation could cast their nets almost anywhere; in this century, some countries, notably the Soviet Union and Japan, have habitually worked the fisheries off distant shores. Beginning in the 1970s, however, in the context of the UNCLOS III negotiations, growing numbers of coastal states proclaimed 200-mile exclusive economic or fishing zones. The question of boundaries, and the need for coordinated management of important fisheries, are the key issues.

■ *Transport.* Like fishing, most international shipping—which accounts for over 80 percent of all goods (mostly oil, iron ore, grain, and coal) transported between countries—moves in or near coastal waters. As it has for fishing, technology has opened up new possibilities for seaborne trade, permitting construction of ships that are bigger (up to half a million tons) and faster (averaging 33 knots) than anything seen before. Between

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1950 and 1970, the world's merchant fleet doubled in numbers while increasing fourfold in tonnage. Today some 40,500 merchant vessels, including tankers, general cargo liners, bulk carriers, and container ships, ply the oceans.

The issues here are chiefly two: Will extended jurisdiction by coastal states over offshore waters interfere, in practice, with freedom of navigation? And what is to be done about the growing congestion in straits and coastal waters? Of particular concern are the 5,583 supertankers that move more than half of the world's oil and gas. Tanker accidents in recent years have included the grounding of the *Torrey Canyon* off Britain's Scilly Isles in 1967 and the breakup of the *Amoco Cadiz* off Brittany in 1978. Both oil spills did extensive damage to nearby shores.

■ *Energy.* Man began tapping the seas for oil and gas less than a century ago. Today, offshore fields supply more than 20 percent of the crude oil produced worldwide, a proportion that will probably increase. Almost 20 percent of all the natural gas likewise comes from under the sea.

Offshore oil and gas are recovered from the continental margin—that part of the continent that extends under water. The distribution of offshore oil and gas resources has generally coincided with substantial onshore deposits. Thus, the Middle East, the United States, Mexico, Venezuela, and Nigeria have promising reserves both offshore and onshore. But intensive exploration is also under way in the Red Sea, in the South China Sea, and in the coastal waters of India, Australia, and Argentina.

It may be that, some day, the oceans will yield energy in more unusual forms than hydrocarbons. Tidal fluctuations, waves, ocean currents, and the temperature differential between surface and deeper layers of the sea might all be used to generate significant amounts of electricity. But for the time being, oil and gas are the key ocean energy resources. So far, these fuels have been pumped mainly from fields in shallow water relatively close to shore. But as oil companies become proficient at drilling in deeper water—Shell has announced plans to drill in the Atlantic at a depth of 6,800 feet—the search for oil and gas will move farther out to sea. This raises the issue of where national jurisdiction ends and the international deep sea-bed begins.

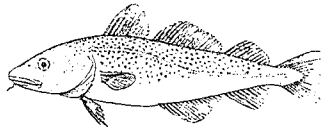
■ *Minerals.* Manganese nodules—potato-sized, mineral-laden lumps—litter the ocean floor in many places and at many depths. The nodules that have attracted the most commercial interest, those with large amounts of copper, nickel, and cobalt, in addition to manganese, are found primarily on abyssal plains of the Pacific at depths of 12,000 to 20,000 feet. Several mining con-

GOOD NEWS FOR FISH

The rush by coastal nations during the mid-1970s to proclaim 200-mile exclusive economic zones offshore barred modern fleets of big "distant water" factory ships from many of the world's most productive fishing areas. Japanese, Soviet, West German, and other trawlers went elsewhere. For the fish in the North Atlantic, as William Warner observed in Distant Water (1983), that was good news:

What the decline of factory trawling has meant . . . is that the threat of commercial extinctions no longer exists. Nor will it ever, if all coastal states show themselves to be good stewards of their new oceanic preserves. The proof, theoretically speaking, is already at hand. The great arch of the North Atlantic—the world's most severely tested fishing laboratory—is providing it. Almost everywhere along its way, fish stocks are rejuvenating. The good market fish, the key species, are coming back.

Iceland, the first and most vigorous of the good stewards, has benefited most. In the eight years since establishment of a 200-mile zone, the island republic has seen an overall catch increase of 58 percent. The United States has had almost equal success. The endangered haddock has risen fivefold from its 1974 low, and the cod catch has almost doubled. Even the Atlantic herring once so coveted by foreign trawlers are coming back strongly from what Maine fishermen, who catch them as juveniles for packing as sardines, thought was the end of their inshore fishery. Now, five years after the cancellation of all foreign herring quotas, the Maine sardine canneries are glutted with more than they can handle. Canada, for her part, has been witnessing what fishery officials like to describe as bonanza years. Both the cod and the yellowtail flounder catches have doubled since 1976, and haddock have risen over 100 percent.



Capelin are still down, but the offshore stocks (now all but denied to foreign trawlers) are at least sufficient to support a growing Canadian fishery. Perhaps, someday, the same will be true inshore. Perhaps, that is, Newfoundland outports will once again celebrate the "sculls," the annual arrival of the beach-spawning capelin, with scoffs [fetes] and soirees.

Throughout the North Atlantic arch, at varying paces, there is rejuvenation or the promise thereof. The cycle begins with the smaller fish—the younger year classes that are always more abundant than the old. Then, with patience, as records already show, there come the fully mature fish, the optimum-size classes that were almost never seen when factory trawlers dominated the grounds.

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sortia, including Japan's Deep Ocean Minerals Association and the United States's Kennecott Consortium, are studying the feasibility of various technologies, including remote-controlled submarines and vacuum reapers, for harvesting this crop of minerals.

Geologists also have their eyes on sulfide deposits, containing zinc, iron, copper, lead, silver, and cadmium, that have been discovered in several areas where there is rapid sea-floor spreading—an unexpected bonus from the study of plate tectonics. These deposits represent the accumulated discharge from the hydrothermal vents that can be found along the length of midocean spreading centers.

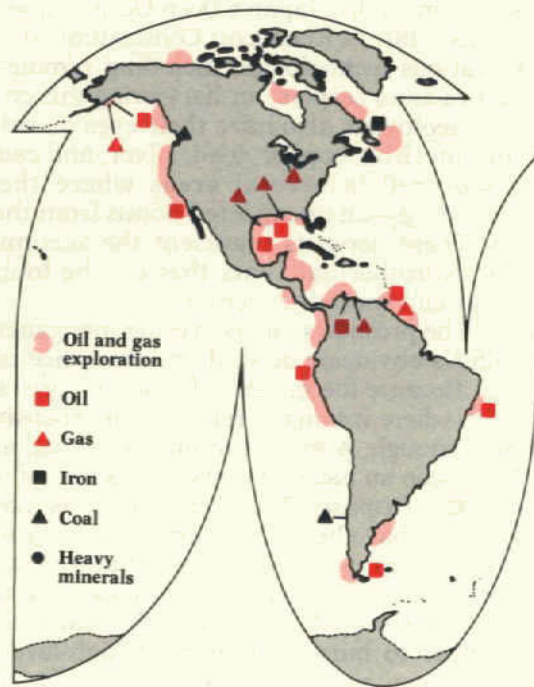
The prospects for recovering manganese nodules and metallic sulfides obviously depend on what price customers are willing to pay. Because the minerals found in these ores are still plentiful on land, where mining is relatively inexpensive, that price is not yet high enough. A more complicated issue, and one that would not have been an issue 20 years ago, is that of ownership.

■ *Disposal.* The oceans serve as man's big sink. For centuries they have been the ultimate destination for all wastes generated on land—so much so that the absorption capacity of enclosed seas like the Mediterranean and the Baltic has now been severely strained. A particularly heated debate today centers on whether to bury containers of high-level radioactive wastes in deep-ocean sediments. Low-level radioactive wastes, lodged in canisters, are already being dumped at special sites in both the Atlantic and Pacific oceans.

Pollution is not a matter only of aesthetics, although aesthetics are important, and the recreational use of the sea is a big industry. (Seventy percent of the Earth's population lives within 50 miles of a seacoast.) Chemicals, metals, sludge, radioactivity: All of these things may build up in marine life, all may upset the biological and physical equilibrium of the seas. A deadly outbreak of methyl-mercury poisoning in Japan—caused by industrial dumping that infected fish in Minamata Bay—vividly highlighted the potential problem during the 1950s. Because the oceans wash all shores, the issue of pollution is a transnational one.

■ *Research.* Yet another use we make of the oceans is for science, and not only to satisfy curiosity. We study the oceans to improve our ability to predict and perhaps someday control the weather. Preserving world fisheries requires an understanding of ocean currents and upwellings. The freedom to navigate unhindered in near-shore waters as well as open seas is essential to much marine research. As coastal states extend jurisdiction, access will be restricted.

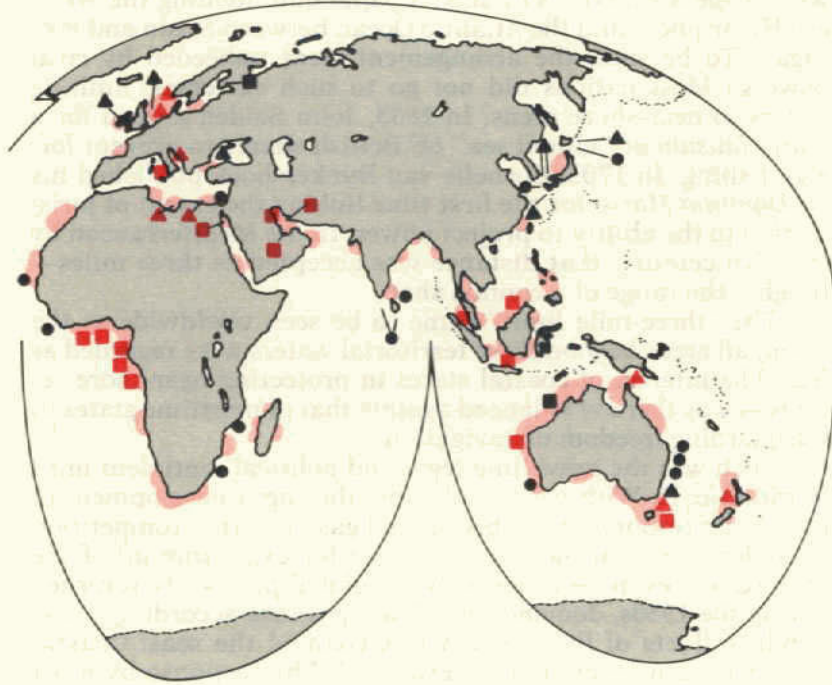
Man learned first to extract fish from the sea, then salt. Today, the oceans are exploited for a broader range of resources, but the quest for energy and minerals is still largely confined to coastal waters. According to a 1980 study, the "ocean sector" accounts for three percent of the U.S. gross national product, roughly equivalent to the contribution made by agriculture or communications.



■ *Defense.* Historically, the oceans have offered nations with naval forces an opportunity to project their power; at the same time, weaker countries have viewed the oceans as a defensive shield. The seas continue to fulfill both functions. As a place of concealment for missile-bearing submarines, they are instrumental in maintaining the strategic deterrent between the superpowers (see box, pp. 80–81).

Naval powers such as the United States and the Soviet Union depend on access to all of the world's seas. A major issue here has been the customary right of navigation through straits. A universal 12-mile territorial limit would cover more than 100 such vital choke points around the world, including the straits of Gibraltar, Bab el Mandeb, Hormuz, and Malacca. Without treaty or other guarantees, some straits' states might seek to impose obstacles to international navigation.

The intelligent handling of ocean resources, and of the multiple and sometimes conflicting activities conducted in and under the seas, is clearly today a necessity. It has not al-



ways been so. Until the 20th century, man's demand for ocean resources, and his ability to recover them, was far exceeded by available supply. The legal regime that evolved was based on the principle of "freedom of the seas": Ocean activities were to be freely conducted by all parties. The early freedom of the seas principle was eloquently expounded by the jurist Hugo Grotius, at the behest of the Dutch East India Company. "Is it not vastly more just," he wrote in his essay *Mare Liberum* (1609), "that the benefits from the enjoyment of common things should be given to the entire human race rather than to one nation alone?" Grotius's thesis that in wartime neutral vessels were entitled to use the seas without constraint was embodied, in 1856, in the Treaty of Paris (which was otherwise concerned with settling the Crimean War).

From the outset, of course, the freedom of the seas principle was challenged by a contrary notion—that of enclosure or division of the oceans for reasons of national security and profit. Perhaps the most ambitious attempt at enclosure came in 1493,

when Pope Alexander VI issued a papal bull dividing the Western Hemisphere and the Atlantic Ocean between Spain and Portugal. (To be sure, the arrangement went unheeded by rival powers.) Most nations did not go to such extremes, limiting claims to near-shore areas. In 1635, John Selden argued for a *mare clausum* or "closed sea" off British shores to prevent foreign fishing. In 1703, Cornelis van Bynkershoek published his *De Dominio Maris*, for the first time linking the extent of jurisdiction to the ability to project power. In the Mediterranean by the 18th century, that distance was accepted as three miles—roughly the range of a cannon shot.

The "three-mile limit" came to be seen worldwide as the norm; all areas beyond these territorial waters were regarded as free. The interest of coastal states in protecting near-shore resources was thereby balanced against that of maritime states in safeguarding freedom of navigation.

Such was the prevailing legal and political sentiment until World War II. With war's end came the rapid development of new ocean resources (notably oil and gas), growing competition for older ones, and new technologies for exploiting *all* of the sea's resources more intensively. As global prosperity returned during the 1950s, demand for oil and gas rose accordingly. Expanding fleets of fishing trawlers roamed the seas. Coastal waters became increasingly crowded. The response by most governments was twofold.

Enclosing the Commons

One course of action was to work out pragmatic rules and regulations to accommodate potentially conflicting uses of a given area of the sea. This process has actually been something of a success story. Despite all the publicity given to boundary disagreements or disputes, such as the 1975 Cod War between Britain and Iceland, governments have established a variety of rules and norms that regulate behavior on the high seas and in coastal waters, and do it quite well. Common understandings exist as to the maritime "rules of the road," assistance to vessels in distress, and procedures for abandoning ship and claiming salvage rights. In offshore areas, coastal states have designated special shipping lanes to permit other activities, such as oil drilling, to be safely pursued. All of this and much else has been accomplished via a mixture of domestic legislation, treaties among neighboring or regional states, and rules hammered out in such bodies as the UN's London-based International Maritime Organization.

The second course of action, justified by a variety of pretexts and precedents, was to proclaim sovereignty over ever-larger tracts of the ocean "commons." The United States led the way. As early as 1943, Interior Secretary Harold Ickes had drawn President Franklin Roosevelt's attention to the continental shelf, and to the possibility of "availing ourselves fully of the riches in this submerged land." World War II, Ickes said, pointed up "the necessity for an augmented supply of natural resources." In 1945, at Ickes's urging, President Harry Truman proclaimed U.S. jurisdiction over the resources of the continental shelf contiguous to the U.S. mainland. Truman also asserted an American right to establish conservation zones for the protection of fisheries in certain areas of the high seas—notably in the Pacific, where Japanese fishing fleets had before the war helped themselves to Alaska-spawned salmon.

Disputes at the UN

Two years after the Truman Proclamations, Chile, followed by Peru and Ecuador, laid claim to 200-mile territorial seas. With World War II surplus warships bought from the United States, the Peruvians and Ecuadorians began seizing foreign (mostly American) trawlers that dared trespass on their territorial waters. The most spectacular seizure occurred in 1954, when Peru captured five vessels of the Onassis whaling fleet that had been operating more than 160 miles from her coast.

During the 1940s and 1950s, few authorities from countries outside the west coast of South America regarded a 200-mile limit as legitimate. Indeed, in legal circles, the issue was whether the territorial sea should be limited to three miles, extended to 12, or perhaps fixed at some intermediate distance. The first UN Conference on the Law of the Sea met in Geneva in 1958 partly to resolve this very matter. The delegates were unable to do so. But the conference did produce other important agreements, including a Convention on the Continental Shelf that granted coastal states "sovereign rights" over sea-bed resources to a depth of 200 meters or, beyond that point, to water depths at which exploitation was possible. The "exploitability clause" ensured that sovereign rights would advance with technological capability. But it protected maritime states by limiting those rights to natural resources of the sea floor. In other respects, the seas remained free.

The second UN Conference on the Law of the Sea met in Geneva in 1960 to consider the territorial sea problem anew, but again the conferees could not agree. There was a general consen-

RUN SILENT, RUN DEEP

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 "Rule, Britannia, Britannia rule the waves." Thus began the chorus of England's proud song during the 19th-century heyday of the Empire when the Royal Navy's far-flung squadrons supported colonial expansion, protected merchant shipping, and curbed the ambitions of rival European powers. The trauma of two world wars ended all that. Today, nobody *rules* the waves, partly because the new ships are simply too expensive. A single *Nimitz*-class aircraft carrier costs \$3.5 billion, a destroyer \$500 million.

The oceans' military importance has not ended. Both the United States, once the naval giant of World War II, and the Soviet Union, its postwar challenger, are in a race of sorts. Since 1962, the Soviets have vastly increased the number (now roughly 650) and global deployment of their major combat ships; they are building their first nuclear-powered big carrier. The Reagan administration has countered with a proposed build-up to a "600-ship" Navy by the early 1990s, including 15 aircraft-carrier groups and several reactivated World War II battleships, all designed to support a controversial new "maritime strategy."

British naval planners focus on the North Atlantic, the Italians on the Mediterranean, the French on both. The United States worries about these areas, as well as the Caribbean, the Persian Gulf, and the Sea of Japan. Increasingly, U.S. skippers find themselves being shadowed by Soviet vessels.

Control of the seas, particularly along the North Atlantic convoy routes to Europe, is a prime NATO goal in any nonnuclear war with the Soviets. Yet, congressional critics contend, the U.S. Navy has put too many eggs in one basket: the big carrier, its 80-90 aircraft, and defending escort vessels. Such forces are vulnerable not only to short-range missiles, as the 1982 Falklands war indicated, and land-based bombers, but to torpedoes fired from submarines.

Indeed, the chief concern of both superpowers lies beneath the waves. The Soviets have 115 nuclear-powered attack submarines, the Americans, 93. In 1960, the United States deployed the first strategic missile-carrying submarine, creating a nuclear deterrent vir-

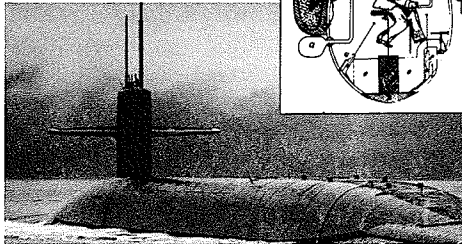
sus that the territorial sea should be an area of virtually complete state sovereignty. Beyond it, there should exist a special purpose or "contiguous" zone, a buffer where coastal states would enjoy limited powers—the right, for example, to stop vessels for customs inspections, or to restrict dumping.

But when it came down to exact dimensions, consensus eluded the conferees. The result, as the 1960s wore on, was the phenomenon of "creeping jurisdiction" as more and more countries—76 of them by 1974—claimed territorial seas extending to

tually invulnerable to detection and destruction by enemy missiles. The Soviets followed suit. Ever since, both sides have poured money into undersea research—on acoustics, on magnetic displacement—seeking to score a breakthrough that will allow detection of the other side's submarines. The Soviets' nuclear-powered submarines are often faster but "noisier" than the Americans'. To get to deep water from their home bases, U.S. submarines have a wide choice of routes. Soviet submarines must pass through geographical bottlenecks to reach the open sea. To monitor them in transit, the United States and its allies have moored thousands of hydrophones on the ocean floor in belts—e.g., between Greenland and Britain, between Japan and Alaska—as part of a global Sound Surveillance System. Possibly as a result, the Soviets keep most of their 62 strategic-missile submarines in protected waters near their home ports. But they can still reach the United States with their missiles—and they are no easier to spot than are the 35 wide-ranging U.S. Poseidon and Trident submarines. The oceans' characteristics—temperature change, salinity, eddies, currents, varying depths, fish—distort sound waves and confuse sonar detection systems.

By the 1990s, thanks to advances in ICBM accuracy, virtually every American land-based strategic nuclear weapon could be rendered useless by a Soviet first strike. The surviving leg of the U.S. strategic "triad" would be the nuclear-powered submarines roaming the murky

A Trident submarine, the USS Ohio; inset, David Bushnell's Turtle.



deep, now able to hit Moscow from 4,000 miles away. After 20 years of intensive research, no one has figured out a way to make the seas "transparent." Thanks to the oceans' stubborn opacity, the U.S. retains a credible deterrent to Soviet surprise attack, and hence to World War III.

at least 12 miles from shore. Eventually, during the 1970s, most coastal states, from South Africa to Iceland to Japan, also asserted an exclusive right to exploit all of the resources within a 200-mile zone.

They did so in anticipation of the treaty that might be produced by the third UN Conference on the Law of the Sea. This round of negotiations got under way in New York in 1973 after six years of preparation; the guiding assumption was that the resources of the oceans beyond national jurisdiction were "the

common heritage of mankind." The conference met in 11 sessions over the course of a decade before agreeing on a detailed treaty that dealt with everything from archaeological exploration and piracy to resource rights in offshore areas and principles of boundary delimitation.

The Great 'Sea-grab'

The character of the third Law of the Sea Conference inevitably reflected the altered character of the United Nations itself, an eventuality that Washington's negotiators failed to foresee. The United States entered the Law of the Sea negotiations with limited objectives and the mistaken belief that it could retain some sort of control over the proceedings. Unfortunately, the UN's membership had almost doubled since the first Law of the Sea Conference in 1958. The number of African delegations alone had increased from six to 41. Virtually all of the new member states were newly independent former colonies. Most were poor.

To say the least, the existence of this bloc of developing countries—organized as the so-called Group of 77—complicated the politics of the conference. "These days," UN Ambassador Daniel Patrick Moynihan wrote in 1975, "the United Nations often takes on the appearance of an international court with the Third World pressing the charges and conducting the trial." What was true of the General Assembly was at times also true of UNCLOS III. On questions of jurisdiction over offshore areas and activities, the divergence of interest between coastal and maritime states was paramount. But on the matter of managing the sea-bed, the clash was between rich and poor, between industrialized countries with capital, expertise, and technology, and "developing" nations with none.

On the question of jurisdiction, the coastal states—which include influential Third World countries like India and Brazil—carried the day. They sought and won control over all coastal resources assumed to be of value. Under the treaty, a 200-mile exclusive economic zone (EEZ) gives coastal states sovereign rights to all resources within 200 miles of shore—and beyond, if the continental margin stretches farther. Archipelagic states, such as Indonesia or Fiji, are allowed to draw "baselines" linking their outermost islands and to designate the enclosed areas as "archipelagic waters." Within these waters, the archipelagic state is authorized to draw sea-lanes for ships and aircraft. Beyond these waters, the state may claim a 200-mile EEZ.

The extent of each nation's "territorial sea" was finally set

at 12 nautical miles from shore, with a contiguous zone occupying another 12. After difficult negotiations, it was agreed that in international straits that were overlapped by a 12-mile territorial sea, the coastal or straits state was authorized to designate sea-lanes for all shipping. But "transit passage"—a new concept—and rights of overflight were assured for all states. Submarines were allowed to pass submerged. These provisions satisfied both the United States and the Soviet Union, which generally saw eye-to-eye on most navigation issues.

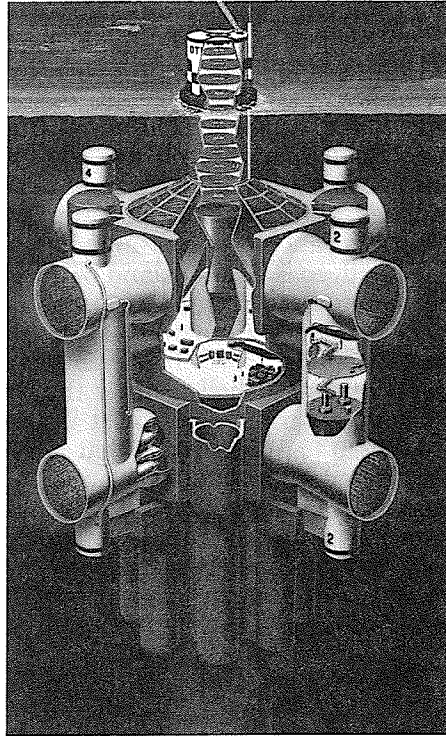
In all, coastal and island nations have succeeded in reserving the resources in roughly 40 percent of the ocean—including the most productive portions—for themselves. (Six countries together acquire more than one-third of the newly created EEZs and continental shelf regions: the United States, Indonesia, New Zealand, Australia, the Soviet Union, and Japan.) The big losers are the 40 to 50 countries that are landlocked, or whose EEZ is constricted because of overlap with that of a neighbor (as often occurs, for example, in Southeast Asia and West Africa). Many international lawyers and diplomats had favored a Law of the Sea treaty as a means of heading off what they foresaw as a massive "land-grab" of the oceans. Ironically, the "grab" was at least partly brought about by the treaty process itself.

Transferring Wealth

But partition of coastal waters was only one item on the agenda. Sea-bed mining in areas beyond national jurisdiction was another, and here the political alignment was different. The basic question was: Who should mine the sea-bed? Negotiations were quickly mired in an ideological morass involving the so-called New International Economic Order, the Group of 77's plan put forward during the early 1970s, that calls for a massive redistribution of wealth from the Western industrial nations to the Third World. "In one world as in one state," explained Tanzania's President Julius Nyerere, "when I am rich because you are poor, and I am poor because you are rich, the transfer of wealth from rich to poor is a matter of right."

In the Law of the Sea negotiations, the Group of 77 sought to create a "one-nation, one-vote" International Sea-Bed Authority that would in turn oversee an operating company called the Enterprise (the popularity of the U.S. television spaceship show "Star Trek" in Latin America accounts for the name). The Enterprise would be a monopoly, exploiting the sea-bed on behalf of "mankind as a whole" and allowing for direct participation by developing countries in the process of mining. The

The Lockheed Ocean Thermal Energy Conversion (OTEC) system. OTEC systems exploit the temperature differential between surface and deeper water to generate electricity. Warm water heats a fluid medium (such as ammonia), creating vapor that drives a turbine. Cold water returns vapor to liquid state, and the cycle begins again.



industrial states proposed instead that the Sea-Bed Authority simply issue licenses to existing mining companies and collect a small tax in return to be distributed to developing nations. The developing nations found this unacceptable.

Ultimately, the delegates agreed on a compromise "parallel system." Public and private mining companies would explore and submit two promising sites to the Sea-Bed Authority, one of which the Enterprise would take for itself. Financing for the Enterprise would come from the mining firms by way of an application fee, a fixed annual fee, and royalties paid on profits. Appropriate technology would be transferred to the Enterprise from the private sector, and the Authority would be able to control the rate of production of sea-bed mineral prices for land-based producers. The treaty also stipulated that many of the Enterprise's important business decisions would have to be made by consensus (guaranteeing stalemate) while others could only be made by a two-thirds or three-quarters majority of an Executive Council dominated by the developing nations.

The United States and other countries were particularly alarmed about the provisions on decision-making. Washington had always insisted on "weighted" voting in international economic organizations, consistent with the size of each member's financial contribution. Washington also objected to the provisions for production controls and mandatory transfer of technology as well as to provisions allowing the treaty to be brought up for revision after 20 years by dissatisfied parties.

No Treaty, No Tragedy

There were many components of the Law of the Sea treaty—provisions dealing with scientific research, management of fisheries, pollution control, and much else besides—but the jurisdiction and sea-bed provisions made up the document's core. And as late as 1981, incremental changes were still being made in the draft negotiating text in order to persuade the United States and others to accept the treaty. The Reagan administration was ideally situated to insist on changes. However, plagued by inexperience and incompetence, the new U.S. delegation not only failed to negotiate the necessary improvements in the text but, by all accounts, also managed to antagonize virtually everyone at the conference.

Although 119 parties have signed the Law of the Sea treaty, its status is up in the air. Until the treaty is formally ratified by the appropriate bodies in at least 60 nations—in the United States, this would be the Senate—the document is a dead letter. So far, fewer than a dozen countries, including Belize, Fiji, and Zambia, have ratified the treaty; the rest appear to be in no hurry to do so. If the treaty eventually goes into effect with only a minimum number of adherents, its authority will be suspect. No matter how many countries ratify the treaty, if the industrialized nations are not among them, the International Sea-Bed Authority will be an empty shell. (Of the eight Western countries that have negotiated among themselves a Reciprocating States Agreement on sea-bed mining, none has ratified the treaty and five have not signed it.) Other imponderables remain.

The likelihood is that, in the end, there will be either no treaty or a very weak treaty. This is not necessarily a tragedy. For one thing, the jurisdictional aspects of the convention, which provide a useful basis for managing activities in and on the oceans, will probably come to be accepted anyway as customary international law. The United States acknowledged this reality in March 1983 when it unilaterally proclaimed a 200-mile exclusive economic zone consistent with that per-

mitted by the Law of the Sea treaty.

That still leaves many issues unresolved, of course. Looking ahead, it is not difficult to pinpoint probable bones of contention. As coastal states vigorously exploit their EEZs, for example, boundary disputes will become commonplace, and some may take years to resolve. Fishing stocks will need careful, coordinated management in areas where they span many narrow or small jurisdictions. The threat of pollution is likely to get worse, not better. Heavily traveled straits and coastal areas will become more, rather than less, crowded.

Some mechanisms, such as the International Court of Justice and the International Maritime Organization, already exist to deal with certain of these issues. Other concerns may prove susceptible to regional initiatives. Twelve Mediterranean countries, for example, have drawn up plans to help revive their dying sea, and states bordering other imperiled bodies of water are beginning to follow suit. There is no reason why this approach should not be applied to other problems.

In the end, a new legal regime covering offshore jurisdiction as well as the deep sea-bed is likely to evolve through some combination of unilateral claims, regional practice, the influence of international organizations, and the provisions of the UNCLOS III treaty (ratified or not). As long as a widely accepted body of customary law develops that provides a satisfactory degree of predictability, states should be content with it. The process may be messy, but it is vastly preferable to resuming negotiations in a single forum on the whole range of contentious issues.

White House aide Richard Darman, a former member of the U.S. delegation to UNCLOS III, once described the emerging Law of the Sea treaty as the work of "internationalist lawyer-codifiers" who conceived the world in "neat, static terms." Managing the oceans does not readily lend itself to such treatment. In the end, the sea may simply be too big, its range of uses too broad, to be rationally encompassed by a single set of immutable laws.

