

# Law Comes to the Sea Floor

Down into the cold, hostile depths of the sea, man and his technology are moving rapidly—but law to regulate this frontier is sadly lacking

by John Ludwigson

Who owns the bottom of the sea?

Until about 10 years ago that was an interesting but unimportant question since nobody really cared much, or knew much, about the sea floor.

But tomorrow's world may depend on sea bottom mines for its mineral resources; on underwater farms for much of its food; and, perhaps, on geothermal steam wells drilled into the ocean floor to tap the heat energy in earth's interior.

Buoy networks will report hourly from the seven seas via satellite on weather and sea state in their vicinity. Submarines of all sizes, from tiny research vehicles to huge cargo carriers, will glide through the global sea and dock at underwater ports, surfacing only for repairs.

Technically, each of these developments is within a few years of reality. But the apparently more knotty problems of international law to deal with them have hardly been touched.

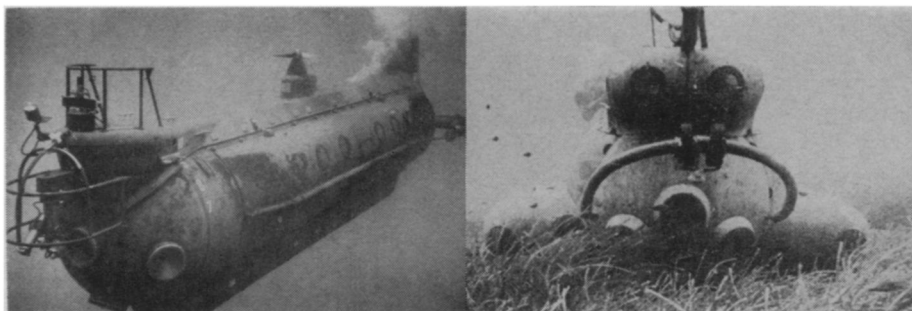
If the sea floor is to be mined, for example, it seems certain that someone will have to register claims, settle disputes and collect the inevitable taxes on the operations.

Some means of identification must be developed for commercial submarines; rules that govern surface ships will be completely inadequate when both merchantmen and warships are gray ghosts gliding far beneath the waves.

If the coastal nations of the world could cooperate as well in other ocean fields as they have in science, all would be well. Much of the cooperation has been arranged through the Scientific Committee on Oceanic Research of the International Council of Scientific Unions. Examples are the International Indian Ocean expedition, International Cooperative Investigations of the Tropical Atlantic and a multitude of international meetings of oceanographers.

A measure of the level of nonscientific agreement today on law of the sea floor can be taken from the Convention on the Continental Shelf adopted at the 1958 United Nations Conference on the Law of the Sea. Under this convention, any nation has sovereign rights to undersea lands bordering its coast out 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."

Taken literally, this could mean that there is no limit to a continental shelf.



NOVOSTI

Soviet research sub (right) and Aluminaut operate outside present sea law.

Whoever gets to the bottom first could own it, all of it, right up to the 200-meter mark around other nations.

Speculation on this was presented last year by attorney Northcutt Ely of Washington, D.C., to the second annual Marine Technology Society conference.

"... if some stranger proves, by doing it, that wells can be drilled at very great depths at a distance of hundreds of miles from the nearest coastline," Ely observes, "then, if this language means what it says, he has automatically established . . . the exclusive jurisdiction of some coastal state (not necessarily his own) which was incapable of this technical exploit itself, did not license the exploration, indeed, never heard about it, but now acquires sovereign powers to prohibit it, or police its operation, and collect taxes and royalties and control disposition of production."

**Jurisdiction, however,** implies more than enforcement of law. It implies that the governing power will also defend the area and regulate its use. Lack of this fundamental benefit of government in the deep ocean has held back some firms from risking their money there.

As Dr. John P. Craven, chief scientist of the Navy's Deep Submergence Systems Project, points out in a paper on Technology and the Law of the Sea, "It is the nature of man . . . to congregate competitively at the site of another's success."

Pressure, he notes, is already being put on the Federal Government to lease areas of the ocean bottom beyond the 200-meter depth, thus extending the legal protection of the United States to the deep ocean floor.

**An area** of particular legal need is the safety of saturated divers. Divers whose blood becomes saturated with

gas because of the pressure, live at the bottom or in a pressure chamber on the surface until their seafloor work is completed. They avoid spending hours each day in gradual decompression and are decompressed just once or once a week until the job is finished.

"The saturated diver is in a precarious position with respect to man-made perils," Dr. Craven notes. Explosions nearby, water pollution and commercial fishing overhead all pose severe threats.

**The list of problems** is endless and there is generally no law established to deal with them. Consideration of the possibilities has been largely confined to lawyers and officials closely connected with active ocean programs.

A three-day meeting of lawyers concerned with sea law will be held in Long Beach, Calif., beginning June 7. It is sponsored by the National Institute on Marine Resources of the American Bar Association and will be held in conjunction with the third annual meeting of the Marine Technology Society which will be in San Diego on June 5-7.

Though many Congressmen take personal interest in ocean matters, so far neither hearings nor legislation have been proposed to meet future legal problems. Most likely, explains Rhode Island's Senator Claiborne Pell, little will be done until the problems actually arise in practice.

"Because technology has not yet reached the stage where deep-sea mining is feasible, questions of who owns the deep sea floor have not been studied seriously," Senator Pell notes. "But technology will develop quickly. . . ."

"I think it is possible," he adds, "that the nations will solve the difficult problems of conflicting interests in the global sea long before full peace and harmony are achieved on land."