Law of the Sea threatens research

from Robert E. Bowen

Details of regulations evolving within the UN convention suggest that the freedom of marine research will be compromised.

A RECENT development at the Preparatory Commission of the International Seabed Authority (PrepCom) may have alarming implications for the conduct of marine scientific research in international waters. At its spring meeting in Jamaica, PrepCom began discussing regulations for mineral prospecting of the international seabed, called the "Area". The proposed definition of such activities is at present so broad and vague that virtually any marine research in the Area could be construed as falling under regulation by the International Seabed Authority (ISA).

As a result, further complications may be in store for marine science, not only for researchers from signatory states but for all those who seek to make studies in international waters. PrepCom is negotiating the operating rules and regulations for the International Seabed Authority, specified by the UN Convention on the Law of the Sea and which will be responsible, when the convention enters into force, for the conduct of mining activities in marine areas beyond national jurisdiction.

Many had thought that with the signing of the Law of the Sea convention, in 1982, a quarter of a century of international debate had ended. The convention aimed to define the direction of national and international marine law for the forseeable future. For the most part, such expectations are still tenable. The Third United Nations Conference on the Law of the Sea (UNCLOS III) was able to reach agreement on the breadth of the territorial sea, the establishment of the Exclusive Economic Zone and principles regulating most fisheries stocks and the use of the sea for transport. The marine scientific community was assured that rules and procedures regulating the conduct of marine science had also been generally agreed upon; within areas of national jurisdiction, scientists must secure consent from the coastal state to carry out research, but outside national jurisdiction no such consent was required. However, the recent proposals for regulating prospecting seem to suggest that these agreements may be open for renegotiation.

At the latest meeting of the Preparatory Commission (11 March to 4 April 1985 at Kingston, Jamaica) certain draft articles began to take shape that could significantly affect the conduct of marine science outside national jurisdictions. These developments concern the powers of the ISA to regulate "prospecting activities" for all resources in the international ocean.

The difficulty lies with the definition of the term. According to the current working paper on the subject, "prospecting means the taking of geophysical, geochemical, oceanographic or atmospheric measurements, the collecting of rock, sediment and mineral samples from the surficial layers of the sea-bed, and establishing maps of data and sample locations, provided that such activities do not significantly alter the surface or subsurface of the sea-bed or significantly affect the environment or remove an appreciable quantity of material, for the purpose of evaluating the exploitability of the resources of a specific area" (my italics).

From such general wording, it is clear that much of marine science - most of marine geology, geophysics and geochemistry, for example - may be characterized as prospecting. Rather than a clear statement of intent, the draft article states that if the information derived from a scientific mission is used to evaluate the economic significance of mineralizations, then the activity could be viewed as prospecting and, thereby, subject to regulation by the ISA. Prospecting regulations would include such obligations as notification to and approval from the authority and the submission of annual reports. As presently conceived, these reports would

- •The status of prospecting activities, including the amount of material recovered for analysis.
- •Information on the degree to which the mission complies with ISA regulations.
- •Any information obtained during prospecting relating to the protection of the environment.
- Reports on any training carried out as part of the mission.
- •Observations on any activities affecting safety at sea.

The draft provisions also include a recognition that the processing of notifications will entail administrative costs on the part of the ISA, and that a fee schedule may be constructed.

The major problem lies in the inability of PrepCom to distinguish clearly between scientific research and inquiry directed exclusively at the development of information for future minerals exploitation. In a sense, this is a formal attempt to define the difference between basic and applied marine science.

The delegates to UNCLOS III had faced a similar dilemma. That debate proved to be so difficult that it was decided

not in scientific, but in geographical terms. It was resolved that activities within the bounds of national jurisdiction would ordinarily be regarded as applied science, but that it would be for the coastal state to allow exceptions within its marine science consent regime. It was also agreed that, outside national jurisdiction, no country or international organization had regulatory competence, so that scientific research would remain free. With the new developments, however, this old debate is rejoined. It is likely, but not certain, that PrepCom will draft formal recommendations to the ISA on general prospecting rules. Even if the United States and certain other countries (such as the United Kingdom and West Germany) remain outside the convention, the effect of these provisions, if accepted formally by the ISA, could be substantial. At the least, marine science conducted jointly with scientists from signatory countries (which include Canada, Mexico, France and Japan) could be affected or curtailed. This situation can be regarded as one cost of the refusal of critical deep-water-science states to participate actively in PrepCom bargaining. The United States has refused even to observe the proceedings, although permitted to attend the Final Act of the convention. Consequently, the interests of the international marine science community have not been well represented.

There may not be much time to put things right. At least three separate surveys of the international treaty ratification process (including those carried out by the UN secretariat and the government of Australia) suggest that the requisite number of ratifications to the convention will be deposited by 1989, which means that the treaty will probably be in force by 1990. The United States and others may be losing an important opportunity to influence the development of an international regulatory structure that could directly affect the conduct of marine science by their nationals. Without a more conscious effort by deep-water-science states, the international science community appears to have to depend on informal, but nonetheless important, avenues of approach.

Robert E. Bowen is a visiting investigator at the Marine Policy and Ocean Management Center, Woods Hole Oceanographic Institution, Woods Hole Massachusetts 02543, USA, and a member of the Environmental Sciences Program at the University of Massachusetts at Boston Harbor Campus, Boston, Massachusetts 02125, USA