

Ocean Research Under Foreign Jurisdiction

Warren S. Wooster

Coastal states have been extending controls over marine scientific research by foreign scientists during the last two decades through international agreements affecting research on the continental shelf (1) and through unilateral actions. As negotiations proceed in the United Nations Conference on the Law of the Sea, it appears likely that coastal state jurisdiction over research out to

Kildow (5) concluded that the conditions imposed by foreign nations had not significantly harmed ocean research up to that date, but she suggested that the situation could deteriorate because of the inherently political nature of the restrictions. In 1977, the Ocean Policy Committee of the National Academy of Sciences (4) stated that about half of the cruises of the U.S. university oceano-

Summary. In more than one-fourth of recent cases, U.S. marine scientists desiring to work off the shores of other countries were denied access or encountered inordinate delays in approval of their requests. The regime for marine scientific research proposed in the draft text of the Convention on the Law of the Sea may alleviate some difficulties but will not change the predominant influence of political considerations on decisions affecting clearance for research.

200 miles from shore will be confirmed, probably along the lines set forth in the current negotiating text (2). The new regime would involve extensive obligations to the coastal state and would permit the coastal state to deny or terminate access without significant constraint.

Scientific interest in this coastal boundary zone, which comprises some 37 percent of the ocean surface, is high; it has been estimated that nearly half of the work of major U.S. oceanographic institutions has been in the 200-mile zones of other countries (3). Many scientists fear that future oceanographic research will be crippled to the extent that the new regime permits coastal states to deny access to their waters or impose unacceptable conditions on researchers (4). In effect, however, coastal state control over research has already been in existence for a number of years, and an analysis of U.S. experience in obtaining clearances to foreign coastal waters would permit some evaluation of this fear.

After reviewing restrictions on U.S. oceanic research up to 1972, J. A. T.

graphic fleet scheduled in waters over which other nations claimed control "have been cancelled because requests were denied, or have been hindered sufficiently to prevent the cruise from taking place." Since there is a common perception that restrictions on research in foreign coastal waters have been increasing, we examined data from 1972 to 1978 to see whether this was the case.

The Inquiry

Information was sought on the experiences in obtaining clearance of academic institutions that operate research vessels and of the principal federal operators, the Navy and the National Oceanic and Atmospheric Administration (NOAA). Most arrangements with other countries are made through the State Department. Where possible, records of both operators and the State Department were searched.

Records of clearance events, that is, incidents where permission was requested for a specific ship to work off a specific country for some specified period of time, were examined. For each event, the pertinent information included

the scientific nature of the proposed research, the chronology of steps in the clearance process, the nature of coastal state action, and a description of problems that arose. The data were incomplete and subject to inadequacies such as the following. (i) Information was made available by academic institutions and NOAA but not by the Navy. (ii) No information was obtained about operations abandoned when clearance was considered unlikely even before the formal clearance process was initiated, although it is known that there have been such cases. (iii) Records of both the State Department and ship operators were often incomplete or otherwise inadequate for the purposes of this study. (iv) Information about informal arrangements (those that did not involve the State Department) was often missing, and chronologies were often difficult to reconstruct. (v) Data were not available on block arrangements (those for a series of cruises) with the Bahamas, Canada, and Mexico.

Findings

In all, 441 clearance events were identified, including 321 from academic operators, 93 from NOAA, and 27 from the Navy. Eleven academic operators were identified, and five of these were responsible for 82 percent of the events (6). Clearance requests were directed to 68 countries. Mexico and Canada accounted for 25 percent of the events; 12 countries handled 61 percent of U.S. requests for clearance (7). Sixty percent of the events involved Latin American and Caribbean nations and 10 percent involved Canadian.

In 407 of the events, the outcome of requests for clearance could be established. In 85 (21 percent) of these events, coastal state approval was delayed to within less than 1 week of the scheduled operation. In 30 (7 percent) of these 407 events, the coastal state effectively denied access, either outright, by imposing conditions unacceptable to the researchers, or by not responding to the request for clearance. While there are not clear year-to-year trends, there is evidence that denials increased, from 5 percent between 1972 and 1976 to 11 percent in 1977 to 1978. The increase in delays, from 19 to 24 percent in the same periods, was associated almost entirely with one country, Mexico.

There was no clear distinction among scientific fields as to the frequency of denials or delays. However, about one-third of all events pertained to seabed

Dr. Wooster is professor of marine studies and fisheries in the Institute for Marine Studies, University of Washington, Seattle 98105.

studies, and nearly half of the denials were for such investigations.

Difficulties in obtaining clearance from some countries were more common than with others. A third of the delays occurred with Mexico; other countries where delays were relatively frequent included Venezuela, Canada, France, Peru, Portugal, and the United Kingdom (8). Countries with high rates of denying clearance included Brazil, Trinidad and Tobago, Mexico, India, Venezuela, Colombia, and Spain. More detailed information on these events is described in (9).

Difficulties in Obtaining Clearance

While the data for 1972 to 1978 do not confirm the worst fears of marine scientists about increased coastal state control over marine research, they do suggest that the problem is significant and growing. Nearly one-third of the requests for clearance encountered difficulties that appear to be the responsibility of the coastal state. Both the denials and the delays have been costly in terms of the inefficient use of scarce resources and lost scientific opportunities. An examination of the apparent causes of these difficulties may indicate whether any can be removed.

In the events where the coastal state appeared to be responsible for denying access, nearly half occurred for no evident reason. In more than one-third of the cases, arrangements were considered inadequate by the coastal state or unacceptable conditions were imposed. Examples include proposed coastal state control over publications or ownership of samples, misunderstandings or disagreements related to participation by the coastal state, alleged duplication of work, charges of inadequate reporting of previous work, and questions about sharing research benefits. In the rest of the events in which clearance was denied, the coastal state considered that the advance notice had been insufficient. Most of these difficulties appear to be inherently political rather than technical in nature.

There were other cases where attempts to conduct research were frustrated, but the coastal state did not appear to be primarily responsible (10). In some of these cases, the operator or the State Department submitted requests too late for favorable action; there were also

a few cases of political difficulties unrelated to the proposed research, events beyond control such as border wars.

The State Department has followed a policy of refusing to recognize extended jurisdictional claims that might jeopardize the U.S. negotiating position at the Law of the Sea conference. The claims of some states for jurisdiction over all research out to 200 miles has led the State Department to suggest modifications of cruises so that observations would take place in some jurisdiction recognized by the United States (for example, the continental shelf or 3-mile territorial sea) for which clearance could legitimately be sought. Scientists have often viewed such arrangements as impediments to research. The State Department has also been unwilling to submit requests up to 6 months in advance of a cruise as demanded by some countries.

Conclusion

The marine scientific research regime described in the Law of the Sea negotiating text (2) gives coastal states much more control over foreign research in their coastal waters (out to 200 miles) than has been generally accepted in the past. Implementation of some provisions will significantly increase the paperwork and bureaucratic load. Yet some problems that have arisen in the past may be alleviated by provisions proposed in the new regime.

1) Activities for which coastal states in their discretion may withhold consent are listed (11): those of "direct significance" to exploitation of natural resources as well as activities involving drilling, explosives, or harmful substances, and the construction of artificial installations; inaccurate information or outstanding obligations are also listed. Other kinds of investigations are to be approved "under normal circumstances."

2) Minimum conditions for the granting of clearance are stated (12) and are mutually accepted by countries that sign a treaty. The draft treaty, however, also states that the coastal state is free to impose additional conditions unilaterally (13).

3) The requirement for advance notice of 6 months and the geographical extension and scope of coastal state jurisdiction over marine scientific research are

stipulated (14) and should no longer be in dispute.

4) Delays in coastal state response should be mitigated by the implied consent provision (15) that states that research may proceed if there is no response within 4 months of receipt of the request for clearance.

When these or similar provisions come into effect, and as coastal state interests and capabilities in marine science continue to grow, cooperative scientific endeavors and clearances for research vessels should become easier to arrange. Yet the biggest change in the conditions that affect U.S. marine research in recent decades has been the increasing influence of political over technical considerations in determining whether access to foreign coastal waters for research will be permitted. Unless this trend is reversed, any new law of the sea will leave ocean research hostage to the political relations among the nations concerned.

Note added in proof: The Reagan Administration has announced a review of the draft convention, especially the provisions on deep seabed mining. Although the provisions on marine research have not been mentioned, major changes in one section could jeopardize agreements on other matters.

References and Notes

1. Convention on the Continental Shelf, 1958.
2. United Nations, Convention on the Law of the Sea (draft, A/Conf. 62/WP. 10/Rev. 3, 1980).
3. P. M. Fye, lecture presented at the Woods Hole Oceanographic Institution Associates Dinners, Woods Hole, Mass., April 1977.
4. Ocean Policy Committee, *Science* 197, 230 (1977).
5. J. A. T. Kildow, in *Freedom of Ocean Research*, W. S. Wooster, Ed. (Crane, Russak, New York, 1973), p. 5.
6. Scripps Institution of Oceanography was involved in 121 events, Woods Hole Oceanographic Institution in 54, the University of Rhode Island in 33, Duke University in 30, and the University of Miami in 26.
7. Mexico handled 69 requests, Canada 42, the United Kingdom 22, Peru 20, Venezuela 17, the Bahamas 16, Ecuador 16, Brazil 15, France 15, Chile 13, Colombia 13, and Costa Rica 12.
8. Nearly all clearance arrangements with France and the United Kingdom concerned their possessions, usually in the Caribbean.
9. W. S. Wooster, *Ocean Dev. Int. Law*, in press.
10. Reasons for denials were not always obvious, and the determination of responsibility was a subjective judgment.
11. Article 246, paragraph 5 of (2).
12. Article 249, paragraph 1 of (2).
13. Article 249, paragraph 2 of (2).
14. Articles 245, 246, and 248 of (2).
15. Article 252 of (2).
16. I thank W. Erb, M. Healy, M. H. Katsouras, A. Malahoff, and G. Posner, as well as officials of Lamont-Doherty Geological Observatory, Oregon State University, Texas A & M University, Scripps Institution of Oceanography, the Universities of Hawaii, Rhode Island, and Washington, and Woods Hole Oceanographic Institution for assistance in compiling this information. This work was supported by the National Science Foundation.