

liable to be sacrificed." Thus, the cause of open scientific research could also be traded off in the internal bargaining among U.S. interests.

Authorities such as Warren Wooster, of Scripps Institution of Oceanography, say that the scientists' lobby internationally has its failings but points out that it is now better organized than it was a few years ago. Charles Maechling, now special assistant to the director of the NSF, was a participant in constructing the U.S. 1970 draft international treaty, which remains the basic U.S. policy document on oceans issues. Maechling recalls that in 1970 the scientific research freedoms were to be swept in only under a very general clause guaranteeing noninterference for a vaguely defined group of activities in coastal waters. Seeking to raise the profile of the issue, NSF and others got an additional, specific clause dealing with research included.

Since 1970, however, the scientific lobby effort has grown dramatically. The NAS Ocean Affairs Board, which had been practically the only government science group alert to the threat, appointed a special task force to deal with the forthcoming Law of the Sea Conference (members will go to Geneva this July), headed by William Burke of the University of Washington Law School. Last summer ICSU passed, at the urging of the United States delegation, a resolution defining and advocating freedom of ocean research (scientists from developing countries offered, apparently, little comment). Finally, the oceanographic "big shots" became sufficiently alert to the need for public relations that, on 3 April, Paul Fye, Director of the Woods Hole Oceanographic Institution, arranged to have his advanced ocean research vessel *Knorr* moored off a dock in New York, near the United Nations. Delegates to the oceans sessions from all countries, and their families, were invited for guided tours and drinks.

Nonetheless, despite this sophisticated sell, there are those who still think much more must be done. Chaired by Nierenberg, the National Advisory Committee on Oceans and Atmosphere (NACOA) in its report last June roundly chastised the government and some international oceans groups for not having helped the developing countries' own technical and scientific research capabilities; assistance could ease their fears of usurpation.

They transfer this concern of usurpation to research as well, believing that their poor or nonexistent research capabilities put them at a gross disadvantage in obtaining their share of the resources. This could bring major oceanic development to a halt if such fears are translated into conventions restricting research on the open seas.

NACOA rebuked the International Oceanographic Commission for having become "a political forum" instead of a center of international expertise; it reprimanded the Agency for International Development for virtually eliminating technical assistance in oceans and marine science. The State Department's officer for dealing with worldwide oceans research and management, the coordinator of ocean affairs, needed more money and men,

NACOA said. Finally, the sea grant program of the National Oceanic and Atmospheric Administration is an ideal candidate for exporting general expertise about ocean resources, NACOA said. The pointed chapter of NACOA's report was the work of Nierenberg and some of the other prominent scientists. If there is a lesson in NACOA's rebukes of myriad government agencies, it is that convincing a handful of key scientists of a problem is a far cry from prodding policy changes from Uncle Sam.

Although the stakes in the fight for freedom of ocean research appear grandiose, at the moment they seem to boil down to the humbler issue of scientific salesmanship. The problems of Nier-

Colleges Sue for Release of Funds

The National Association of State Universities and Land-Grant Colleges (NASULGC), encouraged by the success of several recent anti-impoundment lawsuits, announced on 23 May that it has filed one of its own in the Federal District Court of the District of Columbia.

The purpose of the suit is to gain release of \$10 million appropriated by Congress under the Bankhead-Jones Act. The money is for formula-based grants to land-grant institutions for support of instruction and purchase of instructional materials. Loss of the money, says NASULGC, would mean the loss of some 1500 faculty positions and the denial of admission to 20,000 students in the 71 participating institutions. The Administration maintains that the program is marginal as a source of revenue for these schools and is "outdated."

The NASULGC did not dally in arriving at the decision to sue. The organization's associate director Christian K. Arnold had been thinking about it (*Science*, 27 April), and the decision was made at the NASULGC executive committee meeting in early May.

Arnold says NASULGC was encouraged by the success of a half-dozen court cases, one of which resulted in the release of \$25 million intended for recruitment of educationally disadvantaged Vietnam veterans.

Ironically, says Arnold, Supreme Court justice William Rehnquist, a Nixon appointee, paved the way for such decisions in a 1969 memorandum in which he said the Administration had no legal means for impounding funds for formula-based programs—the kind the government has no discretionary responsibility in allocating.

Arnold believes a favorable ruling on the Bankhead-Jones appropriation will set a strong precedent in efforts to outlaw presidential impoundments of appropriations for formula-based programs. The government has not appealed any court impoundment decisions, says Arnold, because it is afraid of being further thwarted by stronger and broader rulings from courts of appeal.

The NASULGC move is part of a trend that is gaining momentum. Members of Congress are getting fed up with having their legislative intentions thrown out the window via presidential impoundments. This year's authorization bill for the National Science Foundation, for example, specifically prohibits selective impoundments. And the House and Senate are now considering bills that would put limitations on the President's impoundment powers.—C.H.