

## NEW WORLD

**Oceanography up the Creek**

by our Washington Correspondent

In language remarkable for its bluntness, a Presidential advisory committee has castigated the federal government's policies for marine research and ocean resource management. The criticism, which centres chiefly on the fact that too many separate agencies have their fingers in the marine pie, is contained in a report made public last week by the National Advisory Committee on Oceans and Atmosphere (NACOA), a 25-member committee which met under the chairmanship of Dr William Nierenberg, Director of the Scripps Institution of Oceanography. The committee also expressed its alarm at recent cutbacks in funding for oceanographic research.

Three years ago, the National Oceanic and Atmospheric Administration (NOAA) was set up with high hopes that it would consolidate and coordinate the federal government's activities in marine and atmospheric affairs. But from the start it was clear that NOAA would be incapable of bringing complete order out of the chaos because many important programmes and activities remained out of its control—offshore oil, gas and mineral resource exploitation and management were left in the hands of the Department of Interior, for example, and responsibility for marine and atmospheric sciences is now spread over some nine departments and agencies. In short, NACOA suggests that there are "too many actors, too many separate chains of command, too many crosscutting policies, too many separate budgets, appropriations and programs. In this confusion, national priorities have no perspective and neither the Executive Branch nor the Congress is in a position to lead effectively, much less enforce accountability for results".

There have, however, been a host of coordinating committees set up in the past few years to help overcome the fragmentation. But "coordination is never enough", NACOA suggests, for "rarely does it involve table-pounding establishment of priorities, guidelines and new policies to meet new problems. Especially when the budget gets tight, coordination is not by itself tough enough to protect multiagency programs". The truth of that statement can be seen from the impact of budgetary cutbacks on oceanography.

On Christmas Day last year, the crew of the *Eltanin*, a research ship operated by the National Science Foundation, received word that their vessel would be

mothballed at the end of the voyage. Along with two NOAA oceanographic ships, the *Surveyor* and the *Discoverer*, which were laid up earlier this year, the *Eltanin* has been taken out of service because of cutbacks in federal spending imposed by President Nixon as part of his strategy for holding down taxes. The decimation of the oceanographic research fleet which NACOA reckons amounts to a reduction of about 25 per cent—has come, the committee says, "at a time when a long-cultivated collaboration between oceanographers and meteorologists is just beginning to show results and joint programs with foreign scientists are just beginning to materialize". The reduction in the fleet, NACOA believes, "will have pervasive and long-felt effects".

Another example of potentially damaging cutbacks in marine activities is the fact that the Coast Guard has been forced to abandon three ocean data gathering stations this year, and will have to abandon three more next year. The agency will then be left with a single station, manned for only 8 months a year. Yet, as NACOA points out, the stations' functions of offshore weather and ocean monitoring are

"becoming more rather than less important to seagoing activities". To be sure, the functions of the Coast Guard stations are being taken over to some extent by satellite surveillance and by NOAA's data buoy programme, but NACOA suggests that these programmes will not be ready in time to fill the gap. In other words, "what was a least harm cut to the Coast Guard was a far more serious one to an interagency program in the oceans and atmosphere which, in a certain sense, belonged to no one".

The Administration's response to these charges, in the form of a set of comments prepared by Frederick B. Dent, Secretary of Commerce, is that although the cutbacks are painful, no programme of "overriding national importance" has been sacrificed. Nevertheless, Dent announced that the concerns of NACOA "will be reviewed to see whether some restoration should be made in fiscal year 1975 and beyond". As for the oceanographic fleet in particular, Dent said that the cutback amounts to only 18 per cent, rather than 25, but he has in any case asked the chairman of the Federal Council for Science and Technology (Dr Guyford

## WEATHER MODIFICATION

**Advice Ignored**

by our Washington Correspondent

A YEAR ago, the National Advisory Committee on Oceans and Atmosphere made known its concern about the shortage of funding and lack of direction in the federal government's weather modification programmes. The committee recommended, among other things, that more attention should be paid to basic research, that the National Oceanic and Atmospheric Administration should be given more of a leading role in developing policies and strategies for weather modification, and that Project Stormfury, a hurricane modification project, might be better moved from the Atlantic to the Pacific. The committee said in another report, published last week (see above), however, that few of its recommendations have been taken up, and in fact, some steps have been taken in the opposite direction.

For one thing, the Bureau of Reclamation, in the Department of Interior, has been given chief responsibility for the federal government's programmes in precipitation enhancement, and the budget has been cut in half. "It is important to note", NACOA said, "that

precipitation enhancement is not ready for general operational use, and will not be, without much greater effort in research". Moreover, the funding for basic and field work in atmosphere and cloud physics has declined "to the point where the small cadre of experts built up over the last twenty years is in danger of being dispersed". Project Stormfury has also been suspended because of budgetary cutbacks, and will not be reinstated until sufficient numbers of suitably equipped aircraft are made ready.

Frederick B. Dent, Secretary of Commerce, has replied to NACOA's complaints by saying that although they are "appreciated", some of them have already been taken care of. He pointed out, for example, that there have been substantial increases in some areas of funding for weather modification, particularly for purchasing capital equipment such as heavy aircraft. Dent did not, however, address himself to NACOA's complaints about lack of direction in the programme, or to the more fundamental charge that "there is a danger that the funding authorities, in their quite proper zeal for practical results, will underestimate and undervalue the still extensive research that must precede reliable operational use".