

that he is invading an area where he lacks the expertise for wise technical decisions.

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As a lifelong professor, research scientist, and active participant in local and national scientific organizations I am as much interested in the history, advancement, and utilization of science as the signers of widely publicized letters. For a long time I have resented certain prominent scientists taking on themselves the right to speak for all of science and scientists, by implication, and worse, to deal authoritatively with subjects outside their special scientific competence. In courts of law (where I have often served as an expert witness in scientific and technical problems) the court is very careful to limit any expert's testimony to areas of demonstrated competence both in general and with respect to the particular case in issue. Any court would throw out as "incompetent" the testimony of famous scientists or would-be experts in "non-scientific" areas outside their competency.

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Oceanic Quest

Stommel, in his provocative article on future prospects for physical oceanography (26 June, p. 1531), asks "are present plans for expanded oceanographic research designed to solve basic scientific problems?" The answer is clearly no; they are designed to increase support for oceanographic work as a prerequisite to more effective use of the ocean and its resources. If successful, these plans should help scientists to solve basic scientific problems.

It is difficult to quarrel with Stommel's view that we must find out how the machinery of the ocean works before attempting to predict or control it (although many geophysical predictions contain large elements of empiricism). But having been involved in preparation of "An Oceanic Quest" and the "Ponza" Report (as was Stommel), I must disagree with his interpretation of the nature and implications of some of their recommendations.

Stommel tests these and other reports by asking whether their recommendations on basic scientific investigations

in physical oceanography are adequate. Although physical oceanographers (including Stommel) participated in the studies, the principal emphasis was on cooperative and interdisciplinary programs, so it is not surprising that the purely physical aspects were not so fully developed as they might have been in more specialized groups. It should also be noted that neither study pretended to be comprehensive. On the contrary, they stressed that only *examples* of possible programs were presented.

Stommel suggests that proposals for the International Decade of Ocean Exploration (IDOE) and for the UN long-term and expanded program (LEPOR) were (or should have been) concerned exclusively with basic marine science. In fact, both programs are concerned only with certain aspects of marine science as they relate to ocean use. The reports stressed that achievement of the applied goal of enhanced ocean utilization depended on extensive scientific research and that the details of this research should be elaborated by the scientists concerned. Their intent was to establish a framework within which new support for oceanography could be applied.

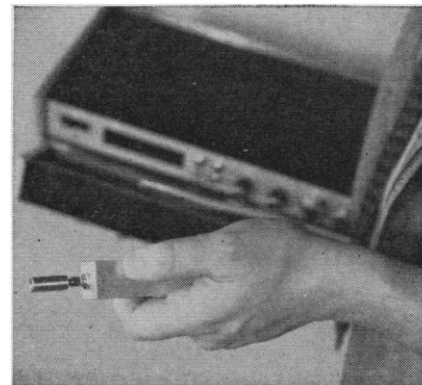
Stommel is particularly hard on the Integrated Global Ocean Station System being developed by the Intergovernmental Oceanographic Commission. This program was initiated by the need to justify allocation of radio frequencies for transmission of oceanographic data and by the desire to develop an ocean counterpart to the World Weather Watch. The IGOSS was not conceived exclusively to reveal the dynamics of ocean circulation, although the dynamics of ocean circulation must be better understood before such a system can be designed. Rather it is intended to make possible eventual ocean forecasts to increase the safety and efficiency of various kinds of marine activities.

There are enough problems in the development of IGOSS without blaming it for others' sins. Nowhere in the official description of IGOSS is there reference to increasing the number of weather ship stations by 19, or beginning to set out 310 automatic data buoys in 1971. Such proposals may have been advanced in IGOSS or World Weather Watch discussions, but there is no evidence that IOC is committed to fostering them. Nor has there been any serious attempt to establish a routine global system involving hundreds of buoys, as implied by Stommel.

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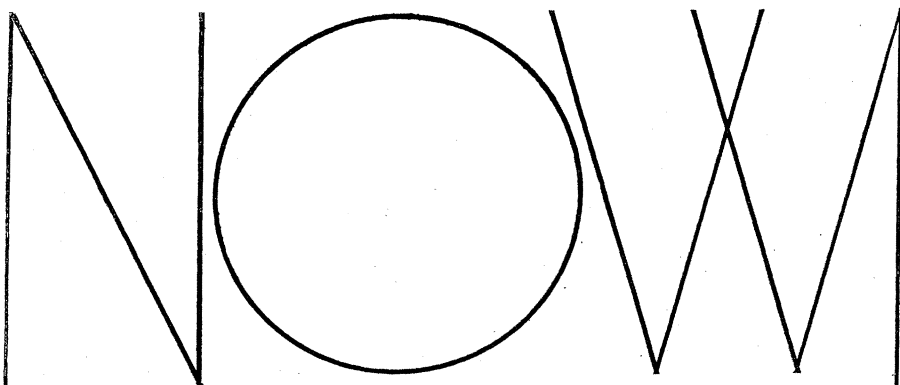
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I can't believe that Stommel is opposed to large-scale and long-term planning. If such planning is done poorly, it is necessary both to protest and to help in doing it better. Stommel has protested and, along with many other scientists, is actively contributing to better planning. I hope that his article will not persuade these scientists that national and international efforts to enhance support for oceanography are both misguided and futile and thus cause them to withdraw their essential contribution. There is also a danger that Stommel's views will be used as a weapon against these planning efforts and the organizations engaged in them. At least internationally, these organizations are fragile, and it would be a tragedy if they were further weakened by this well-intentioned but often misleading attack.

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Medical Editors' Dilemma

The editor of *The New England Journal of Medicine*, writing in *Science* ("Medical literature: The campus without tumult," 28 Aug., p. 831), raises anew, and in the same disturbing fashion, an issue he examined in an editorial in his own journal in September 1969: a presumed "conflict" between the priorities of publishing scientific papers in full in scientific journals and the increasingly effective and rapid reporting of scientific news to scientists by professional journalistic methods.

The nub of Ingelfinger's complaint is that full journalistic reporting of medical news in the medical press may produce a situation in which later publication of some of this material in medical journals "merely serves archival, bibliographic, and narrow technical purposes." To avert this threat, he proposes measures which boil down to plain censorship or, on the most tolerant interpretation, a self-sacrificial restriction of news coverage by the medical press.

Medical Tribune, in an editorial commenting upon Ingelfinger's published proposals a year ago, said: "The [*New England*] *Journal's* proposed policy seems to have been conceived in a moment of irritation. Already, according to *Medical Tribune* staff members, it is resulting in some restriction of legiti-