of Washington vice chairman Barklie M. Henry; Guggenheim Memorial Foundation president Henry M. Moe; Shell Company Foundation vice president Walter M. Upchurch, Jr.; Russell Sage Foundation president Donald Young; and F. Emerson Andrews, director of the Foundation Library Center.

Patman nominated to the task force, and Surrey accepted, Robert Mueller, an Austin attorney, James G. Patton, president of the National Farmers Union, and Jack S. Seidman, head of a New York accounting firm, who is credited in the report as having given advice on the study.

Patman complained that he and Mueller were informed belatedly, on 12 September, of the first meeting of the panel scheduled for the next day, and he also said he had not been able to obtain a full list of task force members.

Surrey says that the task force is not a formally constituted panel expected to issue a report as a definitive guide to action, but rather a group of able and experienced persons contributing to only one effort of the Treasury to review and revise tax policy on the foundations.

IRS Commissioner Caplin probably summarized the government position when he said this year that the foundations have an outstanding record of accomplishment, but that their tax-exempt status is threatened by some foundations which abuse their privileges.

The status of the foundations, either in tax law or in public opinion, does not appear in immediate danger. But the sheer growth of foundations and other tax-exempt organizations in wealth and economic power and the tactics of some foundations cloud the future.

In some jeopardy is a form of private support for science, and for other forms of scholarship and the arts, which few would deny has served as a beneficial complement, in terms of quality, enterprise, and, often, frugality, to government support.

The privileged position of foundations is based on the assumption that they are devoted to advancing the public interest, and Patman and other critics may force a reconsideration of status of all foundations by marshaling evidence to show that some foundations don't work that way.

—JOHN WALSH

Science and Government: OECD Ministers for Science Compare Experiences on National Policies

Ministers responsible for science in the 20 member governments of the Organization for Economic Cooperation and Development gathered in Paris on 3 and 4 October for a meeting which points up the fact that worrying over the relations between science and government has become an international avocation.

What prompted the meeting was not simply the awareness of governments that modern science is big and that it is dependent on public support. The impulse for the meeting, rather, was a growing awareness that science affects all national policy and that, given the excess of scientific opportunities over resources, governments are faced with the job of elaborating criteria to guide their allocation. Underlying the ministers' discussions was the conviction, expressed in a background paper prepared by OECD's Advisory Group on Science Policy, that "except for its implications for human welfare, and therefore also for [government] policy, few but professional scientists would care how fast or whether science advanced, or in what directions." The ministers compared notes on three broad subjects—science and economic growth, national science policies, and the policies of international scientific organizations.

The organization that brought the science ministers together, the OECD, is an outgrowth of the organization through which American Marshall Plan aid was coordinated among European governments after World War II. The organization was transformed in 1961 to include non-European countries (the U.S. and Canada are members, and Japan will soon become one), and it has retained a special interest in economic development.

Little special pleading was needed to persuade the ministers that technological innovation, based on scientific research and development, has become an important source of economic growth. With government as the principal financial angel of R&D, however, not only in the U.S. but abroad, pressures have risen for governments to take responsibility for a more integrated national R&D effort. "On the whole," the ministers were informed in a background paper, "Governments have been loathe to recognize their responsibilities concerning the level and balance of the nation's R&D effort. Government policies have evolved haphazardly, being influenced at times by the special interests of government departments, at times by lines of thought advocated in influential scientific circles."

From there, it is a short step to talking about national science policies. An excellent monograph prepared by OECD's Advisory Group on Science Policy, "Science and the Policies of Governments: The Implications of Science and Technology for National and International Affairs," provided a framework—sharp on analysis, if a bit weak on solutions—for the ministers' discussions.

The monograph talks about a policy for science—that is, a policy specifically for the advancement of science—but it concentrates on the role of science in general policy in fields as disparate as agriculture, education, defense, and foreign aid. The influence of science on general government policy is most intimate, the paper argues, in the case of education and manpower, where rapidly accumulating new subject matter may affect school curriculums, where professional retraining is necessary for scientists and engineers who discover that "the specialities in which they were initially trained are shorter-lived than they," and where future needs of trained manpower must be anticipated.

Military policy, the monograph says, is "dependent on science in virtually all its aspects." And even the influence of science on foreign policy, the paper stresses, is "deeper and more pervasive than normally appreciated," not only because national prestige is sensitive to scientific accomplishment but because national scientific programs must be coordinated with commitments to international scientific activities, and because many international treaties and agreements have a significant technical content.

"To say that a government needs an articulated science policy," the paper says, "is simply to note that there has devolved upon that government a major and continuing responsibility to make choices about issues that involve science. . . . Making a nation's science policy is a matter of projecting future research and technological needs, as well as requirements for trained manpower, of assessing the adequacy and overall balance of the country's civil and defense research effort, of program-

ming or coordinating diverse government-supported science programs, of keeping generally informed about research and development activity in the private sector and within other nations, of identifying relatively neglected areas requiring additional attention, and of evaluating accomplishments in the light of objectives sought and resources expended. Science policy is moreover but an aspect of overall national policy, and cannot be formulated in isolation."

This is a pretty large order, and it is a bit disappointing to discover that the body supposed to shoulder the task is a model "Science and Policy Office," manned by three or more senior advisers and a small staff. If the point is only that some authority is needed to supplant the treasuries and budget bureas which, all over the world, end up making most decisions on the allocation of funds to science (as to most other things), it is well taken. Or if the monograph means to suggest that wisdom is more important than direct supervision in the overall guidance of a nation's science program, again, the recommendation can stand up. But as the answer to the massive problems of directing and coordinating today's huge scientific establishments, a three-man policy office simply will not do.

Not only national but also international science programs, according to "Science and the Policies of Governments," are in disarray. Concern about the logic of cooperative scientific activities is less acute in the United States, where a relatively small percentage of annual R&D expenditures is committed to international programs. But the problem is greater in some of the smaller European countries, which may devote between 25 and 50 percent of their much smaller R&D outlays to international organizations.

Cooperative science agencies in Europe are numerous and varied. There are international research institutes and laboratories, such as the Rome Computer Centre, the Training Centre for Experimental Aerodynamics in Brussels, and the European Organization for Nuclear Research (CERN). There are intergovernmental scientific agencies: the European Nuclear Energy Agency (ENEA), European Atomic Energy Agency (EURATOM), the European Launcher Development Organization (ELDO), and the European Space Research Organization (ESRO). And, in addition, there are multilateral and bilateral programs in fields such as oceanography and water pollution, and there are scientific activities connected with Europe's political and military organizations—NATO, the European Economic Community, and OECD itself.

The profusion of these organizations, says the OECD monograph, "their sometimes overlapping mandates, . . . their several responsibilities to different and often uncoordinated points of official contact within governments, their occasional duplication of programs, and above all their increasing pressures on limited national scientific resources," have led to demands for greater rationalization, and for some measure of overall policy planning and guidance.

Here again, however, "Science and the Policies of Governments," after scrupulously reviewing and rejecting all conceivable alternatives for international coordination, including a single international science-policy-making office (which it rightly considers an "illusory ideal"), finishes up with a rather weak call for increased policy orientation of the scientific activities of international organizations and the wan hope that there may yet develop among them a "natural cooperation."

If, for reasons of security, of time, and of the variousness of their problems, the science ministers at the OECD meeting could do nothing concrete beyond agreeing to meet again and to set up a high-level interim committee to continue talking things over, the meeting is still an event worth marking. Ministers of agriculture, finance, defense, and state meet together to discuss common problems as regularly as they please; this is the first time officials responsible for science have attempted to rope off a domain of their own.

The science ministers who attended the Paris meeting need less instruction than most on the ad hoc and fragile nature of most present governmental arrangements for science. The U.S. was represented by Leland Haworth, director of the National Science Foundation; Britain, by Lord Hailsham, Minister for Science; and France and Germany, by Cabinet-level ministers specifically charged with responsibility for science. Other countries, however, were represented by an assortment of commerce, industry, and education ministers and Belgium was represented by her Prime Minister, Théo Lefèvre. Luxembourg, thumbing its nose at C. P. Snow, sent along its Minister of Culture and Science.—ELINOR LANGER

Announcements

The Public Health Service last week announced the establishment of the **National Advisory General Medical Sciences Council**; eight of a planned 12-member committee have been appointed. The council was authorized earlier this year when the Division of General Medical Sciences was given Institute status. It will meet three times a year to review and make recommendations for the award of NIGMS research and research training grants and to advise the Surgeon General on matters relating to activities in the basic medical sciences and the affiliated natural and behavioral sciences.

The members appointed so far include the following:

Richard T. Eastwood, executive vice president, Texas Medical Center, Houston; Carlyle F. Jacobsen, president, Upstate Medical College, and dean of the College of Medicine, State University of New York; Thomas D. Kinney, chairman, pathology department, Duke University Medical School; Herbert E. Longenecker, president, Tulane University; Jonathan E. Rhoads, chairman, department of surgery, University of Pennsylvania School of Medicine; Walter F. Riker, chairman, department of pharmacology, Cornell University Medical School; Theodore C. Ruch, executive officer and professor of physiology and biophysics, University of Washington School of Medicine, Seattle; William R. Wood, president, University of Alaska.

A list of **ichthyologists** is being compiled as an index of specialists in the field. Further information is available from S. H. Vernick of the department of biology, Georgetown University, Washington, D.C. Persons interested in being included in the index should send their address and specific area of interest.

A research laboratory in **electro-optical sciences** has been established in the University of Michigan's Institute of Science and Technology. The new facility is part of a recently initiated program to enable graduate students to work with modern developments in optics. The laboratory will conduct studies in diffraction gratings, light propagation and measurement, electro-optical communications, and optical electronics. George W. Stroke, formerly at M.I.T., is head of the unit.