a new source of revenue was needed, Fulbright proposed and Congress adopted an amendment which authorized the use of U.S.-owned foreign currencies built up abroad from any source, including the sale of U.S. agricultural commodities. Congress thus greatly increased the funds available to the Fulbright program.

The program faced other difficulties. Senator Joseph McCarthy's criticisms of State Department operations affected all overseas programs, but Congress refused to go along with McCarthy's proposal that recipients of Fulbright grants undergo State Department security clearance. During this period some State Department officials saw the Fulbright program as a potential information conduit; they wanted American Fulbright grantees to promote American ideological views abroad. This ceased to be a live issue after 1955, when the U.S. Information Agency (USIA) was created.

The Fulbright-Hayes Act of 1961 brought all educational and cultural exchange programs under one law and consolidated their administration and financing. In 1962, a year after the act was passed, Congress expended $23 million for educational exchanges. Fulbright grants totaled 4838—some 1800 grants to Americans, of which more than half were faculty grants, and some 3000 grants to foreigners, of which less than half were faculty grants. The average amount per student grant was around $1800.

About 135 nations were participants in some phase of the Fulbright program in 1968. A total of 5840 academic grants were awarded: 685 U.S. lectureships and research scholarships, 248 U.S. teaching assistantships, 906 U.S. student grants, 602 foreign lectureships and research scholarships, 698 foreign teaching assistantships, and 2701 foreign student grants. The average amount for grants of all kinds was $2551; a typical faculty grant was about $4000, but the amounts varied greatly. One grant awarded last year to a professor of physics was for $16,000. This year's budget cuts may have a multiplying effect, because many of the Fulbright grants are coordinated with cost-sharing programs supported by the receiving foreign governments or by private organizations. It is possible that, when Congress reduces its financial support, the confidence of these contributors may be shaken and their own levels of support may drop.

Perhaps predictably, reactions to the Fulbright cuts on the part of professors reflect dismay. Clifford O. Berg, a Cornell University professor of limnology who held a Fulbright grant in biology in Brazil last year, said the cut was "most unfortunate." Berg said he had hoped that the program might continue at its usual support level, despite the serious cuts in most government agency budgets. Israel N. Herstein, a University of Chicago mathematics professor and Fulbright lecturer in Brazil, said the cut was a "stupid reduction," but he added that he considered the Fulbright cuts less serious than government cuts in domestic graduate fellowships and research grants. Bernard F. Erlanger, Columbia University professor of microbiology and Fulbright scholar in biochemistry in Peru, said the cut would be a "tremendous detriment to this country. I think," he said, "that when we look back on this era, we are going to be very ashamed of ourselves."

Regrets in the academic community about the Fulbright reductions may understandably be sharp among scientists, since, over the years, more than half the recipients of Fulbright grants have been scientists and students of science.—MARTI MUELLER

ONR: Economy Cuts Hit London Office

London. An unusual offshoot of the military's postwar interest in science and technology is to be severely cut as part of the effort to reduce the dollar flow from the United States. This is the London branch of the Office of Naval Research (ONR) which, since the end of World War II, has been responsible for keeping the Navy in touch with what is going on in Europe's basic and applied research laboratories. Now, under a directive from the Department of Defense, ONR London is to cut its staff from the present 61 down to 20 by June 1970. Within the same period, the European research offices maintained by the other services are also to be similarly cut, and they are to move—the Air Force from Brussels and the Army from Frankfurt—into the London premises that house the Navy. However, though the three will be housed together, they have not been directed to combine their operations, which, in the case of the Air Force and Army generally involve liaison and monitoring with European research and development contractors.

ONR London, however, has played a different and fairly unique role over the past 2 decades. The Navy lets the Air Force serve as the monitor of Navy research in Europe, while ONR London is charged with roaming around Europe to gather information on the people and work that are important in European science and technology. For this purpose, ONR London currently has a staff of 11 civilian Ph.D's, most of them on a year's leave from active research positions, and 12 military officers with at least fairly advanced scientific or technical training. There is also a clerical and administrative staff of approximately 40 persons. A Navy captain heads the office, but immediately beneath him is a civilian who holds the title of chief scientist; currently, this post is occupied by Alfred B. Focke, on leave from the physics department chairmanship at Harvey Mudd College.

All in all, ONR London adds up to a high-quality surveillance operation. The professionals spend about one-third of their time visiting research centers or conferences in their disciplinary areas. Reports of their findings on unclassified matters are published monthly in *European Scientific Notes,* whose circulation, about 7000, is largely confined to Department of Defense employees and contractors.

No other nation and no other service has anything resembling this window on foreign scientific activities, though, on a much smaller scale, some industrial firms assign specialists to monitor developments in European science and technology.

In any case, the forthcoming surgery on ONR London nicely symbolizes the past ups and the current downs in the science-government relationship. Consider, for example, the congressional pyrotechnics that would ensue if the Department of Health, Education, and Welfare were to assign some 20 specialists, with a supporting staff of 40, to monitor developments in social welfare techniques in Europe. By contrast, the existence of ONR London is implicitly authorized in the congressional act that created the Office of Naval Research at the end of World War II; and Congress, usually willing to let the services have what they want, was a long time in asking any troublesome questions about any aspects of the military's relationship with scientific activities.

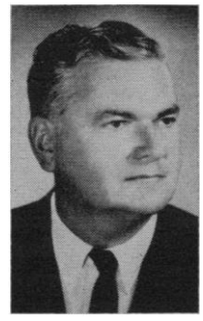
As far as the military services' European offices are concerned, the pertinent questions were those posed in the last year or so by Representative Henry Reuss (D-Wis.), who, as chairman of the House Government Operations Subcommittee on Research and Technical Programs, has been critical of government spending for research abroad. ONR can answer that its present budget is all of approximately $600,000 a year, and that the Navy gets good value for that expenditure. But the balance of payments problem now takes precedence over the blank-check system that once governed the military relationship with scientific activities, and the three European research offices accordingly have been told to cut and "co-locate."

Though the details are yet to be worked out, it is difficult to see how ONR London can continue to perform its traditional role within the manpower allowance that has been assigned to it. There is some talk of the three services getting together to carry on some of ONR's activities; but at this point, there is no certainty as to what will happen, especially since neither the Air Force nor the Army has ever shared the Navy's passion for close ties with academic science.

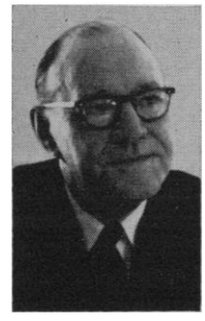
There is, of course, the separate question of just what difference it will make for the Navy to live with a smaller window on European science. ONR London maintains it will make a great difference; but it is difficult to prove the case, and, in any event, dollars, even if only relatively few dollars, come first today in determining such things.

—D. S. GREENBERG

APPOINTMENTS



E. F. MacNichol



E. S. Schanze

Edward F. MacNichol, professor of biophysics at Johns Hopkins University, to director of the National Institute of Neurological Diseases and acting director of the newly established National Eye Institute, National Institutes of Health. . . . **Edwin S. Schanze**, associate executive director and head of the conference division of The New York Academy of Sciences, to executive director. . . . **Arthur E. Heming**, associate director of research and development with Smith, Kline and French Laboratories, to chief of the pharmacology and toxicology section of the National Institute of General Medical Sciences, National Institutes of Health. . . . **William Lightfoot**, chief of secondary education in the department of education methods and techniques and teacher training, United Nations Educational, Scientific and Cultural Organization, to UNESCO Liaison Officer with the United Nations International Children's Emergency Fund, and UNESCO adviser on educational matters to the U.N. Development Program. . . . **Ralph B. Crouch**, head of the department of mathematics, Drexel Institute of Technology, to dean of the new college of science at the institute. . . . **Clifton O. Dummett**, president elect of the International Association for Dental Research, to assistant dean for extramural affairs, University of Southern California School of Dentistry. . . . **Paul W. Pomeroy**, senior research associate at the Lamont Geological Observatory, Columbia University, to director of the Seismological Observatory of the department of geology and mineralogy, University of Michigan. . . . **Elliot S. Vesell**, head of the pharmacogenetics section in the chemical pharmacology laboratory, National Heart Institute, to chairman of the department of pharmacology and professor of genetics, Pennsylvania State University.

RECENT DEATHS

Allen Abrams, 79; consultant for Arthur D. Little, Inc. and former vice-president and research director at Marathon Corporation; 8 August.

Nathan A. Court, 87; professor emeritus of mathematics, University of Oklahoma; world renowned authority on synthetic geometry and pioneer in the introduction of college courses in this field; 20 July.

Henry Dale, 93; director of the National Institute for Medical Research in London and 1936 Nobel prize winner for medicine and physiology; 22 July.

John L. Dandreau, 76; founder and first dean of the St. John's University College of Pharmacy, Jamaica, N. Y., 18 July.

Ralph B. Draughon, 68; former president of Auburn University; 13 August.

Ralph T. Esterquest, 56; librarian of the Francis A. Countway Library of Medicine at Harvard University; 10 August.

William J. Fry, 50; director of the biophysics research laboratory, University of Illinois; 21 July.

George Gamow, 64; professor of physics at the University of Colorado and leading theoretical physicist, astronomer, and author of books on science for the lay reader; 19 August.

Corneille J. F. Heymans, 76; former director of the Institute of Pharmacodynamics and Therapeutics, University of Ghent, and Nobel prize winner in medicine and physiology in 1938; 19 July.

J. Hoover Mackin, 62; professor of geology, University of Texas, Austin; 13 August.

Agnes F. Morgan, 84; professor emeritus of nutrition, University of California, Berkeley; 20 July.

Thomas R. Peyton, 70; a proctologist whose autobiography "Quest for Dignity. An Autobiography of a Negro Doctor" won the Freedom Foundation gold medal award in 1950; 3 August.

Ernest H. Vestine, 62; physical scientist for the Rand Corporation, and former chief of land magnetic survey at the Carnegie Institution; 18 July.

Ging-Hsi Wang, 71; senior scientist in the laboratory of neurophysiology, University of Wisconsin; 20 July.

Erratum: On pages 766 and 767 of the 23 August issue the name Edwin S. Schneidman should read *Edwin S. Shneidman*.

Erratum: In paragraph 10 of "Federal cuts: Biologists caucus" (page 767, 23 August), the name Robert DeHann should read Robert DeHaan.