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SCIENCE, founded in 1880, is published each Friday by the American Association for the Advancement of Science at Business Press, Lancaster, Pa. Entered at the Lancaster, Pa., Post Office as second class matter under the Act of 3 March 1879.

SCIENCE is indexed in the *Reader's Guide to Periodical Literature* and in the *Industrial Arts Index*.

Editorial and personnel-placement correspondence should be addressed to SCIENCE, 1515 Massachusetts Ave., NW, Washington 5, D.C. Manuscripts should be typed with double spacing and submitted in duplicate. The AAAS assumes no responsibility for the safety of manuscripts or for the opinions expressed by contributors. For detailed suggestions on the preparation of manuscripts, book reviews, and illustrations, see *Science* 125, 16 (4 Jan. 1957).

Display-advertising correspondence should be addressed to SCIENCE, Room 740, 11 West 42 St., New York 36, N.Y.

Change of address notification should be sent to 1515 Massachusetts Ave., NW, Washington 5, D.C., 4 weeks in advance. If possible, furnish an address stencil label from a recent issue. Be sure to give both old and new addresses, including zone numbers, if any.

Annual subscriptions: \$7.50; foreign postage, \$1; Canadian postage, 50¢. Single copies, 25¢. Special rates to members of the AAAS. Cable address: Advancesci, Washington.

Rates effective 1 January 1958: \$8.50; foreign postage, \$1.50; Canadian postage, 75¢. Single copies, 25¢.



## Ups and Downs in Research Support

The United States debt is approaching its statutory limit. This fact is the primary justification for the recent order to the Department of Defense and other Federal agencies to reduce expenses. In the application of this general order to specific budgets, one of the most drastic of the cuts reduced the funds of the Office of Scientific Research—the Air Force office with responsibility for supporting basic research—to half of its appropriated \$16 million. Since \$8 million was barely sufficient to meet obligations already incurred, new contracts could not be written and most expiring contracts could not be renewed.

Repercussions were immediate, and went far beyond the enforced alteration of personal and research plans of a number of scientists. According to *Aviation Week*, one university announced that it would accept no more Air Force contracts for basic research because of the difficulty of working under such financial uncertainty. Scientific advisors to the Government and directors of military research programs protested that such sudden changes caused irreparable harm to the military research program, that the sudden termination of a contract not only produces immediate disruption but also deprives everyone concerned of much of the potential benefit of the money invested during previous years, and that the military services were weakening their ties with civilian science.

These arguments have led to a partial restoration of the cuts. The Office of Scientific Research has had its budget restored to the \$16 million level. But not all military research and development agencies will be so fortunate, and, indeed, the restoration of this one fund is likely to be at the expense of other research budgets.

Restoration of the Office of Scientific Research funds will be of immediate satisfaction to the office and its contractors, but the basic problem remains untouched, and is in fact well illustrated by the rapidity of the recent reduction and restoration. The officers responsible for research planning and administration understand clearly that basic research is an investment, that one cannot walk into a research laboratory and buy a bit of research off the shelf. They know that time is required to organize an effective research staff and program, and that the return on money invested in basic research is normally a cumulative one spread over a number of years. These points are widely understood, but not widely enough, so it is encouraging to note the understanding of the nature of basic research expressed by the new Secretary of Defense in his first press conference.

The fundamental problem involved cannot be solved until the importance of continuity is generally recognized. Permanence of support of a particular contract is not necessary and neither is a steadily rising budget, but continuity and advance planning are. A moderately steady amount, at any level, will bring a better research return than will widely fluctuating amounts that average at the same level. The current difficulties provide an object lesson on the importance of damping out big swings in basic research expenditures, just as the current pressure to catch up on the earth satellite program points up the error of the erratic earlier support of rocket research.

This is one aspect of a more general issue. The military services have decided that they should contribute to the support of basic research. Although this decision has executive and legislative endorsement, it does not yet have unanimous support throughout the Department of Defense. Nevertheless, the decision will probably prevail, and the services will continue to support basic research. That being the case, it appears to be an obligation of the officers and civilians responsible for over-all administration to consult with their own research administrators and to learn how to make the military support as effective as possible.—D.W.