

sponsored research in cloud physics carried out at various universities, has been the responsibility of the Foundation's Division of Mathematical, Physical, and Engineering Sciences.

Early this summer, NSF Director Alan T. Waterman, together with Henry G. Houghton, chairman of the University Corporation on Atmospheric Research (UCAR), announced the creation of a national center of atmospheric research which is to serve as the administrative headquarters for the coordination of a major national weather research program. Consisting of a central scientific group charged with stimulating and supplementing university research, it will also provide facility management for what may become a large and widely dispersed research effort.

The center will be under the direction of Walter Orr Roberts of the High Altitude Observatory in Boulder, Colorado. During the coming year Dr. Roberts will undertake exploratory work in cooperation with UCAR to determine the feasibility of selected research projects. For that purpose a senior scientific staff of eight or ten individuals will be employed, suitable office, laboratory, and shop facilities will be rented, and in collaboration with university groups a general research program will be planned. Funds for establishing the center are provided under the terms of a half-million-dollar Foundation contract with UCAR. Once established, the group will draw up recommendations concerning personnel as well as the location and characteristics of the permanent facilities that will be required.

Research programs to be undertaken by the group will probably be concerned with atmospheric motions and with energy exchange processes, water substance, and physical phenomena in the atmosphere. It is anticipated that a year or so of exploratory investigation will be required before specific long-term research projects can be defined.

In announcing the establishment of the center, the Foundation emphasized that Dr. Roberts and his group will work in close cooperation with the university scientists. "It has been generally agreed by the scientific community," Dr. Waterman said, "that universities should continue to play the leading role in basic research in the atmospheric sciences. Deficiencies in the present program are well understood. The two actions—appointment of Dr. Roberts, and the NSF contract with UCAR—are outgrowths of extensive studies of ways to remedy these deficiencies and especially to provide opportunities for collaborative enterprises for major problems in the atmospheric sciences. Paralleling this development will be increased NSF support for atmospheric research at universities."

Because of the nature of modern atmospheric research, the staff is expected to consist of representatives of many different disciplines, including physics, chemistry, engineering, and meteorology.

Member universities of UCAR are Arizona, California, Chicago, Cornell, Florida State, Johns Hopkins, MIT, Michigan, NYU, Penn State, St. Louis, Texas A & M, Washington (at Seattle), and Wisconsin.



Walter Orr Roberts

Programs

The Physics Program of the National Science Foundation has announced the availability of grants for research in high-energy physics for university physicists who plan to conduct experiments making use of high-energy accelerators (one Bev or above) not available on their own campuses. Interested scientists are invited to submit proposals before January 1, 1961, for grants to be awarded beginning July 1, 1961. Applicants should follow the instructions used in submitting applications for regular research grants as described in the Foundation's booklet entitled "Grants for Scientific Research" which can be obtained by writing to the National Science Foundation, Washington 25, D. C.

An Office of Institutional Programs has been established at the National Science Foundation for the administration of a new experimental program of institutional grants designed to strengthen the over-all scientific research and research-training effort of the Nation's colleges and universities. It will be headed by Louis Levin, formerly deputy director of the Foundation's Division of Biological and Medical Sciences. The grants will be awarded to institutions for unspecified research activities. Amounts of grants allowable to any one institution under the new program will be limited to five percent of the Foundation's research grant payments made to that institution during the previous year and in any case will not exceed \$50 000 for a single year. Reports on expenditures of the funds will be made annually to the Foundation. The new Office will also handle the existing NSF program under which grants are made for modernization and expansion of research laboratories in colleges and universities in the United States.

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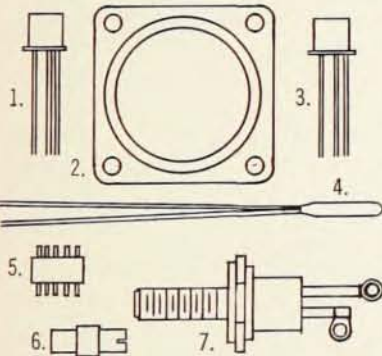
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The US-EURATOM Joint Research and Development Board announced late in July that 45 proposals for research and development work amounting to approximately \$7.8 million have been accepted for contract negotiation in five European nations (Belgium, France, Germany, Italy, and The Netherlands) and in the United States. Much of the authorized work involves close collaboration between 28 European and 10 US industrial groups. The Board, which has its headquarters in Brussels, is concerned primarily with improving the performance of the reactors to be constructed under the Joint US-EURATOM Reactor Program, with the lowering of fuel cycle costs, and with plutonium recycling and other problems relevant to these reactors.

The Ford Motor Company Fund has announced a contribution of \$250,000 to The University of Michigan for continued research in the peaceful uses of atomic energy under the University's Phoenix Project. It will be allocated over a five-year period for (1) establishment of three Ford Motor Company Fund Fellowships in Nuclear Energy to be awarded annually to students beginning doctoral research, (2) creation of a research program in direct conversion of nuclear energy to electrical energy, and (3) exploratory work in unspecified areas of research.

Amherst College is introducing a new interdepartmental program which will make it possible for the first time for undergraduates to major in biophysics. The curriculum will include selected courses in physics, biology, and chemistry, as well as a special seminar in biophysics.

Laboratories

A new magnetic spectrometer has been installed in Stanford University's High Energy Physics Laboratory for use in the continuing program of electron-scattering experiments conducted by the research group working under the leadership of Robert Hofstadter. The million-watt spectrometer weighs 150 tons, towers more than thirty feet above the laboratory floor, and was built at a cost of \$500,000. The three-year project was made possible by support provided by the Office of Naval Research, the Atomic Energy Commission, and the Air Force. Consisting mainly of an immense electromagnet, the instrument is mounted on a heavy wheeled carriage riding on a circular track. It can thus be rotated in a full circle, enabling the magnet to pick up electrons scattered at any angle from a target under bombardment by Stanford's billion-volt Mark III linear electron accelerator.

The University of Michigan in Ann Arbor has awarded contracts for the construction of a Cyclotron Laboratory to house a new 40-Mev cyclotron, as well as the present 7.8-Mev cyclotron now located in the basement of the University's Randall Laboratory. The building will be financed by funds provided by the