# News of Science

## NSF to Support In-Service Training for High-School Teachers

The National Science Foundation has announced that it will accept proposals to support, on an experimental basis, about 15 In-Service Institutes for Secondary-School Teachers of Science and Mathematics to be held during the academic year 1957–58. Summer and academic-year institutes are presently operating in 111 colleges and universities throughout the United States with support from the foundation.

In-Service Institutes for Secondary-School Teachers of Science and Mathematics will offer work in the subject matter of science or mathematics especially designed for secondary-school teachers. Institute meetings will be held outside regularly scheduled school hours—evenings, Saturday, or late afternoons—so that teachers may attend while still teaching full time in their schools. A typical institute might meet once a week for 2 hours, with perhaps half of the meetings devoted to laboratory work, for the full academic year of about 30 weeks.

Past experience has indicated that most secondary-school teachers desire academic credit, preferably graduate credit, for work successfully completed at the institutes. If such credit were given for an in-service institute, it might amount to two credit-hours per semester, or four per year. Such credit would, of course, be only at the discretion of the host institution. The in-service institute program contemplates that each group will be kept to about 15 members so that discussion may be full and free.

No stipend would be given directly to teacher-participants in the institute, but the grant would cover all usual tuition and fee charges of the host institution and any other direct costs to the host institution which may be directly attributable to the program.

It is hoped that in-service institutes may be established by many of the smaller, excellent colleges and universities outside metropolitan areas, as well as by larger institutions in urban centers, in order that teachers in outlying school districts may enjoy the advantages of training facilities not otherwise readily accessible to them.

Each application should outline the program intended, list the staff which will conduct it (as far as possible at such a preliminary date), mention special facilities which will be used, give opening and closing dates of the institute, criteria for admission, nature of academic credit attainable, a detailed budget, and a summary of any collateral support from the host institution or outside sources.

Fifteen copies of the complete proposal must be submitted. One copy of the proposal must bear the signature of the director of the program and of the college or university official authorized to sign for the host institution.

Foundation support will cover all tuition and fees plus any direct costs to the college or university directly attributable to the program. Deadline for submission of completed proposals to the foundation is *15 Mar. 1957*. Further details may be obtained from the Division of Scientific Personnel and Education, National Science Foundation, Washington 25, D.C.

## British Antarctic Base

Extremely rough ice conditions have forced the British Commonwealth trans-Antarctic expedition to give up its plan for a base on the western side of McMurdo Sound. Sir Edmund Hillary, leader of the Pacific element of the expedition, reports that the base will be established instead at Pram Point, on Ross Island near the United States air operating facility on the east side of the sound.

## New Atom Tests

A series of low-yield nuclear tests will be conducted at the U.S. Atomic Energy Commission's Nevada Test Site, with the cooperation of the Department of Defense, beginning in late spring 1957. Tests of high-yield devices are not conducted in Nevada. The development of weapons for defense against attack is a major objective. Studies of weapons effects will also be continued in order to improve military and civil defense against nuclear attack. The Federal Civil Defense Administration will participate in the series.

An extensive radiation monitoring network will again be used during the series. About 12 monitoring teams supplied by the U.S. Public Health Service will be stationed in communities near the test site. In addition, the Public Health Service network of monitors in about 40 cities across the nation, established prior to the last Eniwetok test series in the spring of 1956, will be in operation. Radiological monitoring also will be conducted at 12 commission installations. About 100 U.S. Weather Bureau stations will cooperate in this program.

## Atomic Energy Hearings

The Joint Committee on Atomic Energy plans to hold public hearings beginning 19 Feb. to receive testimony from representatives of the U.S. Atomic Energy Commission, industry, and other interested individuals and organizations on the development, growth, and state of the atomic energy industry. Section 202 of the 1954 Atomic Energy Act requires that such hearings be held during the first 60 days of each new session of Congress.

The hearings are tentatively scheduled for 19–21 Feb. and 26–28 Feb., depending on the number of witnesses who wish to appear. It is presently planned to have the Atomic Energy Commission representatives lead off the first day and to have industrial and other interested witnesses appear on the days following. Those who do not wish to appear personally will be given opportunity to present statements for the record. Further information may be obtained from the committee staff, Room F-88, The Capitol.

## Scientists Rebel in Soviet

A majority of the Soviet Union's most eminent mathematicians and physicists have challenged the present political control of Soviet science. They appear to have made progress in their demand that leading Soviet scientists be allowed democratic control over the development of Soviet science.

News of this revolt, as contained in the latest issue of the *Vestnik Akadami Nauk SSSR* (herald of the U.S.S.R. Academy of Sciences), was reported recently by Harry Schwartz in the *New York Times*.

The essence of the controversy was revealed in the dissenting speech of one of the Soviet Union's leading nuclear physicists, Igor E. Tamm, a scientist who does not belong to the Communist party.

He explained that under the acad-

emy's charter, the direction of its basic scientific work is supposed to be decided by majority vote at general meetings of its members.

This has not been true in past years, Tamm said. Most general meetings of the academy, he said, have been purely for show purposes. The annual comprehensive reports of the academy's chief scholarly secretary never have been discussed. As a result, the membership has not been able to exercise the directive role it is entitled to under the charter.

The dissenters won a partial victory. The academy publication reports that the present president, Alexander N. Nesmeyanov, was reelected, though not by unanimous vote, without any postponement in the election date. At the same time academy members adopted a resolution instructing their president to draw up a detailed report on the proposed future development of Soviet scientific research and to deliver this report at a general meeting of the academy.

## Cooperative Abstracting

On 1 Jan. *Biological Abstracts* and *Psychological Abstracts* initiated a modification of their 28-year-old agreement for the exchange of abstract reprinting privileges. This modification, it is hoped, will serve as a pattern for an attack on the problem of the costly and inefficient duplication of abstracting efforts that plagues the documentation of science today. Although the two services have exchanged abstracts since 1929, heretofore there has been no systematic attempt to apportion responsibility for coverage so that duplicate abstracting efforts could be avoided.

Now, however, in keeping with the "General principles of cooperation on biological abstracting" [*Science* **123**, 578 (1956)] the two services have agreed to share abstracting responsibility through a guaranteed coverage of certain journals that are essential to their respective fields of interest. Thus, for example, those journals primarily concerned with physiology or neurology that contain occasional articles of psychological interest will be the abstracting responsibility of *Biological Abstracts*. *Psychological Abstracts* will refrain from abstracting these journals but will reprint in its pages those *BA* abstracts that are pertinent to its audience. Similarly, *Psychological Abstracts* will assume full responsibility for the complete abstract coverage of those psychological journals that contain occasional articles of physiological and neurological interest, and *Biological Abstracts* will reprint those *PA* abstracts that are of value to its readers.

Initially this shared abstracting responsibility will involve a total of about 50 journals. It is expected that elimination of the former duplication in abstracting will enable each service to redirect the efforts thus saved into areas incompletely covered at present. In addition to covering a group of specific journals, each service will be free to reprint an additional number of abstracts selected at random from the pages of the other service. The limit set for these reprints is 500 abstracts for *Biological Abstracts* and 1000 for *Psychological Abstracts*.

## German Archeological Find

West German archeologists have discovered 750 burial urns dating from about 100 B.C. to A.D. 100. Traces of funeral pyres also were found. These included some rare specimens—wooden containers, unharmed by rot because they were charred. In addition, the graves contained iron swords, bronze armlets, Roman coins, and glass vessels.

Near the site, which is at Wederath in the Hunsrueck Mountains, is another burial ground containing 42 burial mounds thought to date from about 400 B.C. Excavations have ended for the winter but will be resumed in the spring.

## Science Secretary Proposed

A proposal to include a Secretary of Science in the Cabinet of the President because of the importance of science to the survival of democracy was advocated in the science section of the *Saturday Review* (2 Feb. 1957). In the event that interdepartmental rivalry in Washington blocks creation of a new Cabinet post, the *Review* proposes the appointment of a Science Commission in the Executive Department, with authority and prestige equal to the Bureau of the Budget, the Board of Economic Advisers, and the National Security Council.

## Nuclear Power Plant Ceremony

The first nuclear power system in the United States designed and built solely for experimentation in the generation of electric power was formally put into operation at the Argonne National Laboratory of the Atomic Energy Commission on 9 Feb. Participants in the ceremony included members of the Joint Committee on Atomic Energy of the Congress, AEC officials, members of the Argonne staff, and representatives of the University of Chicago, which operates the laboratory for the AEC.

Now that it is in continuous full operation, the experimental boiling-water reactor (EBWR) is supplying 5000 kilowatts of electric power to the laboratory. Of the original five reactor projects in the AEC civilian power reactor development program launched in 1954, the EBWR is the first to be completed and to generate electricity.

## Radiation Dose Standards

The National Committee on Radiation Protection and Measurement (NCRP) has introduced new recommendations on permissible radiation exposure. In making the new recommendations, the committee reviewed its past recommendations in the light of increased knowledge about the long-range effects of radiation exposure on the genetic make-up and life-expectancy of man. The recommended changes will be incorporated in revised editions of the NCRP Handbooks of the National Bureau of Standards.

## International Atomic Energy Statute

The 90-day period during which the Statute of the International Atomic Energy Agency was open for signature ended at midnight, 23 Jan., with the signatures of the representatives of 78 countries affixed to the document. Seventy countries signed the statute on 26 Oct. 1956, the last day of the 81-nation conference at United Nations headquarters at which it was unanimously approved, and the eight others have signed since then.

Under Article XXI of the statute, signatory states become parties to the statute when they deposit an instrument of ratification. The statute will come into force when 18 states have deposited ratifications, provided that three of the following states are included: Canada, France, the U.S.S.R., the United Kingdom, and the United States. The instruments of ratification, which are expected to start coming in during the course of the next few months, will be deposited with the Government of the United States, which has been designated as the depository government.

After the statute has come into force, a general conference will be called in order to bring the International Atomic Energy Agency into existence. The statute provides that the objectives of the agency shall be "to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world" and to insure that assistance provided by it "is not used in such a way as to further any military purposes."

For the interim period, until the first board of governors is elected by the first general conference, a Preparatory Commission of 18 governments has been cre-