the Bureau of State Services. In February of this year, the Surgeon General also established the National Advisory Committee on Radiation, mentioned earlier, to advise him and the newly established division.

Radiological Health Budget

The Division of Radiological Health, with Francis J. Weber as chief, began operating last July. For fiscal 1958, the budget was $390,000; for 1959, it is $608,000. The staff has been expanded to 76 persons.

A principal activity of the division is the training of personnel in the technical aspects of radiation in relation to health. In 1958 the Service offered short topical courses to 351 personnel from states and communities. Nine of these courses are being conducted this year.

To date, 43 stations have been set up for the measurement of radioactivity in the air, 45 stations for testing water, and 10 for sampling milk. Samples are analyzed once a month, and the methods used have been sent to state health departments.

On 16 March Flemming held a news conference to discuss radiation problems. As background for the Public Health Service's present interest in the field, he reminded his audience that it was the PHS that several years ago advocated the abolition of x-ray machines for fitting shoes and that last year proposed the substitution of skin tests for mass x-ray surveys as the first step in detecting tuberculosis.

He then went on to describe Department of Health, Education, and Welfare plans for 1960 for the Public Health Service. The department's budget for 1960 calls for slightly more than a doubling of the capabilities of the PHS in the field of radiation. The request is for an appropriation of $1,439,100, an increase of $805,000 and the largest single increase within the Service. This is in addition to the some $2 million being devoted to the study of radiation by the National Institutes of Health through grants-in-aid and in its own laboratories. The expanded PHS effort would be made in three categories—research, technical assistance to states and communities, and training of personnel. The research proposed would include studies of two types of population groups—individuals exposed to radiation in industry and individuals exposed in the course of medical diagnosis and therapy. In addition, the research would seek to simplify and standardize tests used to measure radiation levels.

On 3 April, just a few days after the release of the report of the National Advisory Committee on Radiation, the White House announced that the President had asked that a special study of the administration of the radiation control program be conducted by the Bureau of the Budget. Among the problems the study will consider is whether the principal responsibility for protecting the public against the effects of radiation should remain with the Atomic Energy Commission or be transferred to the Public Health Service. Participants in the survey include the leading officials of the two agencies chiefly concerned—John A. McCone of AEC and Arthur S. Flemming of HEW. A report of the Budget Bureau's investigation is expected soon, for on 5 May the Congress' Joint Committee on Atomic Energy will open hearings on the issue.

Soviet Pay Scale Revision

Scientists in the U.S.S.R. were told recently that the mere possession of a doctor's degree was no longer a guarantee of a lifetime of luxury in the nation's top salary brackets. Drastic changes in the system of wages and payments to scientists, providing for payment based on quality of work rather than on academic degrees, are being drafted.

The measure promises to close the large gap between the salaries of academicians and others who teach and do research, on the one hand, and scientists and engineers who are directly connected with production on the other. A secondary result, it is hoped, will be elimination of the log jam of applications for advanced degrees that has kept scores of scientists bogged down in the process of training candidates for degrees. The proposed wage changes were announced briefly in *Literaturnava Gazeta* by the deputy chairman of the State Committee on Labor and Wages.

Academic Freedom Committee Attacks Defense Education Act

The Academic Freedom Committee of the American Civil Liberties Union last month criticized the 1958 National Defense Education Act as threatening the traditional freedom of colleges and universities with control by the Federal Government. The committee's statement was signed by its chairman, Louis M. Hacker, professor of economics at Columbia University and former dean of its School of General Studies, and by ACLU executive director Patrick Murphy Malin. The statement pointed out that "Civil liberties are chiefly endangered by the law, not in its most-publicized loyalty-oath provisions (to which we are opposed, as we always have been to such provisions), but in the broad wording of provisions which confer power on the Commissioner."

As examples of undue power accorded to the commissioner, the statement cited sections of the act authorizing him to: (i) determine which accrediting agencies or associations are reliable authority as to the quality of training offered at the various institutions of higher education; (ii) award fellowships only upon his finding that the program will substantially increase facilities for training teachers; and (iii) determine whether or not each fellow is "maintaining satisfactory proficiency."

The Hacker-Malin statement described the widely criticized loyalty oath required by the act as "one of those superficially attractive catch-all attempts, popular early in this decade but now increasingly outlawed or discarded," which actually "have a most harmful effect, especially in education, where freedom of thought and association should be most protected and encouraged."

Listing of Psychologists

In the forthcoming (tenth) edition of *American Men of Science* there will be four volumes covering individuals of note in the biological and physical sciences and a fifth covering those in the social and behavioral sciences; hence, the problem has arisen as to where psychologists should properly be listed. For example, the biography of a psychologist working in the field of biology might appropriately be included in the volumes on the biological sciences even though the subject of the biography is a social or educational psychologist. In such a case, a brief cross reference to the biography in question would be included in the volume on the social and behavioral sciences.

It has been suggested by the American Psychological Association that psychologists who have a preference should advise the editor as to the category—biological and physical sciences or social and behavioral sciences—in which they wish their full biographical listing to appear. Letters on this subject should be sent immediately to *American Men of Science,* Arizona State University, 820 College Avenue, Tempe, Arizona. All information for the A-E volume for the biological and physical sciences should be in the hands of the editor before 1 June.

Coal-Tar Color Ban

The Food and Drug Administration announced recently that it was preparing to order the removal from the market of 17 coal-tar colors, which are used principally in lipstick. It will issue an order to this effect when the legal re-

quirements under the Food and Drug Act have been completed. Under the law, interested persons will be allowed 30 days in which to make written comments. Any such observations "will be taken into account in the drafting of the order," the announcement said. This action followed 2 years of tests that proved seven of the banned colors had caused "definite injury" when ingested by animals. Ten other colors were so similar in chemical composition to those tested that they were also ruled off the cosmetic market.

Nuclear Medicine at Chicago

The University of Chicago is establishing a section of nuclear medicine in the department of medicine of the Division of the Biological Sciences to serve as a focal point for those members of the unversity with special interest and competence in the broader aspects of nuclear energy relating to public health. To help support the section over a 10-year period, the Rockefeller Foundation has appropriated $500,000.

In cooperation with other divisions of the university, the section of nuclear medicine will examine the legal, psychological, and social implications with respect to community development and industry of various problems arising from the use of nuclear energy. Attention will be given such general areas of concern as the increase in natural background radiation resulting from the use of nuclear devices and the probable consequences, genetic and physiologic, of increased exposure of man and domestic animals to ionizing radiations.

Moon Relay Station

Using the moon as a passive relay station, the U.S. Navy will establish a new radio communications link between Washington and Pearl Harbor, the country's major military command center in the Pacific. The new system, known as the Communications Moon Relay Project, is the outgrowth of 9 years of work by the Naval Research Laboratory.

The new system will transmit radio signals from large saucer-shaped antennas 84 feet in diameter. These signals will bounce off the surface of the moon and will be picked up by parabolic antennas at the receiving end. The signals will make the trip in two and a half seconds. The surface distance between Washington and Pearl Harbor is 4519 miles. By way of the moon, the distance is approximately 460,000 miles.

A number of major advantages are expected to result from the new system. Reliability in transmission is perhaps the major one. Unlike conventional radio channels, the moon-relay system will not be impaired by noise interference and by blackouts caused by disturbances in the ionosphere. Another advantage is that the system will be virtually invulnerable to jamming. One method of jamming the moon circuit would require the location of a jamming station within a few miles of either the receiving or the transmitting station. A second jamming technique, that of sending signals of the same frequency to the moon, could be overcome by rapid variation in the frequency of the signals sent by this country. In addition to these advantages, the new system opens up a whole new spectrum of frequencies in the already overcrowded radio channels for long-range communication.

The transmitting and receiving stations are now under construction, and pilot operation is expected to begin within the coming year, according to Navy officials.

News Briefs

The European Atomic Energy Community (Euratom) and the U.S. Atomic Energy Commission have announced that private and government enterprises in the six countries comprising Euratom have been invited to submit proposals to build and operate nuclear power plants under the joint United States–Euratom nuclear power program. The objective of the program is to install within the community in the next 4 to 6 years approximately 1 million kilowatts of electrical generating capacity. Those who intend to submit proposals are requested to give notice to the Euratom Commission *by 28 May*. The deadline for submission of proposals is *1 September*, and the date for selection of projects by Euratom and the U.S. AEC is 31 December.

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The state of Victoria in Australia has recently established the state's second university, Monash University, at Clayton, in the metropolitan area of Melbourne. An interim council for planning is now advertising certain key positions, including those of vice-chancellor and librarian. There are also openings for professors of engineering, chemistry, physics, and biology. For information write to Mr. T. B. Paltridge, Australian Scientific Liaison Office, 1907 K St., NW, Washington 6, D.C.

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The N.S. (nuclear ship) *Savannah*, the first nuclear-powered merchant vessel, will be launched on 21 July at the New York Shipbuilding Corporation shipyard, Camden, N.J. President Eisenhower, in implementing the legislation authorizing construction of the ship, in October 1956, directed the Atomic Energy Commission and the Department of Commerce to proceed as rapidly as possible with the design and construction, saying: "This new vessel will be a floating laboratory, providing indispensable information for the further application of atomic energy in the field of ocean transportation."

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A new column entitled "Spectroscopic Tricks" has been started in *Applied Spectroscopy*. Brief contributions (not exceeding 500 words) that describe new or modified techniques and instrumentation in the field of spectroscopy may be sent to the editor, Leopold May, Psychiatric Institute, University of Maryland, Baltimore 1, Md.

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The Society of Biological Psychiatry is a new affiliate of the AAAS. The society holds independent meetings and at times it also meets with other organizations, such as the combined meeting to be held in Atlantic City, N.J., 13–14 June, with the American Electroencephalographic Association. The society offers an annual prize for the best original research paper, and it has a research committee which sponsors research everywhere, for the organization is both national and international in scope. Joseph Wortis is president, and the secretary-treasurer is George N. Thompson, 2010 Wilshire Blvd., Los Angeles 57, Calif.

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An 18-page printed booklet on *Nuclear Science Fellowships* has been published by the International Atomic Energy Agency in Vienna to inform governments of opportunities and procedures for obtaining help with the training of specialists for atomic energy programs. The booklet lists training opportunities in 49 specific areas of nuclear physics. Two groups of fellowships are offered—one of some 200 that has been made available to the agency by member governments, and another of a "considerable number" that will be financed out of the agency's own operating fund, which is built up from voluntary contributions.

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Presentation of the first complete high-school chemistry course on motion-picture film, produced by Encyclopaedia Britannica Films, Inc., with the cooperation of the American Chemical Society, was announced at ceremonies in Washington last month. James R. Killian, Jr., Special Assistant to the President for Science and Technology, received a set of the new films on behalf of the Federal Government and was the principal speaker on the program. John C. Bailar, Jr., of the University of Illinois, president of the American Chemical Society,