The reactor achieved criticality last month. Ten other nations have received such U.S. aid. They are Austria, Brazil, the Republic of China, Denmark, West Germany, Italy, Japan, Spain, Venezuela, and Norway.

Last month the **United Arab Republic** also **produced a nuclear reaction** in its reactor of 2000-kilowatt power, built near Cairo with the help of the U.S.S.R. Selah Hedayet, director of the UAR's atomic energy commission, in announcing the reactor's operation, said it will be used for peaceful purposes.

AT&T and NASA have signed a contract permitting the telephone company to sponsor the launching of two experimental **communications satellites**. The space agency will launch the satellites for AT&T. AT&T will pay for both the satellite and the launching, and will allow NASA royalty-free use of any patents developed out of the experiment. NASA itself hopes to launch about ten experimental "relay" satellites, similar to AT&T's. RCA, AT&T, and five other firms had bid for the NASA contract. NASA chose the RCA approach, after which AT&T, apparently convinced its version was superior, asked to be allowed to put up its version at its own expense.

Earlier last week the Federal Communications Commission, which regulates privately owned communications systems, asked the consortium of private companies that has been invited to work on a satellite proposal to come up with a detailed proposal, including such things as the amounts of money they are prepared to invest, "as soon as possible, but in any event no later than 13 October."

An Air Force plan to shoot a cloud of **350 million inch-long metal needles** into a 2000-mile orbit to serve as a passive communication system has alarmed astronomers, who fear the needle belt may obscure optical and audio observations in space. The needles, thinner than a human hair, would serve as miniature antennas to reflect radio signals from earth. Optical astronomers fear the needle cloud might obscure stellar observation by astronomical satellites. Radio astronomers are concerned that it might interfere in radio signals from stars. As a result of protests, the matter has been referred to the National Space Council for study and a policy statement.

Announcements

The nation's first statutory **interstate nuclear agreement** became effective in June when Florida became the seventh state to ratify the agreement, the minimum number required to bring the compact into effect and create the Southern Interstate Nuclear Board. The present members are Florida, Arkansas, Kentucky, Louisiana, Tennessee, Texas, and South Carolina. The compact offers the means whereby the southern states may "concert their energies and talents, both public and private, in developing the atom for optimum peaceful applications in industry, agriculture, medicine, and research." The Regional Advisory Council on Nuclear Energy (RACNE), established in 1956 as the "first nonfederal, publicly supported, interstate nuclear-energy organization in the nation," will continue to serve the nine remaining southern states until they ratify the compact and become members. RACNE will then go out of existence.

Starting in September, NBC-TV's 6:30 A.M. "Continental Classroom" will present a two-semester graduate course on the structure and function of **American government**, taught by Peter H. Odegard of the University of California. At 6 A.M. each week day NBC will repeat the 1960–61 course in **contemporary mathematics**, taught by Frederick Mosteller of Harvard University and John L. Kelley of the University of California.

A formal educational program in **scientific hydrology** will begin next fall at the University of Arizona. The program, reported to be the first of its scope in the United States, will lead to the B.A., M.A., and Ph.D. degrees in this field. (Department of Geology, University of Arizona, Tucson)

A Soviet study on various phases of research in **processing scientific information** reveals that some Russian scientists spend "nearly half their working hours trying to keep abreast of the latest developments in their field." The report, published by the Soviet Academy of Sciences' Institute of Scientific Information, also cites a number of American studies on the subject. The Russian analysis of the reading habits of Soviet chemists coincides in certain respects with the conclusions reached by a 1960 study, sponsored by the National Science Foundation, of the same problem as it affects American chemists and physicists [*Science* **133**, 2019 (23 June 1961)]. (Office of Technical Services, U.S. Department of Commerce, Washington 25, D.C. Order No. 61-31465, $1.50)

Information of scientific or political interest on the **Antarctic** is being sought by Science Communication, Inc., in connection with a survey sponsored by the National Science Foundation's Office of Antarctic Programs. The information may be in the form of published reports, diaries, unpublished scientific data, expedition log books and other documents, telemeter tapes, or biological and geological specimens or artifacts. (Antarctic Information Project, Science Communication, Inc., 1079 Wisconsin Ave., NW, Washington 7, D.C.)

The Atomic Energy Commission has published a summary of **atmospheric radioactivity and fallout research** in progress at 36 institutions in the United States. (Office of Technical Services, U.S. Department of Commerce, Washington 25, D.C. $0.75)

Anecdotal material, letters, and other manuscripts which would be helpful in preparing a **biography of Albert Deutsch**, a journalist specializing in psychiatric research who died in June, are being solicited by the newly formed Albert Deutsch Memorial Foundation. The foundation plans, also, to publish a memorial volume of Deutsch's writings and to establish an annual journalists' award. (Deutsch Memorial Foundation, Room 1130, Dupont Circle Bldg., Washington 6)

Results of a recent survey on **current trends in scientific research** have been compiled by the United Nations Educational, Scientific and Cultural Organization. (UNESCO Publications Center, 801 3rd Ave., New York 22, $6.75)

Publication of a new paperback **Science Editions series**, for students and general readers, will be jointly sponsored by John Wiley and Sons and Basic Books. The first ten volumes, priced from $1.45 to $2.45, are scheduled to appear in September. (Belfour McMillan, Science Editions, 440 Park Ave. South, New York 16)

Recent achievements and future goals in **Soviet engineering** and engineering education and manpower utilization are presented in a report published by the Engineers Joint Council. *The Training, Placement and Utilization of Engineers and Technicians in the Soviet Union* is based on the report of an Engineers Joint Council delegation to Russia in July 1960, under an exchange agreement between the U.S. and the U.S.S.R. (Engineers Joint Council, 29 W. 39th St., New York 18)

Courses

A 1-week course in **cancer chemotherapy**, sponsored by the Sloan-Kettering Institute for Cancer Research, will be held at Cornell University 23–28 October. The course will review the clinical problems and recent advances in the chemotherapeutic management of the leukemias, lymphomas, and the major forms of carcinoma. Applications should include a brief summary of clinical training and current appointments. (D. A. Karnofsky, Sloan-Kettering Institute, 410 E. 68 St., New York 21)

A 2-week institute in **experimental stress analysis** will be given by Wayne State University, 11–22 September. The courses will cover photoelasticity and the use of strain gages. (Joseph Der Hovanesian, Department of Engineering Mechanics, Wayne State University, 655 Merrick, Detroit 2, Mich.)

Three seminars in the **space sciences** will be held at the University of California, Berkeley, 4–15 September. The general areas to be covered include interplanetary particles and fields; space biophysics; and planetary environments and extraterrestrial life. Registration may be made by individuals or companies. Deadline: *25 August.* (Engineering and Sciences Extension, University of California, 2451 Bancroft Way, Berkeley 4)

Scientists in the News

Col. **Adam J. Rapalski**, epidemiologist and commanding officer of the Army Environmental Hygiene Agency, Army Chemical Center, Md., has been appointed chief of the Army Surgeon General's Preventive Medicine Division. He succeeds **Arthur P. Long**, who retired to become professor of environmental medicine at the University of California Medical Center, San Francisco.

Recently appointed Fulbright lecturers for 1961–62:

James P. Danehy, associate professor of chemistry at the University of Notre Dame, will lecture at the National University of Ireland, University College, Cork.

A. K. Snelgrove, head of the department of geology and geological engineering at the Michigan College of Mining and Technology, will lecture on economic geology at the University of Sind, Nyderabad, West Pakistan.

Maurice Goldhaber, chairman of the physics department at Brookhaven National Laboratory, has been named director of the Laboratory. He succeeds **Leland J. Haworth**, who was appointed to the U.S. Atomic Energy Commission in April.

David Glick, professor of physiological chemistry at the University of Minnesota Medical School and director of the university's Histochemistry Laboratory, has been appointed professor and head of the department of pathology at Stanford Medical School.

H. Borden Marshall, director of the Ontario Research Foundation's department of chemistry, Toronto, Canada, has been selected to receive the Montreal medal of the Chemical Institute of Canada. The award will be presented during the 44th Canadian Chemical Conference and Exhibition in Montreal, 3–5 August.

Laurence H. Snyder has resigned as president of the University of Hawaii. Snyder, a geneticist, was president of the AAAS in 1957.

Recent additions to the Washington, D.C., research staff of the Massachusetts Institute of Technology's Operations Evaluation Group:

Robert L. Hubbard, lecturer in physics at the University of North Carolina.

Edgar R. Terry, senior mathematician at Vitro Laboratories, Silver Spring, Md.

Thomas E. Moon, an engineer who became blind in 1945, will receive the 1961 Holley medal of the American Society of Mechanical Engineers for his invention of a trephine for corneal transplants and of other surgical instruments.

Leonard Karel, former chief of the extramural programs branch of the National Institute of Allergy and Infectious Diseases, has been appointed special assistant to the associate director for research of the National Science Foundation.

Henry van Zile Hyde, chief of the U.S. Public Health Service's division of international health, has been named director of the new division of international medical education of the Association of American Medical Colleges.

Recent Deaths

John B. Cross, 61; chairman of the department of obstetrics and gynecology at Emory University since 1945; 23 July.

Elmer A. K. Culler, 71; professor emeritus of psychology at the University of Rochester; 30 June.

Louis H. Douglass, 72; obstetrician and surgeon, and former professor of obstetrics at the University of Maryland School of Medicine; 23 July.

Carlyle S. Fliedner, 72; inventor in the field of aircraft propulsion systems and for 32 years aeronautical engineer with the Navy Department's Bureau of Naval Weapons; since his retirement in 1958 had served with the bureau as a consultant; 11 July.

Lawrence W. Jenkins, 88; anthropologist and director emeritus of the Peabody Museum; 20 Apr.

Paul W. Merrill, 73; astronomer at California Institute of Technology's Mount Wilson and Palomar Observatories for more than 40 years; 19 July.

Atherton Seidell, 82; research chemist associated with the Pasteur Institute, Paris, and the National Institutes of Health, Washington, D.C.; 25 July.

Lester W. Sharp, 74; emeritus professor of botany at New York State College of Agriculture; 17 July.

E. Edwin Weibel, 64; member of the engineering faculty at the University of Colorado since 1947; 16 June.

Erratum: In the report "Correlation of nuclear volume and DNA content with higher plant tolerance to chronic radiation," by A. H. Sparrow and J. P. Miksche [**134**, 282 (28 July 1961)], the figure 3000 on the vertical axis of the graph in Fig. 1 should read 10,000.