two agencies' enthusiasm for the subject is well illustrated by their most recent pronouncements. The Weather Bureau's retiring director, Francis Reichelderfer, in replying to a question from a congressman during appropriations hearings last winter, on whether there had been any progress in weather modification, replied, "In a practical sense, the advancement has been very little so far," and he got off the subject as quickly as he could. By contrast, the opening line of NSF's annual report to the President on weather modification, issued 2 weeks ago, bristles with hope: "During recent years the horizons of weather modification have expanded dramatically." But if the gulf between the agencies is great, and if the Weather Bureau has been inclined to take a rather patronizing view of the age-old request that it should please change the weather instead of just predicting it, there are hints from knowledgeable outsiders that under its new director this attitude may change, and there is the glimmer of a possibility that someday the weather may be changeable as well.—ELINOR LANGER

Announcements

A 400-mile section of southeastern Turkey is the center of an **international expedition** to trace man's transition from a hunting to an agricultural stage. The project is scheduled to begin 10 September and will last a year, in the headwater region of the Tigris and Euphrates rivers. It will be directed by Halet Çambel of the University of Istanbul and Robert J. Braidwood, professor of anthropology at the University of Chicago. An international staff of 25 scientists and scholars will participate. The expedition is sponsored by the University of Istanbul and the Oriental Institute of the University of Chicago.

An interdisciplinary advanced study of the **communist system of government** has been established at Stanford University under a 5-year Ford Foundation grant. The research-oriented program will emphasize the community characteristics of the communist system, with comparative studies of individual member communities within the system. (J. F. Triska, Stanford Studies of the Communist System, Stanford University, Stanford, Calif.)

The University of Pittsburgh and Carnegie Institute of Technology plan to begin a cooperative graduate program in **earth sciences** in September. The institutions will work together in administering the program, determining new projects and policies, and choosing new staff members; fellowships received by students may be used at either institution, and credits earned will be accepted at either school.

The Ford Foundation has awarded a series of grants for training, research, and experimental programs on **population problems** in the U.S. and foreign nations. The largest appropriation, $5 million, has been designated for a family-planning and health program in India, administered by the Indian government through a National Family Planning Institute and an Institute of Public Health and Administration and Education. The project also includes a $255,000 grant to the Institute of International Education for 30 1-year fellowships to train Indian students for work in the government's family-planning program.

The grants also included appropriations to the Tunisian government, at its request, to establish 12 centers for an experiment in family planning. In the U.S. grants included funds to the University of Chicago for graduate training and research by Americans to help less developed nations plan, set up, and evaluate population-control programs; funds to the Columbia University College of Physicians and Surgeons for research on the functions of the human ovary; a matching grant to the Population Reference Bureau to help expand the distribution in the U.S. and abroad of educational materials on population studies. The grants totaled $7,558,500.

A joint **investigation of the Amazon River** is being carried out by the U.S. and Brazil in an attempt to measure the river's rate of flow and the amount of sediment it transports to the sea. The project is part of a worldwide study of the salt balance and chemical flux of the world's oceans. A U.S. Geological Survey team is working with the Brazilian navy's hydrographic office and the Centro de Pesquisa de Geografia do Brasil, of the University of Brazil. The U.S. team is headed by Roy E. Oltman of the Survey's water resources division, and the Brazilian effort is being led by Fernando M. de Andrade, a researcher at the University of Brazil.

Meeting Notes

A symposium on **isotope mass effects** in chemistry and biology is scheduled 9–13 December in Vienna. It will be sponsored by the International Atomic Energy Agency and the Joint Commission on Applied Radioactivity. Papers are invited on theory and interpretation of isotope effects, experimental techniques, isotope effects on chemical and biological systems in equilibrium, and kinetic effects. Abstracts of the papers must be 250 to 350 words in length. Deadline for receipt of abstracts: *1 September*. (U.S. scientists should direct inquiries to: J. H. Kane, International Conferences Branch, Div. of Special Projects, U.S. Atomic Energy Commission, Washington 25)

The reactions of **proteins** in foods is the theme of a symposium sponsored by Oregon State University, 4–6 September. Topics to be discussed include protein structure, reactions and interactions and their control in man's food supply, food allergens, metabolic antagonists, and possible toxicological aspects of protein complexes. (A. F. Anglemier, Dept. of Food Science and Technology, Oregon State Univ., Corvallis)

The U.S. Public Health Service will present its 13th **instrument** symposium and research equipment exhibit 7–10 October at the National Institutes of Health, Bethesda, Md. Discussion will center around atomic absorption spectroscopy, automation in biochemical analysis, methods of molecular structure analysis, new methods in immunochemistry and immunology, high-resolution microscopy, advanced x-ray and electron technique spectroscopy, molecular separation by size and charge, and physiological monitoring. Advance registration is not required. (J. B. Davis, NIH, Bethesda 14, Md.)

Courses

Wayne State University plans a fall institute on experimental **stress analysis** and mechanical behavior of materials in design. Three separate programs will be conducted, and participants may register for any individual or combination of programs. The following will be included: photoelasticity, 9–13 September, $200; strain gages, 16–20 September, $200; and mechanical behavior of

materials in design, 23–25 September, $125. Applicants should have a bachelor's degree in engineering or the equivalent. (J. Der Hovanesian, Dept. of Engineering Mechanics, Wayne State University, Detroit 2, Mich.)

A graduate laboratory and lecture course in **aerosol technology** will be offered at St. John's University, Jamaica, N.Y., 23 September to 20 January. Emphasis will be on the physicochemical properties of the propellant and the final formulation. Each student in the laboratory course will be provided special equipment designed at the university, for individual work. Enrollment is limited. (Chairman, Dept. of Pharmaceutical Sciences, St. John's University, Jamaica, N.Y.)

A graduate **radioisotopes laboratory** course is scheduled 23 September to 13 January at the Newark College of Engineering. The three-credit course is designed for training in the use of radioisotopes for research and industrial applications. It includes the study of counting systems, area surveying, and decontamination methods. (P. O. Hoffman, Newark College of Engineering, 323 High St., Newark 2, N.J.)

Psychiatric problems encountered by physicians in general practice is the topic of a course offered by the American Institute for Psychoanalysis. Ten sessions are scheduled, beginning 30 September in New York. The course is supported by a grant from the National Institute of Mental Health and is open free of charge to practicing physicians. Emphasis will be on clinical application of theories needed for the diagnosis, treatment, and referral of psychiatric problems met in general practice. (H. Kelman, Dean, American Inst. for Psychoanalysis, 329 E. 62 St., New York 21)

Grants, Fellowships, and Awards

The Organization of American States is sponsoring a program for the **exchange of senior scientists and engineers** between the U.S. and Latin American nations. U.S. recipients of grants will engage in teaching and research in Latin American republics, while Latin American scientists will work in the U.S. The program is conducted by the OAS with financial support from the National Science Foundation. Grants to participating scientists are for 2 years and emphasize work in chemistry, biology, physics, mathematics, and the basic engineering sciences, along with projects to strengthen the teaching of sciences at the undergraduate level. Further information is available from J. D. Perkinson, Director, Dept. of Scientific Affairs, Pan American Union, Washington 6, D.C.

The James Picker Foundation offers grants and fellowships in **radiology and nuclear medicine**, for the 1964–65 academic year. Requirements and stipends vary with the type of award. The program is administered by the division of medical sciences, National Academy of Sciences–National Research Council. Deadline for receipt of applications: in the U.S., *1 October*; in Canada, *1 December*. (Committee on Radiology, Div. of Medical Sciences, NAS–NRC, 2101 Constitution Ave., Washington 25; or, Secretary, Medical Research Council of Canada, National Research Bldg., 100 Sussex Dr., Ottawa 2, Canada)

The American Physical Society is soliciting suggestions of candidates for its 1964 **high-polymer physics** prize. The $1000 award, sponsored by the Ford Motor Company, is "for outstanding accomplishment and excellence of contributions in high-polymer physics." Suggestions should include supporting material. Deadline for receipt of suggestions: *25 September*. (T. W. DeWitt, Scientific Laboratory, Ford Motor Co., Dearborn, Mich.)

Postdoctoral scientists may apply for research grants under the **leukemia** scholar program of the Leukemia Society, Inc. The $15,000 per annum grants cover the recipients' salaries for 5 years, with possibility of renewal for an additional 5 years. Applicants must be sponsored by a medical school, university, or research institute, of which they will be on the regular staff. The sponsoring institutions will provide facilities for leukemia research. Applicants must submit six copies of each of the following: curriculum vitae, list of publications with reprints of up to five, supporting letter from the dean or research director of the sponsoring institution, projected budget, and letter describing research aims for the next 5 years. (Medical and Research Director, Leukemia Soc., 405 Lexington Ave., New York 17)

Fellowships are available for the next postdoctoral training program in the **physiology of reproduction** at the Worcester Foundation for Experimental Biology. The 1-year program, which starts 1 July 1964, is supported by a grant from the Population Council, Inc. Applicants must have the Ph.D. or M.D. degree or their equivalents. Fellowships carry a stipend of $5500 for the 12-month period. The program will consist of lectures and laboratory work, and in the latter part of the year each fellow will have the opportunity to participate in a relevant research project. Deadline for applications: *1 September*. (Charles W. Lloyd, program director, Worcester Foundation for Experimental Biology, Shrewsbury, Mass.)

Publications

The Chemical Abstracts Service is reprinting the 1962 supplement to the *1961 Chemical Abstracts List of Periodicals*. The supplement lists the periodicals added during 1962 to those regularly scanned for abstracting and inclusion in *Chemical Abstracts*. (American Chemical Society, 1155 16th St., NW, Washington 6, D.C.)

The final report of a study of **technological change in industry** has been released by the National Science Foundation. "Inquiries into Industrial Research and Development and Innovation" analyzes selected data on the iron, steel, chemical, petroleum, and bituminous coal industries to determine such factors as patterns of innovations, relation between R&D expenditures and inventive output, and habits of firms in introducing new products. The bulletin is No. 38 in an NSF series of data reviews on research and development. (Superintendent of Documents, GPO, Washington 25; 5¢)

Approximately 12,200 terms are included in a recently released U.S. Public Health Service publication, the **Medical and Health Related Sciences Thesaurus**. The 213-page book includes main headings, subheads, alphabetical listings, and cross-references, designed for research workers and others interested in the field of communications technology. The thesaurus is a supplement to the 1962 *Research Grants Index*. (Superintendent of Documents, GPO, Washington 25)

A **Guide for Laboratory Animal Facilities and Care** has been prepared by the animals facilities standards committee of the Animal Care Panel. The 33-page booklet contains recommendations on personnel, physical plant, housing, and care of laboratory animals. (PHS Publ. No. 1024. Superintendent of Documents, GPO, Washington 25; 20¢)

A guide for securing **scientific and technical literature** from Albania, Bulgaria, Czechoslovakia, Hungary, Poland, Rumania, and Yugoslavia is available from the U.S. Office of Technical Services. It was prepared for the National Science Foundation and contains information on the announcement, availability, procurement, and translation of East European publications in the physical, biological, and some of the social sciences. (*A Guide to the Scientific and Technical Literature of Eastern Europe*. 99 pp., $2.25, Office of Technical Services, U.S. Dept. of Commerce, Washington 25. PB 181 474)

A statistical summary of U.S. scientific and technological **manpower** resources has been published by the National Science Foundation. The 36-page booklet attempts to present basic information on specialized scientific and technical manpower in the U.S. "to help guide those whose decisions affect the Nation's capabilities in science and technology." (*Profiles of Manpower in Science and Technology*, NSF, Washington, D.C., 20550)

Scientists in the News

Peter A. Morris, assistant director for reactors at the Atomic Energy Commission's compliance division, has been appointed AEC scientific representative in Tokyo, effective in September. He will relieve **Ira F. Zartman**, who returns to his post as chief of the reactor physics branch in the division of reactor development, after a 2-year assignment in Japan.

Carle C. Zimmerman has been named professor at the University of Istanbul, Turkey, where he will conduct research on living conditions and social life of the peasants of Turkey. He will retire from Harvard University, 1 September.

The American Heart Association has appointed **Roland E. Schneckloth** director of research.

Ralph W. G. Wykoff, microbiology and physics professor at the University of Arizona, has become head of the university's new 5-year dental research training program.

Victor Parsonnet, chief of surgery at Beth Israel Hospital, Newark, N.J., has been named director of the division of vascular surgery at the Jersey City Medical Center and associate professor of surgery at Seton Hall College of Medicine.

Josef Fried, director of the division of organic chemistry at the Squibb Institute for Medical Research, Brunswick, N.J., has been appointed professor of biochemistry at the University of Chicago, effective 1 September. He will also be associated with the university's Ben May Laboratory for Cancer Research.

The American College of Chest Physicians has elected **Charles K. Petter** president for the 1963–64 year. He is medical director of the Lake County Tuberculosis Sanatorium, Waukegan, Ill.

Allen D. Brandt, manager of industrial health engineering at Bethlehem Steel Company, has been awarded the Cummings award of the American Industrial Hygiene Association.

Christian B. Anfinsen, formerly chief of the National Heart Institute's laboratory of cellular physiology and metabolism, has been named chief of the recently created laboratory of chemical biology, in the National Institute of Arthritis and Metabolic Diseases. He will also direct the NIH Research Associate Program.

The new chairman of the Engineering Foundation is **Warren C. Schreiner**, of the research and development division, M. W. Kellogg Co., New York.

Stephen E. Wiberley, professor of analytical chemistry at Rensselaer Polytechnic Institute, has been appointed associate dean of the graduate school of the university, effective 1 September.

Robert C. Stephenson, executive director of the American Geological Institute, Washington, D.C., has been named executive director of the Ohio State University Research Foundation, effective 1 September.

Steven E. Mayer, associate professor of pharmacology at Emory University, has won the 1963 John J. Abel award from the American Society for Pharmacology and Experimental Therapeutics. He was cited for his research on the passage of substances from blood into the brain and into the cerebro-spinal fluid.

Marcel Nicolet, director of the Belgium National Center for Space Research, Brussels, has been awarded the Guggenheim prize from the International Academy of Astronautics. The $1000 prize was awarded for his discovery of the presence of helium in the upper atmosphere.

William Montagna, professor of biology at Brown University, has been named director of the Oregon Regional Primate Research Center. He will also become professor of experimental biology at the University of Oregon medical school.

Michael F. Halasz, former research associate at Yale University's psychiatry department, has been appointed research psychologist at the Veterans Administration Research Laboratories in Neuropsychiatry, Pittsburgh, Pa.

Giuliana C. Tesoro, assistant director of research, J. P. Stevens & Co., Garfield, N.J., has been named to receive the 1963 Olney medal for outstanding achievement in textile chemistry from the American Association of Textile Chemists and Colorists.

George W. Irving, Jr., formerly a deputy administrator in the U.S. Department of Agriculture's Agricultural Research Service, has been appointed director of the department's recently formed Nutrition, Consumer and Industrial Use Research program.

James Morse Dunning, director of Harvard University's dental health service, has been named head of the recently formed department of ecological dentistry at the university.

W. W. Hagerty, dean of the University of Texas college of engineering, has been named president of Drexel Institute of Technology, effective 1 September. He will be succeeded at the university by **John J. McKetta**, chairman of the chemical engineering department.