a series of balloon flights from Sault Ste Marie, Mich., in the summer of 1954. The baloons used were of a plastic type that is capable of maintaining altitudes higher than 90,000 feet for a minimum of 28 hours.

Monkeys were sent aloft to test the effects of cosmic radiation on the central nervous system. Investigators who observed the animals for a period of 6 months after the flights were not able to detect any adverse effects on the animals' behavior. Albino mice were exposed to test radiation effects on eyes. No cataracts were observed in the eyes of the mice after exposure.

None of the specimens, except black rats, lost hair or suffered permanent injuries from exposure to primary cosmic radiation. The black rats incurred some damage to hair follicle pigment cells—the affected cells produced white hair.

■ Blueprints of Japan's experimental rockets were stolen from a car in downtown Tokyo on 28 Aug. Hideo Itokawa, a professor and head of Japan's rocket research, said the plans were for baby rockets that were tested in mid-August as well as for supersonic two-stage models that are to be fired this fall.

■ The Sabbatsberg Hospital in Stockholm, Sweden, is starting an artery bank, according to a report from the United Nations Educational, Scientific, and Cultural Organization. Swedish scientists have stated that methods of preserving arteries have been perfected that permit storage for long periods.

■ The House of Representatives approved appropriations totaling $89,138,000 for the National Institutes of Health for the coming year. This is the full amount of the budget request and $7,870,000 more than was voted last year. Almost half of the increase is for the National Institute of Mental Health.

■ The rare, diminutive key deer—named for the Florida Keys they inhabit—number 94, according to a census taken by the U.S. Fish and Wildlife Service. Frequent counts are made in an effort to save these tiny mammals from extinction.

Smallest of all American deer species, the average adult key deer is 27 inches tall, 38 inches long, and weighs 30 pounds. The young are no bigger than cottontail rabbits.

■ A Cancer Chemotherapy National Committee has been established; it is headed by Sidney Farber of Boston. The committee will give guidance to a national voluntary program of cooperative research and development to find and produce effective drugs for the treatment of cancer. Kenneth M. Endicott of the National Cancer Institute is executive secretary of the committee and is in charge of the full-time staff. Headquarters will be located at the Cancer Chemotherapy National Service Center, in Bethesda, Md.

■ A new type of vaccine to prevent Newcastle disease in chickens has been developed at the Michigan State University Experiment Station. Walter N. Mack, microbiologist, reports that he has modified the Newcastle virus with a drug in order to make a noninfectious vaccine.

It is reported that the vaccine will not produce Newcastle disease and that other viruses that may be in the egg material from which the vaccine is made are rendered harmless by the chemical treatment. The treatment destroys the disease-producing ability of the virus but does not harm its ability to produce antibodies in the chicken.

■ Plans have been announced for the immediate construction of a national headquarters building for the Association of American Medical Colleges in Evanston, Ill. The building is to be located at Ridge Ave. and Central St., 2 blocks west of Northwestern University on a site made available by the university. Gifts from the China Medical Board of New York and the Alfred P. Sloan Foundation made the building possible.

Founded in 1876 and reorganized in 1890, the association represents 81 United States medical colleges and 12 in Canada, Puerto Rico, and the Philippines. Present headquarters are at 185 N. Wabash Ave., Chicago.

Scientists in the News

WILLIAM H. MARTIN, a retired vice president of Bell Telephone Laboratories who has been serving as Deputy Assistant Secretary of Defense for applications engineering, has been appointed director of research and development for the Army. In his new capacity, Martin will exercise the same degree of responsibility as an Assistant Secretary and will be given complete authority over Army research programs.

Creation of this research post is the result of some criticisms by the Hoover Commission on Organization of the Executive Branch of the Government [*Science* **121**, 847 (17 June 1955)]. The commission pointed out that some research functions suffered because of overlapping activities. Improved Army organization is expected from the new appointment.

LEOPOLD INFELD, theoretical physicist and a professor at the University of Warsaw, has been appointed by the Polish Academy of Sciences to head a committee that will plan and coordinate Poland's research in the peaceful uses of atomic energy. The committee is composed of 30 specialists in physics, chemistry, biology, and technology.

The academy has also established a Nuclear Research Institute under the direction of ANDRZEJ SOLTAN. Soltan's recent work has been concerned with methods for detecting the presence of uranium and thorium in certain minerals.

JACOB VERDUIN, who until recently was associate professor of the Franz Theodore Stone Institute of Hydrobiology (now the Francis Theodore Stone Laboratory), which is sponsored by Ohio State University at Put-in-Bay, Ohio, has been appointed associate professor of biology at Bowling Green State University. At Stone he was a member of the permanent staff that carried on a continuous program of research on problems concerning the productivity of Lake Erie.

The appointment of Verduin, who will teach courses in botany and general biology, will fill the staff vacancy caused by the death this summer of WALDO E. STEIDTMANN, chairman of the biology department. CHARLES H. OTIS, a member of the department since 1930 and former chairman, was recently named acting department head for the 1955–56 academic year.

LAWRENCE R. HAFSTAD has been appointed head of the research staff of the General Motors Corp., effective later this year. He will succeed CHARLES L. MCCUEN, general manager of the research laboratories division since 1947, who is to retire after 29 years of service. By agreement with the Chase Manhattan Bank, Hafstad will be available to the bank in a consultative capacity on atomic energy matters "where there is no conflict of interest."

GORDON GUNTER, director of the University of Texas Institute of Marine Science, Port Aransas, was appointed director of the Gulf Coast Research Laboratory at Ocean Springs, Miss., on 1 Sept.

FRANCES A. HELLEBRANDT retired on 1 Sept. as head of the department of physical medicine and rehabilitation at the University of Illinois College of Medicine. She will live in Athens, Ohio, where she will devote full time to historical research and scientific writing.

A teacher and investigator in medical

schools for 25 years, Hellebrandt joined the University of Illinois in 1951 as a department head. She had previously directed the Baruch Center of Physical Medicine at the Medical College of Virginia, and before that she was head of the section on physical medicine and associate professor of physiology at the University of Wisconsin. She organized the physical therapy schools in both institutions. DAVID I. ABRAMSON, a member of the university's department of medicine staff since 1946, will succeed Hellebrandt.

DAVID C. MCCLELLAND of Wesleyan University will become professor of psychology at Harvard University on 1 July 1956. McClelland, who is an authority on motivation, will fill a new chair in the psychology of personality that was endowed by the Ford Foundation with a grant of $400,000. He will conduct his research in the Laboratory of Social Relations.

BERNARD BUDIANSKY, an engineer whose research has been concerned with vibrations and stresses in aircraft structures, has been appointed associate professor of structural mechanics at Harvard University. Since 1952 he has been head of the structural mechanics branch of the Structures Research Division, Langley Aeronautical Laboratory, National Advisory Committee for Aeronautics, Langley Field, Va.

JOHN C. CALHOUN, JR., professor and head of the department of petroleum and natural-gas engineering at Pennsylvania State University, became dean of engineering at the Agricultural and Mechanical College of Texas on 1 Sept.

SUSHIL KUMAR PRAMANIK, who retired as deputy director of the Indian Meteorological Service last year, arrived in Teheran, Iran, on 26 Aug. to fill a 6-month assignment as a consultant for the World Meteorological Organization and the United Nations Technical Assistance Administration. He will assist the Government of Iran in coordinating various meteorological services; this will lead to the establishment of a National Meteorological Institute in Iran.

WILLIAM J. RIEMER, formerly of the University of California, Berkeley, and WILLIAM H. SEARS, formerly of Hofstra College, Hempstead, N.Y., have joined the staff of the Florida State Museum, Gainesville, as, respectively, assistant curator of biological sciences and assistant curator of social sciences. Sears is working with the museum's archeological and anthropological collections. Both appointments were effective in July.

RUSSELL L. MAYCOCK, former assistant manager of the physical chemistry department at the Shell Development Co.'s Emeryville research center, has been appointed director of the company's research laboratory in Houston, Tex. He replaces J. ANDERSON, who has been transferred to Torrence, Calif., to direct research for the Shell synthetic rubber plant there.

ARTHUR BEVAN, principal geologist of the Illinois State Geological Survey since 1947, has retired in order to resume field studies in the Appalachian Mountains of west-central Virginia. Before he joined the Illinois Survey he had been state geologist of Virginia for 18 years. He will reside in Churchville, Va.

The following appointments to assistant professor have been announced. University of Mississippi: LOUIS F. RITTELMEYER, JR., preventive medicine. Rose Polytechnic Institute: FRANK A. GUTHRIE, chemistry. Albany Medical College: WILLIAM THOMAS SMYTH, pathology and bacteriology.

Necrology

DAVID CRAMPTON, Mantoloking, N.J., 45, chief chemical engineer for Wallace and Tiernan, Belleville, N.J., and president and chairman of the board of Stewart Industries, Inc., Clifton, 28 Aug.

CHARLES A. EMERSON, East Orange, N.J., 73, sanitary engineer, former chief engineer for the Pennsylvania State Health Department, and a partner in Havens and Emerson, New York, 24 Aug.

THURMAN D. KITCHIN, Wake Forest, N.C., 69, president emeritus of Wake Forest College, former dean of Wake Forest Medical School, 28 Aug.

HOWARD SHIELD MCCANDLISH, Washington, D.C., 64, emeritus associate professor of clinical obstetrics and gynecology at Cornell University Medical College, 26 Aug.

EDWIN N. ROSENFELD, North Hollywood, Calif., 63, chemist and former assistant inventor to Thomas A. Edison, 27 Aug.

EDWARD B. SILVERMAN, New York, 60, electrical engineer for Smith and Silverman, New York, 29 Aug.

ANDREW TOPPING, London, England, 64, dean of the London School of Hygiene and Tropical Medicine; former UNRRA deputy chief, 28 Aug.

JAMES WALTON, London, England, 73, former professor of surgery at London Hospital Medical School, former president of the Association of Surgeons, Medical Society of London, and the Surgical Section of the Royal Society of Medicine, 27 Aug.

ARTHUR MANLEY WICKWIRE, JR., Morristown, N.J., 57, engineer and inventor, president of Power Controls, Inc., Yonkers, N.Y., 27 Aug.

Education

■ Columbia University's School of Engineering has planned a program that is designed to encourage industrial scientists and engineers to return to the campus to become acquainted with recent electronics developments. The university has scheduled a series of evening courses in electric circuits and electronics that is intended for technical men with a bachelor's degree in engineering or science. These courses are offered because entire areas of activity have developed that require scientific and mathematical tools that were not part of the education of electrical engineers trained before World War II.

■ The Special Training Division of the Oak Ridge Institute of Nuclear Studies, Oak Ridge, Tenn., has announced a partial schedule of courses to be offered during the next 12 months. The institute, a nonprofit educational corporation formed by 32 Southern universities, conducts 4-week courses in the basic techniques of using radioisotopes in general research, and special and advanced courses of varying duration that stress applications of radioisotopes in specific fields of scientific endeavor.

The 47th through the 53rd basic courses, which are limited to 32 participants, will be held on the following dates: 17 Oct.–11 Nov. 1955, 9 Jan.–3 Feb. 1956, 6 Feb.–2 Mar., 16 Apr.–11 May, 4–29 June, 16 July–10 Aug., and 13 Aug.–7 Sept.

The institute's basic courses are designed to assist mature scientific and technical personnel in obtaining in a short time sufficient facility in the use of radioisotopes to utilize them safely and efficiently in their own research. Minimum scholastic requirement for enrollment is a bachelor's degree, preferably in a scientific field, but no specific courses are required as prerequisites.

Tuition for the basic course is $25.00. Application blanks and further information may be obtained by writing Dr. Ralph T. Overman, Special Training Division, Oak Ridge Institute of Nuclear Studies, P.O. Box 117, Oak Ridge, Tenn. Applications and supporting letters should be in the hands of the Institute 3 months in advance of the starting date of the course for which application is made.

Veterinary Radiological Health Courses. In September 1954 the institute initiated the first 2-week advanced