form, from the library itself. Complete information on the scope and functioning of this report reference service can be obtained from the Science Division, Library of Congress, Washington 25, D.C., attention of John Sherrod, Acting Chief, or from the NSF Clearinghouse.

Salaries for Chemists

Salaries for chemists just out of college have risen more than 23 percent in the past 4 years, according to a nation-wide survey conducted by the American Chemical Society. For the same period, the U.S. Department of Labor figures indicate a rise in the cost of living of about 3 percent. The median starting pay for chemists who were graduated last June with the bachelor's degree is $400 a month, as compared with $325 in 1952.

For beginning chemical engineers with the bachelor's degree, the median figure has climbed from $343 in 1952 to $425 this year, a gain of 23.9 percent. Graduates with the master's and doctor's degrees have enjoyed similar percentage gains. The survey report, which appeared in the 3 Sept. issue of *Chemical and Engineering News,* was prepared by B. R. Stanerson, of Washington, D.C., assistant secretary of the ACS. ACS surveys conducted since 1952 have shown a steady increase of 3 to 8 percent a year in starting salaries for chemists and chemical engineers.

Mauna Loa Observatory

A high-altitude observatory on the slope of the Hawaiian volcano, Mauna Loa, was dedicated this summer. It is being operated jointly by the National Bureau of Standards and the U.S. Weather Bureau. Located at a height of 11,134 feet in the tropics, where the upper atmosphere is very clear and usually of low moisture content, the new observatory offers special advantages for many types of astronomical and upper-air studies. It will make possible continuous observation of atmospheric phenomena with manned instruments rather than with the unmanned meteorological balloons that have been used to such a great extent in high-altitude work.

Among the advantages of the Mauna Loa observatory are its ready accessibility and relatively warm climate. Most of the other comparable observatory sites are buried in snow during winter and part of the summer. Also, the Mauna Loa observatory has the required altitude without the ruggedness that imparts turbulence to the surrounding air, and it is situated at a key point for studying the huge air masses of the tropics.

The chief research results to be expected from the observatory are improved long-range weather forecasting and greater knowledge of solar and atmospheric radiation. Because the air masses of the Pacific are responsible for much of the weather that occurs in other parts of the world, data on these air masses may make it possible to forecast conditions in distant places.

There is some evidence that the ozone content of the lower atmosphere in the tropics is associated with the formation of the large low-pressure areas that produce typhoons. Continuous measurement of atmospheric ozone may thus be of assistance in forecasting typhoons in advance.

The observatory also offers possibilities for study of cosmic rays, total solar radiation, snow crystals, air glows, and possibly radioactive fallout. In July, C. C. Kiess and C. H. Corliss of NBS began a study of the moisture content of the planet Mars under the auspices of the National Geographic Society. They used spectroscopic techniques to investigate the light reflected to the earth from Mars. The advantageous location of the Mauna Loa observatory made it possible to reduce the effect of the earth's atmosphere on the planet's spectrum.

During the coming year Ralph Stair of NBS expects to begin a study at Mauna Loa on the distribution of the spectral energy from the sun. Such information will be of value in determining the effect of the sun's rays in connection with high-altitude equipment, space flights, and man-made satellites. This work will also furnish data on the solar constant and information on solar intensities that may be useful in many fields.

The observatory is a concrete-block structure that cost $25,000; it is situated about 2500 feet below the summit of the mountain. The building contains five rooms in addition to a tower and a broad open platform for observational use. Present accommodations permit the use of the buildings by a maximum of six observers at any one time.

A smaller structure was built at the summit in 1951–52, but the limited observations that were taken there were discontinued in 1954 because of the extreme difficulty of traversing the trail to the summit. It is hoped that at some future time a functional unit can be established at the summit.

News Briefs

■ A large radiotelescope was mounted near Bonn, Germany, early this month. The parabolically shaped antenna, which measures 82 feet in diameter, rests on a 52-foot-high cone-shaped cement structure.

■ The Swiss Federal Solar Observatory has predicted that the highest number of sunspots hitherto recorded will be surpassed in January 1957. Observations are important because of sunspot effects on the ionosphere, the ionized layer in the sky that reflects radio waves.

■ The United States has transmitted to the United Nations a report on *Radioactive Fallout through September 1955* [M. Eisenbud and J. H. Harley, *Science* **124,** 251 (10 Aug. 1956)]. This summarizes data obtained by the Atomic Energy Commission in the period 1951–55 from its network of 88 monitoring stations here and abroad. The AEC's experience in the collection and analysis of radioactive fallout, as well as the necessary apparatus, has been offered to United Nations members to assist in current world-wide investigations of the effects of radiation on human health and safety.

Scientists in the News

RICHARD G. AXT, study director for institutional research at the National Science Foundation, has been appointed assistant director of the Western Interstate Commission for Higher Education. The commission, which is supported by 11 western states and territories, has offices at the University of Colorado, Boulder.

RAYMOND C. MOORE, professor of geology at the University of Kansas, will receive the 29th Hayden memorial geological award of the Academy of Natural Sciences of Philadelphia, on 15 Nov. The award, a medal and $300 honorarium, is given every 3 years for the "best publication, exploration, discovery or research in the science of geology and paleontology, or in such particular branches thereof as may be designated."

CHARLES D. HENDLEY, formerly pharmacologist for the Wallace Laboratories division of Carter Products Incorporated, New Brunswick, N.J., has joined the pharmacology department of the Schering Corporation, Bloomfield, N.J.

H. J. EMELEUS, professor of inorganic chemistry at the University of Cambridge (England), will be the Baker lecturer in chemistry at Cornell University this fall. He will lecture on the halogens each Tuesday and Thursday from 2 Oct. to 6 Dec. Recent research by Emeleus has been chiefly on the chemistry of fluorine compounds and on the chemistry of hydrides. His earlier work was on chemical kinetics, preparative inorganic chemistry, and problems of the chemiluminescence of phosphorus, arsenic, sulfur, and organic compounds.