News of Science

Some Highlights of Astronomy in 1956

The American Association of Variable Star Observers has released a compilation of the most outstanding astronomical events of 1956, as selected by Harlow Shapley, professor emeritus at Harvard University and Neilson professor at Smith College. These highlights were presented at the recent annual meeting of the AAVSO in Springfield, Mass. After commenting that the artificial satellite and the breathless growth of radio astronomy have monopolized the astronomical interest of the scientific public this year, Shapley named the following events:

1) At the top of the list of highlights should be the completion of the prolonged study by Milton Humason of Mount Wilson and Palomar Observatories of the radial velocities of several hundred galaxies, a work upon which we shall for long base our knowledge of the rate of expansion of the universe. The report of the work is published jointly with his colleagues A. R. Sandage and N. U. Mayall of the Lick Observatory.

2) Discovery of the antiproton by the nuclear physicists of Berkeley, Calif., which gives to cosmology a basis for strange speculations, as, for example, the suggestion by M. Goldhaber of the Atomic Energy Commission's Brookhaven Laboratory of an antimatter universe quite distinct and different from our proton cosmos—a sort of mirror image of it.

3) The beginning of the world-wide organization of amateur astronomers for the visual tracking of the artificial satellite, the launching and study of which is one of the semiastronomical projects of the International Geophysical Year.

4) The firm assurance, after 3 years of exploration and planning, that a large interinstitutional observatory will be located in the arid Southwest, possibly in Arizona, outfitted with an 80-inch reflector and equipment for precise photometry, and with the possibility of still larger instruments in the future for the study of sun, planets, and stars. The goal is to provide instruments chiefly for the use of astronomers located at institutions with unfavorable climates or with small research facilities. This project, underwritten by the National Science Foundation, is a companion enterprise to its establishment of the 140-foot-aperture radio telescope in West Virginia.

5) A convincing astrophysical theory by W. A. Fowler and Jesse L. Greenstein of the California Institute of Technology to account for the formation of the heavy elements in stellar interiors—a contribution of high importance in our rapidly increasing knowledge concerning the evolution of stars and of the stellar universe.

6) The completion, through publication, of the University of Michigan's great program of discovery and measurement of southern visual double stars, an enterprise of some 30 years duration, with R. A. Rossiter as the principal observer; he discovered more than 5500 new double stars (mostly faint), which establishes a record that probably will never be excelled.

7) Detection for the first time of red shifts in the radio spectrum of distant galaxies by A. E. Lilley and E. F. McLain of the Naval Research Laboratory, Washington, D.C., who found the speed of recession of a pair of galaxies (Cygnus A source) the same in the radio wave length as in the optical measures by W. Baade and R. Minkowski—namely about 17,000 km/sec.

8) Two special conferences of high importance at the McCormack (Va.) and Cook (Pa.) Observatories, the first to pool the continued worries of astronomers about the stellar distance scale and its revision, and the second to explore, with international participation, the future of precision instruments for measuring faint star light.

9) The dedication and putting into successful operation, under the general supervision of Bart J. Bok, of the 60-foot radio telescope at the George R. Agassiz Station of the Harvard Observatory, an instrument designed especially for research on the neutral hydrogen radiation of 21-centimeter wave length, with the structure of the Milky Way spiral arms as one of the principal objectives.

10) The dominance in the summer and autumn sky of the planet Mars, which was in early September a mere 35 million miles distant, permitting much intense study by spectrograph, photometer, and radio, of the planet's surface at this most favorable approach in many years.

11) The announcement from the Canadian Radio Physics Laboratory at Shirley Bay, of Project Janet, a development by P. A. Forsyth and colleagues for using the ionized trains of meteors for the transmission of radio messages over long distances, at least up to 1000 miles.

Fallout Hearings Proposed

The Joint Committee on Atomic Energy of the U.S. Congress has been asked to undertake a public investigation of nuclear fallout hazards. The following letter, signed by 130 members of the science and medical faculties of Washington University (St. Louis) was sent to the Joint Committee on 12 Nov.

"We have been increasingly disturbed by the AEC data released in recent months which indicate a possibility that fallout from nuclear explosions may be approaching a level which constitutes a serious, worldwide threat to health. We are further concerned that the greatly divergent interpretations placed on these data in the recent campaign may have resulted in widespread confusion. It seems that public decisions of the greatest importance may turn in part on the significance of the AEC's findings. It is therefore of immediate importance that a responsible agency of the government review in public the complete findings of the AEC, together with their most authoritative scientific interpretations. We strongly urge that the Joint Committee on Atomic Energy undertake open hearings on these matters at the earliest possible date."

Bioflavonoids and Colds

Bioflavonoids, the citrus fruit extracts recently cited as a new aid in combating the common cold, are actually unable to prevent colds, shorten their duration, or even add to the symptomatic relief provided by a standard preparation used for this purpose, according to the findings of two separate studies reported in the 24 Nov. issue of the *Journal of the American Medical Association*. The studies also showed that bioflavonoids can do nothing to enhance the value of vitamin C, which has been used to build up the body's general strength and resistance and also to help strengthen the capillary walls against a viral invasion. However, one of the studies did indicate that vitamin C may help shorten the duration of a cold.

The first study, conducted among 89 medical students and student nurses by Henry L. Heyl and Warren L. Franz of