

obituaries

began towards the end of World War II and was immediately punctuated by the important discovery of a methane atmosphere on Saturn's satellite Titan. Shortly after this, he pioneered the use of the then newly available Cashman PbS infrared cells for astronomical research, thereby discovering CO₂ in the atmosphere of Mars. In the late 1940's he discovered a new satellite of the planet Uranus, naming it Miranda. This led to a search for other unknown satellites, culminating in the discovery of Neptune II, which he named Nereid. Using a disk meter on the 200-inch telescope on a night of unusually excellent seeing in 1950, he was the first to measure the diameter of Pluto, an accomplishment that has not been repeated.

Kuiper's inquiring mind probed all aspects of solar-system astronomy, from the evolution of planetary atmospheres to problems of lunar nomenclature, from the origin of the asteroids to the optimum locations for large planetary telescopes. The major installations at Haleakala and Mauna Kea in Hawaii, and the Kitt Peak Southern Station at Cerro Tololo, Chile, all stem from Kuiper's pioneering tests of astronomical seeing at these locations. He received widespread notoriety in 1964, when, as chief experimenter for NASA's Ranger moon-probe project, he gave details of the eminent success of Ranger 7 over nationwide TV. From a study of a single Ranger 9 photograph, he deduced a bearing strength of the lunar surface of about 1 or 2 kg/cm², a value which was exactly confirmed by the later Surveyor and Apollo landings. He was also closely associated with NASA's Surveyor, Lunar Orbiter, Mariner 10, Pioneer 10 and 11, and CV 990 high-altitude programs.

Kuiper, who wrote numerous papers and articles, was also editor of many volumes on astronomical subjects. He served on a large number of committees and panels, and received many awards, including the Janssen Medal of the French Astronomical Society and the Rittenhouse Medal for his theory of the solar system.

EWEN A. WHITAKER

*Lunar and Planetary Laboratory
University of Arizona, Tucson*

Merle Thomas Burgy

Merle Thomas Burgy died on 4 November 1973. Burgy was an experimentalist working primarily in neutron physics. Because of poor health, he had not been active in physics for the past several years.

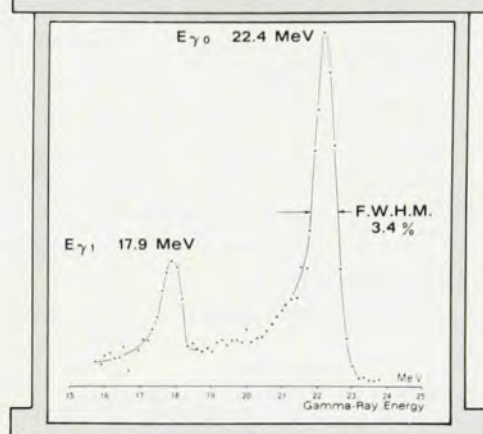
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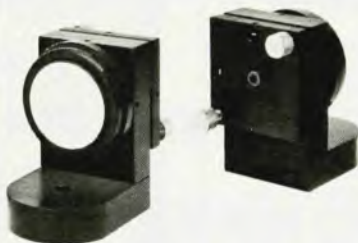
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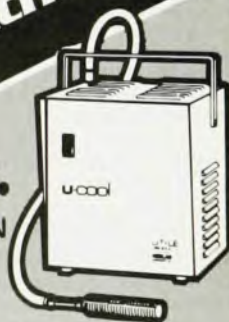
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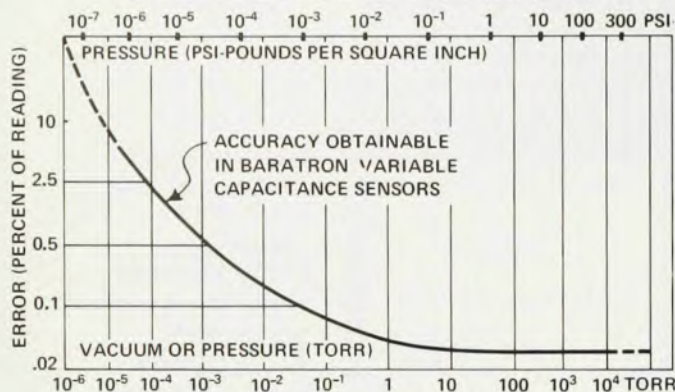
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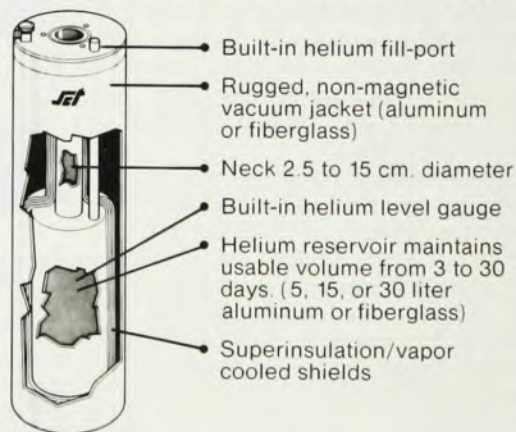
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obituaries

June 1916, Burgy graduated from the University of Chicago in 1939. He worked at the Metallurgical Laboratory at the University of Chicago and at the Clinton Engineering Works in Oak Ridge before going to Argonne National Laboratory in 1940.

While at Argonne, Burgy collaborated with D. J. Hughes on important experiments on polarized neutrons and the neutron-proton interactions done at Argonne during 1947-51. In later years he played an essential role in the neutron decay experiments, showing that the beta-decay interaction obeys V-A theory and is invariant under time-reversal. He left Argonne in 1965.

Paul Zilczer

Paul Zilczer, a physicist and mathematician, died on 25 November. He was 55.

Zilczer retired as a department manager for Computer Science Corp last spring. Born in Hungary, he earned his doctorate at the Eötvös Lóránd in Budapest in 1933. After coming to the US he worked at City College in New York, at Drew University, with the Bristol Co in Connecticut, with the W. L. Maxson Corp, New York University and Fairchild Engineering and Air-plant Corp. He was head of the advanced systems-analysis laboratory at Kollsman Instrument Corp before joining Computer Science Corp in 1963. Zilczer's scientific interests included linear and nonlinear control system theory, noise theory, and space navigation and control.

Frederick H. Giles Jr

Frederick H. Giles Jr, an associate professor and director of undergraduate studies in the physics department at the University of South Carolina, died on 19 December. He was 46 years old.

Giles's primary areas of research were chemical physics, especially surface activity during electrolysis, and biological physics. But he was also interested in other aspects of science, as is shown by his publication of several articles on the teaching of physics and on the relationship of science to religion and society.

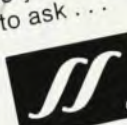
Before joining the faculty at the University of South Carolina in 1957 Giles had worked at the Savannah River Laboratory, in the biophysics division at the Medical College of Ohio State University, at Bowling Green State University, with Motorola, Inc and Wheaton Engineering Corp, and at the University of Illinois, where he completed his PhD in 1955. □

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