physicists calling for renewed attention to issues of safeguards and proliferation (see PHYSICS TODAY, August 1981, page 96).

DAN COOPER
VideoCommunications, Inc.

Paul Herget

Paul Herget, an outstanding celestial mechanician, died last summer.

Herget was born in 1908 in Cincinnati, received his degrees from the University of Cincinnati (AB 1931, MA 1933, PhD 1935), and rose from instructor to Distinguished Service Professor

HERGET

during his career at the University (1931–1978). (Herget liked to tell that before he was awarded a membership in the National Academy of Sciences, one of the arguments made in his favor was that he was able to do it all in Cincinnati.) Director of the Cincinnati Observatory from 1943 to 1978 and director of the International Astronomical Union Minor Planet Center from 1947 to 1978, he also held positions as scientist at the US Naval Observatory (1942–1946) and at Watson Scientific Computing Laboratory (1951–1952). He was also consultant for the Manhattan Project and for projects Atlas, Vanguard and Mercury.

The application of computers, mainly to the problems of celestial mechanics, was his life-long interest. During World War II he computed tables needed for plotting the positions of enemy submarines, based upon surveillance with direction-finding antennae. These proved effective in diminishing casualties to allied convoys. He also devised the first plan for computing LORAN tables by means of punched card machines, which led to the concept of optimum interval tables.

During the war years, Herget, with

Gerald M. Clemence and Wallace J. Eckert, revolutionized astronomical computations by the use of punched card machines. Upon the efforts of these three and Dick Brouwer was built a generation of celestial mechanicians.

From 1947 to 1951, he reduced 5000 occultation observations for the 19th and 20th centuries by means of a scientific computation center with a full complement of punched card machines. During the next four years, in collaboration with the Ohio State Mapping and Charting Laboratory, he was the first to apply electronic computers to analytical photogrammetry. At the same time, at Wright-Patterson Air Force Base, he carried out computations for diagnosis and study of brain tumors.

For Project Vanguard from 1955 to1958, he cooperated with the Naval Research Laboratory and designed satellite orbit computations. At the invitation of IBM Corporation in 1959, he designed the entire orbit computation program and supervised debugging and testing for John Glenn's flight.

In 1947, the International Astronomical Union invited Paul Herget to organize and become the first director of the Minor Planet Center. Under his leadership the Center collected more than 170 000 precise positions of asteroids from astronomers around the world and published 4358 *Minor Planet Circulars* containing observations of new and improved orbits and information concerning new and numbered minor planets. In recent years, he returned to the pursuit of classical astronomy. He gave the definitive treatment of all the observations and orbits of the outer satellites of Jupiter in a publication of the Cincinnati Observatory. Subsequently, he demonstrated by a pilot project the improvements that can be made to the astrographic catalogs.

P. K. SEIDELMANN
US Naval Observatory

Michael J. Nass

Michael J. Nass, a recent PhD graduate of the University of Chicago, died in a traffic accident on 12 October 1981. He was enroute to the Institute for Theoretical Physics at the University of California, Santa Barbara, to begin a postdoctoral fellowship. Michael was an exceptionally talented physicist who had great promise for the future. He was an unusual graduate, for he already had a relatively long list of publications that included theoretical work on the coexistence of superconductivity and magnetism and studies of the stopping power of heavy ions in solids. He was known throughout the country to theorists and experimentalists alike working in these areas.

K. LEVIN
University of Chicago
G. S. GREST
Exxon Research & Engineering Co.

Jerry B. Marion

Jerry B. Marion, professor of physics at the University of Maryland, died on 2 August 1981. He was a gifted teacher, a creative research scientist, a consultant to government and private industry and the author of many outstanding physics textbooks used throughout the world.

Marion was born in Mobile, Alabama in 1929. He received a BA from Reed College in 1952 and an MA in 1953 and a PhD in 1955 from Rice University. Following brief appointments at the University of Rochester and at Los Alamos Scientific Laboratory, in 1957 he joined the department of physics and astronomy at the University of Maryland, where he was codirector of experimental nuclear physics at the University's Van de Graaff laboratory and a principal investigator at the cyclotron laboratory.

His research primarily concerned the structure of light nuclei, especially isobaric spin, single-particle states and configuration mixing.

Marion also engaged in many extra-university professional activities. He was a staff scientist for Convair and a

MARION

consultant to General Dynamics, Shell, Grumman Aircraft, Radiation Dynamics and Oak Ridge National Laboratory. He was a member of the Nuclear Physics Panel of the National Academy of Sciences and a member of the editorial board of *Nuclear Data*.

WILLIAM HORNYAK
JOSEPH SILVERMAN
University of Maryland □