obituaries

National Laboratory.

In his years in research he carried out a series of studies on the molecular motions of condensed systems, developing an ingenious method by which the infra-red spectra of single crystals of small molecules could be obtained.

Halford joined the Columbia faculty in 1946 as associate professor of chemistry. He was named full professor in 1952, a position he continued to hold throughout ensuing years in the University administration. He was awarded a Guggenheim Fellowship in 1952–53 and served from 1957 to 1959 as chairman of the Department of Chemistry.

He became vice provost for projects and grants in 1959. In 1961, he was appointed dean of the Graduate School of Arts and Sciences. He served as dean until 1967, when he was appointed special assistant to the president for special projects. The following year he was named vice president for special projects, a post he held until his retirement in 1977. The University Trustees named him dean emeritus and professor emeritus.

Ralph Halford possessed a keen intellect and applied to his work in teaching, research and administration the highest personal standards of quality and service. He was deeply interested in student welfare and had unusual ability to give to students an understanding of difficult theoretical principles. He enjoyed teaching on both the graduate and undergraduate levels and was proud of having taught general and organic as well as physical chemistry.

BENJAMIN P. DAILEY
Columbia University
New York City

J. Ross Heverly

J. Ross Heverly, deputy director and principal scientist with the General Research Corporation of McLean, Virginia since 1972, died 24 September at the age of 64. Heverly was project leader for studies in air defense, electromagnetic compatibility, electronic counter countermeasures and tactical nuclear warfare.

Heverly received his PhD in physics in 1948 from Pennsylvania State University. From 1953 to 1962 he was with the operations research office at Johns Hopkins University. In 1962 he became a member and later a director of the Research Analysis Corporation's European field office. In 1965 he was promoted to chairman of the avionics group of RAC, a post he held until 1969, when he was named program manager for intelligence there.

Heverly also taught physics in Penn State and at the US Naval Academy at Annapolis, and was the author of several physics texts. □