

tions of both politics and physics; he therefore accepted in 1934 a professorship in technical physics at the Technische Hochschule (Technische Universität) in München. Here he designed a helium liquefier with expansion engine, loosely following Kapitza's design. World War II interrupted much of this work.

At the end of World War II, Meissner willingly undertook additional responsibilities: besides his professorial duties in the university he was president of the Bavarian Academy of Sciences during 1946-50, director of the low temperature laboratory of the Bavarian Academy and he substituted in the "Lehrstuhl für Experimental Physik" at the university. During these years he was a prime force in the re-establishment of physics in Munich. He was honored by the German government with the Order of Merit and by the government of Bavaria with the Bavarian Order of Merit. He received the Linde Medal, the Simon Memorial Medal and two honorary doctorates. He will be remembered affectionately by many students and friends, for he was a kind man. He set an example by resisting public pressure and, during the most difficult years in Germany, using his bicycle on Sunday mornings to take food to friends who had difficulty obtaining it otherwise.

F. G. BRICKWEDDE
Pennsylvania State University
University Park

James C. Hart

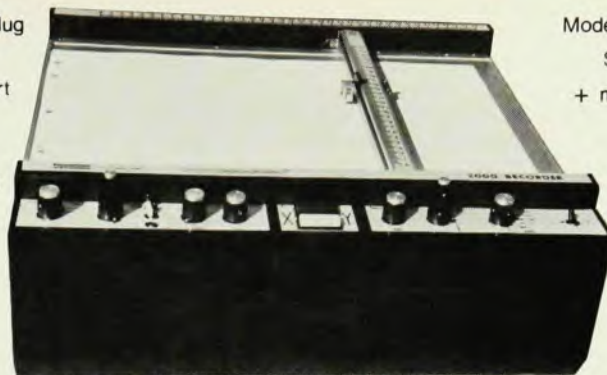
James C. Hart, health physicist at Oak Ridge National Laboratory and President of the Health Physics Society, died on 2 November. He was 57. Hart, who held degrees in both engineering and law, was nationally recognized as a leading authority on the administrative and legal aspects of radiation protection.

His career in health physics spanned more than three decades, dating back to the Manhattan District where he served as one of the eight original pioneer health physicists. The bulk of his career was spent at Oak Ridge and Hanford, and was devoted primarily to applied and operational health physics. In his later years he earned a doctorate in law from the University of Tennessee and devoted his efforts to administrative health physics and to the epidemiology of low-level radiation exposures. He was also deeply involved in the health-physics fellowship program at Oak Ridge National Laboratory from its inception.

He was a charter member and highly active in the Health Physics Society and was instrumental in the formation of the International Radiation Protection Association, serving as chairman of

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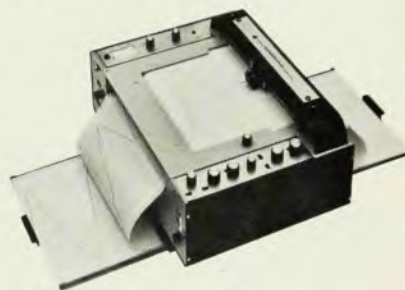
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obituaries

the committee that drafted the constitution for that body as well as a member of the organizing committee. Although he preferred to work behind the scenes, he was elected to the presidency of the Health Physics Society for 1974-75.

In addition to being a scientist, Hart was a humanist, being an active member of Scientists and Engineers for Appalachia and a sympathetic observer of the problems of the young and disadvantaged. One of his pet projects initiated during his truncated term as President was the Health Physics Society Memorial Foundation to fund educational and scientific endeavor in radiation protection. This foundation will serve as an appropriate memorial to Hart, whose "Tennessee Lawyer" *modus operandi* and organizational skills will be missed by his colleagues in the health-physics profession.

Daniel J. McMahon

Daniel J. McMahon, a staff physicist with the Raytheon Company, died on 23 October at the age of 34.



MCMAHON

He joined the staff of Raytheon in 1972 as a physicist with the optical systems department where he became involved in the design of sophisticated optical systems for control of nuclear fusion and other purposes. Although his career as a scientist had just barely begun he had written papers in several areas of research from far-infrared spectroscopy to dayglow observations in

the visible region. For his doctoral dissertation, McMahon was instrumental in developing a highly sensitive photometer for improved ground-based measurements of the sodium day airglow. This work contributed significantly to solving the problem of determining the abundance of sodium in the atmosphere.

McMahon received his BS and MS in physics from Fairleigh Dickinson University in 1964 and 1966, respectively. He earned his doctorate in physics from North Carolina State University in 1972. He was a member of the Optical Society of America and the American Association of Physics Teachers.

DONALD R. SMITH

Air Force Cambridge Research Laboratories
Bedford, Massachusetts

Nicholas Fuschillo

Nicholas Fuschillo, professor of electrical engineering at Rutgers University died on 15 October. He was 47 years old.

Fuschillo was educated in physics and engineering physics at the Universities of London, Leeds and Cornell. He earned a PhD degree at Leeds where he worked with Edmund Stoner on the application of the Onsager relations to the thermoelectric circuit. As a post-doctoral fellow at Cornell he did research in the mechanical properties of metals at low temperatures. In 1954 he was appointed assistant professor of physics at Pennsylvania State University where he studied the radiation damage in high polymers by NMR technique. He joined the Franklin Institute laboratories as head of the semiconductor section in 1957 and was active in thermoelectric research and fine particle magnetism. In 1964 he became director of the solid-state and energy conversion group at Melpar, Inc. His major accomplishments in applied sciences at Melpar were the development of the first flat plate solar thermoelectric generator, the development of medium-scale integrated circuits and dispersion strengthened super alloys.

He joined the Rutgers faculty in 1967 as professor of electrical engineering to teach semiconductor devices, physical electronics and integrated circuits. His major accomplishments at Rutgers include the establishment of the solid-state electronics laboratory, which is active in research on electrical and optical properties of semi-conductor, dielectric and metal films, solar-thermal conversion and photovoltaic solar conversion. His research dealt with the high-field transport effects in low mobility semiconductors, dielectric and switching properties of transition metal oxide films, optical and electrical properties of thin metal and alloy films and their

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