clear-power industry and as a member and later as chairman of the AEC's Advisory Committee on Reactor Safeguards. His work in all three capacities—as teacher, industry consultant and Government adviser—made a lasting contribution to this nation's success in developing safe, economic nuclear power.

For his achievements during his 14 years at MIT, Thompson received many honors, including the AEC's Ernest O. Lawrence Memorial Award in 1964. His exceptional accomplishments as both scientist and administrator brought him to my mind at once in 1969, when a vacancy developed on the Atomic Energy Commission. On my recommendation, President Nixon without hesitation appointed Thompson to the AEC, where he took on his new assignment with all the vigor and enthusiasm that was typical of his life. He willingly took on the most difficult assignments, including much of the burden of speaking to the public on significant issues of the day concerning nuclear power. It was on such a mission—a combined inspection and speaking tour—that the tragic accident occurred that took his life.

Thompson was one of those rare individuals who brought not only knowledge and dedication to his work but also an infectious pleasure in the pursuit of excellence. All those who were privileged to share his burdens and his counsels will remember him long and well for these qualities.

GLENN T. SEABORG
Atomic Energy Commission

Jack Rosen

Accompanying Commissioner Theos J. Thompson on an aerial inspection of the Lake Mead area when their aircraft crashed into the lake were Lt. Col. Jack Rosen and William Smith. Their many friends, the scientific community and the government have suffered a tragic loss.

Rosen's career was a remarkable blend of military and civilian accomplishment emphasizing the common thread of the utilization of science and technology in the nation's interest. He enlisted in the service of his country in 1942 at the age of 18, served with the Army in the Pacific theater, was recalled to serve in the Korean theater and later commanded a communications unit in western Europe. His military honors included the Bronze Star Medal, Army Commendation Medal and Legion of Merit.

He received a BS from the University of Chicago in 1949 and an MS from the University of Illinois in 1951, both in physics. While at the US Army Signal Laboratory at Fort Monmouth during 1952–54, he engaged in semiconductor and solid-state research and development.

Rosen's association with the atomic-energy program while on military duty included assignment as staff officer to the AEC's Division of Military Affairs from 1957 to 1962 and service as staff consultant to the Joint Committee on Atomic Energy from 1963 to 1967. Following his retirement from the army in 1967, he worked for the AEC first as special assistant to me and then to Thompson.

Rosen was best known for his work in nuclear-weapons development and testing, arms control, peaceful uses of nuclear explosives and physics research, especially particle physics and controlled thermonuclear reactions. He participated in and contributed to the fostering of scientific research, the advancement of technology, the maintenance of national security and the promotion of progress and peace in many ways. His breadth of experience, his perception of complex technical, military and diplomatic problems and his understanding of the scientific–legislative interface caused his advice to be sought out. Coupled with an ability to identify significant issues and to present information succinctly, his input to various proceedings, reports and papers resulted in a most significant and useful product; an important example, among others, is the 1965 Joint Committee on Atomic Energy Hearings on High Energy Physics.

GERALD F. TAPE
Associated Universities, Inc

John B. Johnson

John B. Johnson, retired laboratory head of Thomas A. Edison Industries and McGraw-Edison Co instrument division, died 27 Nov. at the age of 83.

Johnson, who retired in 1969, went to the Thomas A. Edison Industries Research Laboratories in 1952 as head of the physics department. Previously, he had worked for Bell Telephone Laboratories since 1925 and before that for Western Electric Co. At Bell Labs he studied cathode-ray tubes and developed the first commercial sealed-off cathode-ray oscillograph tube. He later studied the causes of noise in vacuum tubes and discovered the "Johnson effect"—noise caused by random electrical fluctuations in wires and other solid conductors that sets a limit to the level of useful amplification of a signal.

Johnson, who was born in Sweden, came to the US in 1904 and received his PhD in physics from Yale University in 1917. □