TOM JOHNSON

Thomas Hawkins Johnson died at the age of 46 from cancer on 26 June 1990 at the Walter Reed Army Medical Center in Washington. He was buried at West Point in a ceremony steeped in the tradition of the army he loved so deeply. Attending his funeral were friends from the worlds of literature, science, the military, and politics, revealing his extraordinary range of accomplishments as a comrade and professional. Tom was a member of the board of editors of *Science & Global Security*, and those of us who knew him will miss him sorely.

After graduating from West Point in June 1965, Tom took the unusual path of entering the Air Force, where he pursued one of his lifelong interests, plasma and fusion physics. In 1968 and 1974 he received his M.S. and Ph.D degrees in computational and plasma physics from the University of California, Davis-Livermore. During this period Tom worked as a student at Lawrence Livermore National Laboratory where he invented two new computational techniques: one for solving for magnetohydrodynamic equilibria in a toroidal geometry and the other for simulating particle motions in plasmas. He also managed a research program on the effects of high-altitude nuclear explosions, developed a code to calculate the disassembly phase of the detonation of thermonuclear weapons, and studied the effectiveness of thermal kill from ABM intercepts against ICBM re-entry vehicles.

In 1975 Tom became the chief of the physics section of the Air Force Weapons Research Laboratory, where he did theoretical and computational studies of high-altitude ionospheric striation phenomena, which occurs both naturally and from high-altitude nuclear explosions. During this time he produced a number of fast-running kinetics codes for deuterium fluoride and deuterium fluoride–carbon dioxide transfer lasers. He also produced the first comprehensive theoretical model describing the laser kinetics of krypton fluoride lasers. This code has so far predicted the performance of every high-power krypton fluoride laser experiment to within 15 percent and remains the standard predictive code in use today.

Tom returned to West Point in 1977 as an associate professor of English. By this time his poetry had already been published in *American Heritage*, *The New Republic*, and *The Sewanee Review*. His poems later appeared in *The American Scholar*, *The Georgia Review*, *Poetry*, *The Gettysburg Review*, *The Southern Review*, and *New Harvest*. In 1980 Tom transferred his commission from the US Air Force to the US Army, when he also became director of the

science research laboratory, assistant dean for academic research, and associate professor of applied physics at West Point. At about this time he also became special assistant to the President's science adviser, and executive director of the White House Science Council. During the last six months of 1989, before he was so tragically overtaken with illness, he was acting as a special assistant for military systems to the Secretary of Energy.

He is survived by his wife, Cynthia; three daughters, Jennifer, Emily, and Laura of Cornwall-on-Hudson, New York; his parents John and Elizabeth Johnson, of Roanoke, Virginia; and a brother, Nick Johnson, of Silver Springs, Maryland.

Colonel Thomas Hawkins Johnson was a man who showed unwavering courage in the face of adversity and death. For those of us who worked with him, he always showed unreserved respect, loyalty, and compassion. He could be depended upon through thick and thin. He was a soldier, a gentleman, and a scholar in the finest and highest traditions of the US Army, the American democratic system,and academic scholarship. He was not afraid to be different, he cared about the world and humanity, he was a friend.

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