



H. GUYFORD STEVER

1916–2010

Elected in 1965

“Outstanding contributor to the nation’s space engineering effort.”

BY SHEILA E. WIDNALL

H. GUYFORD STEVER, a legendary figure in the history of science and technology as well as one of the most influential developers and executors of science policy during and following World War II, died on April 9, 2010, at his home in Gaithersburg, Maryland, at the age of 93.

Horton Guyford Stever was born on October 24, 1916, in Corning, New York. He received his B.S. in physics in 1938 from Colgate University on a scholarship and his Ph.D. in physics from the California Institute of Technology (Cal Tech) in 1941. He worked in cosmic rays and mechanisms with Geiger counter discharge. With the founding of the Radiation Laboratory in 1940, his thesis advisor, Dr. Victor Neher, went back to the Massachusetts Institute of Technology (MIT) and assigned a young instructor at Cal Tech, William Pickering, to act as his thesis advisor. One part of his thesis was on the lifetime of the meson.

Stever then proceeded to the Radiation Laboratory at MIT, where he was actively involved in the development of radar. He observed that the education of physicists allowed them to effectively develop this new technology; such observations were to have a profound effect on engineering education.

His ability to operate at the interface, a skill that surfaced often during his career, caused him to accept an assignment to go to England and be an interface between British and American scientists. As part of a scientific delegation, he accompanied American troops during their push into Germany. His mission was to obtain materials from German scientific sites at the earliest possible moment. His group did this so well that they reached a German radar site ahead of the American ground troops; fortunately, the Germans surrendered to the American scientists. It was a legendary tale and by all accounts a great party as well!

Along with Vannevar Bush and other senior and seasoned scientists, Stever was instrumental in helping to shape the important transition in government funding of research for national needs and the founding of the National Science Foundation (NSF), which he later directed.

After World War II, Guy went to MIT, where he served in a number of positions: faculty member in aeronautics; associate dean of engineering; and department head of mechanical engineering, naval architecture, and marine engineering. During this time he served as member and later chair of the Air Force Scientific Advisory Board and later as chief scientist of the U.S. Air Force. I first met him in 1958 when I was a junior at MIT; he regaled the MIT students with stories of his wartime adventures.

With the launch of *Sputnik* in 1957, Guy was called on to chair the committee to reexamine the nation's space program. The work of this committee led directly to the formation of the National Aeronautics and Space Administration out of the earlier National Advisory Committee for Aeronautics. He also chaired a National Research Council committee that examined and monitored the redesign of the booster following the *Challenger* accident.

He became president and actually the creator of Carnegie Mellon University where, during his tenure from 1965 to 1972, he oversaw the merger of Carnegie Institute of Technology and Mellon Institute to form Carnegie Mellon University.

In 1972, Stever became head of NSF during the Nixon

administration. President Nixon abolished the White House Office of Science and Technology; the president said he was not pleased with its advice concerning antiballistic missiles and supersonic planes. As head of NSF, Stever then functioned as a dual-hatted science advisor for three years but was kept at a distance, for the most part meeting the president only at ceremonies.

In 1976, at President Ford's request, Congress reestablished the Office of Science and Technology, and Ford chose Dr. Stever to lead it. In that post he worked to promote exchanges between American and Soviet scientists, greatly expanded NSF's support of research in renewable energy sources, and supported efforts to commercialize solar heating. He was effective at lobbying for financing of basic research. Stever strengthened the Office of the President's Science Advisor by establishing an advisory committee that was the forerunner of PCAST in the Office of Science and Technology Policy (OSTP).

I was in Washington, D.C., during these years as head of university research for the U.S. Department of Transportation. I chatted with Guy, and he mentioned that he was going to send a letter to agency heads urging increased support of basic research. I said that, given the budget process, it would be good for my program if he would do that this week, which he did. The letter he wrote to the secretary of transportation then landed on my desk for me to prepare a response stating that our program was well funded, thank you. I guess I learned something from that.

Guy was elected a member of the National Academy of Sciences in 1973. Following his departure from NSF and OSTP, he took up a number of board and committee activities, making his talents available to a wide variety of scientific and technical organizations. Guy served as foreign secretary of the National Academy of Engineering from 1984 to 1988. He also served on the Carnegie Commission on Science, Technology, and Government from 1986 to 1987 and as chairman of the Policy Division of the National Research Council in 1995. He served as a director of TRW, Goodyear, and Schering-Plough

Corporation and as a trustee of Woods Hole Oceanographic Institute.

He was awarded the National Medal of Science in 1991, “for his scientific and engineering leadership in applying new results of scientific research and technological development to the purposes of government, industry, and academie.” In 1999 he received the Arthur M. Bueche Award from the National Academy of Engineering. The citation read: “For a lifetime of exceptional service to engineering and society as a researcher, university president, and government official, and for the style of leadership that has made him a preeminent U.S. statesman in science and technology.” He was awarded the Vannevar Bush Award in 1997 from the National Science Board. In 2002, Guy wrote an autobiography, *In War and Peace: My Life in Science and Technology* (Joseph Henry Press), recommended reading for anyone who wants to understand the processes that took us from World War II to the present interactions between science, technology, and government.

He was a member of the American Academy of Arts and Sciences and a fellow of the American Physical Society, the American Institute of Aeronautics and Astronautics, the Royal Aeronautical Society, and the Royal Society of Arts.

Many of Guy’s happiest moments were spent with his family at their summer home in Randolph, New Hampshire. Fly fishing, baseball games, climbs, and camping trips filled summer vacation times. An avid Red Socks fan, he felt privileged to see the “Sox” win the World Series not once but twice. He is survived by his sons Guy Jr. and Roy and daughters Sara Stever and Margaret Weed. Guy joins his wife “Bunny,” the former Louise Risley, who died in 2004.

