Hans M. Mark

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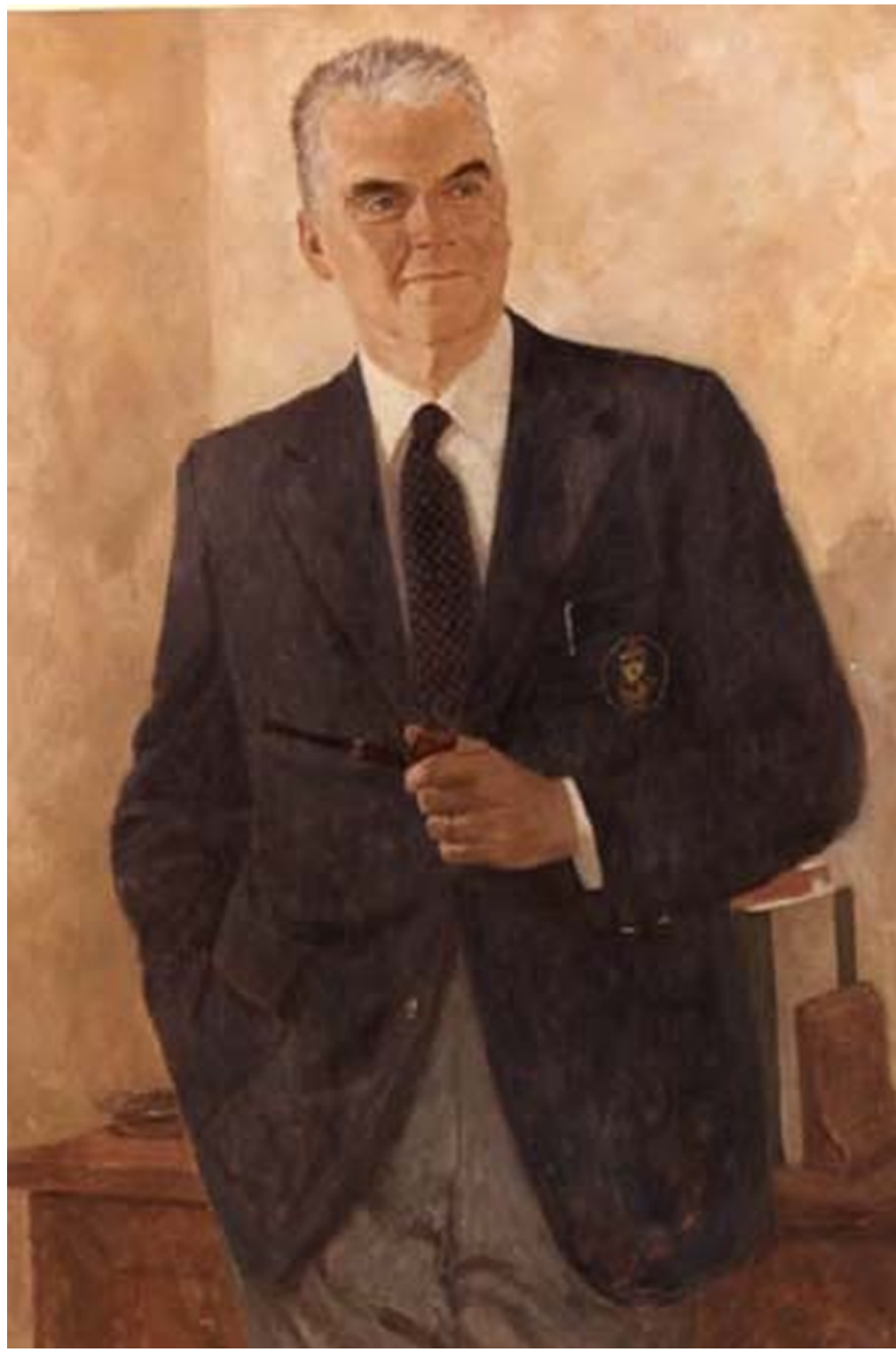

Portrait by Lynn Buckham

HANS M. MARK was born in Mannheim, Germany, on June 17, 1929. He immigrated with his parents to the United States in 1940 and became a naturalized citizen in 1945. He earned a bachelor of arts degree in physics from the University of California at Berkeley in 1951 and a doctorate in the same field from the Massachusetts Institute of Technology (MIT) in 1954. His father, Herman, a world-renowned chemist widely considered to be the father of polymer chemistry, inspired Mark's interest in both physics and nuclear engineering.

Prior to his first academic appointment as a lecturer in physics at Boston University in 1952, Mark married Marion G. Thorpe. They had two children. Over the years Mark held several academic positions at MIT, and in the University of California system between 1956 and 1969. From 1979 to 1984 he was a consulting professor of engineering at Stanford University. While at MIT he served as a research associate and acting head of the Neutron Physics Group, Laboratory for Nuclear Science from 1954 to 1955. At the University of California he served as a research physicist at the Berkeley campus and then at the university's Lawrence Radiation Research Laboratory in Livermore. From 1960 to 1964 he headed the Lawrence Radiation Research Laboratory Experimental Physics Division, and from 1964 to 1969 he served as chair of the Department of Nuclear Engineering at the University of California at Berkeley and administrator of the Berkeley Research Reactor.

Spanning more than three decades, his academic career was distinguished by many achievements. His pioneering investigation of x-rays emitted from stars led later to the identification of certain objects as black holes. He also has led the engineering development of a number of spacecraft and experimental aircraft.

Mark served as a consultant for the Institute for Defense Analyses from 1958 to 1961 and for the National Science Foundation from 1966 to 1969. He also served on the U.S. Air Force Scientific Advisory Board from 1969 to 1976 and on the President's Advisory Group on Science and Technology from 1975 to 1976, and he became a member of the Defense Science Board in 1975. He was director of the National Aeronautics and Space Administration's (NASA's) Ames Research Center from 1969 until his appointment as undersecretary of the Air Force in June 1977. At the Ames Center he coordinated and carried out research in areas

ranging from fundamental aerodynamics to spacecraft development and to the human factors that affect space flight.

As acting secretary of the Air Force in May 1979, Mark listed three major responsibilities as the dominant Air Force priorities for the near term. Modernization of strategic deterrent forces led the list. He pointed out that the aging bomber force had the thirty-year-old B–52 bomber as its first-line heavy bomber and that the Minutemen III missile force was nearly fifteen years old. He saw the need for an immediate development of new first-line weapons. His second priority was the enhancement of airlift capability, which he contended had to be both modernized and increased if "we are to meet our responsibilities around the world." The third area of responsibility was in space, especially in the area of strategic reconnaissance, and he predicted that space-based devices would provide the first warning of future strategic attack. Mark maintained those priorities throughout his tenure as secretary of the Air Force, and he also emphasized better pay and benefits for Air Force personnel. In 1979 the Air Force awarded him the Exceptional Civilian Service award, and two years later the Department of Defense awarded him the Distinguished Public Service Medal.

After leaving the secretariat, Mark was appointed by President Ronald Reagan to serve as deputy administrator of NASA, where he remained until he took the post of chancellor in the University of Texas system in 1984. In that position he headed one of the nation's largest university systems with an enrollment in excess of 150,000. After he left his job as chancellor in 1992, he remained at the University of Texas as a professor of aerospace engineering and engineering mechanics. In addition, he held the John J. McKetta Centennial Energy Chair in Engineering from 1992 to 1998. He also had been associated with the university's Institute for Advanced Technology as a senior research engineer since 1990, and in that capacity he worked on advanced weapons systems for the U.S. Army. During his career, Mark authored and coauthored more than 150 scholarly articles and many books, including *The Space Station: A Personal Journey, The Management of Research Institutions,* and *In Search of the Fulcrum.* In July 1998 Mark became the director of Defense Research and Engineering, serving as the chief technical advisor to the secretary of defense and the undersecretary of defense for acquisition and technology on defense research, development, testing, and evaluation. In addition, he had management oversight for the Defense Advanced Research Projects Agency (DARPA) and the Ballistic Missile Defense Organization.