



*Michael Ference Jr.*

## MICHAEL FERENCE, JR.

*1911–1996*

BY JULIUS J. HARWOOD

MICHAEL FERENCE, JR., former presidential science adviser and retired vice-president of research for Ford Motor Company, died in San Antonio, Texas, on July 24, 1996. He was eighty-four years old.

Mike Ference was born in Whiting, Indiana, on November 6, 1911, one of three sons. Following local public school education, he attended the University of Chicago where he earned his bachelor's degree (1933), master's degree (1934), and Ph.D. in experimental physics (1936). His academic record led to his election to Phi Beta Kappa and to Sigma Xi.

He began his career teaching physics at his alma mater, remaining at the University of Chicago for ten years. Starting as an instructor, he rose to the rank of associate professor of physics and meteorology in 1944. His teaching skill was recognized with the award of the \$1,000 Prize for Undergraduate Teaching. Among the various research interests he pursued during that period, he concentrated in the fields of spectroscopy, meteorology, and physics of the upper atmosphere. His numerous publications attest to a productive decade of academic research.

His specialization in atmospheric research led to his appointment in 1946 with the Signal Corps Engineering Laboratory as chief of the meteorological branch. His research expertise and managerial skills soon led to his position of chief scientist of the Evans Signal Laboratory in 1948, with the responsibility for directing

the laboratory's research and development programs. In 1951 Mike was made technical director of the laboratory. At the time he left the Signal Laboratory, Mike was granted the army's Exceptional Civilian Award in recognition of his numerous contributions to the service.

In the early 1950s, Henry Ford II with his then-director of the Ford Laboratory, Andrew Kucher, embarked on the challenge of creating for the Ford Motor Company a leading corporate research and development laboratory. The goal was to create a research institution to provide scientific underpinning to the Ford engineering establishment, be responsive to scientific research opportunities, and ensure Ford's technological future leadership. Kucher was successful in persuading Ference to join the Ford Scientific Laboratory in 1953 as assistant director. In 1957 he was made laboratory director and in 1959, executive director. In April 1962 he was elected vice-president, scientific research staff. Subsequently, the responsibility for engineering research was added to his charter.

Mike Ference retired from the Ford Motor Company in 1970. In the seventeen years of his leadership of the Ford Scientific Laboratory, he was instrumental in shaping it into one of the nation's leading industrial research laboratories, with a worldwide reputation. The scientific literature, particularly during the period from 1960 to 1970, in the fields of physics (both experimental and theoretical), chemistry, physical electronics, and metallurgy and materials was filled with the contribution of the talented cadre of scientists who joined the Ford Scientific Laboratory, achieving thereby the early vision of creating a "Bell Laboratory of the Automotive Industry." One of the pioneering features that Ference implemented, with the support of Henry Ford II, was to provide the laboratory with a five-year budget to enable a long-range perspective and firmly establish the commitment to continuity and excellence in research programming. To the best of my knowledge this was a "first" in industrial research and certainly was an enviable asset in recruiting top-quality people to join the Ford Laboratory.

On a personal note, I had the privilege of being on Mike Ference's management team, and the 1960-to-1970 time period

at the Ford Scientific Laboratory was one of the most stimulating and exciting experiences of my professional career.

Over and above the scientific and technical achievements of the laboratory during the Ference years, Mike Ference left an additional legacy for Ford Motor Company, a legacy generally unrecognized by corporate management. Over the years, a significant number of the leading scientists left the laboratory to pursue career opportunities within the Ford engineering, production, and management system. A respectable number achieved top corporate positions having a major impact on Ford vehicle and business decisions, including, for example, president of North American Operations, executive vice-president of technology and engineering, director of advanced vehicle technology. Thus, the early laboratory policy to recruit top-quality scientific personnel paid unexpected dividends to the Ford Motor Company.

Mike was elected to the National Academy of Engineering in 1971 in recognition of his research accomplishments, his leadership in management of industrial research and development, and his public service contributions to the U.S. government.

During the administrations of both President Johnson and President Nixon, Ference was a member of the President's Science Advisory Committee. He also served on the President's Air Quality Advisory Board. Among his numerous other appointments were the position of advisor to the Bureau of Public Roads and membership on the U.S. Weather Bureau Advisory Committee, Special Advisory Committee to the U.S. Department of Commerce, the Governor's Science Advisory Board for the State of Michigan, and various panels and committees of the National Academy of Engineering and the National Research Council, including the Highway Research Board.

Ference's public service also included the board of trustees of the Rand Corporation and the Carnegie Institution of Washington, and the board of governors of Wayne State University (1960 to 1964), with a term of chairman of the board in 1967. In 1968, by invitation of the National Academy of Sciences, he visited Taiwan as a member of the U.S. panel "Workshop on Applications of Science and Technology to Industrial Development

of Taiwan.” His deep commitment to public service also extended to chairing the 1968 Michigan Cancer Fund Drive and his membership on the Advisory Executive Committee to the Mayor's Committee for Economic Growth for the City of Detroit.

Ference was a member of numerous professional and scientific societies, including the American Physical Society, Institute of Electrical and Electronics Engineers (IEEE), the American Institute of Aeronautics and Astronautics, the Engineering Society of Detroit, Society of Automotive Engineers, director of Industrial Research and others. He served as director-at-large of the governing board of the American Institute of Physics and was a fellow of the IEEE and a member of the executive advisory committee of the Engineering Society of Detroit. In June 1969 he received an honorary Sc.D. degree from Kenyon College.

His career achievements and professional and public service activities led to his listings in *American Men and Women of Science*, *Who's Who in America*, *Who's Who in the Midwest*, *Who's Who in Engineering*, and the *World Who's Who in Commerce and Industry*.

At the time of his death, Mike Ference was survived by his wife, the former Margaret W. Wilfinger, of San Antonio; five children, Lois Finissly of Ann Arbor, Michigan, Carole Ference of Los Angeles, California, Michele F. Klussan and Richard H. Ference of Greenwich, Connecticut, and Michael Ference III of San Antonio, Texas; nine grandchildren; three great-grandchildren; and two brothers, Albert Ference of Tilia Park, Illinois, and Dr. Edward Ference of Springfield, Illinois.

The life of Michael Ference was a testament of a man dedicated to the pursuit and support of science and technology and their application to the national and industrial betterment. To this he added a deep commitment to public service and service to his government.

