



WILLIAM T. PECORA AWARD

Dr. M. Patrick McCormick

In recognition of his outstanding contributions to the pioneering advancements of both active and passive remote sensing of the Earth's atmosphere from space.

Dr. McCormick is an internationally recognized leader in the development and use of space-based remote sensing techniques to study the trace constituent chemical composition, aerosol loading, and cloud distributions of the Earth's troposphere and stratosphere. Through his leadership as the principal investigator of three important families of instruments--the Stratospheric Aerosol and Gas Experiment (SAGE), the Stratospheric Aerosol Measurement (SAM II), and the Lidar In-space Technology Experiment (LITE)--Dr. McCormick has demonstrated the power of space-based remote sensing and its contributions to the understanding of both the climatology of atmospheric constituents and particulates, and the intimate roles that they play in the chemistry of ozone depletion. The SAGE I (1979-1981) and SAGE II (since October 1984) measurements addressed such critical questions as the long-term variation in vertical profiles of ozone, the evolution of the stratospheric aerosol loading following large volcanic eruptions, the distribution of water vapor in the upper troposphere and lower stratosphere, and the climatology of aerosols and clouds in the upper troposphere. The SAM II instrument yielded unique measurements that were used to determine the distribution of polar stratospheric clouds over the Arctic and Antarctic regions, and the quantitative relationships between stratospheric aerosols and temperature.

Dr. McCormick has played a key role in the development of active remote sensing of the atmosphere using lidar. For over two decades, he has worked with national and international collaborators to develop the theory and application of this emerging technology, making lidar a fundamental technique for observing the atmosphere. He has encouraged his colleagues to apply this technique from the Earth's surface as well as from airborne and spaceborne platforms. The LITE instrument was the first space application of lidars to study clouds and aerosols in the Earth's atmosphere. Dr. McCormick has been instrumental in organizing a broad international community of atmospheric lidar scientists who have contributed to the scientific success of LITE by making many collaborative measurements.

In recognition of his many accomplishments, the Department of the Interior and the National Aeronautics and Space Administration take pleasure in granting the 1996 William T. Pecora Award to Dr. M. Patrick McCormick.

A handwritten signature in black ink, appearing to read "Bruce Babbitt".

Secretary of the Interior

A handwritten signature in black ink, appearing to read "Daniel J. Goldin".

Administrator
National Aeronautics and Space Administration