



WILLIAM T. PECORA AWARD

Dr. David A. Landgrebe

In recognition of his numerous significant contributions to the scientific, organizational, leadership, and service aspects of the field of remote sensing.

Dr. Landgrebe's involvement in remote sensing began in 1965 with the formation of the Laboratory for Applications of Remote Sensing (LARS) at Purdue University. Dr. Landgrebe has been the LARS program leader for data processing programs since the founding of LARS, and he was the Laboratory's director from 1969 to 1981. During that time, LARS became a key research center for NASA's LACIE and AgRISTARS projects, and its annual budget grew from approximately \$300,000 to over \$3 million. Since 1984, Dr. Landgrebe has devoted his efforts to research and teaching in the remote sensing disciplines and has served as director of the graduate program in Purdue's School of Electrical Engineering.

Dr. Landgrebe was one of the first scientists to show the value of multispectral pattern recognition techniques for data analysis. Applying his background in signal processing, he became a leader in developing optimal spectral filtering for multispectral pattern recognition. He and his students are currently pursuing studies of the effective use of high spectral dimensionality, which will be a feature of Earth Observing System sensors in the 1990's. He is the author or co-author of over 100 refereed journal articles, technical reports, and textbooks.

Dr. Landgrebe has also made significant contributions to committees, advisory boards, review panels, and technical conferences and symposia. His leadership role in this regard has been an important factor in the development of satellite remote sensing. In 1967-68 he chaired the Sensors and Data Systems Panel of the National Academy of Science's Study on Peaceful Uses of Earth-Oriented Satellites, which helped establish the basis for the design of Landsats 1, 2, and 3. In 1975 he chaired the NASA Thematic Mapper Working Group which defined the spectral bands and system parameters for the Thematic Mapper instrument that has successfully operated on Landsats 4 and 5 for more than 8 years.

His committee involvement has included the National Academy of Sciences Space Science Board's Committee on Data Management and Computation, NASA's Space Science and Applications Advisory Committee, the Earth System Sciences Committee, and the NASA Jet Propulsion Laboratory Imaging Spectrometer Science Advisory Group. He has recently been appointed to the NASA Space Station Science and Application Advisory Committee and the National Academy of Sciences and National Research Council Space Studies Board.

For these notable accomplishments, the National Aeronautics and Space Administration and the Department of the Interior take great pleasure in presenting the 1990 William T. Pecora Award to Dr. David A. Landgrebe.


Secretary of the Interior


Administrator, NASA