



WILLIAM T. PECORA AWARD

Christopher Owen Justice

For outstanding contributions toward understanding the Earth by means of remote sensing

Dr. Christopher O. Justice, Professor and Chair of Geographical Sciences, University of Maryland, has dedicated his career to remote-sensing education, research, and service. Dr. Justice has enriched the lives of many of today's leading remote-sensing scientists as an advisor, educator, and research director. As a researcher, he has made numerous scientific contributions to the study of land use and land cover change, fires, scientific uses of Moderate-Resolution Imaging Spectroradiometer (MODIS) and the Visible Infrared Imaging Radiometer Suite (VIIRS) data, and more recently, agricultural monitoring.

His career-long interest in land use and land cover change began with his Ph.D. research. He is a pioneer in the use of global daily polar orbiter satellite data for mapping and monitoring land cover and has provided the vision that led to the first global 1-km data Advanced Very High Resolution Radiometer (AVHRR) dataset. He leads Landsat-based, long-term monitoring of the Congo Basin, an effort that provides invaluable information on the state of the forests of central Africa.

Dr. Justice is perhaps best known for his research on fires. First using AVHRR, and now using MODIS and VIIRS data, he successfully developed algorithms for fire detection and burned area estimation. He spearheaded the development of a rapid response system that reveals the location of fires shortly after images are obtained. This system has provided enormous practical benefits in many parts of the world and is regularly used in the strategic deployment of fire-fighting assets.

Dr. Justice is now leading agricultural monitoring efforts. Along with colleagues from the National Aeronautics and Space Administration (NASA) and the U.S. Department of Agriculture, he leads the development of a system for forecasting production based primarily on MODIS time-series data. He is working on transitioning the system to use VIIRS data to ensure longer-term continuity.

As important as his scientific contributions, Dr. Justice has an exceptional record of service in national and international activities. He led the MODIS Land Team, co-founded the Global Observations of Forest Cover and Land Cover Dynamics, is leading efforts by the Group on Earth Observations to improve agricultural monitoring and forecasting, serves on the Landsat Science Team, and is the NASA Land Cover Land Use Change project scientist. He also provides leadership on many national and international advisory committees.

For these reasons, Dr. Christopher O. Justice is awarded the 2014 William T. Pecora Award.

Secretary
Department of the Interior

Administrator
National Aeronautics and Space Administration