



National Aeronautics and Space Administration  
NASA Research Announcements

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**Earth Science REASoN – Research, Education, and Applications Solutions Network,**  
*A Distributed Network of Data and Information Providers For Earth Science*  
*Enterprise Science, Applications and Education.*

**CAN-02-OES-01**  
**NASA Headquarters**

In pursuit of its objectives in Earth science research, applications and education, NASA is generating Earth system data of unprecedented quality and quantity and developing data processing and modeling capabilities to transform these data into products, information, and, ultimately, new knowledge of our planet. This Cooperative Agreement Notice (CAN) solicited proposals that will afford *solutions* for utilization of NASA assets and capabilities to support science findings and applications directed toward understanding and predicting the future of the Earth and developing policy and resource management decision support systems, and education tools to inspire and train current and future generations of scientists.

The projects funded under this CAN will join on-going NASA data and information projects to form the NASA Earth Science *Research, Education and Applications Solutions Network* (Earth Science *REASoN*). The research, applications and education elements of the NASA Earth science community share interests and requirements that can best be met through cooperative efforts that generate, access and distribute data, information and knowledge. These projects will unite previously disparate activities and programs under a unified management approach, taking full advantage of public and private resources and partnerships to derive maximum benefit for the public good, and consistent with the President's initiative on competitive sourcing.

**Ackerman, Steven** University of Wisconsin Madison

*Satellite Observations in Science Education*

**Ambrosia, Vincent** NASA Ames Research Center

*NASA Wildfire Response R&D, Applications and Technology Implementation*

**Armstrong, Richard** University of Colorado

*Detection of Change in Glacier Systems and Assessment of Their Importance  
Using the Global Land Ice Measurements from Space (GLIMS) Database*

**Atlas, Robert** NASA Goddard Space Flight Center

*A Cross-Calibrated, Multi-Platform Ocean Surface Wind Velocity Product for  
Meteorological and Oceanographic Applications*

**Bar-Sever, Yoaz** Jet Propulsion Laboratory

*Center for Real Time GPS Data and Environmental Products*

**Bordeaux, Rod** Sinte Gleska University

*A Geospatial Extension of the NASA Information Power Grid*

**Bosilovich, Michael** NASA Goddard Space Flight Center

*The Development of a Multiyear Global Assimilated Dataset for Weather and  
Climate Variability and Prediction Studies with a Focus on the Hydrological  
Cycle*

**Chambers, Lin** NASA Langley Research Center

*Extending NASA Earth Science Data Use to the K-12 and Citizen Scientist  
Communities*

**Collatz, George** NASA Goddard Space Flight Center

*Synthesizing, Validating and Distributing Science Community-Driven Carbon, Water and Energy Cycling Data Products for Research*

**Cornillon, Peter** University of Rhode Island

*A Thematic Data Portal to Satellite-Derived Ocean Surface Properties: Discovery and Access*

**Delnore, Victor** NASA Langley Research Center

*Synergistic Data Support of Atmospheric Chemistry Field Campaigns*

**Di, Liping** George Mason University

*NASA EOS Higher-Education Alliance: Mobilization of NASA EOS Data and Information Through Web Services and Knowledge Management Technologies for Higher-Education Teaching and Research*

**Dozier, Jeff** University of California Santa Barbara

*Multi-Resolution Snow Products for the Hydrologic Sciences*

**Falke, Stefan** Washington University

*Application of ESE Data and Tools to Particulate Air Quality Management*

**Golden, Keith** NASA Ames Research Center

*An Agent-Based Interface to Terrestrial Ecological Forecasting*

**Gregg, Watson** NASA Goddard Space Flight Center

*Development and Maintenance of An Ocean Color Time Series*

**Grossman, Dennis** NatureServe

*Delineating Ecological Systems and Advancing Decision Support Tools for Land Use Planning*

**Holben, Brent** NASA Goddard Space Flight Center

*The REASoN NASA CAN Support BAMGOMAS-Back Trajectories, Aeronet, Micropulse Lidar, GOcart, and Modis for Aerosol Synergism*

**Jensen, John** University of South Carolina

*Development of Remote Sensing-Assisted Natural and Technological Hazards Decision Support Systems*

**Kempler, Steven** NASA Goddard Space Flight Center

*Integrating NASA Earth Sciences Enterprise Data into Global Agricultural Decision Support Systems*

**Kummerow, Christian** Colorado State University

*A Cooperative Climate Rainfall Data Center*

**Kwok, Ronald** Jet Propulsion Laboratory

*Sea Ice Motion and Deformation: Unique High-Resolution Products from RADARSAT Data at the Alaska SAR Facility*

**Lambert, Susan** Kentucky Governor's Office for Technology

*Taking GIS and Remote Sensing to the People of Kentucky: Developing an Open GIS Data Viewing and Distribution System for Kentucky*

**Long, David** Brigham Young University

*Application and Enhancement of the Scatterometer Climate Record Pathfinder: Including Combined Active and Passive Data*

**Malaret, Erick** Applied Coherent Technology Corporation

*Sensor to User; Applying MODIS to Coastal Zone Management and K-12 Educational Outreach*

**Masuoka, Edward** NASA Goddard Space Flight Center

*A 0.05 Degree Global Climate/Interdisciplinary Long Term Data Set from AVHRR, MODIS and VIIRS Instruments*

**Morain, Stanley** University of New Mexico

*Converging NASA Mission Measurements and Products with the Rapid Syndrome Validation Program (RSVP) Decision Support System to Validate and Benchmark Public Health Medical Alerts and Early Warning Systems*

**Neilan, Ruth** Jet Propulsion Laboratory

*Inter-Service Data Integration for Geodetic Operations*

**Pickle, John** Museum of Science

*Measuring Vegetation Health*

**Reiff, Patricia** Rice University

*Immersive Earth: Teaching Earth Science by Fulldome Experiences and Hands-On Exhibits*

**Rossow, William** Goddard Institute for Space Studies

*Variability of Global Cloud Property Distributions from Diurnal to Decadal Time Scales: Continuation of Data Analysis for the International Satellite Cloud Climatology Project (ISCCP)*

**Schnase, John** NASA Goddard Space Flight Center

*The Invasive Species Data Service: Towards Operational Use of ESE Data in the USGS Invasive Species Decision Support System*

**Schuster, Glen** U.S. Satellite Laboratory

*Project VIEW [Virtual Interactive Environmental Worlds]*

**Sever, Thomas** NASA Marshall Space Flight Center

*A Regional Monitoring and Visualization System for the Meso-American Biological Corridor and Beyond*

**Skole, David** Michigan State University

*A Global Tropical Forest Information Center - TRFIC-2*

**Stow, Douglas** San Diego State University

*A Border Security Decision Support System Driven by Remotely Sensed Data Inputs*

**Townshend, John** University of Maryland College Park

*The Global Land Cover Facility*

**Watson, Frederick** Foundation of California State University Monterey Bay

*Systems Integration and Visualization of Yellowstone: an Earth Systems Research, Application, and Education Solution*

**Webb, Frank** Jet Propulsion Laboratory

*GPS Data Products for Solid Earth Science Research and Applications*

**Yunck, Thomas** Jet Propulsion Laboratory

*GENESIS-II: Data Fusion and Analysis for Multi-Sensor Earth System Science*

**Zlotnicki, Victor** Jet Propulsion Laboratory

*Grace Products for Hydrology and Oceanography*