

DEVELOP 2015 Spring Proposed Projects (Tentative)

As of October 3rd, 2014

Projects by Application Area

Agriculture

Uruguay Agriculture II: Comparing a Terra MODIS Land Surface Reflectance, MODIS-Vegetation products and Tropical Rainfall Measuring Mission – Precipitation Drought Index to Soil Water Balance and Testing a Replacement for TRMM (IRI)

Virginia Agriculture II: Utilizing NASA Earth Observations to Analyze the Vineyards in Virginia in Correlation with the Warming Climate (Wise)

Climate

Great Lakes Climate II: Monitoring the Impacts of Climate Change and Decreasing Water Levels on Wetlands in the Great Lakes Region of North America (Langley)

United States Climate: Identifying Smoke and Dust Layers observed with CALIPSO to Verify Atmospheric Transport Models (Langley)

Regional US Climate & Energy: Predicting heating degree days and natural gas demand in the Midwest Eastern US using climatic signals and the NCDC climate data records (NCDC)

Disasters

Global Disasters: Evaluation and Integration of Remotely Sensed and Surface Data for Regional Landslide Hazard Assessment and Forecasting (Goddard)

Idaho Disasters: Using NASA Earth Observations, Climate Model Outputs, and the RECOVER Decision Support System to Enhance Bureau of Land Management and Idaho Department of Lands Wildfire Management Capabilities (Goddard)

Western U.S. Disasters: Using GRACE-derived Water and Moisture Products as a Predictive Tool for Fire Response in the Western United States (JPL)

California Disasters II: Assessing the Effectiveness of Simulated HypsIRI Data for Use in USDA Forest Service Post-Fire Vegetation Assessment and Decision Support (Stennis)

East Africa Disasters: Utilizing NASA Earth Observations to Map Landslide Prone Area in the East African Rift Valley (Wise)

Peru Disasters III: Utilizing NASA Earth Observations to develop a probabilistic flood forecast for Peru (Wise)

United Arab Emirates Disasters: Utilizing NASA Earth Observations to monitor and map sand storms in United Arab Emirates (Wise)

Pakistan Disasters II: Implications of Natural Hazards on Food Security in Gilgit Baltistan, Pakistan (ICIMOD)

Ecological Forecasting

Arizona Ecological Forecasting: Coupling unmanned aerial systems with Landsat 8 imagery to refine, evaluate and compare risk assessments for invasive plants in the critical wetland habitat of Havasu National Wildlife Refuge (Fort Collins)

Colorado Ecological Forecasting: Reconstructing Forest Harvest History Using a Landsat Time Series (Fort Collins)

Colombia Ecological Forecasting III: Utilizing NASA Earth Observations to Enhance the Conservation Efforts of Colombia's Most Endangered Primate, the Cotton-top Tamarin (UGA)

Ocmulgee River Ecological Forecasting and Water Resources: Utilizing NASA EOS for forecasting land use change and wildlife disturbances along the Ocmulgee River Corridor (UGA)

Montana Ecological Forecasting: Utilizing NASA Earth Observations and Lidar to forecast Goshawk nesting and post fledgling habitat (Goddard)

New England Ecological Forecasting II: Utilizing Ground-Based Annual Survey and Habitat and Climate Classification Data to Predict Songbird Occupancy for New England Bird Conservation (Goddard)

Louisiana Ecological Forecasting: Utilizing NASA Earth Observations to Aid the Louisiana Department of Wildlife and Fisheries and Ducks Unlimited, Inc. in Quantifying Rates of Change in Select Habitats within the Catahoula Lake Area (Stennis)

Mississippi Ecological Forecasting: Using NASA Earth Observation Data to Locate Potential Habitat for the Mississippi Gopher Frog (Stennis)

Health & Air Quality

East Africa Health and Air Quality: Using a Flood Forecasting Tool Built from NASA Earth Observations and Creating Epidemiological Early Warning Systems to Aid Countries in East Africa (IRI)

Southwest Health & Air Quality and Climate: Assessing the Spread of Sin Nombre Virus Vector-Borne Disease Using NASA Earth Observations in the Southwestern and Midwestern States (Marshall)

Oceans

Oregon Oceans and Disasters: Assessment of Oregon's Coastal Erosion and Ocean Sediment Pollution Using NASA Earth Observations (Marshall)

Water Resources

Navajo Nation Water Resources: Assessing climate change impacts on ground water resource availability and drought vulnerability in the Navajo Nation using NASA Earth Observations (Ames)

Los Angeles Water Resources: Monitoring Streamflow in Los Angeles County using NASA Sensor Data (JPL)

North Carolina Water Resources: Utilizing NASA Earth Observations to Monitor Harmful Algal Blooms in the Albemarle Sound of North Carolina (Langley)

Colorado Water Resources: Utilizing NASA Earth Observations to Identify Water Quality Sampling Sites in Denver, Colorado (Langley)

Mississippi Water Resources II: Mapping Extent and Modeling Land Use of Critical and Endangered Watersheds to Assist Restoration Efforts and Conservation Planning Using NASA Earth Observations (Mobile)

Alabama Water Resources: Incorporating NASA Earth Observations in Spatial and Temporal Water Quality Monitoring of Alabama's Inland Waters (Marshall)

Mississippi Water Resources & Ecological Forecasting II: Utilizing NASA Earth Observations to Assist the Pascagoula River Audubon Center's Migratory and Coastal Bird Habitat Monitoring and Restoration Planning Activities (Stennis)

Georgia Inland Water Resources III: Developing a Cyanobacteria Detection Tool for Georgia Inland Waters Using NASA Landsat-8 OLI Data for Water Quality Protection and Restoration (UGA)

Projects by Location

Ames Research Center – Moffett Field, CA

Navajo Nation Water Resources: Assessing climate change impacts on ground water resource availability and drought vulnerability in the Navajo Nation using NASA Earth Observations (Ames)

USGS at Colorado State University – Fort Collins, CO

Arizona Ecological Forecasting: Coupling unmanned aerial systems with Landsat 8 imagery to refine, evaluate and compare risk assessments for invasive plants in the critical wetland habitat of Havasu National Wildlife Refuge (Fort Collins)

Colorado Ecological Forecasting: Reconstructing Forest Harvest History Using a Landsat Time Series (Fort Collins)

Goddard Space Flight Center – Greenbelt, MD

Global Disasters: Evaluation and Integration of Remotely Sensed and Surface Data for Regional Landslide Hazard Assessment and Forecasting (Goddard)

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International Research Institute for Climate and Society – Palisades, NY

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Jet Propulsion Laboratory – Pasadena, CA

Western U.S. Disasters: Using GRACE-derived Water and Moisture Products as a Predictive Tool for Fire Response in the Western United States (JPL)

Los Angeles Water Resources: Monitoring Streamflow in Los Angeles County using NASA Sensor Data (JPL)

Langley Research Center – Hampton, VA

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Marshall Space Flight Center – Huntsville, AL

Southwest Health & Air Quality and Climate: Assessing the Spread of Sin Nombre Virus Vector-Borne Disease Using NASA Earth Observations in the Southwestern and Midwestern States (Marshall)

Oregon Oceans and Disasters: Assessment of Oregon's Coastal Erosion and Ocean Sediment Pollution Using NASA Earth Observations (Marshall)

Alabama Water Resources: Incorporating NASA Earth Observations in Spatial and Temporal Water Quality Monitoring of Alabama's Inland Waters (Marshall)

Mobile County Health Department – Mobile, AL

Mississippi Water Resources II: Mapping Extent and Modeling Land Use of Critical and Endangered Watersheds to Assist Restoration Efforts and Conservation Planning Using NASA Earth Observations (Mobile)

NOAA National Climatic Data Center – Asheville, NC

Regional US Climate & Energy: Predicting heating degree days and natural gas demand in the Midwest Eastern US using climatic signals and the NCDC climate data records (NCDC)

Stennis Space Center – Stennis, MS

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University of Georgia – Athens, GA

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Wise County Clerk of Court's Office – Wise, VA

Virginia Agriculture II: Utilizing NASA Earth Observations to Analyze the Vineyards in Virginia in Correlation with the Warming Climate (Wise & PHB)

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United Arab Emirates Disasters: Utilizing NASA Earth Observations to monitor and map sand storms in United Arab Emirates (Wise)

Patrick Henry Building – Richmond, VA

Virginia Agriculture II: Utilizing NASA Earth Observations to Analyze the Vineyards in Virginia in Correlation with the Warming Climate (Wise & PHB)

International Centre for Integrated Mountain Development – Kathmandu, Nepal

Pakistan Disasters II: Implications of Natural Hazards on Food Security in Gilgit Baltistan, Pakistan (ICIMOD)