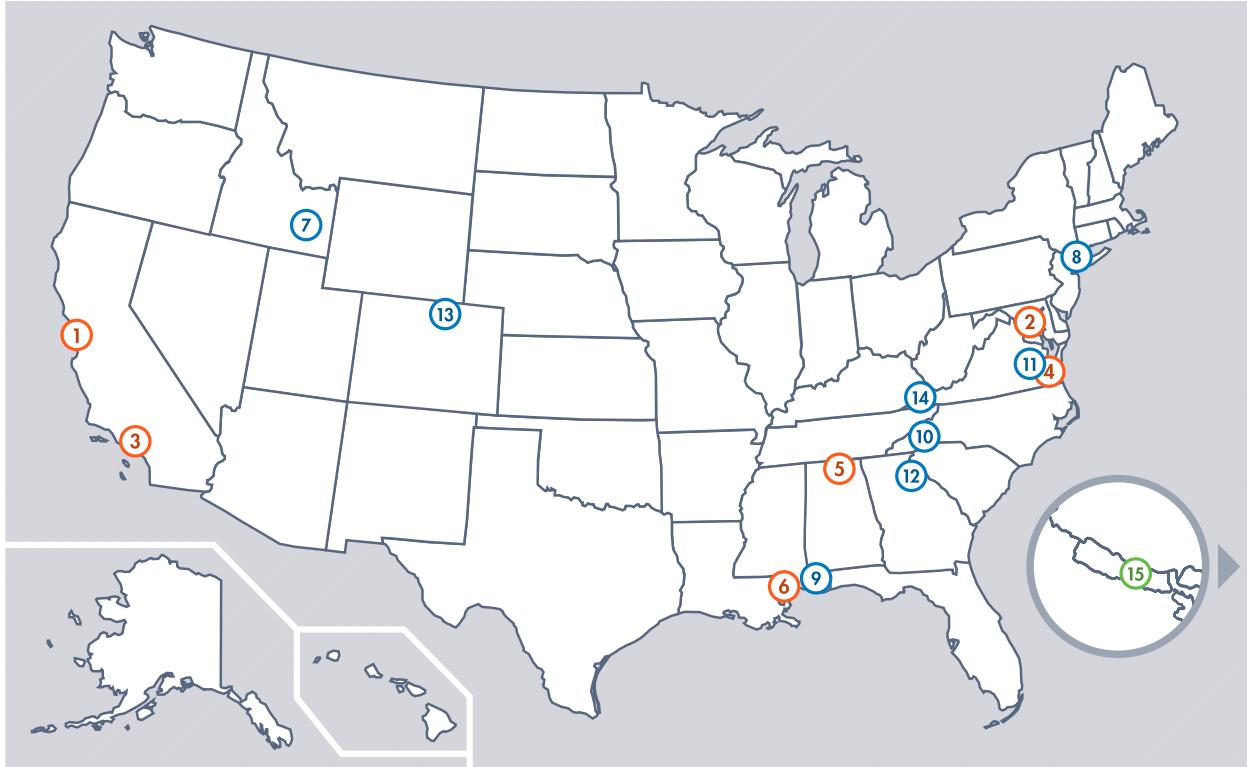




National Aeronautics and Space Administration



## NASA Center Locations

1. NASA Ames Research Center – Moffett Field, CA
2. NASA Goddard Space Flight Center – Greenbelt, MD
3. NASA Jet Propulsion Laboratory – Pasadena, CA
4. NASA Langley Research Center – Hampton, VA\*
5. NSSTC at NASA Marshall Space Flight Center – Huntsville, AL
6. NASA Stennis Space Center – Stennis, MS

\* The DEVELOP National Program Office is located at Langley.

## International Location

15. International Centre for Integrated Mountain Development – Kathmandu, Nepal

## Regional Locations

7. BLM at Idaho State University GIS TRC – Pocatello, ID
8. International Research Institute for Climate and Society – Palisades, NY
9. Mobile County Health Department – Mobile, AL
10. NOAA National Centers for Environmental Information – Asheville, NC
11. Patrick Henry Building – Richmond, VA
12. University of Georgia – Athens, GA
13. USGS at Colorado State University – Fort Collins, CO
14. Wise County and City of Norton Clerk of Court's Office – Wise, VA



# DEVELOP National Program

## Applied Sciences' Capacity Building

# What is DEVELOP?

## About DEVELOP

DEVELOP addresses environmental and public policy issues through interdisciplinary research projects that apply the lens of NASA Earth observations to community concerns around the globe. Bridging the gap between NASA Earth Science and society, DEVELOP builds capacity in both participants and partner organizations to better prepare them to address the challenges that face our society and future generations.

Teams of DEVELOP participants partner with decision makers to conduct rapid feasibility projects that highlight fresh applications of Earth observing missions, cultivate advanced skills, and increase understanding of NASA Earth Science data and technology.

## About Projects

DEVELOP projects apply Earth observations and remote sensing technology to the application areas of *Agriculture, Climate, Disasters, Ecological Forecasting, Energy, Health & Air Quality, Oceans, Water Resources, and Weather*. These projects highlight NASA Earth observation capabilities relative to environmental issues for enhanced policy and decision-making to improve life here on Earth.

## How to Get Involved

### ...as a DEVELOP Participant

Anyone 18 and over who is interested in pursuing experience in the Earth sciences and remote sensing, including currently enrolled students, recent college graduates, early and transitioning career professionals, and current and former U.S. Military service members are eligible to apply. Applicants must have a minimum 3.0 GPA on a 4.0 scale at their current or last institution of higher learning, and the ability to transport themselves to and from the DEVELOP location. Apply online at <http://develop.larc.nasa.gov/apply.html>

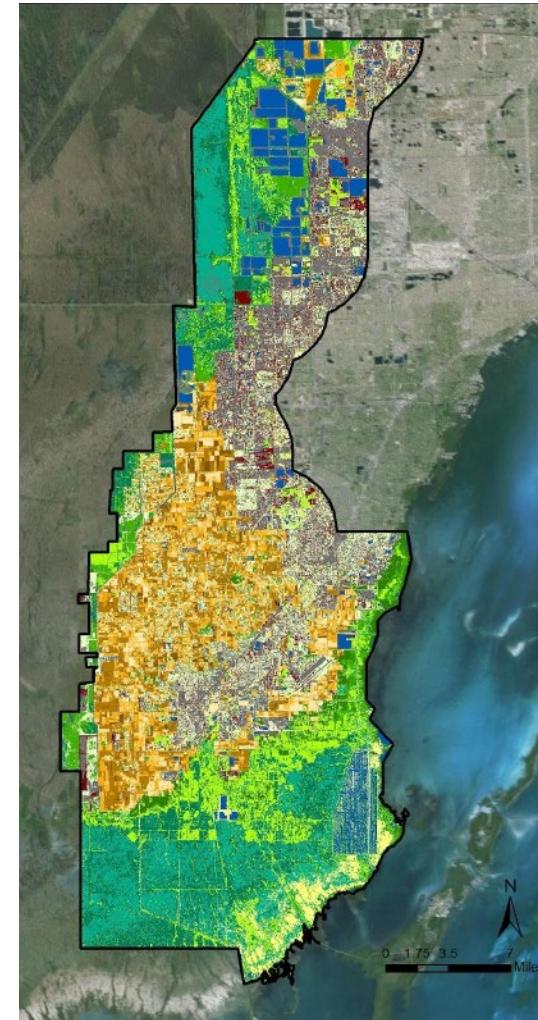
### ...as a DEVELOP End-User/Partner

Any organization that is making decisions related to environmental concerns and is interested in incorporating NASA Earth observations into that decision making process is welcome to contact DEVELOP to discuss potential collaboration. For more information on partnering with DEVELOP, please visit the DEVELOP website's Partner page at <http://develop.larc.nasa.gov/partners.html>

### ...as a DEVELOP Advisor

A broad spectrum of advising supports DEVELOP projects, ranging from remote sensing experts to specialists relating to specific project topics. If you are interested in volunteering your time advising a DEVELOP project, please contact the DEVELOP National Program Office to discuss potential opportunities at [NASA-DL-DEVELOP@mail.nasa.gov](mailto:NASA-DL-DEVELOP@mail.nasa.gov)

## Highlighted Project



- |                            |                           |
|----------------------------|---------------------------|
| ■ Agriculture (Very Dense) | ■ Pasture/Grass           |
| ■ Agriculture (Dense)      | ■ Wetlands (Wet Prairie)  |
| ■ Agriculture (Moderate)   | ■ Wetlands (Glades Marsh) |
| ■ Agriculture (Sparse)     | ■ Sand                    |
| ■ Very Dense Vegetation    | ■ Barren                  |
| ■ Dense Vegetation         | ■ Impervious              |
| ■ Shrubs                   | ■ Water                   |

## Miami-Dade Ecological Forecasting

Miami is a city of rapid and constant change, some of which is at the expense of its neighboring wetland area, the Everglades. As the largest subtropical ecosystem in the United States, the Everglades are located along avian migratory routes and are home to many endemic plant and animal species. The protection and restoration of this region is critical, not only for ecological reasons, but also for the protection of water recharge resources for future urban water consumption by the 2.5 million residents of Miami-Dade County. The Miami-Dade County Parks, Recreation and Open Spaces Department (MDC-PROS) has embarked on an ambitious planning effort in partnership with The Trust for Public Land to develop a Western Greenway system of trails and recreational destinations along the county's western edge. To assist with Greenway planning efforts, this project used NASA satellite imagery to derive a vegetation index and a land cover classification map which served not only as inputs for the Land-Use Conflict Identification Strategy (LUCIS) model, but also provided tree cover parameters which can help explore more specific design and greenway alignment. Additional land use information from a Miami-Dade County 2013 Land Use Management Application (LUMA) data set provided details for the model on current urban development. Conclusions drawn from the LUCIS model identified the most suitable land for recreation, conservation, and agritourism, with a particular focus on the southern segment, where the majority of agricultural land is located. This project contributed to decision support tools of MDC-PROS and The Trust for Public Land for planning green infrastructure corridors preserving the Everglades.

Source: NASA Terra ASTER, Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Geomapping, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community