

National Aeronautics and Space Administration



## **DEVELOP**FOR VETERANS

with NASA's Applied Sciences' Capacity Building

### **DEVELOP National Program**



Apply existing skills to a civilian environment



Bridge the gap between military service and your next career

Diversify resume and professional network with a respected civilian organization

**About Projects** 

#### What is 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.

DEVELOP projects apply Earth observations and remote sensing technology to application areas that highlight NASA Earth observation capabilities relative to environmental issues for enhanced policy and decision-making. These areas include:



Climate



Ecological Forecasting



Agricultu<u>re</u>



**Oceans** 



<u>Weather</u>



Cross Cutting



Disasters



Energy





Water Resources

#### **How to Apply**

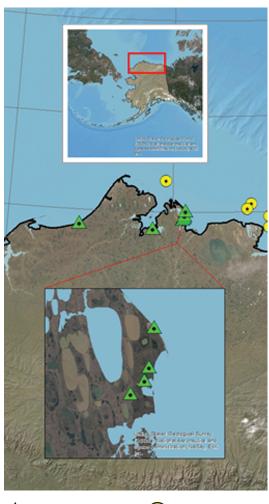
Anyone 18 and over who is interested in pursuing experience in the Earth sciences and remote sensing, including currently enrolled students, recent college graduates, early and transitioning career professionals, and current and former U.S. Military service members are eligible to apply. Applicants must 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 <a href="https://develop.larc.nasa.gov/apply.html">https://develop.larc.nasa.gov/apply.html</a>

#### **Have Questions?**

Please contact us with any questions about the program at NASA-DL-DEVELOP@mail.nasa.gov or (757) 864-3761.

# DEVELOP IMPACTFUL PROJECTS

Here is a recent project completed by DEVELOP



Natural Oil Seeps



Exploration Wells

#### Alaska Disasters

Sea ice is rapidly decreasing in the Arctic, encouraging a surge in maritime transportation and energy exploration in the region. This increase in traffic, combined with challenges unique to an Arctic environment, escalates the risk of an oil spill. In addition to human activity, a significant amount of oil enters the marine environment through natural oil seeps. The United States Coast Guard (USCG) is the lead response agency for oil spills in U.S. coastal waters. Ancillary responsibilities include monitoring natural oil seeps in order to rule out anthropogenic sources. Complexities inherent to an Arctic oil spill - ice-infested waters, strong currents, cloud cover, and extended darkness - require a combination of sensors operating across the electromagnetic spectrum to accurately portray the incident.

NASA DEVELOP partnered with the USCG Auxiliary University Program to create a Pythonbased tool that automates access to optical and radar imagery. The project incorporated optical data from the NASA Earth Observing Systems - Aqua, Terra and Landsat 8 - and radar data from the European Space Agency platform, Sentinel-1. Additionally, the study constructed a natural oil seeps map using ArcGIS 10 by spatially enabling data discovered in historical literature. The resultant dataset was injected into the interactive Arctic **Emergency Response Management** Application to facilitate fast visualization and coordination for emergency responders. These products will be used by the USCG to improve strategic oil spill response planning for the northern coast of Alaska.

DEVELOP participants work on dozens of innovative and impactful projects across the country and around the world each year.

### CURRENT

Interested? Apply to participate at one of the DEVELOP locations. For more information on eligibility and a full list of locations, visit us online at www.develop.larc.nasa.gov/about.

