

Opportunity Title: Aerosol and Cloud Remote Sensing using Lidar

Opportunity Reference Code: 0006-NPP-NOV23-GSFC-EarthSci

Organization National Aeronautics and Space Administration (NASA)

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Application Deadline 11/1/2023 6:00:59 PM Eastern Time Zone

Description New techniques and instrumentation are developed and applied for remote atmospheric measurements. Current research includes cloud and aerosol observations by space-based lidar such as the Cloud-Aerosol Transport System (CATS) on the ISS (McGill and Yorks), development of future space lidar systems and advanced data processing algorithms (CATS, ACE, others), instrumentation operated from high-altitude NASA research aircraft (Cloud Physics Lidar, airborne HSRL and Doppler wind lidar, new systems in development), and a global network of ground based lidars (MPLNET, Welton). Active lidar sensing is employed in conjunction with advanced visible and IR sensors, and other atmospheric radiation measurements in atmospheric field programs. Development and application of new lidar technology is emphasized. This technology includes Doppler lidar for wind measurements, and development of new cloud-aerosol lidar techniques. We investigate and interpret observations from multiple sensors to characterize the physical, radiative, and dynamical cloud and aerosol properties. Mobile, ground-based, and airborne lidars are available for field campaign studies of clouds and aerosols.

Location:

Goddard Space Flight Center
Greenbelt, Maryland

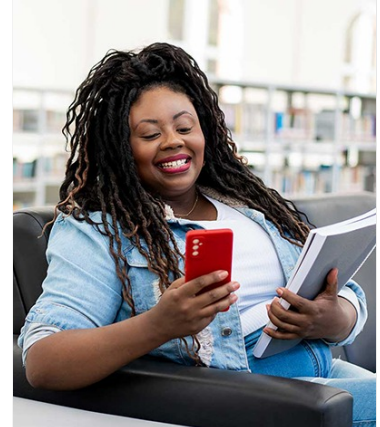
Field of Science:Earth Science

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Applications with citizens from Designated Countries will not be

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accepted at this time, unless they are Legal Permanent Residents of the United States. A complete list of Designated Countries can be found at: <https://www.nasa.gov/oiiir/export-control>.

Eligibility is currently open to:

- U.S. Citizens;
- U.S. Lawful Permanent Residents (LPR);
- Foreign Nationals eligible for an Exchange Visitor J-1 visa status; and,
- Applicants for LPR, asylees, or refugees in the U.S. at the time of application with 1) a valid EAD card and 2) I-485 or I-589 forms in pending status

Eligibility Requirements

- **Degree:** Doctoral Degree.