Opportunity Title: Tropospheric Chemistry
Opportunity Reference Code: 0007-NPP-NOV23-LRC-EarthSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0007-NPP-NOV23-LRC-EarthSci

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

Description This research opportunity focuses on improving the understanding of tropospheric composition. High priority is placed on investigating transport and photochemical evolution of regional pollution as it is incorporated into the global atmosphere on a wide range of spatial and temporal scales. NASA conducts frequent airborne campaigns that support this goal through integrating satellite observations, ground- and aircraft-based measurements, and air quality models. Data analyses and modeling efforts focus on validation and improved interpretation of satellite/airborne/ground-based tropospheric composition observations for their utility in research and monitoring of surface air quality. Research is not solely limited to NASA observations, as field campaigns routinely involve cooperation between NASA, other state/federal/international agencies, and other academic research partners.

General research topics include data analysis and/or modeling of recent airborne campaigns to investigate the impact of anthropogenic or natural emissions on tropospheric composition, understand the drivers of urban air pollution (primarily ozone and $PM_{2.5}$), and improve the interpretation of satellite and other remote sensing observations (e.g., GCAS, Pandora), with emphasis on the use of new geostationary satellites (GEMS, TEMPO, SENTINEL-4), for understanding surface air quality.

Location:
Langley Research Center
Hampton, Virginia

Field of Science: Earth Science

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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,

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- 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.