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Opportunity Title: Observations and analysis of trace gases in the troposphere and lower stratosphere
Opportunity Reference Code: 0160-NPP-MAR26-GSFC-EarthSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0160-NPP-MAR26-GSFC-EarthSci

How to Apply All applications must be submitted in Zintellect

Please visit the NASA Postdoctoral Program website for application instructions and requirements: How to Apply | NASA Postdoctoral Program (orau.org)

A complete application to the NASA Postdoctoral Program includes:

1. Research proposal
2. Three letters of recommendation
3. Official doctoral transcript documents

Application Deadline 4/2/2026 6:00:59 PM Eastern Time Zone

Description **About the NASA Postdoctoral Program**

The NASA Postdoctoral Program (NPP) offers unique research opportunities to highly-talented scientists to engage in ongoing NASA research projects at a NASA Center, NASA Headquarters, or at a NASA-affiliated research institute. These one- to three-year fellowships are competitive and are designed to advance NASA's missions in space science, Earth science, aeronautics, space operations, exploration systems, and astrobiology.

Description:

This opportunity is closed to applicants who are Senior Fellows (5-years or more past PhD).

NASA's Atmospheric Composition focus area studies the variations in and processes that affect aerosols, clouds, and trace gases, which influence climate, weather, and air quality. A combination of airborne observations, satellite information, and numerical modeling is required to understand how atmospheric composition is changing, why it is changing, and the consequences of such changes for air quality and climate.
This research project focuses on airborne in situ measurements of trace gases, such as formaldehyde (HCHO), nitrogen dioxide (NO2), and ozone (O3), from a variety of NASA aircraft (WB-57, ER-2, DC-8, etc.). Such observations complement the capability of satellite missions, such as AURA and TEMPO, by

1. validating satellite retrievals with traceable laboratory calibrations, and
2. providing chemical insight into the drivers of variability in trace gases throughout the troposphere and lower stratosphere.

Potential research foci include:

- Convective transport and impacts on atmospheric composition or cirrus formation

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- Emission and chemical evolution of biomass burning plumes
- Surface-atmosphere exchange of hydrocarbons, ozone, and NO2
- Global atmospheric oxidizing capacity
- Synergy between airborne and satellite observations

Location:
Goddard Space Flight Center
Greenbelt, Maryland

Field of Science: Earth Science

Advisors:
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Applications with citizens from Designated Countries will not be 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/oiir/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

Questions about this opportunity? Please email npp@orau.org

Point of Contact Mikeala

Eligibility Requirements
- **Degree:** Doctoral Degree.