

Opportunity Title: Improving our understanding of GHGs through observations and analysis

Opportunity Reference Code: 0313-NPP-MAR26-GSFC-EarthSci

Organization National Aeronautics and Space Administration (NASA)

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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).

The Atmospheric Composition focus area of the NASA Earth Science Division aims to better understand the processes that affect air quality, weather, and climate. This pursuit is achieved through modeling and observations (satellite, airborne, and ground-based) of atmospheric composition and investigating how the atmosphere interacts with the biosphere and oceans, particularly in a changing climate. Observations and modeling of climate-forcing trace gases, such as CO₂ and CH₄, help us understand the sources of anthropogenic and non-anthropogenic climate forcing emissions and how those emitted gases interact with the earth system.

This research project focuses on collecting observations of climate-forcing trace gases and their co-emitted species (e.g., NO₂, CO) using ground-based remote sensing and aircraft in situ measurements. These measurements complement current and future satellite observations (e.g., OCO-2, OCO-3, GOSAT-2, GHGSat, CO₂M, TEMPO, GeoXO), as well as flux tower and ground-based in situ networks, to improve our understanding of emissions sources and atmosphere-biosphere interactions.



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Potential research topics include:

- Validation of total column satellite data products
- Validation of inverse modeling inventories
- Evaluation of urban fluxes and emission sources
- Evaluation of natural system fluxes
- Improving instrumentation and observational strategies

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@oraui.org

Qualifications Experience with acquiring and/or analyzing data from remote sensing (satellite or ground-based) or in situ (airborne or ground-based) instrumentation.

Expertise in data analysis software, such as MATLAB, Python, IGOR, IDL, etc.

Demonstrated ability to disseminate research findings through oral and written communications.

Point of Contact [Mikeala](#)

Eligibility Requirements • **Degree:** Doctoral Degree.