

**Opportunity Title:** Weather and Climate Research in the Latest GMAO

Reanalyses

**Opportunity Reference Code:** 0297-NPP-NOV24-GSFC-EarthSci

**Organization** National Aeronautics and Space Administration (NASA)

**Reference Code** 0297-NPP-NOV24-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** 11/1/2024 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 U.S. and non-U.S. 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:**

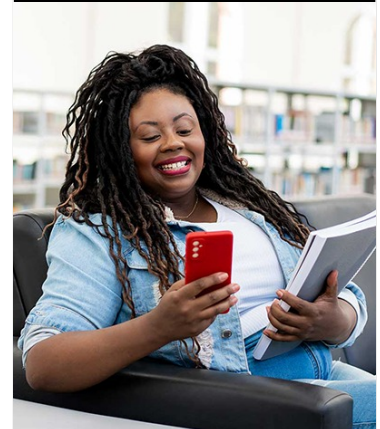
The GMAO is in the process of releasing a new reanalysis, and expecting development and release of MERRA-3 within a few years. This post-doctoral opportunity will be focused on evaluating the new reanalyses in the context of critical weather and climate physical processes represented in the Earth System reanalysis. Potential research topics to be considered in this position:

1. Earth Energy Imbalance - The influence of observations in the water and energy budgets
2. Regional closure of the water and energy cycles
3. Developing quantitative uncertainty, through the analysis ensemble spread
4. Use of reanalysis in applied science sectors (e.g. Energy, Agriculture, Environmental Justice)

The research will require analysis of large data sets in NASA high performance computing.

**Field of Science:** Earth Science

**Advisors:**



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**Questions about this opportunity?** Please email [npp@orau.org](mailto:npp@orau.org)

**Qualifications** Potential candidates should have a Ph.D. in climate science or a related field, including other desirable qualifications:

Strong data analysis skills, including experience working with large climate datasets.

Programming experience, particularly in Python, and proficiency with UNIX platforms. Matlab, IDL and/or GrADS use are favorable. as well.

Experience with peer review publications is strongly encouraged (e.g. publishing ones PhD dissertation)

**Eligibility Requirements**

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Doctoral Degree.