

**Opportunity Title:** Geostationary ocean color satellite investigation of coastal biogeochemical fluxes and rates

**Opportunity Reference Code:** 0267-NPP-MAR26-GSFC-EarthSci

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

**Reference Code** 0267-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** 3/1/2026 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 objectives of this research opportunity are to apply high-frequency sequential geostationary ocean color images using the Korean GOCI and GOCI-II satellite sensor data (from hourly daytime observations to multiple day image sequences) as proxies for NASA's upcoming Geostationary Littoral Imaging and Monitoring Radiometer (GLIMR) mission, (1) to quantify surface water velocities and trajectories of materials (a) to quantify the fluxes of suspended sediments and colored dissolved organic matter from river outflows to coastal ocean and beyond, (b) to track the formation and evolution of phytoplankton including harmful algal blooms, (c) to quantify fluxes of carbon pools and suspended sediments from event-based processes such as hurricanes and (2) to discern changes in ocean color properties to quantify biogeochemical processes such as phytoplankton production, photochemistry, microbial degradation of organic matter. The GLIMR science investigation with its hyperspectral radiometer in geostationary orbit will enable broad-scale quantification of rapid changes in phytoplankton growth rate and community composition, fluxes of materials from land to ocean and also enable tracking the progression of oil spills and harmful algal blooms to mitigate their impacts on human health, coastal ecosystem health, and economy. GLIMR will collect multiple frames (each 300 m x 300 m across a length of 920 km north to south) over 0.76 seconds of integration time to produce a Field of View scene (~300 m x ~300 m across a length of 920 km north to south). These frames will overlap as GLIMR scans across various regions such as the Gulf of Mexico. An additional objective entails development of approaches to sharpen GLIMR's image quality to support the two primary science objectives. To



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accomplish this additional objective, development and evaluation of image processing algorithms are sought to sharpen the spatial resolution of GLIMR's spectrometer observations.

**Field of Science:** Earth Science

**Advisors:**

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**Eligibility is currently open to:**

- U.S. Citizens;
- U.S. Lawful Permanent Residents;

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

**Point of Contact** [Mikeala](#)

**Eligibility** • **Citizenship:** LPR or U.S. Citizen

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