

**Opportunity Title:** Wildland Fire Science: Proactive Fire Science and Impacts on Air Quality, Climate, and Society

**Opportunity Reference Code:** 0045-NPP-JUL25-LRC-EarthSci

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

**Reference Code** 0045-NPP-JUL25-LRC-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** 7/1/2025 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:**

Wildland fires are a natural component of the Earth system, and these fires are necessary for ecosystem health and to decrease vegetative fuels on landscapes. However, due to a combination of climate change and human land management, extreme uncontrollable wildfires have increased across our landscapes, resulting in fires that more severely burn ecosystems, threaten communities, and emit smoke that is hazardous to human health. To enhance our understanding and predict the impact of wildland fire and smoke on climate systems, landscapes, and human health, our goals are to: quantify the balance of prescribed and wildfires relative to landscape management and human health; define the relevant historical and emerging patterns of fire that are pertinent to today and to our future; and use these relationships to elucidate the magnitude and composition of fire emissions. In our group, we investigate the patterns of fire on landscapes, vegetation and fuels, fire weather, and diurnal fire emissions using a combination of satellite data (e.g., VIIRS, MODIS, Sentinel, GOES, Planet), modeling, in-situ ground observations, and airborne measurements. Our focus is on the research and science that is the basis of actionable strategies that support and enable our stakeholder and partner communities. Our goal is to work with our partners to co-develop useful information and tools for both wildland fire management and scientific communities. An opportunity exists for qualified postdoctoral candidates to contribute to the NASA Wildland



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Fire Initiative through targeted research on fire diurnal cycle variability, fire-spread rates, burned area, fuel composition and moisture, and fire weather. Competitive candidates are expected to have some combination of the following skills: some background in wildland fire and smoke; advanced data analysis capabilities, experience working with remote sensing and in-situ data, and proficiency with MATLAB, Python, R, and/or ArcGIS.

**Location:**

Langley Research Center  
Hampton, Virginia

**Field of Science:** Earth Science

**Advisors:**

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

**Qualifications** Applicants should have a PhD in: Environmental Science, Earth System Science, Atmospheric Science, Physics, or a related field. We seek a creative and highly motivated person with strong scientific background and excellent oral and written communication skills in English.

The candidate must be detail oriented, be able to work both independently and in close collaboration with others. Prior experience of working with wildland fire, modeling, or existing satellite data is regarded as merits. The candidate also should have an interest in working on an applied science project, where the goal is to work with partners.

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

**Eligibility** • **Citizenship:** LPR or U.S. Citizen  
**Requirements** • **Degree:** Doctoral Degree.