

**Opportunity Title:** Modeling and Analysis of Upper Atmospheric Composition and Related Processes

**Opportunity Reference Code:** 0081-NPP-NOV23-ARC-EarthSci

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

**Reference Code** 0081-NPP-NOV23-ARC-EarthSci

**Application Deadline** 11/1/2023 6:00:59 PM Eastern Time Zone

**Description** The Atmospheric Dynamics group in the Atmospheric Sciences Branch of the Earth Science Division at NASA Ames Research Center focuses on research of the upper atmosphere - mainly the upper troposphere and stratosphere (UT/S) - and its role in climate. We use a combination of satellite data, high-altitude aircraft measurements, and models to investigate variations in and processes that impact clouds, aerosols, and trace gases in the UT/S. In particular, the relationship between atmospheric deep convection, clouds, and water vapor in the tropical upper troposphere and lower stratosphere is a key topic under investigation. The objective of our research is to improve our ability to predict how future changes in climate will affect atmospheric composition (and vice versa).

We also have a long history of providing meteorological and flight planning support for NASA airborne missions dating back to the 1980s. Our most recent involvement is participation in NASA campaigns that target the summer monsoons: Dynamics and Chemistry of the Summer Stratosphere (DCOTSS) and Asian Summer Monsoon Chemical and Climate Impact Project (ACCLIP). High-resolution temporal and spatial measurements of atmospheric composition obtained from airborne campaigns are critical for process-level studies and for validating satellites and models.

The prospective candidate will conduct research that advances our understanding of UT/S composition and related processes. Candidates with interest in the impact of summer monsoon systems on upper atmospheric composition are especially encouraged to apply at this time. Experience with atmospheric models is advantageous. The prospective candidate may be involved in forecasting and flight planning for NASA airborne missions; occasional deployment travel may be necessary.

Our group is committed to, and benefits from, the full and equitable participation of diverse members. We encourage qualified candidates to apply regardless of age, gender identity and expression, race, religious and spiritual beliefs, ethnicity, cultural identity, or sexual orientation

**Position Requirements:**

- Ph.D. in the physical sciences, preferably in the field of Chemistry, Physics, or Atmospheric Sciences
- Experience working with atmospheric data and/or models
- Strong analytical skills and computer programming ability
- Good written and verbal communication skills

**Location:**

Ames Research Center  
Moffet Field, California



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**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/oijr/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

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