Research Associate II or III  
(Aviation Weather Testbed Development Meteorologist)  
24-111

Position Summary:
The Aviation Weather Center (AWC) in Kansas City, Missouri, continues to pursue and fulfill its mission of delivering timely, consistent, and accurate weather information for the world airspace system by focusing on its vision of being the trusted authority and leading innovator for aviation weather intelligence. Much success and growth in the latter part of that vision has been achieved through the work of the AWC’s Aviation Support Branch (ASB). The ASB is responsible for providing support to the aviation research to operations processes and developing new aviation weather based technologies by way of the Aviation Weather Testbed (AWT), maintaining and improving server and networking infrastructure within the AWC, and supporting the AviationWeather.gov website.

The ASB has a long history of facilitating and transitioning research into operations for the NWS to support the Federal Aviation Administration (FAA), the International Civil Aviation Organization (ICAO), NWS aviation entities, and other aviation partners and customers. Contained within AWC, the AWT provides the virtual and physical infrastructure and facilities to develop, test, and evaluate new and emerging scientific techniques, technologies, products, and services. The AWT actively engages in the research-to-operations (R2O) process by supporting applied research, verifying the quality and scientific validity of new techniques and products, and providing a common venue for forecasters, researchers, and end users to engage in developing and testing state-of-the-art aviation weather services.

As a collaborating partner of the AWC, employees of the Cooperative Institute for Research in the Atmosphere (CIRA) at Colorado State University (CSU) are embedded within the AWT to assist in supporting, developing, testing, and transitioning aviation weather research into NWS operations. The individual in this position will be an employee of CIRA-CSU and will report to the CIRA Science Team Lead at the AWC. As a member of the ASB team within the AWT, the individual in this position will participate in developing, evaluating, or implementing new aviation forecast techniques, technologies or products and will work closely with NWS federal collaborators to transition experimental aviation weather products to the AWC, including both AWC Operations and also the AWC’s website, www.aviationweather.gov. The individual in this position will be expected to work onsite in Kansas City, but may negotiate a hybrid office/telework schedule with a minimum of two days per week in the office. The individual in this position may be required to provide occasional on-call 24×7 and/or emergency operational support that requires response within 60 minutes and therefore must live within a 60-minute commute to the AWC.

This position requires a NOAA Common Access Card (CAC) ID badge for computer access and therefore is open ONLY to citizens of the United States and lawful permanent residents in possession of a physical USCIS “Green Card.” This position is located in a federal facility in Kansas City, MO and requires the ability to pass a National Agency Check with Inquiries (NACI) Tier 1 federal background check for building access. This position will be classified Research Associate II or III according to the credentials of the finalist selected for hire as follows:

- For position title Research Associate II: Bachelor’s degree in Meteorology or related scientific field plus 3 years of experience in applied meteorology OR Master’s degree in Meteorology or related scientific field
- For position title Research Associate III: Bachelor’s degree in Meteorology or related scientific field plus 5 years of experience in applied meteorology OR Master’s degree in Meteorology or related scientific field plus 2 years of experience in applied meteorology OR a PhD in Meteorology or related scientific field.

Decision Making:
The individual in this position will work both independently and collaboratively with developers and stakeholders to set priorities and meet requirements for new products and technologies within the AWT. For position title
RAIII, the individual in this position will work collaboratively to implement yearly planning for relevant research-to-operations (R2O) tasks and lead the development and evaluation of new products or services within the AWT.

**Essential Job Duties:**

Meteorological Tools and Process Development 70%
- Participate in engineering and executing interactive AWT experiments partnering with other portions of the NWS, the FAA, research institutions, and private industry;
- Develop and support aviation weather services, capabilities, and tools within an assortment of NWS systems [e.g., Advanced Weather Interactive Processing System (AWIPS), NOAA Integrated Dissemination Program (IDP), AWC data center, NOAA Weather and Climate Operational Supercomputing System (WCOSS)];
- Interact with NWS aviation stakeholders to propose, develop, and evaluate forecast and dissemination processes that are operationally viable;
- Design, evaluate, and implement new forecast techniques and aviation impact diagnostics using operational observations and forecast models, particularly emerging high-resolution models and ensemble forecast systems;
- Assist in managing and ingesting large meteorological data sets to support analysis and processing of experimental products, algorithms, techniques, and decision support tools;
- Create and facilitate training to support operationalization of new or updated tools, data, and processes.

Collaborative Research Coordination 20%
- Help with applied operational research to assist the NWS in developing solutions to the meteorological and air traffic requirements for the FAA;
- Help the AWT by contributing to formal scientific publications and attending off-site conferences, symposia, and aviation weather-related outreach events.

Documentation and Reporting 10%
- Prepare software and system documentation in collaboration with team members;
- Contribute to and deliver status reports as required by the project sponsor and CIRA;
- Prepare and deliver technical talks and presentations, as requested.

**Required Qualifications:**

In your cover letter, please specifically address EACH required qualification as it relates to your experience. A cover letter that fails to address the required qualifications for this position may not be considered further after review by the search committee.
- Must be a citizen of the United States or Lawful Permanent Resident with a physical USCIS “Green Card.”
- Ability to pass a National Agency Check with Inquiries (NACI) federal background check and receive a NOAA Common Access Card (CAC) ID badge;
- For position title Research Associate II: Bachelor’s degree in Meteorology or related scientific field plus 3 years of experience in applied meteorology OR Master’s degree in Meteorology or related scientific field.
- For position title Research Associate III: Bachelor’s degree in Meteorology or related scientific field plus 5 years of experience in applied meteorology OR Master’s degree in Meteorology or related scientific field plus 2 years of experience in applied meteorology OR a PhD in Meteorology or related scientific field.
- Demonstrated scientific programming experience with a scripting or data processing language (e.g., Python, Perl, PHP, MATLAB, Linux/Unix shell scripting);
- Demonstrated experience with Linux/Unix Operating Systems.

**Preferred Qualifications:**

In your cover letter, please specifically address the applicable preferred qualifications for this position. A cover letter that fails to address the preferred qualifications for this position may not be considered further after review by the search committee.
- Proficiency with Python programming;
- Demonstrated ability to work well in a dynamic, team environment;
- Experience with at least one compiled language (e.g., C, C++, FORTRAN, or Java);
● Experience with web application technologies such as HTML, CSS and JavaScript;
● Experience handling and interrogating large geophysical data sets;
● Experience with geophysical data visualization tools (e.g., AWIPS, N-AWIPS, matplotlib, etc.);
● Experience working with weather forecast models and atmospheric data;
● Knowledge of environmental and meteorological data formats (e.g. GRIB2, NetCDF);
● Familiarity with principles of weather forecasting;
● Familiarity with code management tools (e.g., svn, git).

Annual Salary Range:
Commensurate with experience and qualifications as follows:
● Research Associate II - $65,000 - $85,000
● Research Associate III - $85,000 - $100,000

Background Check:
Colorado State University strives to provide a safe study, work, and living environment for its faculty, staff, volunteers and students. To support this environment and comply with applicable laws and regulations, CSU conducts background checks for the finalist before a final offer. The type of background check conducted varies by position and can include, but is not limited to, criminal history, sex offender registry, motor vehicle history, financial history, and/or education verification. Background checks will also be conducted when required by law or contract and when, at the discretion of the University, it is reasonable and prudent to do so.

Commitment to Diversity and Inclusion:
Reflecting departmental and institutional values, candidates are expected to have the ability to advance the Department’s commitment to diversity and inclusion.

Application Deadline:
Applications will be accepted until the position is filled; however, to ensure full consideration applications should be submitted by 11:59 PM MT on Monday, August 19, 2024. For full position announcement and to apply, please click “Apply to this Job” at the following website: https://jobs.colostate.edu/postings/147364. Applications must be submitted via online portal. We will not accept materials sent via email or other mode. NOTE: In your cover letter, please specifically address the required and preferred qualifications of this position. A cover letter that fails to address the qualifications of this position may not be further considered after review by the search committee. Likewise, an online application with a generic cover letter or missing a cover letter, and/or an application that does not include current/correct reference contact information may not be further considered after review by the search committee.

Colorado State University is committed to providing an environment that is free from discrimination and harassment based on race, age, creed, color, religion, national origin or ancestry, sex, gender, disability, veteran status, genetic information, sexual orientation, gender identity/expression, or pregnancy in its employment, programs, services and activities, and admissions, and, in certain circumstances, marriage to a co-worker. The University will not discharge or in any other manner discriminate against employees or applicants because they have inquired about, discussed, or disclosed their own pay or the pay of another employee or applicant. Colorado State University is an equal opportunity and equal access institution and affirmative action employer fully committed to achieving a diverse workforce and complies with all Federal and Colorado State laws, regulations, and executive orders regarding non-discrimination and affirmative action. The Office of Equal Opportunity is located in 101 Student Services. The Title IX Coordinator is the Director of the Office of Title IX Programs and Gender Equity, 123 Student Services Building, Fort Collins, CO 80523-0160, (970) 491-1715, titleix@colostate.edu. The Section 504 and ADA Coordinator is the Director of the Office of Equal Opportunity, 101 Student Services Building, Fort Collins, CO 80523-0160, (970) 491-5836, oeo@colostate.edu. The Coordinator for any other forms of misconduct prohibited by the University’s Policy on Discrimination and Harassment is the Vice President for Equity, Equal Opportunity and Title IX, 101 Student Services Building, Fort Collins, Co. 80523-0160, (970) 491-5836, oeo@colostate.edu. Any person may report sex discrimination under Title IX to the Office of Civil Rights, Department of Education.