The National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS) Operations Proving Ground (OPG) is located in Kansas City, Missouri. It is part of a network of testbed facilities sponsored by the NOAA. These organizations facilitate the orderly transition of applied research capabilities to operational implementation. This transition is accomplished through rigorous developmental testing and pre-deployment evaluation for operational readiness and sustainability. The unique niche filled by the OPG is to represent NWS field offices in the research-to-operations (R2O) process. The OPG facility has developed the capability to configure itself as any NWS Weather Forecast Office (WFO), or to emulate operational practices for up to five different WFOs simultaneously. Through the OPG, a new tool, data set, forecast technique, or decision aid can be integrated into a WFO production environment to evaluate whether it adds value to the forecast process with no appreciable negative impact on existing systems and practices. Many of the experiments and evaluations executed by the OPG have focused on application of satellite imagery, data, and products to improve operational analysis and forecasting. The advent of the Geostationary Operational Environmental Satellite system (GOES)-R era has resulted in forecasters having near real-time access to satellite data at higher spatial, temporal, and spectral resolutions than ever before. Thus, the opportunity to capitalize on this rich resource, and find ways to fuse these data with other tools to enhance insight and improve decision-making, are manifold.

The Cooperative Institute for Research in the Atmosphere (CIRA) at Colorado State University (CSU) is a collaborating partner with the OPG as part of the Satellite Proving Ground, where both operational and experimental satellite products are tested and evaluated for their capacity to improve NWS operations. CIRA proposes to support the expanding use of satellite-based weather products by placing a CIRA satellite researcher at the NWS OPG in Kansas City, MO.

The individual in this position will report to the AWT Meteorologist/Developer Team Lead and work closely with CIRA researchers, scientists at the NOAA/National Environmental Satellite, Data, and Information Service (NESDIS)/The Center for Satellite Applications and Research (STAR), the GOES-R Program Office, and the staff at the OPG and provide leadership, satellite expertise, and meteorological support for the Satellite Proving Ground efforts based at the OPG. Specifically the individual in this position will actively pursue the testing of new satellite products and decision aids. This endeavor will entail activities focused on maximizing the forecast value of satellite data and products, particularly activities centered on NWS WFO operations to improve forecast and warning services to the nation. The individual in this position will interact with NWS operational forecasters, NESDIS satellite analysts, academia, and the meteorological research community to prepare and evaluate operational and experimental products for potential integration into NWS WFO operations. The Director of OPG will serve as the Federal Advisor for the individual in this position. Position title of Research Associate II will apply to the finalist with a Bachelor’s degree in meteorology, atmospheric sciences, hydrometeorology or a related field and 3 or more years of experience working with meteorological satellite data observations and products as they relate to operational forecasting applications, or a Master’s degree in meteorology, atmospheric sciences, hydrometeorology or a related field and at least 1 year of experience working with meteorological satellite data observations and products as they relate to operational forecasting applications. Position title of Research Scientist I will apply to the finalist who possesses a PhD in meteorology, atmospheric sciences, hydrometeorology or a related field plus 1-2 years of experience working with meteorological satellite data observations and products as they relate to operational forecasting applications, and position title of Research Scientist II will apply to the finalist who possesses a PhD in meteorology, atmospheric sciences, hydrometeorology or a related field plus 3 years or more of experience working with meteorological satellite data observations and products as they relate to operational forecasting applications.

Decision Making:
The individual in this position will work both independently and collaboratively with developers and stakeholders to develop and evaluate training and set priorities for development. Additionally, the individual in this position will work collaboratively to implement yearly planning for relevant R2O tasks, including active pursuit of testing new satellite products and decision aids. Such activities will require the individual in this position to decide on a concept of exploring satellite products in the light of public weather hazards and associated threats to public safety, and determine whether the products can contribute to improving hazard forecasts, warning accuracies, and impact-based decision support services. Ultimately the individual in this position will select which satellite products/decision aids will be the focus of new training units and will lead the necessary training of WFO forecasters; they also will spearhead coordination of field experiments, proving grounds, or other types of operational forecaster training.

**Essential Job Duties:**

**Applied Research 30%**
- test and validate proposed new satellite dependent products and decision aids for operational forecasters with an emphasis on exploring the value of advanced satellite derived products for observing or predicting public weather hazards (e.g., convection, ceiling, visibility, snow, etc.) in the NWS WFO environment;
- develop and/or document how these satellite dependent products and decision aids may improve the performance of forecasters by improving forecast and warning accuracy and reducing false alarms.

**Independent Research 30%**
- serve as a “Satellite Liaison” at the NWS OPG, leading Satellite Proving Ground efforts on satellite based hazardous weather products and demonstrating the unique value of satellite information to forecasters;
- serve as “Implementation Expert” for selected planned satellite products and their proxies;
- serve as “Science Coordinator” for the NWS OPG;
- participate in routine experimental projects serving as the focal point for all satellite centered activities at the NWS OPG;
- train operational forecasters on new and emerging satellite-based techniques and tools, particularly those proposed to be transferred into NWS WFO operations;
- serve, if called upon, as a subject matter expert to the NWS Chief Learning Officer for the development of formal satellite-relate training modules or courses;
- provide satellite expertise in the logistical support of any special or field excursion experiments, such as the planned NWS Impact Decision Support Services (IDSS);
- coordinate training activities created by the satellite proving ground members and cooperative institutes;
- perform related duties as assigned.

**Collaborative Research 30%**
- contribute to formal scientific publications and/or off-site conferences, symposia, and weather-related outreach events;
- develop synergy and shared accomplishments with the Satellite Proving Ground at the Hazardous Weather Testbed (HWT) in Norman, Oklahoma and the Aviation Weather Testbed (AWT) in Kansas City, Missouri;
- collaborate with operational partners and product end users (e.g., NOAA/NESDIS/STAR, the GOES-R Program Office, National Weather Service partners);
- collaborate with other CIRA and OPG scientists working on similar research projects.

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

**Required Qualifications:**

*Note: Please detail each of these items in your cover letter.*
• for Research Associate II: Bachelor’s Degree in meteorology, atmospheric sciences, hydrometeorology or a related field plus 3 or more years of experience working with meteorological satellite data observations and products as they relate to operational forecasting applications, or a Master’s degree in meteorology, atmospheric sciences, hydrometeorology or a related field and at least 1 year of experience working with meteorological satellite data observations and products as they relate to operational forecasting applications;

• for Research Scientist I: PhD in meteorology, atmospheric sciences, hydrometeorology or a related field plus 1-2 years of experience working with meteorological satellite data observations and products as they relate to operational forecasting applications;

• for Research Scientist II: PhD in meteorology, atmospheric sciences, hydrometeorology or a related field plus 3 years or more of experience working with meteorological satellite data observations and products as they relate to operational forecasting applications;

• ability to pass a federal Security Assurance Check because the job is located inside a federal building;

• experience working with meteorological satellite observing systems;

• at least 1 year of experience working on Linux or Unix operating systems;

• experience reading, writing, and quantitatively manipulating large geophysical datasets;

• good oral and written communication skills and experience working in a team environment;

• Must be legally eligible to work in the United States by proposed start date because CIRA will not sponsor a visa for this position.

Preferred Qualification:

Note: Please highlight this qualification in your cover letter.

• Scientific programming experience in Python.

Background Check:

Colorado State University is committed to providing a safe and productive learning and living community. To achieve that goal, we conduct background investigations for all final candidates being considered for employment. Background checks may include, but are not limited to, criminal history, national sex offender search, and motor vehicle history. The individual in this position will also be required to pass a federal Security Assurance Check because the job is located inside a federal building.

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 October 4, 2020. For full position announcement and to apply, please click “Apply to this Job” at the following website: http://jobs.colostate.edu/postings/78315. NOTE: In your cover letter, please specifically address the required 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.

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 or expression, or pregnancy and 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/equal access/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 Executive Director of the Office of Support and Safety Assessment, 123 Student Services Building, Fort Collins, CO 80523-2026, (970) 491-7407. The Section 504 and ADA Coordinator is the Executive Director of Human Resources and Equal Opportunity, Office of Equal Opportunity, 101 Student Services Building, Fort Collins, CO 80523-0160, (970) 491-5836.