Position Summary:
The National Weather Service (NWS) Operations Proving Ground (OPG) is part of a network of testbed facilities sponsored by the National Oceanic and Atmospheric Administration (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) proposes to support the expanding use of satellite-based weather products by placing a satellite researcher at the NWS OPG in Kansas City, MO. This researcher will provide leadership, satellite expertise, and meteorological support for the Satellite Proving Ground efforts based at the OPG and will 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. Position title of Research Associate II will apply to the finalist with a Bachelor’s Degree plus 3 years of experience working with satellite data observations and products, or a Master’s degree plus at least one year of experience working with satellite data observations and products. Position title of Research Scientist I will apply to the finalist who possesses a PhD plus at least 1 year of experience working with satellite data observations and products, and position title of Research Scientist II will apply to the finalist who possesses a PhD plus 3 years of experience working with satellite data observations and products. The Federal Advisor for the individual in this position will be the Director of OPG.

The individual in this position will report to the CIRA Senior Program Developer/Project Manager at Aviation Weather Center (AWC) and actively pursue the testing of new satellite products and decision aids. This project 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.

Decision Making:
The individual in this position will work both independently and collaboratively with developers and stakeholders, and participate and conduct regular meetings 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. Included in these tasks will be the active pursuit of testing new satellite products and decision aids. He/She will decide on a concept of exploring these satellite products in the light of public weather hazards and associated threats to public safety, and will determine whether the products can contribute to improving hazard forecasts, warning accuracies, and impact-based decision support services. The individual in this position will select which satellite products/decision aids will be the focus of new training units and lead the necessary training of WFO forecasters. He/She also will spearhead science coordination at field experiments, proving grounds, or other type 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;
- Lead in training 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%**
- Represent the satellite effort within the OPG by contributing to formal scientific publications or attending 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.
- Bachelor’s Degree in meteorology, atmospheric sciences, hydrometeorology or a related field plus at least 3 years of experience working with satellite data observations and products;
- Or- Master’s Degree plus at least 1 year of experience working with satellite data observations and products;
- Or- Ph.D and at least 1 year of experience working with satellite data observations or products;
- Familiarity and experience working with satellite observing systems;
- At least 1 year of experience working on Linux or Unix operating systems;
- Scientific programming experience in Fortran, Python, and/or IDL;
- Good oral and written communication skills and ability to work in a team environment;
- Experience reading, writing, and quantitatively manipulating large geophysical datasets;
- Ability to pass a National Agency Check with Inquiries (NACI, Tier 1 federal background investigation) because the position is located inside a federal building;
- Must be legally authorized to work in the United States by proposed start date because CIRA will not sponsor a visa for this position.
Background Check:
Colorado State University (CSU) 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. The type of background check conducted varies by position and can include, but is not limited to, criminal (felony and misdemeanor) history, sex offender registry, motor vehicle history, financial history, and/or education verification. Background checks will be conducted when required by law or contract and when, in the discretion of the university, it is reasonable and prudent to do so. In addition, the individual in this position must pass a National Agency Check (Tier 1 Background Investigation) with Inquiries (NACI, federal background check) because the position is located inside a federal building.

Applications will be accepted until the position is filled; however, to ensure full consideration applications should be submitted by 11:59 PM MT on January 6, 2019. For full position announcement and to apply, please click “Apply to this Job” at the following website: http://jobs.colostate.edu/postings/73077.

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.

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.

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.