CIWRO Research Associate/Scientist
Uncrewed Aircraft Systems (UAS) Applications
for High-Impact Weather Research

The Cooperative Institute for Severe and High-Impact Weather Research and Operations (CIWRO) at The University of Oklahoma is currently seeking a Research Associate or Research Scientist to collaborate with scientists at the National Severe Storms Laboratory (NSSL) in Norman, Oklahoma, on developing methods and applications for uncrewed aircraft systems (UAS) for high-impact weather. This position focuses on developing best practices and methods for creating, processing, and analyzing high-resolution imagery from UAS and other airborne platforms (e.g., satellites) for land-surface assessment for a variety of geophysical applications. The position is connected to the Developmental Research and Engineering for Applied Meteorology (DREAM) team based at CIWRO in Norman, Oklahoma, within the National Weather Center (NWC).

Background:
CIWRO, NSSL, the School of Meteorology at The University of Oklahoma, and the broader research community at the NWC have long collaborated on pioneering research on mesoscale and boundary layer meteorology and severe storms and their impacts. The Boundary Layer Integrated Sensing and Simulation (BLISS) group at the NWC is an example of this collaboration and acts as an umbrella under which those with research interests in boundary layer meteorology can come together and collaborate. The CIWRO DREAM team is intricately involved in the UAS research program and BLISS-related research activities at the NWC. The incumbent in this position will conduct land assessments for applications that include but are not limited to damage assessments following tornadoes and other high-impact weather events. The incumbent will also serve as a liaison between UAS research at NSSL and CIWRO and the NOAA Uncrewed Systems Research Transition Office (UxSRTO), the UAS division of the Office of Marine and Aviation Operations (OMAO) Uncrewed Systems Operations Center, and the FAA to ensure all NOAA policies and FAA regulations are met. The incumbent will be part of the collaborative and supportive BLISS team of researchers with diverse interests at NSSL and CIWRO, where this position adds to the breadth of ongoing research on UAS development and applications for high-impact severe weather.

The duties of this position are:
1. Conduct field missions and data analysis relating meteorological processes with UAS imagery and land surface characterization datasets, to include correlating severe storm processes to UAS-based damage assessments
2. Contribute to scientific proposals to relate meteorological processes to UAS-based observations and other data available at CIWRO/NSSL (e.g., radar, the Multi-Radar/Multi-Sensor System, etc.)
3. Obtain and maintain operator status on CIWRO and/or NOAA UAS platforms used for land surface assessment and support the safe operation and maintenance of those aircraft

4. Support interactions between CIWRO and NSSL UAS operations and the NOAA UxSRTO, the OMAO Uncrewed Systems Operations Center, and the FAA
5. Build an independent UAS-based research portfolio while contributing to a collaborative research environment
6. Present findings and results via publications and presentations at national/international conferences

The minimum qualifications for the position are:
- A Master's degree or PhD in meteorology, geography, or related area
- Experience obtaining and analyzing multispectral imagery
- Proficiency in geospatial methods/technologies
- Excellent oral and written communication skills with an ability to work both independently and collaboratively with others

Applicants should identify expertise within any of the following areas (an applicant need not demonstrate experience in all areas to be considered):

- storm damage assessment
- vegetation mapping and analysis
- meteorological observation data interrogation
- GIS software/tools
- programming skills
- UAS operations
- operation of spatial imaging UAS
- FAA regulations and airspace management
- emergency management
- big data management
- cloud computing
- machine learning and image processing

Normal working hours will be routinely observed with some occasional irregular hours during active field deployments (e.g., nominal survey missions can last 3-4 days, including travel and conducting the survey). The incumbent is expected to earn their Part 107 operator's license with associated costs covered by CIWRO. They will also receive training and gain expertise with the latest UAS and observation platforms available to the CIWRO and NSSL team.

Supervision will be provided by CIWRO staff. Technical oversight may be provided by CIWRO or NSSL scientists. The incumbent will work under general supervision but is expected to complete work independently while still contributing to the group working environment.

Benefits and Work-Life Balance

Joining our team comes with numerous benefits, including:

- Competitive salary based on experience; comprehensive university benefits (http://hr.ou.edu/).
- Generous paid leave, encompassing 14 paid holidays and 22 hours of accrued paid time off per month.

- Reduced membership at the University of Oklahoma's state-of-the-art fitness and aquatic center (https://www.ou.edu/far).

More details about working at the University of Oklahoma, benefits packages, as well as living in Norman, Oklahoma are provided on our website: https://jobs.ou.edu/Discover-OU.

How to apply

Applications should be sent to ciwro-careers@ou.edu, "Attn: BL UAS Science," and include a cover letter, the applicant's curriculum vitae, and names and contact information of three references. The cover letter must highlight the applicant's relevant qualifications and expertise as well as how they can contribute to the team. Applications will be accepted until the position is filled. The starting date is negotiable.

The University of Oklahoma is an equal opportunity/Affirmative Action employer.