

Tuesday January 25, 2022

10th Symposium on the Weather, Water, and Climate Enterprise

8:30a – 10a - Joint J5 - Emerging Technologies to Meet Mesoscale Observational Needs. Part I

[Frederick H. Carr](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/59192>

9a - J5.3 - Observing System Simulation Experiments Using Small Unmanned Aerial Vehicle in Various Configurations to Improve High-Resolution Forecasts of Convection

[Vivek M. Shenoy \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/397666>

12th Conference on Transition of Research to Operations

9:45a - 5B.6 - FV3-LAM-Based Convection-Allowing Model Forecasts and Ensemble Consensus Products for the 11th HMT Winter Weather Experiment

[Keith A. Brewster \(Presenter\)](#) – CAPS

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398585>

10:45a - 6B.1 - NOAA Testbeds and Proving Grounds: A Keystone in Building Successful Research to Operations Collaborations

[Kodi L. Berry](#) – NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/391210>

10:30a - 6B.4 - Verification of FV3-LAM CAM Ensemble Forecasts from the 2021 HMT Flash Flood and Intense Rainfall Experiment

[Nathan A. Snook \(Presenter\)](#) – CAPS

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399433>

1:30p - 7B.1 - The Second Virtual NOAA Hazardous Weather Testbed Spring Forecasting Experiment

[Adam J. Clark \(Presenter\)](#) - NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395751>

1:45p - 7B.2 - The Use of AWIPS in the Cloud for Experiments in the 2021 Hazardous Weather Testbed Experimental Warning Program

[Justin W. Monroe \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399259>

2p - 7B.3 - Systematic Impact of Valid Time Shifting to Increase Ensemble Size for the Convective-Scale EnVar System on FV3-LAM Forecasts during the Real-Time 2021 HWT SFE

[Nicholas A. Gasperoni \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398857>

2:15p - 7B.4 - Application of the Cost-Effective Valid Time-Shifting Method on the EnVar Analysis of the Storm Environment

[Tsung-Han Li \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398875>

**17th Symposium on Societal Applications:
Policy, Research and Practice**

10:45a – 12p - Session 6A - Inclusive Risk Communication: Understanding the Communities We Serve. Part II

[Sean Robert Ernst](#) - Center for Risk and Crisis Management

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60435>

10:45a - 6A.1 - What Water Managers Want: Using Climate Information for Decision Making

[Olivia G. VanBuskirk \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/392442>

10:45a - Panel Discussion 6B - Bridging the Physical, Operational, and Social Sciences: What Are the Next Steps?

[Olivia G. VanBuskirk](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60456>

11a - 6A.2 - Forecast Information Type across Time: What Do People Want and Need?

[Makenzie Krocak \(Presenter\)](#) - CIWRO x NWS/SPC

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395090>

11:15a - 6A.3 - Results from a Virtual, In Situ Study of Real-Time Household Behavior before, during, and after Severe Weather in the U.S. Southeast: What People Know, What They Say, and What They Do

[Jack R. Friedman \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/397123>

11:30a - 6A.4 - Cross-Sector Collaboration for Effective Risk Communication: A Case Study of SPC Risk Categories in Spanish

[Abby Bitterman \(Presenter\)](#) - Center for Risk and Crisis Management

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395094>

1:30p – 3p - Session 7A - Risk Communication in the Weather Forecast and Warning Process. Part II

[Makenzie Krocak](#) - Center for Risk and Crisis Management

[Richard Smith](#) – NWS

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60372>

1:30p - 7A.1 - Keeping Context in Probabilities: Comparing Public Responses to Absolute and Relative Probability Forecasts of Tornadoes

[Sean Robert Ernst \(Presenter\)](#) - Center for Risk and Crisis Management

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395112>

1:45p - 7A.2 - Examining the Public Utility of Intensity Forecast Information in the SPC Convective Outlook

[Makenzie Krocak \(Presenter\)](#) – CIWRO X Center for Risk and Crisis Management

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395112>

2p - 7B.3 - Linking Survivor Stories to Forensic Engineering: An Interscience Approach to Reducing Tornado Vulnerability in Residential Shelters

[Daphne S. LaDue \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398324>

2:15a - 7A.4 - The Development of a Tornado Protective Action Decision Model for the City of Norman, Oklahoma

[Joshua John Hatzis \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395975>

2:30p - 7A.5 - Does Awareness of Vulnerabilities Impact the Product Issuance or Messaging of WFOs?: Testing the Operational Use of the Brief Vulnerability Overview Tool (BVOT)

[Jack R. Friedman \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398829>

3:45p – 5p - Session 8 - Utilizing Social Media for Weather Research, Education, and Risk Communication

[Joe Ripberger](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/59616>

21st Conference on Artificial Intelligence for Environmental Science

9a - 5B.3 - Deep Learning Radar-Based Quantitative Precipitation Estimates in Complex Terrain

[Micheal Simpson \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398819>

11:30a - 6B.4 - Atmospheric Humidity Estimation from Wind Profiler Radar Using a Combination of a Physical Model and the Machine Learning Approach

[Yunish Shrestha \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399321>

2:15p - 7B.4 - Evaluation and Interpretation of an MRMS Machine Learning Approach for Precipitation Estimation in Complex Terrain

[Andrew P. Osborne \(Presenter\)](#) CIWRO x NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/394304>

3:45p – 5p - Panel Discussion 8 - Women in AI: A Panel Celebrating the Pioneering Work of Women in the Field of Environmental Artificial Intelligence

[Amanda Burke](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/59546>

26th Conference on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS)

8:30a – 10a - Session 5B - Observing Systems: Atmosphere, Ocean, and Land Surface, In Situ and Remote—Comparisons with Other Observing Systems. Part I

[Jonathan D. Labriola](#) – NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/59440>

11:45a - 6A.5 - Testing the Performance of an Experimental 1-km Ensemble Warn-on-Forecast Analysis and Forecast System for Severe Weather Events

[Yaping Wang \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/397855>

31st Conference on Education

4:45p - 8.5 - The Mobile Rapid Scan X-Band Polarimetric (RaXPol) Radar as a Community Instrument Facility: Enhancing Learning Experiences in Radar Meteorology and Engineering

[Tian-You Yu \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395366>

31st Conference on Weather Analysis and Forecasting (WAF)/27th Conference on Numerical Weather Prediction (NWP)

10:45p - 6B.1 - Weather Conditions and Messaging associated with Fatal Winter-Weather-Related Motor-Vehicle Crashes

[Dana Tobin \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/389511>

11a - 6A.2 - Generating a Probabilistic Subfreezing Road Temperature Nowcast and Forecast from the High Resolution Rapid Refresh Ensemble Using Machine Learning

[Shawn L. Handler](#) – CIWRO x NOAA/OAR/NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/393208>

11a - 6B.2 - Feedback and Findings on SPC Severe Timing Guidance Products from Hazardous Weather Testbed End Users

[Michelle E. Saunders \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/397463>

2p - J7.3 - Using Tornado Probability Guidance from a Machine Learning Model in the 2021 Hazardous Weather Testbed Experimental Warning Program Probabilistic Hazards Information Prototype Experiment

[Thea Sandmael \(Presenter\)](#) - NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/393277>

36th Conference on Hydrology

9:45a - J5A.6 - The Challenges of Observing Hydroclimate Extremes Embedded within Extremes: The Example of 2019

[Jeffrey B. Basara \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398953>

4:15p - 8B.3 - CONUS-Wide Parameter Calibration and Data Publication for the Coupled Routing and Excess Storage (CREST) v4.0 Hydrologic Model

[Mengye Chen \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395398>

Major Weather Events and Impacts of 2021

2:30p - 8.1 - The 2021 Tornado and Severe Thunderstorm Season (Invited Presentation)

[Russell S. Schneider \(Presenter\)](#) - NWS

[Patrick T. Marsh](#) – NOAA

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/400974>

4:15p - 8.3 - The Historic August 2021 Tennessee Flash Flood in the Warn-on-Forecast Storm-Scale Ensemble System

[Patrick C. Burke \(Presenter\)](#) – NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/400728>

38th Conference on Environmental Information Processing Technologies

8:30a – 10a - Session 5B - Radar Technologies and Applications. Part II

[Mark Yeary](#) - Univ. of Oklahoma

[Kurt D. Hondl](#) - NOAA/NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60539>

9a - 5B.3 - Toward a Heavy Snow Rate Diagnostic Algorithm

[Andrew A. Rosenow \(Presenter\)](#) – CIWRO x NOAA/OAR/NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/394685>

9:15a - 5B.4 - Smoke Plume Observations with Surveillance Weather Radars

[Dusan S. Zrnica \(Presenter\)](#) - NOAA x NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/392015>

9:45a - 5B.6 - Refraction of Radar Waves in Clouds and Precipitation

[Valery M. Melnikov \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/391779>

10:45a – 12p - Session 6B - Radar Technologies and Applications. Part III

[Kurt D. Hondl](#) - NOAA/National Severe Storms Laboratory

[Mark Yeary](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60542>

10:45a - 6B.1 - Exploring Meteorological Benefits of Rapid-Scanning, Dual-Polarization Radar for Hail-Producing Storms

[Laura Shedd \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/393117>

11:15a - 6B.3 - Assessing Scanning Strategies with All-Digital Phased Array Weather Radars for Characterization and Detection of Microbursts

[Connor B. Pearson \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/394002>

11:30a - 6B.4 - Analyzing Observational Tornado Debris Signature Hypotheses Using Radar Simulations and Large-Eddy Simulations

[Rachael Nicole Cross \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/394331>

11:45a - 6B.5 - A Novel Technique to Correct Debris-Related Bias in Velocity Measurements from Tornadoes

[Morgan Schneider \(Presenter\)](#) - Univ. of Oklahoma x ARRC

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/391681>

1:30p - 7B.1 - A Pattern Synthesis Method for Polarimetric Weather Observations with the All-Digital Horus Phased Array Radar

[David Schwartzman \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395979>

1:30p – 3p - Session 7B - Radar Technologies and Applications. Part IV

[Mark Yeary](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60544>

1:45p - 7B.2 - The Mobile Rapid-Scan X-Band Polarimetric (RaXPoI) Radar as a Community Instrument Facility: Providing High-Temporal Resolution, Dual-Polarization Observations for Atmospheric Science Research and Education

[David J. Bodine \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395366>

2p - 7B.3 - Examining Meteorological Benefits of Rapid-Scan, Dual-Polarization, All-Digital PAR Observations for Detecting Tornado Formation and Intensification

[Brandon K. Cohen \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/394485>

2:15p - 7B.4 - Experimental Evaluation of the Antenna Tilt Effects in PPAR

[Igor R Ivic \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/396570>

2:45p - 7B.6 - A Shared Mobile C-Band Polarimetric Atmospheric Imaging Radar (PAIR)

[Tian-You Yu \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395412>

3:45p – 5p - Session 8A - Radar Technologies and Applications. Part V

[Kurt D. Hondl](#) – NOAA x NSSL

[Mark Yeary](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/60545>

4p - 8A.2 - A Progress Report on the Design of a Dual-Doppler 3D Mobile Ka-Band Rapid-Scanning Volume Imaging Radar for Earth System Science

[Jorge L. Salazar-Cerreno \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/399483>

4p - 8B.2 - Designing the Next-Generation Multisensor Precipitation Estimator Program for NWS River Forecast Centers

[Steven M. Martinaitis \(Presenter\)](#) - CIWRO x NOAA/NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395037>

4:30p - 8A.4 - Minimizing Sidelobe Contamination in Multistatic Weather Radar Systems through Sidelobe Whitening and Optimal Network Layouts

[Samuel Emmerson \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/400010>

Third Symposium on Diversity, Equity, and Inclusion

11a - 6.2 - OU Unlearning Racism in Geoscience (URGE): Collaboration Across Departments, Colleges, Centers, and Federal Scientists

[Aisha S Owusu \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/397628>

1:30p – 3p - Session 7 - Inclusive and Accessible Science: Engaging with Diverse and Underrepresented Communities

[Joseph E. Trujillo-Falcón \(Presenter\)](#) – CIWRO x NOAA/NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/59212>

1:30p - 7.1 - El Cambio Climático en Televisión: A National Survey of Bilingual Broadcast Meteorologist Climate Change Reporting Practices

[Joseph E. Trujillo-Falcón \(Presenter\)](#) – CIWRO x NOAA/NSSL

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398806>

Town Hall Meetings

12:15p - Town Hall Meeting - "World Through My Eyes" Accessibility Roundup

[Alyssa V. Bates](#) - CIWRO x NOAA/NWS/WDTD

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/59868>

6p - Town Hall Meeting - Building Capacity for Social Science Research into the Weather Enterprise

[Richard D. Smith](#) – NWS

[Makenzie J. Krocak](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Session/59880>

Posters 5p– 6:30p

261 - Identification of Flash Drought Events Using Machine Learning Techniques

[Stuart Galen Edris \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/395740>

282 - Impact of Adaptively Thinned GOES-R All-Sky Radiances and Retrievals Cloud Properties into the Warn-on-Forecast System

[Swapn Mallick \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/392224>

313 - Ice Crystal Size Distributions in Tropical Mesoscale Convective Systems in the Vicinity of Darwin, Australia: Results from the HAIC/HIWC Campaign

[Peter Anthony Brechner \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/394418>

331 - Diagnosis of the QBO Modulation of the MJO-Induced Rossby Wave Train in the Northern Hemisphere

[Thomas Galarneau \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/397999>

332 - Forecasting Marine Stratus Evolution along the Pacific Coast

[Brady Blackstock \(Presenter\)](#) - Univ. of Oklahoma.

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/396103>

393 - Assimilating GOES-16 ABI All-Sky Radiance Observations in FV3-LAM Using Hybrid EnVar

[Samuel K. Degelia \(Presenter\)](#) - Univ. of Oklahoma

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/398505>

401 - Assimilating All-Sky Radiance Observations to Improve Ensemble Analyses and Predictions of Thunderstorms

[Huan-Huan Zhang \(Presenter\)](#) – CIWRO

<https://ams.confex.com/ams/102ANNUAL/meetingapp.cgi/Paper/392495>

