

### **Wild Weather | Jason Lindsey**

*This science program for kids will allow children to participate in some hands-on experiments, from a mega cloud to a cloud launcher, building a better understanding of the weather.*

### **Kids' Weather Safety | Cecelia Cloos**

*Weather safety tips designed for the young, and the young at heart.*

### **Radar Workshop: An Exercise in Radar Understanding & Applications | Dr. Josh Durkee**

*This weather radar workshop is intended to provide an introductory lesson on fundamental radar functionality and interpretation. In this workshop, participants will learn about how radar systems operate, and basic analysis of various products, including reflectivity and velocity. Dual-pol radar is also discussed.*

### **Examples of How GOES- East is Improving Lightning Detection | Pat Spoden**

*The lightning mapper on GOES-East has allowed for a huge jump in lightning detection and knowledge. Utilizing both the lightning mapper and other satellite images, forecasters are getting a better handle on when and where lightning is a threat.*

### **Drone Uses in Natural Disasters and Emergencies | Justin Hilliard**

*Drones are becoming more and more popular across the nation. In natural disasters and emergency response, drones can help save lives, money and response time. Learn about specific cases where drones assisted with tornado damage path recon and documentation, search and rescue, and a swift water rescue, as well as a broad overview of the FAA requirements.*

### **Extreme Weather of the Kentucky Mesonet | Megan Schargorodski**

*Have you ever wondered what the highest temperature recorded at the Kentucky Mesonet is? Or the strongest wind gust? Let us fill you in during this talk about the extreme weather observed by the Kentucky Mesonet over the past 12 years.*

### **Winter Weather Forecasting in the Southern Appalachians | Charles Gant and Sam Roberts**

*Winter weather across the Southern Appalachian region can present a variety of challenges to operational forecasters. To overcome these challenges, forecasters must be able to recognize patterns that generally favor certain types of winter weather for a specific area.*

### **Student-Based Weather & Emergency Management: Decision Support Operations |**

**Olivia Cahill, John Bowen, Evan Hatter**

*The WKU meteorology program philosophy instills a strong emphasis on career-readiness via professionalized applied research and learning experiences, including an operational student-based weather and emergency management-decision support service, White Squirrel Weather.*

### **Having Emergency Management as a Co-Credential | Dr. David Oliver**

*Every leader in business, industry, government, education, etc. is destined to find themselves in a crisis situation at some point in their career. Having a credential in emergency management better prepares leaders for when incidents occur and also enhances opportunities for professional advancement.*

# KENTENN WEATHER WORKSHOP

## November 16, 2019

9:00 - 9:10 **Welcome / Opening Remarks**

*Joe Sullivan — NWS Louisville*

9:10 - 10:00 **Keynote — Advances in Extreme Weather Prediction**

*Dr. Victor Gensini — Northern Illinois University*

10:00 - 10:20 **Use of GOES-East Composite RGB Imagery in the Ohio Valley**

*Ryan Sharp — NWS Louisville*

**10:20 - 10:30 Break**

10:30 - 10:50 **The New Norm in Kentucky**

*Mary Lamm — NWS Paducah*

10:50 - 11:10 **Why You Should Turn Around / Project Name L.E.A.H.S.**

*Anita May — Barren Co. EMA*

*Carl Owens — Barren Co. Area Technical Center*

11:10 - 11:30 **Using Technology to Increase Flood Risk Awareness**

*Carey Johnson — Kentucky Division of Water*

11:30 - 11:50 **Tornadoes in 2019: Saving Lives from Beyond the Green Screen**

*Noah Bergren — WPSD TV, Paducah*

**11:50 - 1:00 Lunch on site provided by Atmos Energy**

12:30 - 1:00 **Wild, Wacky Weather Trivia**

*John Gordon and Jessica Lee — NWS Louisville*

## Presentation Abstracts

1:00 - 2:00 **Meteorologist/Emergency Manager Panel Discussion**

*Moderated by Chris Allen — WBKO TV, Bowling Green*

**2:00 - 4:00 Children's Breakout**

2:00 - 3:00 **Wild Weather**

*Jason Lindsey — Hooked on Science*

3:10 - 3:45 **Kids' Weather Safety & Owlie Skywarn Coloring Contest**

*Cecelia Cloos — Christian Co EMA*

2:00 - 2:45 **Radar Workshop: A Fundamental Exercise in Radar Understanding & Applications**

*Dr. Josh Durkee — Western Kentucky University*

2:45 - 3:05 **Examples of How GOES-East is Improving Lightning Detection**

*Pat Spoden — NWS Paducah*

3:05 - 3:25 **Drone Uses in Natural Disasters and Emergencies**

*Justin Hilliard — Kentucky EMA/Remote Aerial LLC*

3:25 - 3:45 **Extreme Weather of the Kentucky Mesonet**

*Megan Schargorodski — Kentucky Mesonet*

**3:45 - 4:00 Break**

4:00 - 4:20 **Winter Weather Forecasting in the Southern Appalachians**

*Charles (Danny) Gant & Sam Roberts — NWS Morristown*

4:20 - 4:40 **Student-Based Weather & Emergency Management-Decision Support Operations at a University**

*Olivia Cahill, John Bowen, Evan Hatter — WKU/White Squirrel Wx*

4:40 - 5:00 **Having Emergency Management as a Co-Credential**

*Dr. David Oliver — Western Kentucky University*

5:00 **Close**

**Advances in Extreme Weather Prediction | Dr. Victor Gensini**

*Learn about how the landscape of severe weather prediction has changed over the last 30+ years. Topics covered will include numerical weather prediction, weather analysis, climate variability, and societal vulnerability.*

**Use of GOES-East Composite RGB Imagery in the Ohio Valley | Ryan Sharp**

*Tons of new data is being ingested from the GOES-16 satellite! Multiple bands of data can be seen in a single product using Composite Imagery. Learn about one of these RGB's, and see case studies on how this imagery can be useful in detecting things such as large structural fires.*

**The New Norm in Kentucky | Mary Lamm**

*In 2021, new climate normals will be released, and the data from 1981-1990 will be replaced with values from 2011-2020 in this three-decade average of climatological values. See a review of rainfall and flooding trends of the current decade and learn about what the future may hold for the Commonwealth.*

**Why You Should Turn Around / Project Name L.E.A.H.S. | Anita May and Carl Owen**

*Come learn about the importance of not driving through flood waters and hear the true story of a 19-year-old female who crossed a flooded bridge on New Year's Eve 2018, presented by a Rescue Diver and Swiftwater Tech Responder who were on the scene, and are working to prevent future recurrences.*

**Using Technology to Increase Flood Risk Awareness | Carey Johnson**

*An important mission of Kentucky's flood hazard mapping program is to increase flood risk awareness using innovative technology and communication practices. Learn about how virtual reality can be utilized to help people visualize what a 1% annual chance flood event might look like in their community, making the potential risk easier for people to perceive.*

**Tornadoes in 2019: Saving Lives from Beyond the Green Screen | Noah Bergren**

*Hear from a TV Meteorologist about how potentially life-saving tracking of storms during severe weather goes beyond the camera like it never has before in this world of increasing social media and technology.*

**Wild, Wacky Weather Trivia | John Gordon and Jessica Lee**

*So, you think you know the weather? Get your smart phone ready to win valuable prizes by testing your knowledge of wild and wacky weather with this interactive quiz.*

**Meteorologist and Emergency Manager Panel Discussion**

*Panelists for this discussion are **Noah Bergren**, TV meteorologist at WPSD, **Dr. Victor Gensini**, Assistant Professor at NIU, **Dustin Jordan**, meteorologist at NWS Jackson, **Emory Kidd**, EM Director for Metcalfe County, **Jason Lindsey**, known for his "Hooked on Science" program, **Dr. Mark Simpson**, Professor at UT-Martin, and **Paige Noël**, TV meteorologist at WYMT in Hazard, KY.*