AASC
AMERICAN ASSOCIATION OF STATE CLIMATOLOGISTS

# MESONET MEETING

## 26-28 July 2023

Hosted by:

MRCC
Midwestern Regional Climate Center

Davenport, IA

IOWA

https://tinyurl.com/AASCMESOMEET

# AASC MESONET MEETING DOUBLETREE BY HILTON

**26-28 July 2023**

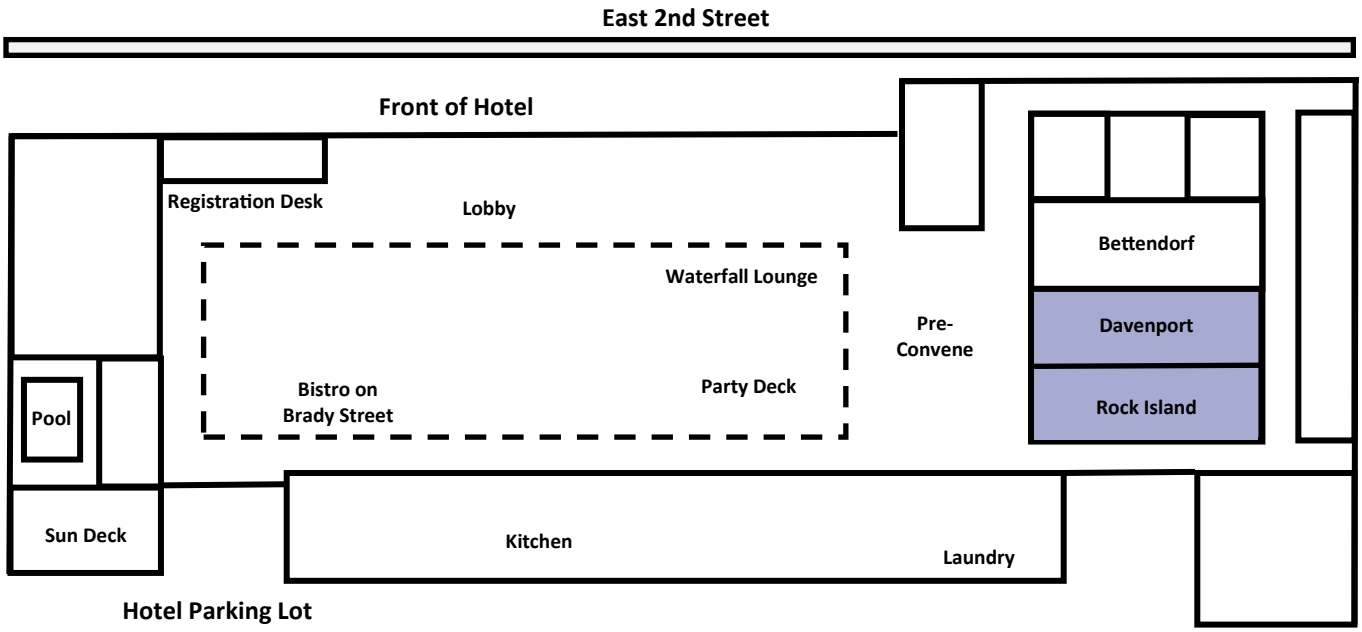
The 2023 AASC mesonet meeting will be held at the DoubleTree by Hilton, located at 111 E 2nd Street, Davenport, Iowa 52801, in the Davenport and Rock Island Rooms (see map below*).

Self-service parking at the hotel is available on-site for $12.00 per day. Valet parking is not available.

Nestled in downtown Davenport, the DoubleTree by Hilton is within walking distance of museums, theatres, restaurants, and more. The hotel is a five-minute walk from Figge Art Museum, RiverCenter Convention Center, and Riverfront Trail.

*Not to scale





# AASC MESONET MEETING GOLD LEVEL SPONSORS

**26-28 July 2023**

# AASC MESONET MEETING GOLD LEVEL SPONSORS

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# National Integrated Drought Information System

## Drought.gov

NOAA's National Integrated Drought Information System (NIDIS) program was authorized by Congress in 2006 with an interagency mandate to coordinate and integrate drought research, building upon existing federal, tribal, state, and local partnerships in support of creating a national drought early warning information system. Among other work, NIDIS leads the multi-agency National Coordinated Soil Moisture Monitoring Network, in partnership with the AASC and many state mesonets.

### About NIDIS

Drought affects every sector of the national economy, costing U.S. tax-payers billions of dollars in damages. It impacts urban and rural communities, the agriculture industry, water and electric utilities, public health, transportation, jobs and more.

In 2006, Congress passed the National Integrated Drought Information System (NIDIS) Act of 2006, which directs NIDIS to develop and "provide a national drought early warning information system." NIDIS was reauthorized in 2014 and 2019. Its mission is to help the nation proactively manage drought risks and impacts and improve long-term drought resilience. To fulfill this mission, NIDIS studies and addresses the impacts of drought by collecting reliable data, communicating relevant information, and developing innovative tools and resources for public and management use.

### Partners

**Federal collaborators:** Departments of Commerce, Agriculture, Defense, Energy, Health and Human Services, Homeland Security, Interior, Transportation; FEMA; EPA; NASA; CDC; and the Army Corps of Engineers.

**Other partners:** Tribes, governors' associations, water councils, river basin commissions, departments of natural resources, academic institutions, citizen science, and the corporate and private sector.

**NIDIS is a multi-agency partnership that coordinates drought monitoring, forecasting, planning, and information at national, state, and local levels across the country. NIDIS advances these goals by:**

**Supporting scientific research that reinforces accuracy in drought monitoring and forecasting.** NIDIS engages researchers and practitioners from the National Oceanic and Atmospheric Administration, and other agencies and organizations to assess current operational and near real-time prediction systems, on sub-seasonal to seasonal timescales.

**Supporting analysis and assessment of past drought events to inform planning for and response to developing droughts.** NIDIS is focused on improving the characterization of the onset, duration, and severity of drought.

**Developing and maintaining the newly redesigned U.S. Drought Portal (www.drought.gov)** for easily accessible drought monitoring information and forecast products and resources.

**Co-producing and delivering resources that strengthen drought preparedness and resilience through engagement, networking, and collaboration with communities and stakeholders.** NIDIS' regional Drought Early Warning Systems (DEWS) and their networks build on existing partnerships to improve dissemination of drought research, tools, and planning information in easy-to-understand formats such as timely, accessible, and useful drought outlook webinars and workshops.

# AASC MESONET MEETING SILVER LEVEL SPONSORS

**26-28 July 2023**

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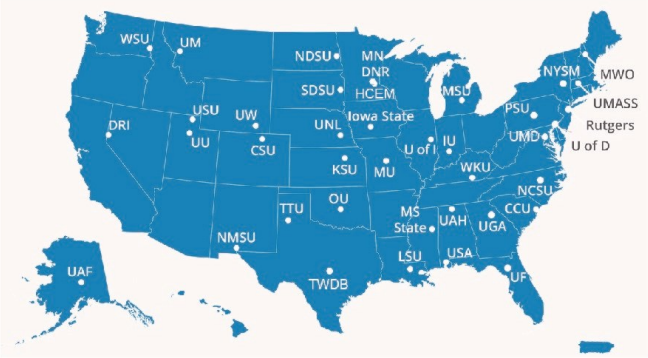
Synoptic.

NATIONAL MESONET

Synoptic Data is the industry leader in aggregating, processing, and disseminating real-time and historical measured weather and environmental observations for users in a variety of sectors and applications. Synoptic aggregates data from over 120,000 active stations from more than 300 networks resulting in over 140 million daily observations. As a Public Benefit Corporation (PBC), Synoptic is committed to providing expanded access to environmental data to enhance public safety, improve the productivity of government agencies and commercial entities, and assist in research and educational initiatives to advance the understanding of Earth systems.

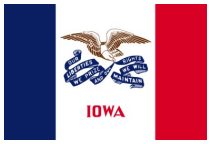
Through our role with the National Mesonet Program as the lead subcontractor, Synoptic works with 50 partners from the public, private, and academic sectors through aggregation and dissemination of surface, upper-air, and mobile (balloon, buoy, and aircraft) data. These data sets help fill temporal and spatial data gaps across the country, providing additional high quality data to the National Weather Service for increased forecast accuracy and more timely warnings to protect life, property, and enhance the national economy.




**synopticdata.com** **sales@synopticdata.com**

# AASC MESONET MEETING ORGANIZERS

**26-28 July 2023**

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***Kevin Brinson*, DEOS & Delaware State Climate Office**
***Dr. Beth Hall*, MRCC & Purdue University**
***Nathan Edwards*, South Dakota State University Mesonet**
***Dr. Sytske Kimball*, University of South Alabama Mesonet**
***Chip Redmond*, Kansas Mesonet**
***Megan Schargorodski*, Tennessee Emergency Management Agency**
***Austin Pearson*, MRCC & Purdue University**
***Cindy Fate*, MRCC & Purdue University**

# AASC MESONET MEETING PROGRAM

**Tuesday, July 25**

**Welcome Reception in the DoubleTree Atrium**

**6:00—9:00 PM**

Light snacks will be provided and a cash bar will be open.


## Thank you to our sponsors!

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# AASC MESONET MEETING PROGRAM

## Wednesday, July 26

**8:00—9:00 AM** **Continental Breakfast**

**8:00—8:30 AM** **Check-in and Registration**

**8:30—8:45 AM** **Day 1 Welcome**
*Beth Hall, Kevin Brinson, and John Nielsen-Gammon*

**8:45—10:15 AM** **Session I. Mesonet Applications**
*Chair: Beth Hall*

**UUNET: Managing Meteorological and Air Quality Fixed and Mobile Sensor Systems in Remote and Urban Environments**
***John Horel**, Alex Jacques, Colin Johnson, and Daniel Mendoza (University of Utah)*

**New York City Micronet: experiences, challenges, and future directions**
***June Wang** (University of Albany, SUNY)*

**Improved Observations for Spray Drift Monitoring: A Case Study in South Australia Mesonet Methods and Instrument Selection**
***Garrett Wheeler** (Campbell Scientific)*

**Animal Comfort Index: A Year-Round Measure of Extreme Conditions for Livestock**
***Matthew Sittel** (Kansas State University)*

**Unveiling the Economic Value and Decision-Making Impact of Well-Designed Weather Information for Public Safety Officials—A case study of the Oklahoma Mesonet**
***Dolly Na-Yemeh** (University of Oklahoma)*

**10:15—10:30 AM** **Break**

**10:30—12:00 PM** **Session II. Mesonet Operations**
*Chair: Kevin Brinson*

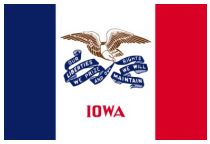
**Tech Tools: Helping Techs Stay Organized**
***Nathan Bain** (University of Albany, SUNY)*

**Mesonet Expansion in the Upper Missouri River Basin**
***Nathan Edwards** (South Dakota State University)*

**Mesonet Poster Session**
***Description: Each mesonet will display a poster about their network. Attendees will have the opportunity to visit with network operators.***

# AASC MESONET MEETING PROGRAM

## Wednesday, July 26




**12:00—1:00 PM** **Lunch**

**Improving Soil Water Content Monitoring**
***Michael Cosh***
*(USDA-ARS Hydrology and Remote Sensing Laboratory)*

**1:00—2:45 PM** **Session III. New Mesonets & Their Usage of Recommendations and Best Practices for Mesonets Document**
***Chair: Chip Redmond***

**A New Mesonet's Perspective on Mesonet Recommendations and Best Practices**
***Chris Vagasky*** *(Wisconsin Environmental Mesonet)*
**The Hawaii Mesonet**
***Dylan Giardina*** *(University of Hawaii at Manoa)*
**Primer on Updating the AASC's Recommendations and Best Practices for Mesonets Document**
***Chip Redmond*** *(Kansas Mesonet)*
**Town Hall Discussion and Questions**

**2:45—3:15 PM** **Break**

**3:15—4:45 PM** **Session IV. AASC Meeting Sponsors Networking Session**
***Chair: Nathan Edwards***
***Description: Sponsor introductions followed by a networking session where attendees will have the opportunity to learn about and discuss products and services offered by our meeting vendors.***

**4:45—4:50 PM** **End of Day Remarks**
***Austin Pearson***

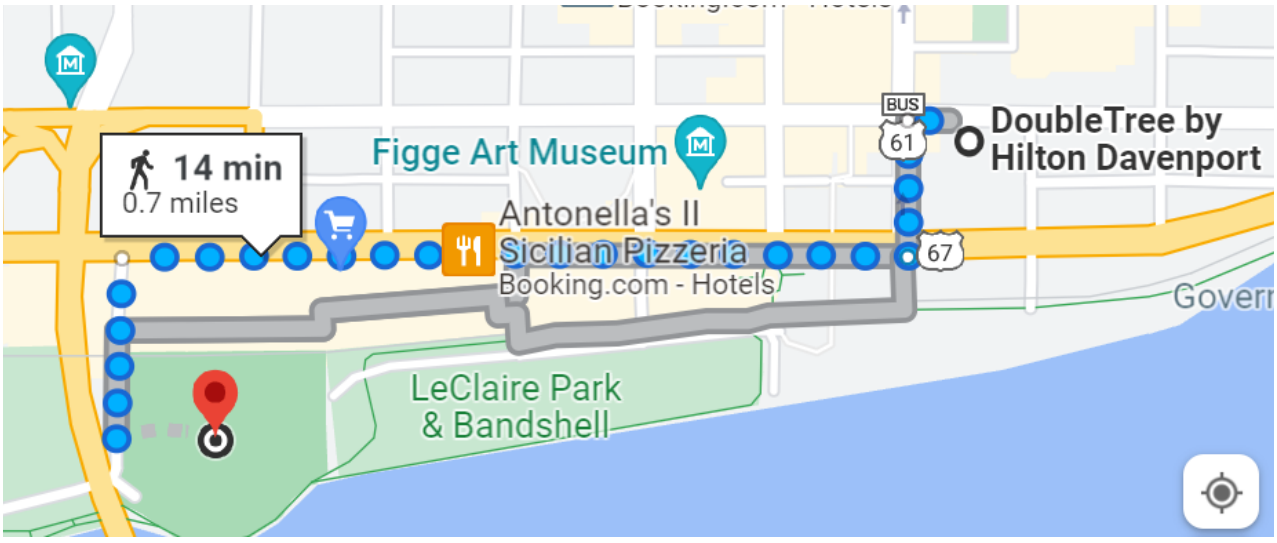
**4:50 PM** **Adjourn for Optional Evening Activity (see page 12 for details)**
**Quad Cities River Bandits Game**

## Optional Gathering—Baseball

The Quad Cities River Bandits have a free-admission home game at 6:30 PM vs. Lansing Lugnuts. The team plays at Modern Woodmen Park, located at 209 South Gaines Street Davenport, Iowa 52802. This is a 14 minute walk from the DoubleTree by Hilton.

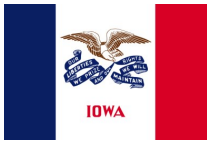
Meet in the lobby at 5:15 PM to walk to the ballpark to ensure free admission, as the event is expected to be busy. The ticket office does not believe the event will be a sell out, which should alleviate any concerns making it into the game.

*Walking information is below.*



# AASC MESONET MEETING PROGRAM

## Thursday, July 27




**8:00—9:00 AM** **Continental Breakfast**

**8:00—8:15 AM** **Day 2 Welcome**
*Beth Hall and Kevin Brinson*

**8:15—10:00 AM** **Session V. Recommendations & Best Practices for Mesonets—Technical Discussion**
*Chair: Chip Redmond*
***Description:*** *This session format will consist of breakout groups, followed by report outs, and more discussion.*

**10:00—10:15 AM** **Break**

**10:15—12:00 PM** **Session VI. AASC Mesonet Recognition Program**
*Chair: Kevin Brinson*
**Goals and Purpose of a Mesonet Recognition Program**
**Mesonet Recognition Program Criteria**
**Review Process and Committee Makeup**
**Town Hall Discussion and Questions**
***Description:*** *This session will be led by various members of the AASC Mesonet Recognition Program Working Group: Megan Schargorodski (Tennessee Emergency Management Agency), Systke Kimball (University of South Alabama), Kyle Imhoff (Penn State University), Sean Heuser (North Carolina State University), Chris Fiebrich (University of Oklahoma), Stan Engle (New Mexico State University), Nathan Edwards (South Dakota State University), Jerry Brotzge (Western Kentucky University), and Kevin Brinson (University of Delaware)*

**12:00—1:00 PM** **Lunch**
**Mesonets in FEMS, What We Are Doing and What Could We Do?**
***Travis Verdegan*** *(Minnesota Department of Natural Resources)*

**1:00—3:15 PM** **Session VII. NMP Summer Meeting**
*Chair: Elizabeth Wilson*
**NC ECONet Overview and Future Directions**
***Sheila Saia,*** *(State Climate Office of NC, NC State University)*

**WeatherFlow-Tempest's Observing Network—Solutions to Fit Stakeholder Needs** ***Benjamin Miller,*** *WeatherFlow-Tempest*

**Session VII. NMP Summer Meeting — Continued**

**New York State Mesonet Profiler Network: Experiences, Challenges, and Future Directions**
***June Wang*** *(University at Albany, SUNY)*

**The Challenges and (Many!) Benefits of Adding Cameras to Your Mesonet**
***Jerry Brotzge*** *(Western Kentucky University)*

**WindBorne's Global Sounding Balloon Data Contributions to the NMP**
***Todd Hutchinson*** *(WindBorne Systems)*

**An Operational Overview of the West Texas Mesonet**
***John Schroeder*** *(National Wind Institute, Texas Tech University)*

**Demo of Synoptic's New Visualization Tool**
***Elizabeth Wilson*** *(Synoptic Data PBC)*

**NMPAB Updates and Weather Act Reauthorization Discussion**
***Ryan Matt*** *(Radiometrics)*
***Elizabeth Wilson*** *(Synoptic Data PBC)*

**Wrap-up/Discussion/Questions**

**3:15—3:30 PM** **Break**

**3:30—5:00 PM** **Session VIII. Mesonet Funding**

***Chair: Sytske Kimball***

**Results from the Mesonet Funding Survey**
***Sytske Kimball*** *(University of South Alabama)*

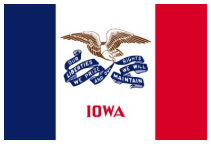
**Funding Panel Introductions and Presentations**
***Dolly Na-Yemeh*** *(University of Oklahoma)*
***Nathan Edwards*** *(South Dakota State University)*
***Dave DuBois*** *(New Mexico State University)*
***Pam Knox*** *(University of Georgia)*
***Jerry Brotzge*** *(Western Kentucky University)*

**Town Hall Discussion and Questions for Panelists**

**5:00** **End of Day Remarks & Adjourn (No Organized Evening Activities)**
***Austin Pearson***

# AASC MESONET MEETING PROGRAM

## Friday, July 28

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|---|---|
| **8:00—9:00 AM** | **Continental Breakfast** |
| **8:30—8:40 AM** | **Day 3 Welcome**<br>*Beth Hall and Kevin Brinson* |
| **8:40—10:00 AM** | **Session IX. AASC Mesonet Committee Activities**<br>*Chair: Kevin Brinson*<br>**Mesonet Metadata Atlas**<br>***Beth Hall*** *(MRCC, Purdue University)*<br>**AASC Mesonet Website**<br>***Sytske Kimball*** *(University of South Alabama)*<br>**Future AASC Mesonet Committee Structure and Initiatives**<br>***Kevin Brinson*** *(University of Delaware)*<br>**Mesonet Professionals Training Discussion**<br>**Meeting Feedback and Future AASC Mesonet Meetings** |
| **10:00—10:30 PM** | **Break** |
| **10:30—12:00 PM** | **Session X. AASC Mesonet Activities Wrap-Up**<br>*Chair: Sytske Kimball*<br>**Future Steps in Updating the AASC Recommendations and Best Practices Document**<br>***Chip Redmond*** *(Kansas Mesonet)*<br>**Future Steps for the AASC Mesonet Recognition Program Working Group**<br>***Jerry Brotzge*** *(Western Kentucky University)*<br>***Kevin Brinson*** *(University of Delaware)* |
| **12:00—12:15 PM** | **Final Remarks and Close of Meeting**<br>***A post-meeting feedback survey will be emailed out following the conclusion of the meeting.*** |
| **12:15 PM** | **Boxed Lunches** |

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