NATIONAL ACADEMIES

Events

BOARD ON ATMOSPHERIC SCIENCES AND CLIMATE BOARD ON ENVIRONMENTAL CHANGE AND SOCIETY

Advancing Risk Communication with Decision-Makers for Tropical Cyclones Learning from Extreme and Unprecedented Weather



February 5-6, 2024

VIRTUAL | NAS Building (2101 Constitution Ave. NW, Washington, DC 20418

Additional information and webcast available on the event page

This workshop will explore opportunities and challenges for communicating with decision-makers about extreme tropical cyclones (TCs) and identify lessons that can be drawn from engagement and communication concerning other hazards and applied to the tropical cyclone (TC) context. Workshop discussions will also consider challenges related to communicating about rare events and compounding hazards and cascading impacts.

MONDAY, FEBRUARY 5, 2024 | All times ET

10:30–10:40 Welcome and Opening Remarks

Ann Bostrom, University of Washington, Committee Chair

10:40–12:00 Session 1: Communicating Risks of Atypical Tropical Cyclones: Lessons from Henri and Hilary

Moderators: Andrea Schumacher, NSF-NCAR, & Ann Bostrom, University of Washington, Planning Committee Members

Panel 1: Forecaster Perspectives

2 minute intros + 30 minutes Q&A

- Alex Lamers, National Weather Service Weather Prediction Center
- Rose Schoenfeld, National Weather Service
- Robbie Berg, National Hurricane Center

Panel 2: Research Perspectives

5-8 minute talks + 15 minutes Q&A

- Roxane Cohen Silver, University of California, Irvine
- Julie Demuth, NSF National Center for Atmospheric Research
- Emma Spiro, University of Washington

12:00–12:45 Lunch

12:45–1:50 Session 2: Risk Communication in Multi-Hazard Environments: Challenges and Learning Opportunities from Compounding Hazards and Cascading Impacts

Moderator: Marshall Shepherd, University of Georgia, Planning Committee Member

Keynote Speaker:

15 minute talk

• Jen Henderson, Texas Tech University

Panel:

5-8 minute talks, 15 minutes Q and A

- Jason Senkbeil, University of Alabama
- Rebecca Moulton, FEMA
- Jeff Lindner, Harris County Flood Control District
- Jessica Schauer, National Weather Service Tropical Cyclone Weather Services Program

1:50–2:05 Break

- 2:05–2:15 High Level Summary of Sessions 1 and 2
- 2:15–2:20 Transition to Breakout Rooms

2:20–2:55 Session 3: Breakout Discussions: Applying Risk Communication Lessons from Other Hazards to the Tropical Cyclone Context

Moderator: Jeannette Sutton, SUNY Albany, Planning Committee Member

5-minute talks + 20 mins discussion

Room 1: Earthquakes

- Richard Allen, University of California, Berkeley
- Michele Wood, California State University, Fullerton
- Sara McBride, USGS

Room 2: Extreme Heat

- Micki Olson, SUNY, Albany
- Olga Wilhelmi, National Center for Atmospheric Research
- Peter Howe, Utah State University

Room 3: Flooding

- Amanda Schroeder, National Weather Service
- Rachel Hogan Carr, Nurture Nature Center

Sample Discussion Questions:

• What recent advances in communicating risk and uncertainty for this hazard are relevant for TCs?

- What are the technological communications challenges in forecasting and alerting for this hazard that might inform TC risk communication?
- Who are the important intermediaries communicating about this hazard? How could they advance risk communication about the hazard, and how might this inform TC communication?
- How does a hazard's speed of onset affect the warning process? What have local authorities done to speed warning dissemination in rapid onset incidents? What information have they disseminated in advance to speed warning reception and protective response by those in the risk area?
- Which communication channels do local authorities use for warnings? What do they think are the limitations of those channels, if any? How might this inform TC communication?
- How do local authorities address population segments with special needs for warning reception and/or assistance in protective action?
- What do local authorities believe about peer warning networks (especially unintentional or deliberate misinformation) and how accurate are those beliefs?

2:55–3:15 Report Back to Plenary

5-minute transition back to plenary Moderator: Jeannette Sutton, SUNY Albany, Planning Committee Member Breakout moderators report back on key takeaways from their discussions

3:15–3:30 Break

3:30–4:45 Session 4: Risk Communication and Decision Making in Communities

Moderators: Craig Fugate, Craig Fugate Consulting LLC, & Brad Colman, American Meteorological Society, Planning Committee Members

Panel: Risk Communication Across Scales: Risk Communicators in Communities

5 minute talks + 15 minute Q and A

- Drew Pearson, Dare County Emergency Management
- Russel Strickland, Maryland Department of Emergency
 Management
- Daphne Ladue, University of Oklahoma
- Tom Cova, University of Utah
- Jim Elliott, Rice University

Roundtable: Community Leaders and Community Action

30-minute discussion

- Jeff Lindner, Harris County Flood Control District
- Peyton Siler-Jones, National League of Cities (NLC)

- Archie Chaisson, Lafourche Parish Government
- Randy Reid, International City/County Management Association (ICMA)

4:45–4:55 High Level Summary of Sessions 3 and 4

4:55–5:00 Wrap Up and Plans for Day 2 Ann Bostrom, University of Washington, Committee Chair

5:00 END OF DAY 1

TUESDAY, FEBRUARY 6, 2024 | All times ET

 10:30–10:35
 Welcome and Opening Remarks

 Ann Bostrom, University of Washington, Committee Chair

10:35–10:50 Recap from Day 1 Rebecca Morss, U.S. National Science Foundation

10:50–12:30 Session 5: Practical Translation of Risk in the Public Arena

Moderators: Andrea Schumacher, NCAR, & Jeannette Sutton, SUNY Albany, Planning Committee Members & Gabrielle Wong-Parodi, Stanford University

Panel 1: Risk Communication Innovations and New Frontiers in TC Communication: Public Sector

5-8 minute talks + 10 minutes Q&A

- Mike Brennan, National Hurricane Center
- Castle Williamsberg, FedWriters Supporting NOAA's Weather
 Program Office
- Gina Eosco, NOAA Weather Program Office

Messaging Technology Walkthrough:

5-8 minute demos of messaging technologies + 10 minutes Q and A

- Mike Gerber, National Weather Service
- Brock Aun, HAAS Alert
- Anatoliy Gruzd & Philip Mai, Toronto Metropolitan University

Panel 2: Risk Communication Innovations and New Frontiers in TC Communication: Private Sector

5-8 minute talks + 10 minutes Q&A

- Mike Chesterfield, The Weather Channel
- Micah Berman, Google
- John Lawson, AWARN

12:30–1:15 Lunch

1:15–2:50 Session 6: New Approaches to Unmet Needs: Communication for the Whole Community Moderators: Ann Bostrom, University of Washington & Jeannette Sutton, SUNY Albany, Planning

Committee Members

Keynote Speaker: Jargon, Technical Language, and Plain Language 10 minute talk, 5 minutes Q and A

• Wändi Bruine de Bruin, University of Southern California

Panel 1: Communicating Uncertainty and Probabilistic Information about TC Tracks, Timing and Severity

10 minute talks, 10 minutes Q and A, 10 minute discussion of a prototype wind-speed product

- Lace Padilla, Northeastern University
- Jessica Hullman, Northwestern University

Panel 2: Access and functional needs:

- Sherman Gillums, Jr., FEMA
- Joseph Trujillo-Falcon, University of Oklahoma
- 2:50–3:05 Break
- 3:05–3:15 High Level Summary of Sessions 5 and 6

3:15–4:15 Session 7: Workshop Retrospective and Implications for the Future

Moderators: Marshall Shepherd, University of Georgia & Brad Colman, American Meteorological Society, Planning Committee Members

60 minute roundtable discussion

- Julie Demuth, NSF National Center for Atmospheric Research
- Brock Aun, HAAS Alert
- Sherman Gillums, Jr., FEMA
- Gina Eosco, NOAA Weather Program Office
- Rebecca Morss, U.S. National Science Foundation

4:15–4:30 Wrap Up and Closing Remarks Ann Bostrom, University of Washington, Committee Chair

4:30 Adjourn