

### 2014 Annual Meeting Program Agenda (Preliminary updated 8 October 2014)

National Weather Association 39<sup>th</sup> Annual Meeting Sheraton Hotel, Salt Lake City, UT October 18-23, 2014

### Theme: "Building a 21st Century Weather Enterprise: Facilitating Research to Operations – Optimizing Communication and Response."

See the main annual meeting page <a href="http://www.nwas.org/meetings/nwa2014/">http://www.nwas.org/meetings/nwa2014/</a> for information on the meeting hotel, exhibits, sponsorships, attendee registration requirements, social media connections and more.

Authors/Presenters, please inform the Annual Meeting Program Committee at <a href="mailto:annualmeeting@nwas.org">annualmeeting@nwas.org</a> of any corrections or changes required in the listing of your presentations or abstracts as soon as possible. Instructions for uploading your presentation PowerPoint slides, extended abstracts and posters to the NWA website to be used at the meeting and eventually linked from the final agenda are shown on the "Presentation Instructions and Tips" website page. See "Upload Instructions" then send your file(s) on the Presentation and Extended Abstract Upload website page.

All activities will be held in the Sheraton Salt Lake City Hotel unless otherwise noted. **All attendees** please check in at the NWA Registration and Information Desk as soon as possible upon arriving at the Sheraton Hotel to obtain nametags, the latest program and scheduling information and to register if not preregistered.

Please note that this is a preliminary agenda and that changes will occur to the program prior to the meeting. Please check back regularly for any modifications that may impact presentation title, time, room, etc.

### <u>Saturday – 18 October</u>

10:00 AM Aviation Weather Safety Seminar: Aviation Weather in the Intermountain West

The NWA Aviation Meteorology Committee invites all to attend this free valuable seminar (10 AM -1PM) specifically designed for pilots who fly in the

Intermountain West. Additional details on the event and registration information can be found on the FAA Safety Registration Page.

Speakers include:

Terry Lankford, FSS Specialist (retired), Murphys, CA Christine Kruse, NOAA/NWS, Salt Lake City, UT Sarah Rogowski, NOAA/NWS/CWSU, Salt Lake City, UT

*Seminar location*: Kibbie Executive Terminal on the east side of SLC International airport, 337 N 2270 W, Salt Lake City UT 84116, first floor training room

11:00 AM NWA 12th Annual Scholarship Golf Outing, Stonebridge Golf Course, West

Valley City, UT

Sponsored by NWA Corporate Member <u>Baron Services, Inc.</u>
Contact Betsy Kling, <u>betsykling@wkyc.com</u> for information or to sign-up.

**11:00 AM** Lunch **12:30 PM** Tee-off

12:00 PM Exhibit Hall Setup begins: Sundance Room

12:00 PM NWA Registration and Information Desk Opens (Closes at 7:00 PM)

### <u>Sunday – 19 October</u>

7:00 AM NWA Registration and Information Desk Opens (Closes at 6:00 PM)

8:30 AM Broadcast Meteorology Workshop: Canyons Ballroom

9:00 AM Exhibits Open (Close at 6:00 PM): Sundance Room

12:00 PM Seventh Annual Student Session: Snowbird-Solitude Room and Wasatch Room

### **Broadcast Meteorology Workshop**

### **Canyons Ballroom**

**Session Chair:** Mike Goldberg, NWA Councilor and Broadcast Meteorology Committee Workshop Chair & WTVR-TV Richmond, VA

8:30 AM **B1.0 Welcoming Remarks** Jeff Craven, NWA President, NOAA/NWS, Milwaukee/Sullivan, WI 8:35 AM **B1.1 Opening Remarks** Miles Muzio, NWA Broadcast Meteorology Committee Chair & KBAK-TV Bakersfield, CA Mike Goldberg, NWA Councilor and Broadcast Meteorology Committee Workshop Chair & WTVR-TV Richmond, VA 8:45 AM **B1.2** Welcome to Salt Lake City Kevin Eubank, KSL-TV, Salt Lake City, UT 9:00 AM **B1.3 Storm Prediction Center Risk Communication: Recent Changes and Future Plans** William Bunting, NOAA/NWS/SPC, Norman, OK 9:15 AM B1.4 Outlook and Warning Methodologies for the 28 April 2014 Tornado Outbreak Alan Gerard, NWA Past President ('07), NOAA/NWS, Jackson, MS 9:30 AM **B1.5 Advanced Tornado Safety Planning** Richard D. Smith, NOAA/NWS, Norman, OK 9:45 AM B1.6 A Comparative Evaluation of Weather Graphics and Their Effect on **Severe Weather Decision Making** Megan McClellan, KTEN-TV, Denison, TX Laura Mock, WHSV-TV, Harrisonburg, VA 10:00 AM Coffee Break; Exhibits Open: Sundance Room 10:30 AM B2.0 Societal and Government Response to the 28 January 2014 Winter Storm. i.e., Atlanta SnowJam Keith Stellman, NOAA/NWS, Peachtree City, GA 10:45 AM **B2.1** Winter Weather Workshop – Precipitation Type Intricacies Patrick Market, NWA Past President ('11), University of Missouri, Columbia, MO, John Gagan, NWA Councilor, NOAA/NWS, Springfield, MO Chad M. Gravelle, NOAA/NWS/Operations Proving Ground, Kansas City, MO 11:40 AM **B2.2** Climate Central Preview of Monday Luncheon Bernadette Woods, Climate Central, Princeton, NJ 11:55 AM **B2.3 Sponsor Presentation – Baron Services Inc.** 

| 12:00 PM | Lunch on your own; Exhibits open Sundance Room  |
|----------|---|
| 1:30 PM  | B3.0 A Review of Significant Weather Events Occurring in 2014<br>Greg Carbin, NWA Councilor and NWA Professional Development Committee<br>Chair& NOAA/NWS/SPC, Norman, OK   |
| 2:15 PM  | B3.1 Potential Links Between Global and Regional Tropical Cyclone Trends and Climate Change H. Michael Mogil, How the WeatherWorks, Naples, FL  |
| 2:30 PM  | B3.2 2017: The Sun Will Darken Joe Rao, News 12 Westchester, Westchester, NY  |
| 2:45 PM  | <b>B3.3</b> Easy and Quick Way to Show Viewers You Are THE Go-To Science Broadcaster in Your Market  Joe Witte, adnetNASA, Arlington, VA  |
| 3:00 PM  | Coffee Break; Exhibits Open: Sundance Room  |
| 3:30 PM  | <b>B4.0</b> Broadcast Weather: Effective Messaging in the Evolving Multi-Media Landscape Nate Johnson, WRAL-TV, Raleigh, NC   |
| 3:45 PM  | <b>B4.1 Social Media Workshop</b> Frank Alsheimer, NWA Social Media Committee Chair and 2013 Annual Meeting Program Chair & NOAA/NWS, Charleston, SC Richard D. Smith, NOAA/NWS Norman, OK Tim Brice, NOAA/NWS, El Paso, TX and Brad Panovich, WCNC-TV, Charlotte, NC |
| 4:45 PM  | <b>B4.2</b> Broadcast Meteorology Committee Q & A  Miles Muzio, NWA Broadcast Meteorology Committee Chair & KBAK-TV,  Bakersfield, CA   |
| 5:00 PM  | Announcements/Dinner on your own  |
| 7:00 PM  | <b>DVD Swap Canyons Ballroom</b> Miles Muzio, NWA Broadcast Meteorology Committee Chair & KBAK-TV, Bakersfield, CA Chris Dunn, NWA Broadcast Meteorology Committee Seal of Approval Chair & KPHO-TV, Phoenix, AZ  |
| 8:30 PM  | Concurrent Student DVD Critique in Student Session Wasatch Room Mike Goldberg, NWA Councilor and Broadcast Meteorology Committee Workshop Chair & WTVR-TV, Richmond, VA   |

### Seventh Annual Student Session

### **Snowbird-Solitude Room**

#### **Session Co-chairs:**

Kevin M. Barjenbruch, NWA Societal Impacts of Weather and Climate Committee Chair, NOAA/NWS, Salt Lake City, UT

Randy Graham, NWA 2014 Annual Meeting Program Chair, NOAA/NWS, Salt Lake City, UT

### 12:00 PM S1.0 Welcoming Remarks and Introduction

Janice Bunting, NWA Executive Director, Norman, OK

Jeff Craven, NWA President, NOAA/NWS, Milwaukee/Sullivan, WI

Randy Graham, NWA 2014 Annual Meeting Program Chair, NOAA/NWS,

Salt Lake City, UT

#### 12:10 PM S1.1 Government Careers

Christopher Strager, Director, NOAA/NWS Central Region Headquarters, Kansas

City, MO

#### 12:20 PM S1.2 Broadcasting Careers

Kathy Sabine, KUSA-TV, Denver, CO

#### 12:30 PM S1.3 Private Sector Careers

Ken Carey, NWA Councilor, Earth Resources Technology (ERT) Inc., Laurel, MD

#### 12:40 PM S1.4 Grad School and Academic Careers

John D. Horel, University of Utah, Salt Lake City, UT

#### 12:50 PM S1.5 Career Track Panel Discussion

Moderator - Jennifer Henderson, Virginia Tech, Blacksburg, VA

Panel – Christopher Strager, Director, NOAA/NWS Central Region Headquarters,

Kansas City, MO

Kathy Sabine, KUSA-TV, Denver, CO

Ken Carey, NWA Councilor, Earth Resources Technology (ERT) Inc., Laurel, MD

John D. Horel, University of Utah, Salt Lake City, UT

#### 1:30 PM Sponsor Presentation – University of Oklahoma College of Atmospheric and

**Geographic Sciences** 

1:33 PM Break; Exhibits Open: Sundance Room

### **Student Session continues**

### **Snowbird-Solitude Room**

**Session Chair:** Kevin M. Barjenbruch, NWA Societal Impacts of Weather and Climate Committee Chair, NOAA/NWS, Salt Lake City, UT

1:45 PM S2.0 Communication Workshop

Susan Jasko, California University of Pennsylvania, California, PA Nate Johnson, WRAL-TV/NC State University, Raleigh, NC

2:30 PM S2.1 Social Media Workshop

Facilitated by NWA Social Media Committee Members

Tim S. Brice, NOAA/NWS, El Paso, TX
Richard D. Smith, NOAA/NWS, Norman, OK
Trevor M. Boucher, NOAA/NWS, Nashville, TN

3:15 PM Refreshment Break; Exhibits Open: (Refreshments in Wasatch Room)

### **Student Session continues**

### **Wasatch Room**

Session Chair: Dean Hazen, NOAA/NWS, Pocatello, ID

3:30 PM S3.0 Speed Mentoring

Facilitated by:

Chad M. Gravelle, NOAA/NWS/Operations Proving Ground, Kansas City, MO and

the Ad Hoc NWA Mentoring Committee

5:00 PM Dinner on your own

### **Student Session continues**

### **Snowbird-Solitude Room**

Session Chair: Brett E. McDonald, NOAA/NWS, Riverton, WY

6:30 PM S4.0 Severe Weather Forecasting Master Class

Facilitated by:

Marc Singer, NOAA/NWS, Billings, MT

Chad M. Gravelle, NOAA/NWS/Operations Proving Ground, Kansas City, MO

Darren Van Cleave, NOAA/NWS, Missoula, MT

8:15 PM Break

### **Student Session continues**

### **Wasatch Room**

8:30 PM S5.0 Student DVD Critique (optional)

Facilitated by: Mike Goldberg, NWA Councilor and NWA Broadcast Meteorology

Committee Workshop Chair & WTVR-TV, Richmond, VA

### Monday – 20 October

### **General Session**

7:00 AM NWA Registration and Information Desk Opens (Closes at 4:00 PM)

7:45 AM General Session: Canyons and Bryce Ballroom

9:00 AM Exhibits Open (Close at 6:00 PM): Sundance Room

11:45 AM Weather Briefing and NWA Announcements

2:15 PM Poster Session I: Arches Room

6:00 PM Icebreaker: Leonardo – A Contemporary Museum for Science and Culture

8:00 PM Broadcasters Dinner - Squatters Brewpub

Sponsored by Ski Utah

#### **General Session**

### **Canyons and Bryce Ballroom**

### 7:45 AM Opening Remarks

Janice Bunting, NWA Executive Director, Norman, OK

Jeff Craven, NWA President, NOAA/NWS, Milwaukee/Sullivan, WI

Randy Graham, NWA 2014 Annual Meeting Program Chair, NOAA/NWS, Salt

Lake City, UT

### Session A1 – Building a 21st Century Weather Enterprise Canyons and Bryce Ballroom

**Session Co-chairs:** Elizabeth Page, NWA President-Elect, UCAR/COMET, Boulder, CO Jeffry Evans, NWA Vice President and Annual Awards Committee Chair, NOAA/NWS, Houston, TX

### 8:00 AM A1.0 Keynote Address - NWS and NOS: Partnering to Enhance Environmental

**Intelligence and Build Community Resilience** 

Dr. Louis Uccellini, Assistant Administrator for Weather Services, National Oceanic and Atmospheric Administration and Director, National Weather Service, Silver Spring, MD

Mary Erickson, National Oceanic and Atmospheric Administration, National Ocean Service, Director for the National Centers for Coastal Ocean Science, Silver Spring, MD

### 9:00 AM A1.1 NOAA Weather-Ready Nation Update and Plans for the Future

Christopher Strager, Director, NOAA/NWS Central Region Headquarters, Kansas Citv, MO

Kevin Scharfenberg, Douglas Hilderbrand and Wendy Marie Thomas NOAA/NWS, Silver Spring, MD

#### 9:15 AM Sponsor Presentation - Tempus Global Data

9:25 AM Coffee Break; Exhibits Open: Sundance Room

# Session A2 - Special Session: Improving Communication and Societal Response - Lessons Learned from the Southeast U.S. Winter Storm of 28 Jan 2014 Canyons and Bryce Ballroom

### **Session Co-chairs:**

John Scala, NWA Treasurer, NWA Past President ('08) and WGAL-TV Meteorologist, Lancaster, PA

Jennifer Henderson, Virginia Tech, Blacksburg, VA

### 9:55 AM A2.0 The 2014 Southeast Winter Storms (Atlanta Snowjam)

Keith M. Stellman, Trisha D. Palmer, Steven E. Nelson, Adam K. Baker, Jason T. Deese, Jessica L. Fieux, Alexander R. Gibbs, NOAA/NWS, Peachtree City, GA

#### 10:25 AM A2.1 Event and Impacts, Service and Response: The User Perspective

Christopher Grimes, Forsyth County Emergency Management, Cumming, GA

### 10:40 AM A2.2 The Public's Reliance on Warnings and Directives: A Case Study of the

January 28, 2014 Winter Weather Events in Alabama and Georgia

Laura B. Myers, University of Alabama, Tuscaloosa, AL Vankita Brown, NOAA/NWS, Silver Spring, MD Jennifer Henderson, Virginia Tech, Blacksburg, VA Susan Jasko, California University of Pennsylvania, California, PA

#### 11:00 AM A2.3 Panel Discussion

Moderator - John Scala, NWA Treasurer, NWA Past President ('08) and WGAL-TV Meteorologist, Lancaster, PA

Panel - Keith M. Stellman, NOAA/NWS, Peachtree City, GA
Jim Cantore, The Weather Company, Atlanta, GA
Christopher Grimes, Forsyth County Emergency Management, Cumming,
GA

Laura B. Myers, University of Alabama, Tuscaloosa, AL

| 11:40 AM | Sponsor Presentation - Baron Services, Inc.                          |
|----------|--|
| 11:45 AM | Weather Briefing and NWA Announcements                               |
| 11:50 AM | Lunch on your own; Exhibits open                                     |
| 11:50 AM | Sponsored Broadcaster Lunch - Climate Central Snowbird-Solitude Room |

### Session A3 – Winter Weather I Canyons and Bryce Ballroom

#### **Session Co-chairs:**

Chad M. Gravelle, NOAA/NWS/Operations Proving Ground, Kansas City, MO Richard J. Okulski, NWA Commissioner of Committees, NOAA/NWS, Caribou, ME

### 1:15 PM A3.0 An Investigation of Ice-to-Liquid Ratios in Varying Conditions during Freezing Rain Events

Brian L. Barjenbruch and Kristopher J. Sanders, NOAA/NWS, Topeka, KS

### 1:30 PM A3.1 The OWLeS Orographic (O2) Field Campaign: Adventures in Intense Snowstorms on the Tug Hill Plateau

W. James Steenburgh, Leah S. Campbell, Peter G. Veals, University of Utah, Salt Lake City, UT

Justin Minder and Ted Letcher, State University of New York at Albany, Albany, NY

### 1:45 PM A3.2 Climatological Characteristics and Orographic Enhancement of Lake-Effect

storms over eastern Lake Ontario and the Tug Hill Plateau

Peter G. Veals and W. James Steenburgh, University of Utah, Salt Lake City, UT

### 2:00 PM A3.3 The Uber Jet and Widespread Disruptive Ice Storm of 21-23 December

2013

Lance F. Bosart, Alicia M. Bentley, Philippe P. Papin, Atmospheric and Environmental Sciences/University at Albany, Albany, NY

#### 2:15 PM Poster Session and Exhibits (and Break): Arches-Sundance Room

### Session P1 – Poster Session I

#### **Arches-Sundance Room**

P1.1 The Anomalous Closed Low Patterns Responsible for the Severe Weather Outbreaks in Eastern Washington and Eastern Oregon on July 2012 and September 2013

Douglas Weber and Mary C. Wister, NOAA/NWS, Pendleton, OR

P1.2 Withdrawn - Use of Tornado Database to Assist TV Media, Emergency Managers, Risk Managers, Researchers, and National Weather Service Employees

Anthony R. Cavallucci, NOAA/NWS, Morristown, TN

P1.3 An Analysis of the 27 April 2014 Severe Weather Event: The Mayflower-Vilonia-El Paso Tornadic Storm

Christopher C. Buonanno, Willie Gilmore, Brian D. Smith, and Chuck Rickard, Sean Clarke, John A. Lewis, Charles Dalton, NOAA/NWS, Little Rock, AR

P1.4 The Landspout Menace: An Overview and Streamlined Process for Warning Operations

Jonathan C. Guseman, NOAA/NWS, Lubbock, TX

P1.5 An Analysis and Comparison of Two December High Shear-Low CAPE Events in Southeast South Carolina and Southeast Georgia

Wendy Sellers and Frank Alsheimer, NWA Social Media Committee Chair and NWA 2013 Annual Meeting Program Chair, NOAA/NWS, Charleston, SC

P1.6 An Assessment of Local Forecaster's Ability to Anticipate Convective Event Severity and Magnitude using the Hazardous Weather Outlook Product at WFO Binghamton, New York

Michael S. Evans, NOAA/NWS, Binghamton, NY

- P1.7 Estimating Wind Speeds of Convective Storms from Tree Damage

  Ernest J. Ostuno, NOAA/NWS, Grand Rapids, MI and Lee E. Frelich,

  Department of Forest Resources, University of Minnesota. Minneapolis, MN
- P1.8 New Storm Reports Page for the Storm Prediction Center Website
  Richard M. Mosier, NOAA/NWS/SPC, Norman, OK
  Christopher J. Melick, OU/CIMMS and NOAA/NWS/SPC, Norman, OK
- P1.9 Moved from P1.65 The Usefulness of Winter Weather Local Storm Reports at the Storm Prediction Center

Christopher J. Melick, OU/CIMMS and NOAA/NWS/SPC, Norman, OK Brandon T. Sullivan, School of Meteorology/University of Oklahoma, Norman, OK Richard M. Mosier and Israel L. Jirak, NOAA/NWS/SPC, Norman, OK Christopher D. McCray, Department of Atmospheric Science/Lyndon State College, Lyndon, VT

P1.10 Moved from P1.9 Lovelady, TX: A Case Study of a Tornadic Cell in a Sparse Radar Coverage Environment

Christopher M. McKinney, Brian Haines, Scott Overpeck, Dan Reilly, NOAA/NWS, Houston, TX

# P1.11 Moved from P1.10 The 30 May 2013 Broken Arrow, Oklahoma Tornado - Mesoscale Environmental Clues of Tornadogenesis James D. Aydelott, Cox Media Group/KOKI-TV, Tulsa, OK Steven F. Piltz, NOAA/NWS, Tulsa, OK

### P1.12 Moved from P1.11 NWS Think Social Training Tim S. Brice, NOAA/NWS, El Paso, TX

Moved to 2.69 Social Media and Significant Weather

### P1.13 The Critical Time Period in Which NWS Offices can Gain a Substantial Increase in Facebook Followers and Page Visits

Robert S. Roberts, NOAA/NWS, Morristown, TN

### P1.14 An Effective Means of Integrating Twitter Based Reports into NWS Operations While Enhancing Public Severe Weather Awareness

Trevor M. Boucher and Tom Johnstone, NOAA/NWS, Nashville, TN David Drobny and William Minkoff, @NashSevereWx, Nashville, TN

### P1.15 The "Give and Takes" of Social Media, How NWS Spokane, WA is Utilizing Popular Communication Resources

Ryan M. Fliehman, NOAA/NWS, Spokane, WA

#### P1.16 Advanced Tornado Safety Planning

Richard D. Smith, NOAA/NWS, Norman, OK

### P1.17 Weather Ready Schools: Should School Hallways as Storm Shelters Be the Next Weather Safety Recommendation to be Retired?

Andrea D. Melvin and Dr. Kevin A. Kloesel, Oklahoma Climatological Survey, Norman, OK; Richard Smith, NOAA/NWS, Norman, OK; Gayland Kitch, Emergency Management and Communications/City of Moore, Moore, OK and Melissa K. Corbett, Oklahoma Climatological Survey/University of Oklahoma, Norman, OK

### P1.18 Disaster Averted: Hypothetical Tornado Paths after the El Reno Tornado of 31 May 2013

Gabriel Garfield, Cooperative Institute for Mesoscale Meteorological Studies, Norman, OK

### P1.19 The Integrated Warning Team: A Potential Collaborative Site of Critical Participation

Jennifer J. Henderson, Virginia Tech, Blacksburg, VA

### P1.20 Withdrawn - Does storm chasing with trained professionals enhance students' classroom performance in other meteorological courses?

Sam Ng, Metropolitan State University, Denver, CO Scott Landolt, NCAR, Boulder, CO

### P1.21 Benefits of Establishing a Student Operated Forecast Office and Active Learning Environment for Undergraduates

Adam C. Abernathy, Jeffrey S. Fitzgerald, Kevin D. Perry, University of Utah/Department of Atmospheric Sciences, Salt Lake City, UT

### P1.22 Increasing Your Chance of Success Beyond College in the Atmospheric Sciences Erik M Heden, NOAA/NWS, Binghamton, NY

### P1.23 A Study of the Connection Between TV Meteorologists and Their Viewers During Severe Weather Broadcasts in Missouri

Daniel M. Ebner, KRCG-TV, New Bloomfield, MO Anthony R. Lupo, University of Missouri, Columbia, MO

### P1.24 Aviation Meteorology Decision Support at the Air Traffic Control System Command Center

Michael T. Eckert and Brandon A. Smith, NOAA/NWS/NCEP/AWC/ATCSCC, Warrenton, VA

### P1.25 On-Site Decision Support Services at NY TRACON

Gordon Strassberg, William Scura, Melissa DiSpigna and Kirt Squires, NOAA/NWS, New York CWSU, New York, NY Jeffrey Tongue, NWA Education Committee Chair, NOAA/NWS, New York, NY David Manning and Joshua Watson NOAA/NWS/Eastern Region Headquarters Bohemia, NY

### P1.26 Improving Terminal Area Wind Data Management, Dissemination and NWS Accessibility

Mike Richards, NTSB, Washington D.C.

Todd Lericos, NWA Aviation Meteorology Committee Chair, NOAA/NWS, Las Vegas, NV

Dan Bartlett, NTSB, Washington, D.C.

### P1.27 Using VIIRS Dust Enhancements for the Issuance of Dust SIGMETs at the Aviation Weather Center (AWC)

Amanda M. Terborg, UW CIMSS/Aviation Weather Center, Kansas City, MO Steve Miller, CIRA, Fort Collins, CO Dan Lindsey, NOAA/NESDIS, Fort Collins, CO Deb Molenar, NOAA/NESDIS/STAR, Fort Collins, CO Robert DeMaria, CIRA, Fort Collins, CO

### P1.28 The Second First-Responders - A Lesson in Decision Support Vernon Preston, NOAA/NWS, Pocatello, ID P1.29 A Comparative Evaluation of Weather Graphics and Their Effect on Severe **Weather Decision Making** Megan McClellan, KTEN-TV in Denison, TX, Laura Mock, WHSV-TV, Harrisonburg, VA, Haley Brink, WeatherNews, Norman, OK P1.30 **Providing Decision Support Services to Large-Scale Partners** Jennifer McNatt and Mark J. Wiley, NOAA/NWS/Southern Region Headquarters, Fort Worth, TX P1.31 Unique Decision Support Service Opportunities for NWS WFOs in Rural Areas Brett E. McDonald, Chris N. Jones, Kelly Allen, Katy Branham, NOAA/NWS, Riverton, WY P1.32 Decision Support during the Extreme Winter Weather Events of 2014 across **Central Alabama** Matthew E. Anderson, Holly M. Allen, Jody R. Aaron, Tara N. Goggins, Mary N. Keiser, NOAA/NWS, Birmingham, AL P1.33 Center Weather Service Units and the Early Evolution of NWS Decision Support **Services** Sarah Rogowski, NOAA/NWS/CWSU, Salt Lake City, UT Scott J. Carpenter, NOAA/NWS Western Region Headquarters, Salt Lake City, UT Susan Krippner and Robert C. Woods, NOAA/NWS/CWSU, Salt Lake City, UT P1.34 Roadmap to Optimize Community Resilience and Response with NWS StormReady Delyne B. Kirkham and Michael Fitzsimmons, NOAA/NWS, Elko, NV P1.35 National Weather Service Impact-Based Decision Support Services in the El Paso/Ciudad Juarez Region of the U.S. / Mexico Border: Challenges and Success **Stories** Jesus A. Haro, NOAA/NWS, El Paso, TX

**NWS Weather Forecast Office** 

Spinning Up a Weather-Ready Nation: Significant Improvements Made at an

Kevin Durfee and Paul Iñiquez, NOAA/NWS, San Joaquin Valley/Hanford, CA

P1.36

### P1.37 Utilizing a WFO-Owned High-Resolution Mesonet to Provide Decision Support Services for Localized High Impact Events

Cynthia D. Bean, James B. Dudley, Paul Iñiguez, NOAA/NWS, San Joaquin Valley/Hanford, CA

### P1.38 National Weather Service Providing Impact Decision Support Services Meeting the Needs of New and Existing Government Users

Alex O. Tardy, NOAA/NWS, San Diego, CA

### P1.39 High Impact Decision Support Services Training For NWS Meteorologists

Rick Davis and Charlie Paxton, NOAA/NWS, Tampa Bay Area, FL

### P1.40 NWS Fire Weather Science and Technology Program - Mitigating the Impacts of Weather on Fires, Assisting Incident Meteorologists, Savings Lives and Property

Peter B. Roohr, NOAA/NWS/OST, Silver Spring, MD Robyn Heffernan, NOAA/NWS/OCWWS, Silver Spring, MD Tim McClung, NOAA/NWS/OST, Silver Spring, MD Sher Schranz, NOAA/OAR/ESRL, Boulder, CO Phil Bothwell, NOAA/NWS/NCEP/SPC, Norman, OK

### P1.41 Western Great Basin Wildfire Spread Pattern Recognition and the Hold-Over Threat Index Tool

Donald M. Dumont and Clair E. Ketchum, NOAA/NWS, Elko, NV

#### P1.42 Fire Weather Colored Forecast Matrix

Mark Struthwolf, NOAA/NWS, Salt Lake City, Utah

### P1.43 Developing a Dataset of Wind Gust Factors to Improve Forecasts of Wind Gusts in Tropical Cyclones

Jonathan L. Blaes, NOAA/NWS, Raleigh, NC
David Glenn NOAA/NWS, Morehead City/Newport, NC
Donald Hawkins, NOAA/NWS, Wilmington, NC
Victoria Oliva, NC State University, Raleigh, NC
Ryan T. Ellis, NOAA/NWS, Raleigh, NC

### P1.44 A Climatology of Cold Air Damming and Tropical Cyclones in the Southeast U.S.

Barrett L. Smith, NOAA/NWS, Raleigh, NC José Garcia, North Carolina Agricultural and Technical State University, Greensboro, NC

Jordan Dale, Energetics Incorporated, Washington, DC

| P1.45 | Assessing Tornadic Convection with Tropical Storm Andrea over Florida Using MRMS  |
|-------|---|
|       | Steven M. Martinaitis, OU/CIMMS and NOAA/OAR/NSSL, Norman, OK   |
|       | James G. LaDue, NOAA/NWS/WDTB, Norman, OK   |
| P1.46 | Analysis of Model Derived 150 mb Tropical Cyclone Core Climatology  |
|       | Jonathan D. Belles, NWA Council Student Ex-Officio, Florida State University,<br>Tallahassee, FL                          |
| P1.47 | BOTES: A Methodology for Quickly Assessing Tropical Storm Surge   |
|       | Robert J. Ricks, NOAA/NWS, New Orleans/Baton Rouge, LA  |
| P1.48 | Withdrawn The Superstorm of 1993: A Florida-Centric Mesoanalysis Of The Conditions Surrounding The "Storm Of The Century" |
|       | Matthew J. Bolton, Pasco-Hernando State College, New Port Richey, FL  |
|       | Lauren Visin and Andrew Briscoe, Florida State University, Tallahassee, FL  |
| P1.49 | Anomaly Based Weather Analysis vs. Traditional Total-field Based Weather Analysis   |
|       | Jun Du, EMC/NCEP/NWS/NOAA, College Park, MD   |
|       | Weihong Qian, Peking University, Beijing, China   |
| P1.50 | Examining Pressure Traces of High-Impact Weather Events Using the USArray Network   |
|       | Alexander A. Jacques and John Horel, University of Utah, Salt Lake City, UT   |
| P1.51 | Corpus Christi's Strongest Post-Frontal, Tropical Cyclone, and Severe Thunderstorm High Wind Events                       |
|       | Michael E. Buchanan, NOAA/NWS, Corpus Christi, TX   |
| P1.52 | A Technique to Alleviate Forecast Limitations Across the Western U.S.   |
|       | Michael G. Stroz and Shawn Palmquist, NOAA/NWS, Eureka, CA  |
| P1.53 | Forecasting Surface Wind Gusts In Positively Stable Environments  |
|       | Stas Speransky, Florida State University, Tallahassee, FL   |
|       | James E. Lee and Steven M. Zubrick, NWA Past President ('10), NOAA/NWS,<br>Baltimore/Washington, VA                       |
| P1.54 | Exploring Ultra-high-frequency Data and Forecasts Using Non-Standardized  |
|       | Observations  |
|       | Kyle Costello and Joby Hilliker, West Chester University, West Chester, PA  |

- P1.55 A New Method of Calculating Vertical Motion in Isentropic Space
  Micheal J. Simpson and Pat Market, NWA Past President ('11), University of
  Missouri, Columbia, MO
- P1.56 Overview of the 28 January 2014 Southeast Winter Storm

  Trisha D. Palmer, Adam K. Baker, Jason T. Deese, Jessica L. Fieux, Alexander R.

  Gibbs, Steven E. Nelson, and Keith M. Stellman, NOAA/NWS, Peachtree City, GA

  S. Hunter Coleman, NOAA/NWS, Columbia, SC

  Patrick D. Moore, NOAA/NWS, Greenville-Spartanburg, SC
- P1.57 Overview of the 11-13 February 2014 Winter Storm across the Southeast

  Trisha D. Palmer, Adam K. Baker, Jason T. Deese, Jessica L. Fieux, Alexander R.

  Gibbs, Steven E. Nelson, and Keith M. Stellman, NOAA/NWS, Peachtree City, GA
  S. Hunter Coleman, NOAA/NWS, Columbia, SC

  Patrick D. Moore, NOAA/NWS, Greenville-Spartanburg, SC
- P1.58 Societal and Government Response to the 28 January 2014 Winter Storm, i.e.,
  Atlanta SnowJam
  Keith Stellman, Jessica L. Fieux, Steven E. Nelson, Trisha D. Palmer, Jason T.
  Deese, NOAA/NWS, Peachtree City, GA
- P1.59 Synoptic Map Types Associated with Heavy Snowfall in Vancouver, B.C.,

  Canada

  Trevor R. Smith and Ruping Mo, Meteorological Service of Canada, Vancouver,
  B.C.
- P1.60 The Impact of Convective Mode on the Morphology of Lake-Effect Snow Bands
  Michael L. Jurewicz, NOAA/NWS, Binghamton, NY
  Justin Arnott, NOAA/NWS, Gaylord, MI
- P1.61 Analysis of 2013-14 winter probabilistic snowfall amount forecasts issued by National Weather Service Baltimore/Washington DC Weather Forecast Office James D. Stanley, North Carolina State University, Raleigh, NC Kenneth Widelski, Steven M. Zubrick, NWA Past President ('10) and Diana Norgaard, NOAA/NWS, Baltimore/Washington, VA
- P1.62 Social Media Dashboard A Locally Developed Application
  Neil Dixon, NOAA/NWS, Greenville-Spartanburg, SC
- P1.63 Analysis of Wind Gusts for the National Digital Forecast Database
  Bob Glahn and Jung-Sun Im, NOAA/NWS/MDL, Silver Spring, MDL

# P1.64 Verification of precipitating weather type forecasts in the National Digital Forecast Database and National Digital Guidance Database Tabitha L. Huntemann, NOAA/NWS/MDL, Silver Spring, MD Michael J. Schenk, NOAA/NWS/MDL (Retired), Silver Spring, MD Paul Fajman, NOAA/NWS/OHD, Silver Spring, MD

#### P1.65 Moved to P1.9

### P1.66 Inter-comparison of the MRMS Radar QPE and Gauge Observations in a Complex Stratiform and Convective Rain Event

Stephen B. Cocks, OU/CIMMS and NOAA/OAR/NSSL, Norman, OK Jian Zhang, NOAA/OAR/NSSL, Norman, OK Steven M. Martinaitis OU/CIMMS and NOAA/OAR/NSSL, Norman, OK Kenneth Howard, NOAA/OAR/NSSL, Norman, OK

### P1.67 Using MODIS Snow Cover Fractional Extent to Improve River Forecasting Models in Interior Alaska - Accelerating the R2O process

Scott D. Lindsey, NOAA/NWS, Anchorage, AK KatrinaBennett and Jessica Cherry, University of Alaska Fairbanks, Fairbanks, AK Benjamin Balk, AMEC, Boulder, CO

# P1.68 Automating Temporary Point Data for Local High Resolution Models Steve Rogowski, NOAA/NWS, Salt Lake City, UT Trevor Alcott, NOAA/NWS/Western Region Headquarters, Salt Lake City, UT

P1.69 The Role of High Resolution Modeling in Decision Support Services Leading up to the 1 December 2011 Downslope Windstorm north of Salt Lake City, Utah Steve Rogowski, NOAA/NWS, Salt Lake City, UT

### P1.70 Determining an Ideal Vertical Localization for Cloud Water Path Assimilation within WRF-DART

Jessica M. Tomaszewski, School of Meteorology, University of Oklahoma, Norman, OK

### Session A4 – Radar I (concurrent)

**Canyons and Bryce Ballroom** 

**Session Co-chairs:** 

Lans Rothfusz, NWA 2007 Vice President, NOAA/OAR/NSSL, Norman, OK Winifred C. Crawford, NWA Newsletter Editor, ENSCO, Inc., Cocoa Beach, FL

### 3:45 PM A4.0 Impacts of Phased Array Radar Data on the Forecaster Warning Decision Process during Severe Hail and Wind Events

Katie A. Bowden, OU/ CIMMS, Norman, OK

Pamela L. Heinselman, NOAA/OAR/NSSL, Norman, OK

Darrel Kingfield, OU/CIMMS and NOAA/OAR/NSSL, Norman, OK

Rick Thomas, Department of Psychology, University of Oklahoma, Norman, OK

### 4:00 PM A4.1 Dual-Pol Radar and Precipitation Type during a Central Indiana Winter Storm

Daniel W. McCarthy and Chad E. Swain, NOAA/NWS, Indianapolis, IN

### 4:15 PM A4.2 The Multiple-Radar / Multiple-Sensor Severe Weather Products Best Practices Experiment in the HWT

Gregory J Stumpf, University of Oklahoma/CIMMS, Norman, OK James G. LaDue and Robert A. Prentice, NOAA/NWS/WDTB, Norman, OK Matthew S. Elliott and Darrel M. Kingfield, University of Oklahoma/CIMMS, Norman, OK

### 4:30 PM A4.3 Finescale Orographic Precipitation Variability and Gap-Filling Radar Potential in Little Cottonwood Canyon, Utah

Leah S. Campbell and W. James Steenburgh, University of Utah, Salt Lake City, UT

### 4:45 PM A4.4 Various Reflectivity-based Hail Size Techniques Compared to High Resolution Hail Reports

Kiel L. Ortega, OU/CIMMS NOAA/OAR/NSSL, Norman, OK

### Session A5 – Communication and Response (concurrent)

**Snowbird-Solitude Room** 

**Session Co-Chairs:** 

Jacqui Jeras, NWA Seal Recertification Chair, WJLA-TV, Arlington, VA Nate Johnson, WRAL-TV and NC State University, Raleigh, NC

## 3:45 PM A5.0 A Comparison of Two Significant Severe Weather Events: Communication Strategies and Public Response Surrounding the 20 and 31 May, 2013 Central Oklahoma Tornadoes

Marcus D Austin, Matthew Day, Michael Scotten and Jonathan Kurtz, NOAA/NWS, Norman, OK

# 4:00 PM A5.1 Drivers' Awareness of and Response to Two Significant Winter Storms Impacting Utah's Wasatch Front and the Correlation of Weather to Road Impacts During the Winter of 2012-13

Kevin M. Barjenbruch, NWA Societal Impacts of Weather and Climate Committee Chair, NOAA/NWS, Salt Lake City, UT Carol M. Werner, The University of Utah, Salt Lake City, UT

Randy A. Graham, NWA 2014 Annual Meeting Program Chair, NOAA/NWS, Salt Lake City, UT

Cody D. Oppermann and Jeff A. Williams, Utah Department of Transportation, Salt Lake City, UT

Justin P. Connolly, NorthWest Weathernet, Salt Lake City, UT

Glen A Merrill, NOAA/NWS, Salt Lake City, UT

Glenn Blackwelder, Utah Department of Transportation, Traffic Operations

Center, Salt Lake City, UT

Scott T. Jensen, NorthWest Weathernet, Salt Lake City, UT

### 4:15 PM A5.2 Expressing "Certainty" in Weather Forecasts and Briefings

Jennifer McNatt and Mark J. Wiley, NOAA/NWS/Southern Region Headquarters, Fort Worth, TX

### 4:30 PM A5.3 Weather Messaging in the Evolving Multi-Media Landscape

Susan Jasko, California University of Pennsylvania, California, PA Nate Johnson, WRAL-TV and NC State University, Raleigh, NC

#### 4:45 PM A5.4 Improving Decision Support Services through Effective GIS-Based Graphics

Darren Van Cleave, NOAA/NWS, Missoula, MT

Tom Dang, NOAA/NWS, Sacramento, CA

Matt Solum, NOAA/NWS/Western Region Headquarters, Salt Lake City, UT

William Rasch, NOAA/NWS, Sacramento, CA

Chad Kahler, Mark Loeffelbein, Leslie Wanek and Scott Carpenter, NOAA/NWS/Western Region Headquarters, Salt Lake City, UT

5:00 PM Concurrent Sessions End

6:00 PM Ice Breaker: <u>Leonardo</u> – A Contemporary Museum for Science and Culture

8:00 PM Annual Broadcasters Dinner – Squatters Brewpub

Sponsored by Ski Utah

### Tuesday – 21 October

### **General Session**

7:00 AM NWA Registration and Information Desk Opens (Closes at 4:00 PM)

9:00 AM Exhibits Open (Close at 4:00 PM to tear down): Sundance Room

11:30 AM Weather Briefing and NWA Announcements

11:35 AM Women's Luncheon: Wasatch Room

2:15 PM Poster Session II: Arches Room

6:00 PM NWA Council and Committee Chairs Business Dinner Meeting: Wasatch Room

### **Session B1 – Evolving Services**

### **Canyons and Bryce Ballroom**

#### **Session Co-Chairs:**

Jeffrey P. Craven, NWA President, NOAA/NWS, Milwaukee/Sullivan, WI William F. Bunting, NOAA/NWS/SPC, Norman, OK

### 8:00 AM B1.0 Keynote Address - UK Met Office Warnings: The Journey from Threshold

to Impacts

Patricia Boyle, Met Office Liaison Officer (AFWA) US Air Force Weather Agency, Offutt Air Force Base, NE

### 8:30 AM B1.1 Forecasting A Continuum of Environmental Threats (FACETs): Progress in Crystallizing a Paradigm Change

Lans Rothfusz, NWA 2007 Vice President, NOAA/OAR/NSSL, Norman, OK Travis M. Smith and Christopher P. Karstens, OU/CIMMS and NOAA/OAR/NSSL, Norman, OK

Gregory J. Stumpf, OU/CIMMS and NOAA/NWS/MDL, Norman, OK Russell Schneider, NOAA/NWS/SPC, Norman, OK

### 8:45 AM B1.2 An Early Look at the NWS National Model Blender Project

Jeffrey P. Craven, NWA President, NOAA/NWS, Milwaukee/Sullivan, WI Stephen Lord, NOAA/NWS/OST, Silver Spring, MD Kathryn Gilbert and David Ruth, NOAA/NWS/OST/MDL, Silver Spring, MD Tom Hamill, NOAA/OAR/ESRL/PSD, Boulder, CO David Novak, NOAA/NWS/NCEP/WPC, College Park, MD Jim Sieveking, NOAA/NWS, St. Louis, MO

### 9:00 AM B1.3 A Nation Speaks: Focus Groups Feedback on NWS Hazard Simplification

Andy Horvitz, Elliott Jacks, Vankita Y. Brown, NOAA/NWS/Office of Climate, Water & Weather Services, Silver Spring, MD
Dr. Christopher L. Ellis, NOAA/NOS/Coastal Services Center, Charleston, SC

#### 9:15 AM B1.4 NWS Impacts Based Forecast Paradigm - An Experiment

J.J. Brost, NOAA/NWS, Tucson, AZ

#### 9:30 AM Coffee Break; Exhibits Open: Arches-Sundance Room

### Session B2 – Flooding, Flash Flooding and Heavy Rain (concurrent)

### **Canyons and Bryce Ballroom**

#### **Session Co-chairs:**

Alan Gerard, NWA Past President ('07), NOAA/NWS, Jackson, MS Lance F. Bosart, Atmospheric and Environmental Sciences/University at Albany, Albany, NY

#### 10:00 AM B2.0 Improving Prediction of Heavy Rainfall with Elevated Convection

Patrick Market, NWA Past President ('11), University of Missouri, Columbia, MO Laurel McCoy, University of Missouri and NOAA/NWS, Portland, OR Chad M. Gravelle, NOAA/NWS/Operations Proving Ground, Kansas City, MO Charles Graves, NWA Councilor, Saint Louis University, St Louis, MO

### 10:15 AM B2.1 Flash Flood Causing Mechanisms of the North American Monsoon in the Sonoran Desert

Stephen W. Bieda III, NOAA/NWS, Pendleton, OR

Andrew C. Comrie, University of Arizona, School of Geography & Development, Tucson, AZ

Michael A. Crimmins, University of Arizona, Department of Soil, Water and Environmental Sciences, Tucson, AZ

Lee A. Byerle, United States Air Force, Maxwell AFB, AL

John J. Brost, NOAA/NWS, Tucson, AZ

### 10:30 AM B2.2 Two Major Heavy Rain/Flood Events in the Mid-Atlantic: June 2006 and September 2011

Christopher M. Gitro, NOAA/NWS Binghamton, NY Michael S.Evans, NOAA/NWS, Binghamton, NY Richard H. Grumm, NOAA/NWS, State College, PA

### 10:45 AM B2.3 The 2014 Flash Flood and Intense Rainfall Experiment

Faye E. Barthold, NOAA/NWS/WPC and I.M. Systems Group Inc., College Park, MD

Thomas E. Workoff, NOAA/NWS/WPC and Systems Research Group, Inc., College Park, MD

Wallace A. Hogsett, NOAA/NWS/WPC, College Park, MD

JJ Gourley, NOAA/NSSL, Norman, OK

David R. Novak, NOAA/NWS/WPC, College Park, MD

### 11:00 AM B2.4 The Inaugural Hazardous Weather Testbed: Hydrology (HWT-Hydro) Experiment

Race A. Clark III, CIMMS/OU/NSSL, Norman, OK Jonathan J. Gourley and Lans Rothfusz, NOAA/OAR/NSSL, Norman, OK Zac L. Flamig, Elizabeth Mintmire, and Brandon Smith CIMMS/OU, Norman, OK Steven M. Martinaitis, OU/CIMMS and NOAA/OAR/NSSL, Norman, OK Yang Hong, University of Oklahoma, Norman, OK

### 11:15 AM B2.5 Wave Run-Up: An Important Component of Coast Flooding

Richard J. Okulski, NWA Commissioner of Committees, NOAA/NWS, Caribou, ME John W. Cannon, NOAA/NWS, Gray/Portland, ME Anthony Mignone, NOAA/NWS, Caribou, ME

### Session B3 – Remote Sensing - Satellite and Radar II (concurrent)

#### **Snowbird-Solitude Room**

#### **Session Co-chairs:**

Pamela L. Heinselman, NOAA/OAR/NSSL, Norman, OK Elise Schultz, NWA Councilor, University of Alabama – Huntsville, Huntsville, AL

#### 10:00 AM B3.0 Using GOES-R Probabilities of IFR Visibility and Ceiling for Decision

Support at the Air Traffic Control System Command Center

Michael T. Eckert, NOAA/NWS/NCEP/AWC/ATCSCC, Warrenton, VA Amanda Terborg, NOAA/NWS/NCEP/AWC, Kansas City, MO

### 10:15 AM B3.1 Evaluating the Usefulness and Usability of Different GOES-R Scanning

Strategies at the Operations Proving Ground

Chad M. Gravelle and Kim Runk, NOAA/NWS/Operations Proving Ground, Kansas City, MO

### 10:30 AM B3.2 The Forecasting and Monitoring of Convection Associated with Flash Flood Threats

Michael J. Folmer, University of Maryland/ESSIC/CICS, College Park, MD Andrew Orrison, David Novak and Wallace Hogsett, NOAA/NWS/NCEP/WPC, College Park, MD

Jamie Kibler, NOAA/NESDIS/OSPO/SAB, College Park, MD

### 10:45 AM B3.3 NOAA's Joint Polar Satellite System's Proving Ground and Risk Reduction

**Program - Bringing New Capabilities to Operations** 

Bill Sjoberg, Global Sciences and Technology, Greenbelt, MD Dr. Mitchell Goldberg, NOAA JPSS Program, Greenbelt, MD

#### 11:00 AM B3.4 Future Geostationary Weather Satellites

Jordan J Gerth, CIMSS/SSEC/University of Wisconsin, Madison, WI Timothy J. Schmit, ASPB/NESDIS, Madison, WI Steven J. Goodman, GOES-R/NESDIS, Huntsville, AL

#### 11:15 AM B3.5 Configuration and Evaluation of a Dual-Doppler Wind Field System

Winifred C. Crawford, NWA Newsletter Editor, ENSCO, Inc., Cocoa Beach, FL

Peter Blottman, NOAA/NWS Melbourne, Florida

11:30 AM **Weather Briefing and NWA Announcements** 

11:35 AM Lunch on your own; Exhibits open Sundance Room

11:35 AM Women's Luncheon: Wasatch Room

#### Session B4 – Severe Weather I

### **Canyons and Bryce Ballroom**

#### **Session Co-Chairs:**

John T. Ferree, NWA Councilor, NOAA/NWS, Norman, OK Greg Stumpf, University of Oklahoma/CIMMS, Norman, OK

#### 1:00 PM B4.0 A Procedural, Philosophical, and Scientific Look at NWS Warning Services

for Serial-Type QLCSs in the Ohio Valley Ted W. Funk, NOAA/NWS, Louisville, KY

#### 1:15 PM B4.1 An Examination of High-Shear/Low-CAPE QLCS Events in the Lower Ohio

**Valley: Environments and Vr Shear Details** 

Patrick J. Spoden, NWA Specialized Operational Services Committee Chair, Daniel R. Spaeth, Christine Wielgos, Mike York and Robin R. Smith, NOAA/NWS, Paducah, KY

#### 1:30 PM **B4.2 Outlook and Warning Methodologies for the 28 April 2014 Tornado**

Outbreak

Alan Gerard, NWA Past President ('07), Chad Entremont, Daniel Lamb, Stephen Wilkinson, NOAA/NWS, Jackson, MS

#### 1:45 PM **B4.3 The Meaning of an EF-Scale Standard**

Jim LaDue, NOAA/NWS/WDTB, Norman, OK

Marc Levitan, NIST/National Windstorm Impact Reduction Program Office

#### 2:00 PM **B4.4** The Tornado Outbreak of 17 November 2013: Operational Considerations

for a High Impact Event and Anticipating Tornado Development within a QLCS Jeffrey A. Logsdon, Courtney Obergfell, Todd Holsten, NOAA/NWS, Northern

Indiana, IN

#### 2:15 PM Sponsor Presentation - University of Oklahoma College of Atmospheric and

**Geographic Sciences** 

#### 2:18 PM Poster Session and Exhibits (and Break): Arches-Sundance Room

| Session  | P2 - | Poster  | Session | Ш |
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| P2.1 | Building Relationships to Provide Weather Education for the Deaf and Hard of |
|------|--|
|      | Hearing  |

Jennifer M. Schuller-Saari, NOAA/NWS, Huntsville, AL Trevor M. Boucher, NOAA/NWS, Nashville, TN Suzanne Fortin, NOAA/NWS, Wichita, KS

- P2.2 Getting the Word Out: Handling High Impact Monsoon Events In Las Vegas Christopher Stachelski, NOAA/NWS, Las Vegas, NV
- P2.3 Enhanced Hazardous Weather Outlook (EHWO): An Integrated Method to Generate and Display Weather Hazard Risk

Andy Foster, Jason Schaumann, Eric Wise, Steve Lindenberg and Mike Sutton, NOAA/NWS, Springfield, MO

P2.4 Using StormReady to Promote Weather Safety at Airports and Air Traffic Control Centers

Stephen A. Kearney, NOAA/NWS/CWSU, Memphis, TN

P2.5 WFO Norman Response to Multiple Media Requests after the 20 May 2013 EF5 Moore Tornado

Michael B. Scotten and Jonathan T. Kurtz, NOAA/NWS, Norman, OK Gabe Garfield, CIMMS/University of Oklahoma, Norman, OK

- P2.6 GIS in Western Region: Feeding a Growing Appetite for Graphical Content Tom Dang, NOAA/NWS, Sacramento, CA
- P2.7 Effective Communication for High Impact Weather Events in the Tampa Bay Region

Todd Barron, NOAA/NWS, Tampa Bay Area, FL

P2.8 Climatology of Significant Weather Events in the NWS Mount Holly, NJ Forecast Area

Alan M. Cope, NOAA/NWS, Philadelphia/Mount Holly, NJ

P2.9 Effective Observations of Rip Currents and Improving Forecast Operations for Southern California

C-S Wu, NOAA/NWS/OST/MDL, Silver Spring, MD Alexander Tardy, NOAA/NWS, San Diego, CA John L. Schattel, Michael E. Churma and Stephan B. Smith, NOAA/NWS/OST/MDL, Silver Spring, MD Noel Isla, Michael Khuat and Stephen Harrison, NOAA/NWS, San Diego, CA

### P2.10 Numerical Validation of a Coupled Probabilistic Rip Current Model and Nearshore Wave Prediction System for South Florida

Alex Gibbs, NOAA/NWS, Miami-South Florida, FL
Gregory Dusek, NOAA/National Ocean Service/Center for Operational
Oceanographic Products and Services, Silver Spring, MD
André van der Westhuysen, IMSG at NOAA/NWS/NCEP,College Park, MD
Scott Stripling, NOAA/NWS/NHC, Miami, FL
Samantha Huddleston, Rosenstiel School of Marine and Atmospheric Scie

Samantha Huddleston, Rosenstiel School of Marine and Atmospheric Sciences, University of Miami, Coral Gables, FL

Evelyn Rivera and Jeral Estupiñán, NOAA/NWS, Miami-South Florida, FL Harvey Seim, Department of Marine Sciences, University of North Carolina at Chapel Hill, Chapel Hill, NC

Roberto Padilla - IMSG at NOAA/NWS National Centers for Environmental Prediction, College Park, MD
Pablo Santos, NOAA/NWS, Miami-South Florida, FL

# P2.11 NWS Lightning Science & Technology Program - Mitigating Impacts of Lightning on Lives and Property with Total Lightning Data and Comparison to Severe Weather Events

Peter B. Roohr, NOAA/NWS/OST, Silver Spring, MD Brian Motta, NOAA/NWS/OCWWS, Boulder, CO Steve Goodman, NOAA/NESDIS, Silver Spring, MD Phil Bothwell, NOAA/NWS/NCEP/SPC, Norman, OK

#### P2.12 Culture Change: Evolution of the Forecast Process

Jeffrey P. Craven, NWA President, NOAA/NWS, Milwaukee/Sullivan, WI Stephen Brueske, NOAA/NWS, Milwaukee/Sullivan, WI

### P2.13 Building a Weather-Ready Nation Truly Takes a Village

Douglas C. Hilderbrand, NOAA/NWS, Silver Spring, MD

#### P2.14 Experimental NWS Graphical Short-Fuse Warnings

Kevin Scharfenberg, NOAA/NWS, Silver Spring, MD Brian Walawender and Derek Deroche, NOAA/NWS/Central Region Headquarters, Kansas City, MO Corey Piper, NOAA/NWS/Southern Region Headquarters, Fort Worth, TX P2.15 Withdrawn - Adoption of the Incident Command System into National Weather Service Operations to Improve Communication with Emergency Management during Response to Weather Events

Troy R. Nicolini and Nancy A. Dean, NOAA/NWS, Eureka, CA

P2.16 Facilitated Live Instruction from Your Computer or Tablet: New Opportunities in Weather, Water, and Climate Training

Amy Stevermer, Elizabeth Page, NWA President-Elect, Lon Goldstein, Matt Kelsch, Wendy Schreiber-Abshire, NWA 2012 Vice President, Bruce Miller, UCAR/COMET, Boulder, CO

P2.17 An overview of the Collaborative Science, Technology, and Applied Research (CSTAR) program

Christopher M. Hedge, NOAA/NWS/OST, Silver Spring, MD

P2.18 How Facebook Is Used In Operations at National Weather Service Binghamton,
NY

Erik M. Heden, NOAA/NWS, Binghamton, NY

Cities/Chanhassen, MN

- P2.19 Recent Developments/Improvements in Objective Analyses of Observations/Forecasts for Localized Aviation MOS Products at the Meteorological Development Laboratory

  Jung-Sun Im and Bob Glahn, NOAA/NWS/OST/MDL, Silver Spring, MD
- P2.20 Utilization of Convection-Allowing Models to Recognize Rapidly Changing High-Impact Winter Weather Events

  William R. Borghoff III and Christopher L. Franks, NOAA/NWS, Twin

P2.21 Improving Boundary Layer and Near-Surface Temperatures Forecasts over Arid Mountainous Regions: Results from the MATERHORN Field Campaign

Jeffrey D. Massey, William J. Steenburgh, Sebastian W. Hoch and Jason C. Knievel and Eric R. Pardyjak, University of Utah, Salt Lake City, UT

P2.22 Objective Identification of Supercellular Internal Momentum Surges Using Idealized Simulations

Matthew C. Mahalik and Johannes M. Dahl, Atmospheric Science Group/Department of Geosciences/Texas Tech University, Lubbock, TX

P2.23 Evaluation of Great Lakes Ice Model (GLIM) Real-time Ice Forecasts During the 2013-2014 Ice Season and an Introduction to the Great Lakes Ice Products Web Page Robert LaPlante, NOAA/NWS, Cleveland, OH Gregory Lang, NOAA/GLERL, Ann Arbor, MI Christopher Mello, NOAA/NWS, Cleveland, OH

### P2.24 Soil Moisture Data Assimilation in the NASA Land Information System for Local **Modeling Applications and Improved Situational Awareness** Jonathan L. Case, ENSCO, Inc./NASA Short-term Prediction Research and Transition (SPoRT) Center, Huntsville, AL Clay B. Blankenship, Universities Space Research Association/SPoRT Center, Huntsville, AL Bradley T. Zavodsky, NASA/MSFC/SPoRT Center, Huntsville, AL P2.25 Improving Service through Proper Use of Convection-allowing Models Jeffrey D. Fournier, Donald Van Dyke and Bryan Mroczka NOAA/NWS, Tallahassee, FL P2.26 Moved to 1.68 P2.27 Moved to 1.69 P2.28 Quantifying the Skill of the Global Ensemble Forecasting System in Predicting **Observed Precipitation Based on 20 Years of Reforecast Data** Jonathan J. Rutz and Trevor Alcott, NOAA/NWS/Western Region Headquarters, Salt Lake City, UT P2.29 An Update on the HRRR Model and some Recent High-impact Examples Ed Szoke, NOAA/ESRL/GSD & CIRA, Boulder, CO Curtis Alexander, NOAA/ESRL/GSD & CIRES, Boulder, CO Stan Benjamin, John Brown and David Dowell, NOAA/ESRL/GSD, Boulder, CO Eric James, NOAA/ESRL/GSD & CIRES, Boulder, CO Brian Jamison, NOAA/ESRL/GSD & CIRA, Boulder, CO Steve Weygandt, NOAA/ESRL/GSD, Boulder, CO P2.30 Withdrawn An Evaluation of the AWIPS-II Meteogram Tracking Tool at the **Operations Proving Ground** Kim J. Runk and Chad M. Gravelle, NOAA/NWS/Operations Proving Ground, Kansas City, MO P2.31 **Use of Phased Array Radar in Simulated Tornado Warning Operations** Pamela L. Heinselman, NOAA/OAR/NSSL, Norman, OK Daphne S. LaDue, OU CAPS, Norman, OK Darrel M. Kingfield, OU CIMMS, Norman, OK

### P2.32 The Utility of Considering Dual-Polarization Radar Signatures in the Tornado Warning Process

Michael L. Jurewicz and Christopher M. Gitro, NOAA/NWS, Binghamton, NY

Robert Hoffman, Institute for Human and Machine Cognition, Pensacola, FL

P2.33 Successes of Dual Polarization Radar Technology in NWS Warning Decisions and Decision Support Services during High Impact Dust Storms, Flash Floods, and Wildfires Tony Fuentes, NOAA/NWS, Reno, NV P2.34 Analysis of Polarimetric Tornado Debris Signatures Observed by WSR-88D **Associated with Significant Tornadoes** John R. Banghoff, Ohio State University, Columbus, OH Steven E. Nelson, NOAA/NWS, Peachtree City, GA P2.35 How Dual-Polarization Radar Improved the Identification of High Impact Phenomena due to Thunderstorms in Northern California Stefanie L. Henry, NOAA/NWS, Sacramento, CA P2.36 Tornado Warning Performance Leveraging Multi-Radar/Multi-Sensor **Azimuthal Shear as a Diagnostic Parameter** Darrel M. Kingfield, OU/CIMMS and NOAA/NSSL, Norman, OK P2.37 Climate Signals Associated with High Impact Weather Events in Arkansas Christopher C. Buonanno, John A. Lewis, Brian D. Smith, Charles Dalton, NOAA/NWS, Little Rock, AR P2.38 Extreme spring precipitation events in Intermountain West influenced by the **Quasi-Biennial Oscillation** Jason A. Phelps and Shih-Yu (Simon) Wang, Utah State University and Utah Climate Center, Logan, UT P2.39 Utah Freeze Date Prediction Utilizing Weather Station Climatology and the **Climate Forecast System Model** Shih-Yu (Simon) Wang and Robert R. Gillies, Utah State University and Utah Climate Center, Logan, UT P2.40 Decadal Climate Research Leading to Longer-term Prediction for the Great Salt **Lake Hydrological Cycle** Robert R. Gillies and Shih-Yu (Simon) Wang, Utah State University and Utah Climate Center, Logan, UT P2.41 An Analysis of the Spring-to-Summer Transition in the West Central Missouri **Plains** 

Rosalie G. Newberry, KOMU-TV8, Columbia, MO

Anthony R. Lupo, University of Missouri, Columbia MO

### P2.42 The Impact of a Madden-Julian Oscillation Event over Eastern North Carolina in Late June 2013 Belkys V. Melendez, NOAA/NWS, Newport/Morehead City, NC P2.43 The Occurrence of Anomalously Cold and Warm Months in the Central USA Max J. Nunes, University of Missouri, Columbia, MO Jordan R. Bell, Atmospheric Science / University of Alabama - Huntsville, Huntsville, AL; Anthony R. Lupo, University of Missouri, Columbia, MO P2.44 Using the Bering Sea and Typhoon Rules to Generate Long-Range Forecasts Joseph D. Renken, KOPN Radio, Columbia, MO Joshua Herman and Daniel Parker, Western Illinois University, De Kalb, IL Travis Bradshaw, Moberly Area Community College, Moberly, MO Anthony R. Lupo, University of Missouri, Columbia, MO P2.45 A Measure of the Influence of the El Nino-Southern Oscillation (ENSO) and North Atlantic Oscillation (NAO) on Wintertime Weather Conditions in the **Ohio and Tennessee Valleys** Allison M. Young, Valparaiso University, Valparaiso, IN Tom Reaugh and Ted Funk, NOAA/NWS, Louisville KY P2.46 Historical Connections between Great Basin Precipitation and Pacific Ocean

### P2.46 Historical Connections between Great Basin Precipitation and Pacific Ocean Variability

Kimberly Smith and Courtenay Strong, University of Utah, Salt Lake City, UT Shih-Yu (Simon) Wang, Utah Climate Center and Utah State University, Logan, UT

- P2.47 Development of Springtime Climate Forecasting for the Intermountain West
  Martin Schroeder, Shih-Yu (Simon) Wang and Rob Gillies, Utah Climate Center
  and Utah State University, Logan, UT
- P2.48 Using GIS to Enhance Impact-based Weather Warnings
  Evan B. Webb, NOAA/NWS, Grand Rapids, MI
  Nathan W. Foster, NOAA/NWS, Burlington, VT
- P2.49 Impact Based Decision Support Services for Beach Hazards...Improving Beach Safety along the Central California Coast in Support of a Weather Ready Nation Larry L. Smith, NOAA/NWS, San Francisco Bay Area/Monterey, CA

### P2.50 Oklahoma's Safe Schools 101: Assessment Process for Determining Best Available Refuge Areas

Andrea D. Melvin and Dr. Kevin A. Kloesel, Oklahoma Climate Survey/University of Oklahoma, Norman, OK Bill White, Oklahoma Department of Emergency Management, Oklahoma City, OK; Richard D. Smith, NOAA/NWS, Norman, OK

| P2.51 | A Journey to Identify Better Refuge Areas in Schools: How Three School Districts Teamed Up with Professionals in Their Local Community Andrea D. Melvin and Dr. Kevin A. Kloesel, Oklahoma Climate Survey/University of Oklahoma, Norman, OK Richard D. Smith, NOAA/NWS, Norman, OK David Grizzle, Emergency Management/City of Norman, Norman, OK Dr. Roger Brown, Norman Public Schools, Norman, OK Dr. James Martin, Robin Hill School, Norman, OK Dr. Tony Smith, Little Axe Public Schools, Little Axe, OK |
|-------|---|
| P2.52 | Subtropical and Tropical Frontal Passages: A Hawaii Perspective<br>Eric K. Lau, NOAA/NWS/Pacific Region Headquarters, Honolulu, HI<br>Jordan J. Gerth, CIMSS/SSE, University of Wisconsin, Madison, WI  |
| P2.53 | Verification of Tropical Cyclone Wind Speed Probabilities  Derek Ortt, ImpactWeather, Inc., Houston, TX   |
| P2.54 | Bay of Bengal: Coupling of Pre-Monsoon Tropical Cyclones with Monsoon<br>Onset in Myanmar<br>Boniface O. Fosu and Shih-Yu (Simon) Wang, Utah Climate Center and Utah State<br>University, Logan, UT   |
| P2.55 | Developing a Radar-Based Interrogation Guidance for Tornadic Convection<br>Associated with Tropical Cyclones<br>Steven M. Martinaitis, OU/CIMMS and NOAA/OAR/NSSL, Norman, OK   |
| P2.56 | Potential Links Between Global and Regional Tropical Cyclone Trends and "Climate Change"  H. Michael Mogil, Matt Bolton, Tracy Smith, How The Weatherworks, Naples, FL  |
| P2.57 | Withdrawn - Hazel Then and Now: Communication Lessons from NC's Last Category 4 Hurricane Nate Johnson, WRAL-TV/NCSU, Raleigh, NC   |
| P2.58 | A Simple Algorithm for Estimating Winter Storm Travel Severity Based on METAR Observations  Daniel K. Cobb Jr., NOAA/NWS, Grand Rapids, MI  |
| P2.59 | Towards a Simple Risk Based All-Hazards Warning Paradigm  Daniel K. Cobb Jr., NOAA/NWS, Grand Rapids, MI  |
| P2.60 | Communicating Snowfall Forecast Confidence and Dangerous Avalanche Conditions in the Sierra Nevada Mountains Zach T. Tolby, NOAA/NWS, Reno, NV  |

### P2.61 Interactions of Lake-effect Storms with Topography: Results from the Ontario Winter Lake-effect Systems (OWLeS) Field Campaign Leah S. Campbell, W. James Steenburgh and Peter Veals University of Utah, Salt Lake City, UT Justin Minder and Ted Letcher, SUNY Albany, Albany, NY P2.62 Development of a Winter-weather Severity Index for Road Maintenance in Indiana Michael E. Baldwin, Kimberly Hoogewind, Chase Miller and Derrick Snyder, Purdue University, West Lafayette, IN P2.63 An Analysis of Freezing Rain Methods Across the Great Basin Ray L. Christensen, Jeremy Michael, Clair E. Ketchum, NOAA/NWS, Elko, NV P2.64 Snow-Liquid Ratios over the Northern Sierra Nevada: Climatology and a **Predictive Methodology** Bill M. Rasch, NOAA/NWS, Sacramento, CA Darren Van Cleave, NOAA/NWS, Missoula, MT P2.65 An Investigation of a Thundersnow Occurrence over the Phoenix Metropolitan Area on February 20th, 2013 Peter A. Speck and Dr. Bohumil M. Svoma, University of Missouri, Columbia, MO P2.66 Synoptic and Lake-Effect Classification of Snowfall in the Lake Michigan Region: **Deriving Clarity Using WRF Simulations** Alexandra L. Caruthers, Valparaiso University, Valparaiso, IN P2.67 Towards a More Effective and Efficient Production of the National Weather Service Local Digital Database Weather Element for Winter Mixed Precipitation-Type Environments in the Mid-Atlantic Sierra Sult, Virginia Tech University, Blacksburg, VA Brian J. LaSorsa, Diana Norgaard and James E. Lee, NOAA/NWS, Sterling, VA P2.68 **Snow Squalls: Forecasting and Hazard Mitigation** Andrew N. Loconto and Peter C. Banacos, NOAA/NWS, Burlington, VT Gregory A. DeVoir, NOAA/NWS, State College, PA P2.69 **Social Media and Significant Weather** Tim S. Brice, NOAA/NWS, El Paso, NM

Hunter Coleman, NOAA/NWS, Columbia, SC

### Session B5 – Multifarious I (concurrent)

#### **Snowbird-Solitude Room**

#### **Session Co-Chairs**

Paul Schlatter, NWA Councilor, NOAA/NWS, Silver Spring, MD Jonathan D. Belles, NWA Council Student Ex-Officio, Florida State University, Tallahassee, FL

### 3:45 PM B5.0 The Evolving NWS Western Region Regional Operations Center Services

Matt Solum, Scott Carpenter, Todd Morris, Jeff Zimmerman, Leslie Wanek, Steve Apfel, Jeff Lorens, Mike Schaffner, Scott Birch, Claudia Bell, Andrea Bair, NOAA/NWS/Western Region Headquarters, Salt Lake City, UT

#### 4:00 PM B5.1 Development of a Black Ice Numerical Weather Prediction Model

Benjamin A. Toms and Yang Hong, Hydrometeorology and Remote Sensing Laboratory (HyDROS), University of Oklahoma, Norman, OK Jeffrey Basara, University of Oklahoma/Mesonet, Norman, OK

### 4:15 PM B5.2 Environmental Comparison of Supercell and Squall Line Verified Tornado

**Warnings and False Alarms** 

Jessica M. Tomaszewski, University of Oklahoma, Norman, OK Kevin Deitsch and Ted Funk, NOAA/NWS, Louisville, KY

#### 4:30 PM B5.3 Toward Improved Understanding and Numerical Forecasting of

Wintertime Stable Boundary Layers: The Persistent Cold Air Pool Study Erik T. Crosman and John D. Horel, University of Utah, Salt Lake City, UT

### 4:45 PM B5.4 Precipitation in the Intermountain West – The ENSO-PDO Teleconnection

Boniface O. Fosu and Shih-Yu (Simon) Wang, Utah Climate Center and Utah State University, Logan, UT

### Session B6– Fire Weather (concurrent)

### **Canyons and Bryce Ballroom**

### **Session Co-Chairs:**

John D. Horel, University of Utah, Salt Lake City, UT Jordan J Gerth, CIMSS/SSEC/University of Wisconsin, Madison, WI

#### 3:45 PM B6.0 Weather and Fuel Conditions Related to the Yarnell Hill Tragedy

J. Brent Wachter, NOAA/NWS, Albuquerque, NM

### 4:00 PM B6.1 Meteorological Conditions and Decision Support Services Associated with

the Yarnell Hill Fire

Andrew A. Taylor and Brian A. Klimowski, NOAA/NWS, Flagstaff, AZ Michael J. Staudenmaier, Jr. NOAA/NWS/Western Region Headquarters, Salt Lake City, UT

| 4:15 PM | B6.2 Verification of National Weather Service Spot Forecasts Using Surface Observations                  |  |  |
|---------|--|--|--|
|         | Matt Lammers and John D. Horel, University of Utah, Salt Lake City, UT                                   |  |  |
| 4:30 PM | B6.3 The North American Monsoon's Impact on Fire Activity in the Southwestern United States              |  |  |
|         | Nicholas J. Nauslar, Desert Research Institute, Reno, NV   |  |  |
| 4:45 PM | B6.4 Impacts of Upstream Wildfire Emissions on CO, CO2, and PM2.5 Concentrations in Salt Lake City, Utah |  |  |
|         | Derek V. Mallia and John C. Lin, University of Utah, Salt Lake City, UT                                  |  |  |
| 5:00 PM | Concurrent Sessions End; Exhibits Tear Down; Dinner on your own  |  |  |
| 6:00 PM | NWA Council and Committee Chairs Business Dinner Meeting Wasatch Room                                    |  |  |

### <u>Wednesday – 22 October</u>

### **General Session**

| 7:00 AM  | NWA Registration and Information Desk Opens (Closes at 4:00 PM) |
|----------|---|
| 7:45 AM  | Weather Briefing and NWA Announcements                          |
| 9:45 AM  | Poster Session III: Arches Room                                 |
| 11:15 AM | NWA Annual Awards Luncheon: Canyons and Bryce Ballroom          |
| 6:00 PM  | NWA Council Meeting: Wasatch Room                               |

### Session C1 – Weather-Ready Nation

**Canyons and Bryce Ballroom** 

**Session Co-Chairs:** 

Christopher Strager, Director, NOAA/NWS Central Region Headquarters, Kansas City, MO Bruce G. Thomas, NWA Immediate Past President, Midland Radio Corporation, Kansas City, MO

8:00 AM C1.0 Keynote – National Weather Service "Whole Office Concept" to Help Build a Weather-Ready Nation

Laura Furgione, Deputy Director, National Weather Service, National Oceanic and Atmospheric Administration, Silver Spring, MD

### 8:30 AM C1.1 Storm Prediction Center Risk Communication: Recent Changes and Future Plans

William F. Bunting and Russell S. Schneider, NOAA/NWS/SPC, Norman, OK

### 8:45 AM C1.2 The Pathfinder Project for Collaboration on Weather for Surface Transportation

Larry Dunn, NOAA/NWS, Salt Lake City, UT Ralph Patterson, Narwhal Group, Salt Lake City, UT Paul Pisano, Federal Highway Administration, Washington, D.C.

### 9:00 AM C1.3 The National Weather Service Impacts Catalog

Kevin Scharfenberg, NOAA/NWS, Silver Spring, MD John Crockett, CIRA and NOAA/NWS Silver Spring, MD Wendy Marie Thomas, NOAA/NWS, Silver Spring, MD John Keyes, NOAA/NWS, Pocatello, ID Larry Dunn, NOAA/NWS, Salt Lake City, UT

### 9:15 AM C1.4 A Review of Significant Weather Events Occurring in 2014

Greg Carbin, NWA Councilor and NWA Professional Development Committee Chair & NOAA/NWS/SPC, Norman, OK

9:45 AM Poster Session III and Coffee Break: Arches-Sundance Room

### Session P3 - Poster Session III

#### **Arches-Sundance Room**

- P3.1 Comparing Three Orographic Heavy Rainfall Events across East Tennessee David G. Hotz, NOAA/NWS, Morristown, TN
- P3.2 Central Missouri Extreme Heavy Rainfall and Flash Flooding on 6-7 August 2013

  John P. Gagan, NWA Councilor, NOAA/NWS, Springfield, MO

  Andy Boxell, Doug Cramer, Andy Foster, Michael Griffin and Megan Terry,

  NOAA/NWS, Springfield, MO
- P3.3 The 31 May 2013 Oklahoma City Flash Flood and the Lessons Learned

  Jonathan Kurtz, Kevin Brown and Steven Kruckenberg, NOAA/NWS, Norman, OK
- P3.4 The National Water Center Supporting Operational Hydrologic Forecasting and Integrated Decision Support Services for the 21st Century Scott D. Lindsey, NOAA/NWS, Anchorage, AK Robert Hartman, NOAA/NWS/Acting Director Office of Hydrologic Development Donald Cline, NOAA/NWS/Hydrology Laboratory

# P3.5 Using NOAA Atlas-14 Precipitation Recurrence Interval Data to Improve the Communication of Flood Threats in National Weather Service Flash Flood Warnings

Michael L. McLane, NOAA/NWS, Phoenix, AZ

### P3.6 Composite Patterns Typical of Widespread Heavy Rainfall Events in the Phoenix, AZ Metropolitan Area

Michael L. McLane, NOAA/NWS, Phoenix, AZ Paul Iñiguez, NOAA/NWS, San Joaquin Valley/Hanford, CA Daniel Leins, NOAA/NWS, Phoenix, AZ

### P3.7 Flash Flood Forecasting in Ungaged Semi-Arid Basins with a Distributed Model using Radar Data

Michael S. Schaffner, NOAA/NWS/Western Region Headquarters, Salt Lake City, UT

Alexander Tardy, NOAA/NWS, San Diego, CA Jayme Laber, NOAA/NWS, Los Angeles/Oxnard, CA Carl Unkrich and David Goodrich, USDA-ARS, Tucson, AZ

### P3.8 A Review of the Flash Flood Event of August 25, 2013 in the Las Vegas Forecast Area from the Eyes of the Mesoanalyst

Stan Czyzyk and Jim Harrison, NOAA/NWS, Las Vegas, NV

### P3.9 Lessons Learned from the 13-14 May 2014 Flash Flood Event in the Finger Lakes Region of Central New York State

Michael L. Jurewicz, NOAA/NWS, Binghamton, NY

# P3.10 U.S. Flash Flooding Risk: Understanding Forecaster Challenges in Issuing Flash Flood Warnings and the Usefulness of a Flash Flood Severity Index Jennifer J. Henderson, Virginia Tech University, Blacksburg, VA

### P3.11 Rainfall-Lightning Ratio Calculations for Elevated Thunderstorms with Heavy Rainfall in Missouri

Joshua Kastman and Patrick Market, NWA Past President ('11), University of Missouri, Columbia, MO

### P3.12 Customizing Hydrologic Basin Shape Files to Improve National Weather Service Flash Flood Warnings and Statements

Brittney Whitehead-Coleman and James Larosa, NOAA/NWS, Nashville, TN

### P3.13 Meteorological Characteristics of Major Spring Floods in Western Montana Chris V. Gibson, NOAA/NWS, Missoula, MT

P3.14 Utilizing Geographic Information Systems to Generate Flood Warning Polygons
Aisha C. Reed Haynes, NOAA Graduate Science Program Scholar and George
Mason University, Silver Spring MD
Victor Hom, NOAA/NWS/Office Climate Water and Weather Services/Hydrologic
Services Division, Silver Spring, MD

#### P3.15 Moved to P3.63

### P3.16 Creating an Ensemble of Flash Flood Guidance Models to Assess Physical Flash Flood Processes and Model Skill in the Ohio River Basin

Nathan M. Barber, Tennessee Valley Authority, Knoxville, TN Joseph Heim, NOAA/NWS/Ohio River Forecast Center, Wilmington, OH

# P3.17 Essential Parameters that Improve Lightning Forecasting Skills across the West Paul R. Frisbie, Jeff D. Colton and Michael P. Meyers, NOAA/NWS, Grand Junction, CO

### P3.18 Verification on the Lightning Methodology Devised by the Grand Junction NWS Forecast Office

Michael P. Meyers, Paul Frisbie, Jeffrey Colton, James Daniels and James Pringle, NOAA/NWS, Grand Junction, CO

### P3.19 Investigation of Extreme Lightning Days in North Carolina

Gail I. Hartfield, NWA 2005 Vice President, NOAA/NWS, Raleigh, NC Gary Lackmann, Michael Graves and Lindsey Anderson, North Carolina State University, Raleigh, NC

### P3.20 Real time Evaluation of the Lightning Jump Algorithm in the Hazardous Weather Testbed

Kristin M. Calhoun, CIMMS/NSSL, Norman, OK Elise Schultz, NWA Councilor, University of Alabama – Huntsville, Huntsville, AL Chris Schultz, NASA MSFC, Huntsville, AL Kiel Ortega and Darrel Kingfield, CIMMS/NSSL, Norman, OK Larry Carey, University of Alabama – Huntsville, Huntsville, AL

### P3.21 An Evaluation of Earth Network's Total Lightning and Dangerous Thunderstorm Alerts in the NOAA Hazardous Weather Testbed

Kristin M. Calhoun and Darrel M. Kingfield, CIMMS/NSSL, Norman, OK Woody Roberts, GSD, Boulder, CO Jim Ramer, CIRA/GSD, Boulder, CO Tiffany Meyer, CIMMS/WDTB, Norman, OK Matthew Elliott, CIMMS/WDTB, Norman, OK Amanda Long and Bill Callahan, Earth Networks, Germantown, MD

# P3.22 Orographically Induced Cirrus Clouds in the Lee of the Southern Appalachian Mountains

Ryan T. Ellis, NOAA/NWS, Raleigh, NC Lindsey Anderson, North Carolina State University, Raleigh, NC

## P3.23 Preliminary Results from the Mississippi State/NWS Memphis Mobile Sounding Project

Jonathan L. Howell, NOAA/NWS, Memphis, TN Matthew H. Reagan, Mississippi State University, Starkville, Mississippi

#### P3.24 Real-time Dust Storm Detection Network - A Proposal

Ken R. Waters, NOAA/NWS, Phoenix, AZ

## P3.25 Assessing the Utility of 3-km Land Information System Soil Moisture Data for Drought Monitoring and Hydrologic Applications

Kristopher D. White, NOAA/NWS and NASA SPORT, Huntsville, AL Jonathan L. Case, NASA SPORT / ENSCO Inc., Huntsville, AL

#### P3.26 WFO Las Vegas - Weather Deployment Team

Jim Harrison, Reid Wolcott, Andy Gorelow and Chris Stumpf, NOAA/NWS, Las Vegas, NV

# P3.27 Building a Weather-Ready Nation: Promoting Weather Education and Awareness for the Deaf and Hard of Hearing within the National Weather Service

Trevor M. Boucher, NOAA/NWS, Nashville, TN Jennifer Schuller-Saari, NOAA/NWS, Huntsville, AL Suzanne Fortin, NOAA/NWS, Wichita, KS

# P3.28 Attendee Attributes for SKYWARN® Classes Taught by NWS Austin-San Antonio

Jon W. Zeitler, Aaron Treadway and Paul Yura, NOAA/NWS, Austin/San Antonio, TX

# P3.29 NWS Spanish Outreach Pilot Project: En el National Weather Service se habla español

Robert A. Garcia, NOAA/NWS, Tampa Bay Area, FL Logan Johnson, NOAA/NWS, San Francisco Bay Area/Monterey, CA Krizia Negrón, NOAA/NWS, San Juan, PR Vanessa Pearce, NOAA/NWS, Wichita, KS Carolina Walbrun, NOAA/NWS, San Francisco Bay Area/Monterey, CA P3.30 Operations to Research and Research to Operations Experiences with a North Carolina State-National Weather Service Collaborative Science, Technology, and Applied Research (CSTAR) Project Jonathan L. Blaes, NOAA/NWS, Raleigh, NC Gary M. Lackmann, North Carolina State University, Raleigh, NC P3.31 The Experimental Warning Program at the Hazardous Weather Testbed: What It Means for Operations and Research Linda Gilbert, NOAA/NWS, Louisville, KY Kristin Calhoun, CIMMS/NSSL, Norman, OK Josh Boustead, NOAA/NWS, Omaha/Valley, NE William Line, CIMMS and NOAA/NWS/SPC, Norman, OK P3.32 Withdrawn Application of SoDARs to Examine Boundary Layer Flow in the Salt **Lake Valley** Christopher S. Foster and John Horel, University of Utah, Salt Lake City, UT P3.33 NOAA's Joint Polar Satellite System's Proving Ground and Risk Reduction (PGRR) Program - New Initiatives in Response to Changing User Needs! Bill Sjoberg, Global Sciences and Technology, Greenbelt, MD Dr. Mitchell Goldberg, NOAA JPSS Program, Greenbelt, MD P3.34 Verification of the GOES-R Fog and Low Stratus Products in Central California Paul Iñiquez, NOAA/NWS, San Joaquin Valley/Hanford, CA Chad M. Gravelle, NOAA/NWS/Operations Proving Ground, Kansas City, MO P3.35 Joint Polar Satellite System's Proving Ground Program Mitchell D. Goldberg, Joint Polar Satellite System, Lanham, MD Ingrid Guch and Ralph Ferraro, NOAA/NESDIS/STAR, College Park, MD Bill Sjoberg and Kathryn Shontz, Joint Polar Satellite System, Lanham, MD P3.36 The Use of GOES 7.4 um Sounder Imagery for Severe Weather Detection: 2012 and 2013 Northeastern U.S. Examples Christopher M. Gitro, NOAA/NWS, Binghamton, NY P3.37 Results from the GOES-R Proving Ground Portion of the 2014 HWT Spring **Experiment** William E. Line, OU/CIMMS and NOAA/NWS/SPC, Norman, OK P3.38 NOAA Operational Satellites Products & Services: Current Status & Updates Natalia A. Donoho, Thomas Renkevens and Matthew Seybold, NOAA/NESDIS/OSPO, College Park, MD

# P3.39 The Forecasting and Monitoring of Maritime Convection in Data Poor Regions Michael J. Folmer, University of Maryland/ESSIC/CICS, College Park, MD Joseph Sienkiewicz, NOAA/NWS/NCEP/OPC, College Park, MD Hugh Cobb, NOAA/NWS/NCEP/NHC/TAFB, Miami, FL Christine Schultz, NOAA Corps, Silver Spring, MD Steven Goodman, GOES-R Program Office, Greenbelt, MD Mitch Goldberg, JPSS Program Office, Lanham, MD

- P3.40 An update of CIRA's GOES-R and JPSS Proving Ground NWS interactions

  Ed Szoke, NOAA/ESRL/GSD & CIRA, Boulder, CO

  Dan Bikos, CIRA, Fort Collins, CO

  Dan Lindsey, Deb Molenar and Don Hillger, NESDIS/STAR, Fort Collins, CO

  Renate Brummer, Hiro Gosden, Steve Miller and Curtis Seaman, CIRA, Fort

  Collins, CO
- P3.41 Limb Correction of RGB Composite Imagery for Improved Interpretation
  Nicholas J. Elmer, University of Alabama-Huntsville, Huntsville, AL
  Emily Berndt, NASA Postdoctoral Program MSFC, Huntsville, AL
  Gary J. Jedlovec, NASA Short-term Prediction Research and Transition (SPORT)
  Center, NASA-MSFC, Huntsville, AL
  Frank J. LaFontaine, Raytheon/SPORT Center, Huntsville, AL
  Aaron Naeger, University of Alabama-Huntsville, Huntsville, AL
- P3.42 GOES-R Proving Ground Activities at WFO Cheyenne
  Rebecca J. Mazur and Rob Cox, NOAA/NWS, Cheyenne, WY
- P3.43 Extending Operational Forecasts of Severe Thunderstorm Environments
  Utilizing Climate Forecast System (CFS) Guidance
  Greg Carbin, NWA Councilor and NWA Professional Development Committee
  Chair & NOAA/NWS/SPC, Norman, OK
- P3.44 A Mini Supercell that Developed in Exceptionally Marginal Conditions Produces a Rare Funnel Cloud in Northwest Washington on May 5, 2014

  Jay A. Albrecht, NOAA/NWS, Seattle, WA
- P3.45 Observations of the Brookport, Illinois Tornado of 17 November 2013

  Christine L. Wielgos and Patrick J. Spoden, NWA Specialized Operational Services

  Committee Chair, NOAA/NWS, Paducah, KY
- P3.46 Withdrawn Considerations for National Weather Service Weather Forecast
  Offices during Multi-Day Severe Weather Outbreaks
  Gabriel Garfield, Cooperative Institute for Mesoscale Meteorological Studies,
  Norman, OK

#### P3.47 Evaluation of Optimal Low-Level Wind-Shear Characteristics for Use in Tornado **Forecasting** Brian L. Barjenbruch, NOAA/NWS, Topeka, KS Richard L. Thompson and Roger Edwards, NOAA/NWS/NCEP/Storm Prediction Center, Norman, OK P3.48 Improving Forecasts of Violent Tornadoes through Historical Proximity Soundings Chauncy J. Schultz, NOAA/NWS, Billings, MT P3.49 Implications of the Fall Line Upon the Mesoscale Weather Patterns of the **Atlantic Coastal Plain** Timothy M. Lynch, Impact Weather, Houston, TX P3.50 A Comparison of Short-Term Severe Weather Forecasts Issued Using WarnGen/AWIPS2 vs. Probabilistic Hazard Information Threat Objects for Two Displaced-Realtime Severe Hail Events - The Human Factors Perspective Chen Ling, University of Akron, Akron, OH Lesheng Hua, University of Oklahoma, Norman, OK Christopher D. Karstens, CIMMS/OU and NOAA/NSSL Greg Stumpf, University of Oklahoma/CIMMS, Norman, OK P3.51 Utilizing the Colorado Lightning Mapping Array (COLMA) for Forecasting Severe **Thunderstorm Hail** Trenton C. Davis and Rob Cox, NOAA/NWS, Cheyenne, WY P3.52 Moved to P3.64 P3.53 **Severe Storms Services - From Innovation to Operations** John T. Ferree, NWA Councilor, NOAA/NWS, Norman, OK P3.54 A Case Study of a QLCS and its Associated Rear Inflow Jet Adam T. Hirsch and Patrick S. Market, NWA Past President ('11), University of Missouri, Columbia, MO P3.55 A Model Selection Procedure for Use in Daily Operational Forecasting Leslie R. Colin, NOAA/NWS, Boise, ID P3.56 An Examination of the Impacts of Frozen Precipitation on Gauge Networks during Winter Precipitation Events Steven M. Martinaitis, Stephen Cocks, Youcun Qi and Brian Kaney, OU/CIMMS and NOAA/OAR/NSSL, Norman, OK Jian Zhang and Kenneth Howard, NOAA/OAR/NSSL, Norman, OK

| P3.57    | MRMS QPE Performance during the 2013-14 Cool Season Stephen B. Cocks, Steven M. Martinaitis and Youcun Qi, OU/CIMMS and NOAA/OAR/NSSL, Norman, OK                   |
|----------|---|
|          | Kenneth Howard and Jian Zhang, NOAA/OAR/NSSL, Norman, OK  |
|          | Brian Kaney, OU/CIMMS and NOAA/OAR/NSSL, Norman, OK   |
| P3.58    | Microburst Potential Tool Using the Graphical Forecast Editor   |
|          | Matthew E. Anderson, Gary D. Goggins, Jessica T. Chance, NOAA/NWS, Huntsville, AL   |
| P3.59    | The use of Enstrophy-based Diagnostics in an Ensemble during Two Blocking Events  |
|          | Andrew D. Jensen and Anthony R. Lupo, University of Missouri, Columbia, MO  |
| P3.60    | Calculating the Probability of Exceedance of Any Precipitation Threshold from NWS POP and QPF Forecasts   |
|          | William J. Martin, NOAA/NWS, Glasgow, MT  |
| P3.61    | The 500hPa Wintertime Pacific Ridge: Characteristics of Position and Intensity and its Influence on Southwest U.S. Precipitation                                    |
|          | Jessica M. Nolte, NOAA/NWS, Phoenix, AZ   |
| P3.62    | Forecasting Gap Wind Events in Southeast Wyoming  |
|          | Zach O. Finch, NOAA/NWS, Cheyenne, WY   |
| P3.63    | Understanding the Relationship between Atmospheric Conditions, Rainfall Intensity and Hydrologic Response Corresponding to Debris Flows in High Mountain Watersheds |
|          | Lisa Verzella, Brian McInerney, Glen Merrill and Mike Seaman, NOAA/NWS, Salt<br>Lake City, UT   |
| P3.64    | Assessment of Environments Supportive of Discreetly Propagating Mesoscale Convective Systems in the Great Basin   |
|          | Mike Seaman and Randy Graham, NWA 2014 Annual Meeting Program Chair, NOAA/NWS, Salt Lake City, UT   |
| 11·15 ΔM | NWA Annual Awards Luncheon: Canyons and Bryce Ballroom  |

#### Session C2 – Societal Response/Social Science

**Canyons and Bryce Ballroom** 

**Session Co-Chairs:** 

William B. Murray, NWA Councilor, The Weather Factory, Birmingham, AL William Rasch, NOAA/NWS, Sacramento, CA

### 1:45 PM C2.0 Sheltering Behavior in the 20 May 2013 Newcastle-OKC-Moore Tornado Richard D. Smith, NOAA/NWS, Norman, OK

# 2:00 PM C2.1 May 20 Newcastle/Oklahoma City/Moore Tornado: Post-Disaster Assessment of Preparedness, Planning and Recovery

Alek Krautmann, Rachel Riley, Margret Boone, Monica Deming and Mark Shafer, Oklahoma Climate Survey, Norman, OK

### 2:15 PM C2.2 How People Respond: A Meta-Analysis of Tornado Warning Response Research

Nate Johnson, WRAL-TV/NC State University, Raleigh, NC

# 2:30 PM C2.3 Completing the Tornado Response Mental Model: Examining Subject Matter Expert's Warning Decision Methods and Perceptions of Relevant Public Knowledge

Elise V. Schultz, NWA Councilor, University of Alabama in Huntsville, Huntsville, AL

Marita A. O'Brien, Franciscan University of Steubenville, Steubenville, OH Paula Tucker, University of Alabama in Huntsville, Huntsville, AL

### 2:45 PM C2.4 Understanding and Improving Responses to Weather Messages through Communication Research

Rebecca Morss, Julie Demuth, Jeffrey Lazo, Katherine Dickinson and Heather Lazrus, National Center for Atmospheric Research, Boulder, CO Betty Morrow, SocResearch, Miami, FL

3:00 PM Refreshment Break: Arches-Sundance Room

#### Session C3 – Decision Support Services I (concurrent)

#### Canyons and Bryce Ballroom

**Session Co-Chairs:** 

Ken Carey, NWA Councilor, Earth Resources Technology (ERT) Inc., Laurel, MD Richard D. Smith, NOAA/NWS, Norman, OK

#### 3:30 PM C3.0 WFO SLC Weather Impact Catalog

Mike Seaman, Randy Weatherly, Kevin Barjenbruch, NWA Societal Impacts of Weather and Climate Committee Chair, NOAA/NWS, Salt Lake City, UT

# 3:45 PM C3.1 Toward Zero Deaths: Making the Traveling Public Safer Through A Partnership Between the National Weather Service and the Idaho Transportation Department

Dean Hazen and Jeremy Schulz, NOAA/NWS, Pocatello, ID

# 4:00 PM C3.2 The Integrated Warning Team Concept - An Application to River Flooding Across the Red River of the North and the Devils Lake Basins Peter J. Rogers, Gregory J. Gust, NOAA/NWS, Grand Forks, ND

# 4:15 PM C3.3 Using Plain English, Simple Graphics and Customer Collaboration to Reinvent the Communication of Hazardous Weather Information James M. Maczko, NOAA/NWS, Grand Rapids, MI

# 4:30 PM C3.4 Communicating Severity of Impacts: How Bad is "Bad"? Mark A. Fox, NOAA/NWS, Fort Worth, TX Melissa S. Huffman, NOAA/NWS, Midland/Odessa, TX

# 4:45 PM C3.5 Enabling Scientific and Technological Improvements to Meet Core Partner Service Requirements in Alaska - An Arctic Test Bed Cone M. Petroscy and Carren Scott, NOAA (NWS / Alaska Pagion Handquarters)

Gene M. Petrescu and Carven Scott, NOAA/NWS/Alaska Region Headquarters, Anchorage, AK

James Nelson, NOAA/NWS, Anchorage, AK

### 5:00 PM C3.6 An Analysis of Wet Bulb Globe Temperature and Heat Impacts and Services in the Twin Cities Metropolitan Area

Lisa R. Schmit, NOAA/NWS, Twin Cities, MN Matthew Ninneman, NOAA Hollings Scholar/North Carolina State University, Raleigh, NC

#### Session C4 – Numerical Weather Prediction (concurrent)

#### **Snowbird-Solitude Room**

#### **Session Co-Chairs:**

W. James Steenburgh, University of Utah, Salt Lake City, UT Ed Szoke, NOAA/ESRL/GSD & CIRA, Boulder, CO

# 3:30 PM C4.0 Predictability Horizons - Part I: Implications on Weather-Based Decisions Justin M. Arnott, NOAA/NWS, Gaylord, MI Richard H. Grumm, NOAA/NWS, State College, PA

# 3:45 PM C4.1 Predictability Horizons - Part II Recent Examples from 2013-2014 Richard Grumm, NOAA/NWS, State College, PA Justin M. Arnott, NOAA/NWS, Gaylord, MI

# 4:00 PM C4.2 Using Fractional Lake Ice and Variable Ice Thickness in the WRF-ARW to Improve Forecasts for the Northern Great Lakes Michael R. Dutter and Todd Kluber, NOAA/NWS, Marguette, MI

4:15 PM C4.3 A Global WRF-based Forecast System: Implementation and Applications Todd A. Hutchinson, WSI, Andover, MA 4:30 PM C4.4 Operational Use of Ensembles - Forecaster Understanding of Uncertainty Jeffrey S. Tonque, NWA Education Committee Chair, NOAA/NWS, New York, NY Brian A. Colle, Stony Brook University School, Stony Brook, NY 4:45 PM C4.5 Strengths and Weaknesses of High Resolution Numerical Weather **Prediction in Precipitation Forecasting for Mountain-Desert Climate Regimes** Alex O. Tardy, NOAA/NWS, San Diego, CA 5:00 PM C4.6 A Forecast of Prolonged Inversion Episodes in the Intermountain West out to One Month Robert R. Gillies and Shih-Yu (Simon) Wang, Utah Climate Center, Utah State University, Logan, UT 5:15 PM Concurrent Sessions End; Dinner on your own 6:00 PM **NWA Council Meeting: Wasatch Room** 

#### Thursday – 23 October

#### **General Session**

7:00 AM NWA Registration and Information Desk Opens (Closes at 3:00 PM)

11:30 AM Weather Briefing and NWA Announcements

#### Session D1 – Decision Support Services II and Aviation

#### **Bryce Ballroom**

#### **Session Co-Chairs:**

Todd Lericos, NWA Aviation Meteorology Committee Chair, NOAA/NWS, Las Vegas, NV Greg Carbin, NWA Councilor and NWA Professional Development Committee Chair& NOAA/NWS/SPC, Norman, OK

8:00 AM D1.0 Keynote - The Meteorological Challenges of Red Bull Stratos

Don Day, Day Weather Inc., Cheyenne, WY

8:30 AM D1.1 INSITE - INtegrated Support for Impacted air-Traffic Environments

Brian J. Etherton, NOAA/ESRL, Boulder, CO

Melissa Petty, CIRA and Colorado State University, Fort Collins, CO

Geary Layne, Paul Hamer and Michael Rabellino, CIRES/University of Colorado,
Boulder, CO

#### 8:45 AM D1.2 Identifying and Communicating Hazardous Weather to General Aviation

**Pilots** 

Paul S. Suffern, Mike Richards, Brian Soper, NTSB, Washington D.C.

#### 9:00 AM D1.3 NWS New Orleans/Baton Rouge Impact-Based Decision Support Pilot

Project

Matthew J. Moreland, Tim Erickson, Angel Montanez and Kenneth Graham, NOAA/NWS, New Orleans/Baton Rouge, LA

#### 9:15 AM D1.4 The Growing Role of NOAA in DHS Operations and Planning: Storm Surge

et al.

Peter B. Roohr, NOAA/NWS/OST, Silver Spring, MD Regis Walter, NOAA CIO and DHS OPS NOC, Washington, D.C.

#### 9:30 AM Coffee Break

#### Session D2 - Severe Weather II

#### **Bryce Ballroom**

#### **Session Co-Chairs:**

Michael Vescio, NWA Past President (09'), NWA Secretary, NOAA/NWS, Pendleton, OR James G. LaDue, NOAA/NWS/WDTB, Norman, OK

#### 10:00 AM D2.0 An Evaluation of Normalized Rotation Vorticity Couplets to Assess

**Tornadic Mesocyclone Potential** 

Thomas J. Turnage, NOAA/NWS, Grand Rapids, MI

#### 10:15 AM D2.1 Analysis of Polarimetric Tornado Debris Signatures Observed by WSR-88D

**Associated with Significant Tornadoes** 

Steven Nelson, NOAA/NWS, Peachtree City, GA John R. Banghoff, Ohio State University, Columbus, OH

#### 10:30 AM D2.2 Analysis of the 17 November 2013 Tornado Outbreak across Central

Indiana within a High-Shear/Low-CAPE Environment

Amanda J. Lee, Michael D. Ryan, Michael Koch, Crystalyne Pettet and Daniel McCarthy, NOAA/NWS, Indianapolis, IN

#### 10:45 AM D2.3 The First Alabama Superoutbreak - March 21, 1932

William B. Murray, NWA Councilor, The Weather Factory, Birmingham, AL

#### 11:00 AM D2.4 Landspout Tornadoes on Weak Boundaries in the Basins of Central

**Wyoming** 

Brett E. McDonald, Chris N. Jones, NOAA/NWS, Riverton, WY

#### 11:15 AM D2.5 Impact Based Warning Decisions and Broadcast Media Response for the

St. Charles/St. Louis County EF3 QLCS Tornado of 31 May 2013

Fred H. Glass, NOAA/NWS, St. Louis, MO

#### 11:30 AM Weather Briefing and NWA Announcements

11:35 AM Lunch on your own

#### Session D3 - Winter Weather II and Flooding II

#### **Bryce Ballroom**

#### **Session Co-Chairs:**

John P. Gagan, NWA Councilor, NOAA/NWS, Springfield, MO Christina Crowe, NWA Weather Analysis and Forecasting Committee Chair, NOAA/NWS, Silver Spring, MD

#### 1:00 PM D3.0 Exploring the Utility of Downscaled SREF Grids for Generating

**Probabilistic Snowfall Forecasts** 

Glen Merrill and Randy A. Graham, NWA 2014 Annual Meeting Program Chair, NOAA/NWS, Salt Lake City, UT

#### 1:15 PM D3.1 Using the Froude Number to Improve Orographic Snow Forecasts in the

**Green Mountains of Vermont** 

Michael J. Muccilli, NOAA/NWS, Burlington, VT

### 1:30 PM D3.2 The Utility of Polarimetric Radar in Improving Aviation Forecasts for Winter Weather Events

Joseph C. Picca, NOAA/NWS, New York, NY

Matthew R. Kumjian, Pennsylvania State University, State College, PA

Jeffrey S. Tonque, NWA Education Committee Chair, NOAA/NWS, New York, NY

#### 1:45 PM D3.3 Recent Improvements to the Medium Range and Winter Weather Product

**Suite at the Weather Prediction Center (WPC)** 

Anthony R. Fracasso, Keith Brill, Michael Schichtel, Wallace Hogsett and David Novak, NOAA/NCEP/NWS/WPC, College Park, MD

### 2:00 PM D3.4 Improving MRMS Q3 Precipitation Estimation in the Western United

**States: Preliminary Results** 

Steven M Martinaitis and Youcun Qi, OU/CIMMS and NOAA/OAR/NSSL, Norman, OK

Stephen Cocks, Lin Tang and Brian Kaney, OU/CIMMS and NOAA/OAR/NSSL, Norman, OK

Jian Zhang, NOAA/OAR/NSSL, Norman, OK

Kenneth Howard - NOAA/OAR/NSSL, Norman, OK

#### 2:15 PM D3.5 A New National Weather Service Storm Surge Warning and Inundation

Graphic

Robbie Berg and Jamie Rhome, NOAA/NWS/National Hurricane Center, Miami FL

#### 2:30 PM D3.6 Increasing River Flooding Situational Awareness: A GIS Extent Mapping

**Approach** 

Jared S. Allen, NOAA/NWS, Jackson, MS

Derrick Jones, Mississippi Valley State University, Inna Beta, MS

#### 2:45 PM Refreshment Break

#### Session D4 - Multifarious II

#### **Bryce Ballroom**

#### **Session Co-Chairs:**

Pat Market, NWA Past President ('11), University of Missouri, Columbia, MO J.J. Brost, NOAA/NWS, Tucson, AZ

#### 3:15 PM D4.0 Synoptic Windstorms on the Southern Great Plains

Justyn D. Jackson and T. Todd Lindley, NOAA/NWS, Amarillo, TX Todd A. Beal, NOAA/NWS, Corpus Christi, TX

### 3:30 PM D4.1 Recent Advancements from the Research-to-Operations (R2O) Process at HMT-WPC

Thomas E. Workoff, SRG, Inc. and NOAA/NCEP/WPC, College Park, MD
Faye E. Barthold, IMSG and NOAA/NCEP/WPC, College Park, MD
Michael J. Bodner and David R. Novak, NOAA/NCEP/WPC, College Park, MD
Brad Ferrier, IMSG and NOAA/NCEP/EMC, College Park, MD
Wallace Hogsett, NOAA/NCEP/EMC, College Park, MD

### 3:45 PM D4.2 Findings from the 2014 Hazardous Weather Testbed Probabilistic Hazard Information Experiment

Christopher D. Karstens, OU/CIMMS NOAA/NSSL, Norman, OK Greg Stumpf, OU/CIMMS and NOAA/NWS/MDL, Norman, OK Darrel Kingfield, OU/CIMMS NOAA/NSSL, Norman, OK Chen Ling and Lesheng Hua, University of Oklahoma, Norman, OK Travis Smith, James Correia, Kristin Calhoun, Kiel Ortega, OU/CIMMS and NOAA/NSSL, Norman, OK Christopher J. Melick, OU/CIMMS and NOAA/NWS/SPC, Norman, OK Lans P. Rothfusz, NWA 2007 Vice President, NOAA/NSSL, Norman, OK

#### 4:00 PM D4.3 NOAA/NWS Western Region Heat Impact Level Project

Michael J. Staudenmaier, NOAA/NWS/Western Region Headquarters, Salt Lake City, UT

Paul Iñiguez, NOAA/NWS, San Joaquin Valley/Hanford, CA

William Rasch, NOAA/NWS, Sacramento, CA Darren Van Cleave, NOAA/NWS, Missoula, MT

### 4:15 PM D4.4 Bringing Weather Ready Nation into Operations: An Operational Test-bed in Northern California

William Rasch, NOAA/NWS, Sacramento, CA

Paul Iñiguez, NOAA/NWS, San Joaquin Valley/Hanford, CA

Mel Nordquist, OAA/NWS, Eureka, CA

Warren Blier, NOAA/NWS, San Francisco Bay Area/Monterey, CA

#### 4:30 PM D4.5 A Revolutionary New Look at Training Practices at National Weather

**Service Weather Forecast Offices** *Marc Singer, NOAA/NWS, Billings, MT* 

#### 4:45 PM D4.6 Unconventional Diurnal Trends of Relative Humidity and Fire Behavior

near Subsidence Inversions and the Top of the West Coast Marine Layer

Andrew W. Haner, NOAA/NWS, Seattle, WA

#### 5:00 PM Closing Remarks; 39th NWA Annual Meeting adjourns

Join us at next year's 40<sup>th</sup> Annual Meeting to be held in Oklahoma City, Oklahoma during the Fall of 2015 at the <u>Renaissance Oklahoma City Convention Center Hotel</u>. Meetings will be held next door in the <u>Cox Convention Center</u>.