

Midwest Bow Echo Workshop Agenda

Day 1

Wednesday, 28 February 2007

7:30 AM – 8:30 AM

Registration (continues through 1 March 2007)

8:30 AM – 9:15 AM

Opening remarks

8:30-8:45: *Angela Lese – NWS Louisville*

8:45-9:15: *National Weather Service Warning Performance Today and Tomorrow*

Pete Browning – Central Region Headquarters

9:15 AM – 10:35 AM

Session 1A – Synoptic environments and forecasting challenges

9:15-9:35: *The Effects of Storm Propagation and Trailing Rainfall on Flash Flood Potential Within QLCSs*

Ted Funk – NWS Louisville

9:35-9:55: *A Review of Low-Level Mesovortices in Quasi-Linear Convective Storms*

Jeff Trapp – Purdue University

9:55-10:15: *Examining Quasi-Linear Convective Systems and Bow Echoes Using Potential Vorticity Thinking*

Chris Smallcomb – NWS Louisville

10:15-10:35: *The 21 July 2002 Upper Michigan Bow Echo Event: Observational Analysis*

Matthew Zika and Jennifer Lee – NWS Marquette

10:35 AM – 10:50 AM

Snack Break

10:50 AM – 12:00 PM

Session 1B – Synoptic environments and forecasting challenges

10:50-11:10: *Severe Windstorms and Isolated Tornadoes During the 30 November-1 December 2006 Severe Weather Episode: Some Operational Forecasting Issues Associated with a Cool Season Low Topped Convective Line*

Steve Weiss – Storm Prediction Center

11:10-11:30: *Analysis of the 9 March 2006 Huntsville Bow Echo*

Calvin Elkins – University of Alabama-Huntsville

11:30-11:50: *A Preliminary Assessment of the Environment and Reflectivity Characteristics of the 19 July 2006 Derecho over Illinois and Missouri*

Ron Przybylinski – NWS St. Louis

12:00 PM – 1:00 PM

Lunch Break

1:00 PM – 1:15 PM

Free star show provided by the University of Louisville's Rauch Planetarium

1:15 PM – 1:35 PM

Severe Weather on Jupiter and Saturn

Tim Dowling – University of Louisville (Guest Speaker)

1:40 PM – 3:00 PM

Session 2A – Rear-inflow jets, mesovortices, and QLCS tornadoes

- 1:40-2:00: *Analysis of the 21 July 2006 Greater St. Louis and Southwest Illinois Bow Echo Event*
James E. Sieveking – NWS St. Louis
- 2:00-2:20: *Cold-Season Bow Echoes and QLCS's: Research Activities at UAH*
Kevin Knupp – University of Alabama-Huntsville
- 2:20-2:40: *Observation and Modeling of Mesoscale Convective Systems: What We Have Learned from BAMEX*
Brian Jewett – University of Illinois-Champaign-Urbana
- 2:40-3:00: *Can We Discriminate Between Damaging and Non-damaging Mesovortices within Bow Echoes?*
Nolan Atkins – Lyndon State College

3:00 PM – 3:15 PM

Snack Break

3:20 PM – 4:40 PM

Session 2B – Rear-inflow jets, mesovortices, and QLCS tornadoes

- 3:20-3:40: *The Tornado and Damaging Wind Event on the Morning of 23 September 2006*
Pat Spoden – NWS Paducah
- 3:40-4:00: *Wave-CISK Potentially Associated with Externally-Generated Gravity Waves*
Tim Coleman – University of Alabama-Huntsville
- 4:00-4:20: *Numerical Simulation of Quasi-Linear Convective Systems in Heterogeneous Mesoscale Environments*
Dustan Wheatley – Purdue University
- 4:20-4:40: *Discussion of the April 2nd 2006 Tornado Producing Quasi-Linear Convective System (QLCS) over Central Illinois and Comparison with Previous Work on WSR-88D Radar Signatures of F0 and F1 Tornadoes*
James Auten – NWS Central Illinois

4:45 PM – 5:00 PM

First day concluding remarks

5:00 PM

Sessions end for the day

Midwest Bow Echo Workshop Agenda

Day 2

Thursday, 1 March 2007

8:30 AM – 9:15 AM

Bow Echoes: Research Review and Experiences Forecasting with WRF-ARW

Morris Weisman – NCAR (Keynote Speaker)

9:20 AM – 10:00 AM

Session 3A – Case studies

9:20-9:40:

Real-data and Idealized Simulations of the 4 July 2004 Bow Echo Event

Kent Knopfmeier – Purdue University

9:40-10:00:

Tornadogenesis Observed on a Developing Bow Echo Complex over Southwest Ohio on 2 July 1997

John DiStefano – NWS Wilmington, OH

10:00 AM – 10:15 AM

Snack Break

10:20 AM – 11:45 PM

Session 3B – Case studies continued and Storm damage reporting and surveys

10:20-10:40:

A Case of a Supposed Stable Environment and a Severe/Tornadic QLCS

Angela Lese – NWS Louisville

10:40-11:00:

The 24 October 2001 Tornado Outbreak

Jeffrey Logsdon – NWS Northern Indiana

11:00-11:20:

The 21 July 2002 Upper Michigan Bow Echo Event: High Resolution Numerical Modeling

Thomas Hultquist – NWS Marquette

11:20-11:40:

Examination of Tornadic vs. Non-tornadic Mesovortices

Ray Wolf – NWS Davenport

11:45 PM – 12:45 PM

Lunch Break

12:45 PM – 1:00 PM

Free laser show provided by the University of Louisville's Rauch Planetarium

1:00 PM – 2:00 PM

Session 4 – Warning philosophy, methodology and societal impacts

1:00-1:20:

The Importance of Using Mesovortex Tracks When Conducting Storm Surveys and Preparing StormData

Ray Wolf – NWS Davenport

1:20-1:40: Exploring a New Approach to Improving Severe Weather Warning Lead Times Using GFE

Andy Roche – NWS Charleston, WV

1:40-2:00: Situational Awareness and Innovative Warning Dissemination Techniques

Tim Troutman – NWS Huntsville

2:00 PM – 2:15 PM

Snack Break

2:20 PM – 3:15 PM

Round-table discussion on best practices for warnings of bow echoes

2:20-3:15: Review answers from questionnaire and open discussion

Angela Lese – NWS Louisville

3:15 PM – 4:15 PM

Interactive “webinar” provided by Warning Decision Training Branch

3:15-4:15: Simulation and QLCS Warning Best Practices

Jim LaDue – Warning Decision Training Branch

4:15 PM – 4:30 PM

Concluding remarks – Angie Lese

4:30 PM

Workshop ends