

**Second NATIONAL SYMPOSIUM  
ON  
MULTIFUNCTION PHASED ARRAY RADAR**

***MOVING FORWARD WITH RISK REDUCTION FOR COST-EFFECTIVE  
SERVICE IMPROVEMENTS***

**November 17-19, 2009  
National Weather Center  
120 David L. Boren Blvd, Norman, Oklahoma**

## AGENDA

**Tuesday, November 17<sup>th</sup>**

- 8:00 a.m.–3:30 p.m.     **Registration**
- 8:30–11:00 a.m.       **Short Course: PAR Concepts and Technology (Optional)**
- 12:30–12:35 p.m.      **Mr. Samuel P. Williamson**, Federal Coordinator for Meteorological Services and Supporting Research, *Opening Remarks*
- 12:35–12:45 p.m.      **Dr. Kelvin Droegemeier**, Vice President for Research, University of Oklahoma, *Welcome*
- 12:45–1:05 p.m.       **Mr. Samuel P. Williamson**, Federal Coordinator for Meteorological Services and Supporting Research, *Introductory Remarks*
- 1:05–1:35 p.m.        **Dr. Randolph M. Lyon**, Chief, Commerce Branch—Housing, Treasury and Commerce Division; Office of Management and Budget, *Keynote*
- 1:35–2:55 p.m.        **Senior Leader Perspective: MPAR Potential and Interagency Collaboration**
- Moderator: Dr. John Snow, Dean, College of Atmospheric and Geographic Sciences, University of Oklahoma
- Panelists:
- Dr. Richard Spinrad, Assistant Administrator of NOAA for Oceanic and Atmospheric Research
- Mr. James Williams, Director of Systems Engineering, Federal Aviation Administration
- Mr. Kevin “Spanky” Kirsch, Director, Science and Technology Special Programs, Department of Homeland Security
- Dr. John Stubstad, Office of the Director, Defense Research and Engineering, Office of the Secretary of Defense
- 2:55–3:25 p.m.        *Break*
- 3:25–3:35 p.m.        **Mr. Jud Stailey**, Senior Staff Meteorologist, OFCM, *MPAR Risk-Reduction Implementation Strategy*
- 3:35–3:50 p.m.        **Dr. Paul Smith**, Chair—NRC Committee on the Evaluation of the MPAR Planning Process, *Evaluation of the MPAR Planning Process*
- 3:50–5:25 p.m.        **Session 1: Multifunctionality—Agency Needs, Priorities, and Principles of Operation**
- Moderator: Dr. Fred Lewis, Air Force Director of Weather

Panelists:

Mr. James Williams, Director of Systems Engineering, Federal Aviation Administration

Mr. Kevin “Spanky” Kirsch, Director, Science and Technology Special Programs, Department of Homeland Security

Mr. Don Berchoff, Director, Office of Science and Technology, National Weather Service (NOAA)

Dr. John Stubstad, Office of the Director, Defense Research and Engineering, Office of the Secretary of Defense

5:25 p.m.

**Adjourn**

5:30–7:00 p.m.

**Reception/Ice Breaker and Vendor Exhibits in National Weather Center Atrium (hors d’ouvres/cash bar)**

***Wednesday, November 18<sup>th</sup>***

7:00–8:00 a.m.

**Continental Breakfast**

8:00–8:10 a.m.

Dr. Jeff Kimpel, Director, National Severe Storms Laboratory (NOAA), *Opening Remarks*

8:10–9:50 a.m.

**Session 2: Underpinning for Service Improvements: Technology Innovation and Development—Laboratory Update**

Moderator: Dr. Joe Friday, Oklahoma University School of Meteorology, Professor Emeritus

Panelists:

Mr. Robert Sexton, Office of the Undersecretary of Defense (Acquisition, Technology, and Logistics), *Navy Phased Array Radar Research and Development*

Dr. David McLaughlin, Director, Engineering Research Center for CASA, *Progress with the Collaborative Adaptive Sensing of the Atmosphere Initiative*

Mr. Larry Bovino, US Army CERDAC, *US Army Phased Array Research and Development*

Mr. Gary Scalzi, AFRL, *Geodesic Dome Phased Array Antenna Advanced Technology Demonstration and other Air Force Research Laboratory Phased Array R&D Programs*

Mr. Doug Forsyth, NSSL Division Chief for Radar R&D, *National Weather Radar Testbed Research and Development*

9:50–10:20 a.m. *Break*

10:20–11:55 a.m. **Session 3: Underpinning for Service Improvements: Technology Innovation and Development—Industry Update**

Moderator: Dr. Kelvin Droegemeier, Vice President for Research and Regents’ Professor of Meteorology, Oklahoma University

Panelists:

Mr. Michael Sarcione, Senior Principal Engineering Fellow, Sensor H/W, Raytheon Integrated Defense Systems

Dr. Douglas Reep, Director, Airborne Early Warning and Advanced Programs, Lockheed Martin

Mr. Jay Kralovec, Chief Antenna Technologist/Space Systems, Harris Corporation

Mr. Frank Walker, Director, Surveillance and Fire Control Systems, Advanced Concepts and Technology, Northrop Grumman

Dr. Jeff Barner, Program Manager, Foundry Services, Cree Inc

Mr. Steve Nelson, VP MMIC Operations, Cobham

11:55 a.m.–1:10 p.m. **Lunch** (Luncheon Speaker: Dr. Karlin Toner, Director, NextGen Coordination Staff to the Secretary and Senior Policy Committee, U.S. Department of Transportation)

1:10–2:45 p.m. **Session 4: Potential Service Improvements for Air Surveillance and Weather—Part 1**

Moderator: Mr. Kevin “Spanky” Kirsch, Director, Science and Technology Special Programs, Department of Homeland Security

Panelists:

Dr. John Cho, MIT Lincoln Laboratory, *MPAR Characteristics and Potential Service Improvements*

Lt Col Bryan Miller, USAF, NORAD J3, *Aircraft Surveillance Applications*

Mr. Gary Andrews, DeTect Inc, *Bird Hazard Mitigation*

Dr. David Schneider, USGS Alaska Volcano Observatory, *Volcanic Ash*

Mr. Andy James, Oklahoma Department of Forestry, *Wildland Fire/Smoke*

2:45–3:15 p.m. *Break*

3:15–5:05 p.m.

**Session 5: Potential Service Improvements for Air Surveillance and Weather—Part 2**

Moderator: Dr. John Cho, MIT Lincoln Lab

Panelists:

Mr. Tim Maese, Basic Commerce and Industries, *Extracting Weather Data from a Hybrid PAR*

Dr. Pam Heinselman, National Severe Storms Laboratory, *Early Detection of Severe Storms*

Dr. David Stensrud, NSSL Division Chief for Forecasting R&D, *Storm-scale NWP Models and Initialization using PAR Data*

Dr. Robert Palmer, University of Oklahoma, *Other Weather Applications*

Dr. Walter Bach, US Army, *Biological/Chemical Threat Applications*

5:05 p.m.

**Adjourn**

5:05–7:00 p.m.

**Vendor Exhibits Available for Review in National Weather Center Atrium (hors d'ouvres/cash bar)**

***Thursday, November 19<sup>th</sup>***

7:00–8:00 a.m.

**Continental Breakfast**

8:00–8:10 a.m.

Mr. James Williams, Director of Systems Engineering, Federal Aviation Administration, *Opening Remarks*

8:10–10:05 a.m.

**Session 6: Addressing the Risk Reduction Challenges**

Moderator: Dr. Robert Serafin, National Center for Atmospheric Research, Director Emeritus

Panelists:

Mr. Tracy Wallace, Georgia Tech Research Institute, *Defining the Technical Issues*

Dr. Dusan Zrnica, National Severe Storms Laboratory, *Dual Polarization—the Challenge*

Dr. Jeff Herd, MIT Lincoln Lab, *Dual Polarization—Progress*

Mr. Garth Torok, William J. Hughes Technical Center (FAA), *Technical Assessment Program*

Dr. Yasser Al-Rashid, Lockheed Martin, *Leveraging DoD Capabilities to Demonstrate Dual Pol and Multi-mission Performance*

Dr. Bill Chappell, Purdue University, *Digital Array Radar*

10:05–10:35 a.m. *Break*

10:35 a.m.–11:50 p.m. **Session 7: Moving Forward with Risk Reduction**

Moderator: Dr. Paul Try, Senior Vice President, Science & Technology Corporation

Panelists:

Dr. Jeff Kimpel, Director, National Severe Storms Laboratory (NOAA)

Mr. James Williams, Director of Systems Engineering, Federal Aviation Administration

Mr. Ted Hom, US Army Product Manager for Radars, Program Executive Office Intelligence, Electronics Warfare, and Sensors

Lt Col Bryan Miller, USAF, NORAD J3

CAPT Michael Angove, Naval Deputy to NOAA, US Navy

11:50 a.m.–12:00 p.m. **Review of Action Items and Closing Remarks**

**Mr. Samuel P. Williamson**, Federal Coordinator for Meteorological Services and Supporting Research

12:00 p.m. **Adjourn Symposium**

1:00–4:00 p.m. **Tours of the National Weather Radar Testbed and the National Weather Center (Optional)**