

**16th Annual “Friends/Partners in Aviation Weather” Forum
NBAA Convention – Orange County Convention Center – Room S331**

Sponsored by: National Business Aviation Association
Aircraft Owners and Pilots Association
National Center for Atmospheric Research

October 31- November 1, 2012

Business Casual Attire Suggested

The goal of this meeting is to give the opportunity for the community of aviation weather information providers to hear directly from the user community what their major short-term issues are, and to motivate action on these issues after this meeting.

October 31

- 1:00 – 1:20** **Welcome and Overview – Bob Lamond, Bruce Carmichael**
- 1:20 – 1:35** **History and Planning for FPAW (Warren Qualley)**
- 1:35 – 2:35** **Segment 1: Active Incorporation of Training in the Use of Weather Tools – (Rick Heuwinkel, Mark Huberdeau, Kevin Johnston, Nathan Polderman, John Kosak, Melissa McCaffrey, John McCarthy)**
- Theme: What works well and what doesn't work in weather training today and how will that change with the increased reliance on Decision Support Tools in NextGen operations?
- 2:35 – 3:05** **Segment 2: Volcanic Ash – (Cecilia Miner)**
- Airline meteorologist perspective on volcanic ash (Randy Baker) – 7 minutes
- U.S. Volcanic Ash Advisory Centers (Cecilia Miner) – 7 minutes
- Tokyo Volcanic Ash Advisory Center (Jun Ryuzaki) – 7 minutes
- Discussion – 9 minutes
- 3:05 – 3:30** **Break**
- 3:30 – 4:00** **Segment 3: New Capabilities of Airborne Radar – (Joe Burns, Bill Watts, Cheri Haynes, Craig Peterson)**
- Aircraft weather radar has seen significant improvements since its implementation in the 1950's. This segment will discuss the latest and

proposed weather RADAR technologies, as well as a robust discussion around emerging technologies including data link weather to the cockpit/aircraft. At what point, if any, will the ground-based weather RADAR systems transmitted to the aircraft be good enough to consider as either RADAR replacements, or at least as MEL backup systems.

4:00 – 5:00

Segment 4: Data Centric Weather – The World is Embracing WMO and ICAO – (Alfred Moosakhanian, Mark Miller, Stan Benjamin, Matt Taylor, Ron Guy)

The panel members will provide:

Government updates on the status/approach of the FAA and NWS programs in fielding the 4D Wx Cube, RAP and HRRR, the NWP, and CSS-Wx.

Industry perspectives on their participation in this evolution: how they may support the FAA/NWS programs, but more importantly their vision on how their operations and their customers will benefit from this transition.

November 1

8:30 Meet for Coffee

9:00 – 10:00 Segment 5: ATM/Weather Integration – (Steve Abelman, Kevin Johnston, Matt Fronzak, Kevin Stone, John Lanicci, Rick Curtis, Rick Heuwinkel, Brian Hughes)

In this session a panel of subject matter experts has been assembled to discuss relevant topics associated with weather integration, with a focus on short and mid-term weather integration activities and initiatives. There will be no formal presentations, but rather an interactive discussion on current issues. Audience participation will be encouraged. Example topics we expected to be covered include:

The NextGen definition of weather integration has been focused on automated weather and new DSTs. How do we hype short term integration success, but remain aligned to the initial NextGen weather integration definition?

How can weather be better integrated into the NAS in the short term, remaining on the path to NextGen? Detail some successful short term initiatives.

How are NWS meteorologists at CWSUs, the new Command Center meteorologists, and private sector meteorologists most successful integrating the weather forecast and guidance information they produce?

How do we better integrate uncertainty information (not just probabilities) into the NAS?

10:00 – 11:00 Segment 6: Turbulence – (Tom Fahey)

Long Term Goal: Increase/Maximize Usable Airspace & Reduce/Minimize/Eliminate injuries/aircraft damage.
What can be done in the next 12-24 months to move toward this goal?

Causes/Types of Turbulence Hazards for Aviation – (Bob Sharman)
(Panel: Tom Fahey, Matt Taylor) – 9 minutes

Turbulence Problems that Aviation Decision Makers Face – (Bill Watts, Matt Tucker) (Panel: Geri Jarrett, Matt Fronzak) – 9 minutes

Turbulence Measurements and EDR Standardization – (Sal Catapano)
(Panel: Matt Fronzak, Bob Sharman, Matt Taylor) – 9 minutes

Verification – (Jennifer Mahoney) (Panel: Bob Sharman, Matt Taylor, Bill
Watts) – 9 minutes

Integration of Turbulence Information – (Mark Bradley)
(Panel: Tom Fahey, Matt Fronzak, Jennifer Mahoney, Bob Sharman, Matt
Taylor, Matt Tucker) – 9 minutes

Discussion: Can we increase usable airspace and reduce injuries/aircraft
damage? – 15 minutes

11:00 – 11:15 **Break**

11:15 – 12:15 **Segment 7: Weather Reporting From Aircraft – (Rocky Stone)**

Introduction (Rocky Stone) – 2 minutes

WMO AMDAR Program Overview (Bryce Ford) – 11 minutes

Aircraft Weather Observations with the Water Vapor Sensing System
(WVSS-II) (Bryce Ford) – 11 minutes

The Aircraft Weather Observation Contribution to NextGen (Mark
Bradley) – 11 minutes

Potential Reporting of Met Parameters Using ADS-B and Enabled
Applications (Rocky Stone) – 11 minutes

The Potential of an Aircraft Derived Met Data Service (Steven Darr) –
11 minutes

Discussion – 3 Minutes

12:15 – 1:15 **Lunch** **(Lunch will be available in the meeting room.)**

1:15 – 2:15 **Segment 8: Weather Technology in the Cockpit – (Gary Pokodner)**

Introduction and update on the FAA's Weather Technology in the Cockpit
(WTIC) Program. (Gary Pokodner) - 7 minutes

MET training for pilots to include: ongoing training research, impacts of
training, and current training issues. (John Lanicci) - 7 minutes

Industry advancements for providing MET technology and MET
information to Part 121 cockpits. (Jean-Michel Roy) - 7 minutes

GA perspective on advancements in GA MET technology and information for GA cockpits (Melissa McCaffrey) - 7 minutes

Discussion on metrics for quantifying errors in MET information and their impacts on flight operations (Michael McPartland) - 7 minutes

Variations in pilot performance resulting from different commercially representative MET presentations (Ulf Ahlstrom) - 7 minutes

MET-related advisory circulars and the FAA perspective on their impacts on weather technology in the cockpit (Roger Sultan) – 7 minutes

Discussion - 10 minutes

2:15 – 3:15

Segment 9: Terminal Weather Forecasts and Traffic Flow Management (TFM) Decisions – (Kevin Johnston)

Industry perspective on how terminal weather forecasts are used in TFM planning (Tom Lloyd) - 15 minutes

Government perspective on weather requirements for TFM; capabilities and new initiatives to meet requirements; and some new verification procedures (Kevin Stone, Jennifer Mahoney) - 30 minutes

Discussion – 15 minutes

3:15 – 3:30

Break

3:30 – 4:30

Segment 10: Quantifying Monetary Impacts of Forecasts (Bryce Ford)

Introduction (Bryce Ford) – 6 minutes

U.S. Government Activities (Kevin Stone, Mike Robinson) – 21 minutes

Airline Activities (Rick Curtis, Tom Fahey, Randy Baker) – 21 minutes

Business Aircraft and General Aviation Activities (John Kosak) – 7 minutes

Discussion – 5 minutes

4:30 – 4:35

Closing Comments (Bruce Carmichael)