# Agenda
# 2016 20th Annual FPAW Fall Meeting
# Orange County Convention Center (Room S310E/F)

## Wednesday November 2nd

**1:00** Kickoff **(Bruce Carmichael - NCAR, John Kosak - NBAA, Bob Lamond - NBAA, Steve Brown – NBAA, Teri Bristol - FAA)**

**1:15 – 5:00 Special Session on Cockpit Weather (Ernie Dash - AvMet, Gary Pokodner - FAA, Beth Blickensderfer – ERAU, Bruce Holmes – SmartSky Networks/Skytelligence Group, Gordon Rother - FAA)**

The data link of weather information to and from aircraft has evolved from wishful thinking to reality. During this FPAW special session, the panel members will explore the government actions that have both stimulated and sometimes stymied the implementation of cockpit weather. Reports will be presented on research to add new data link products and research to enhance pilot's operational use of the cockpit weather technology. There will also be a segment on future concepts enabled by broadband data link access and its impacts on commercial aviation as well as business and general aviation; and even drones. The session will wrap-up with a stakeholder panel discussion on lessons learned and wish list for future capabilities. Audience interaction and Q&A will be featured.

**1:15 – 1:35 Government Support to Cockpit Weather (Research and Regulatory): (Ernie Dash - AvMet, Taumi Daniels – NASA)**

Government activities that have both stimulated and sometimes stymied the implementation of cockpit weather

**1:35 – 3:00 Weather in the Cockpit (WTIC) Research:**

- **Part 121 (Gary Pokodner - FAA)**

  Research to Operations on EDR/turbulence reporting and applications; and oceanic shortfalls.

- **Part 91 (ERAU: John Lanicci, Beth Blickensderfer, Tom Guinn, Jennifer Thropp)**
  General Aviation Pilots' Aviation Weather Knowledge: Research Results and Implications for Training and Assessment.

**3:00 – 3:15 Break**

**3:15 – 4:15 The Future of Weather in the Connected Cockpit: (Bruce Holmes – SmartSky Networks/Skytelligence)**

- Business and General Aviation. (Bruce Holmes)
- Un-crewed Aerial Systems (UAS). (Chris Brinton – Mosaic ATM )
- Commercial Aviation. (Matt Taylor – The Weather Company, Jeff Rex – Panasonic Avionics)

**4:15 – 5:00 Stakeholder Panel Discussion: (**Tim Miner – APA, David Strahle – GA Flight Instructor, Matt Tucker – NATCA, David Vogt – Delta, Gordy Rother - FAA, Robert Baron – Baron Services**)**

Stakeholder perspectives on Lessons Learned and Future Wish List Capabilities

## Thursday November 3rd

**8:00 – 9:30 Aircraft-based Meteorological Observations (Stephen Darr** – Dynamic Aerospace**,** Paul Suffern – NTSB, Geoffrey Manikin – NOAA, Bruce Landsberg – AOPA, Matthew Tucker – NATCA, Gary Pokodner – FAA, Gordon Rother – FAA, Steve Jangelis – ALPA, Stephen Weygandt - NOAA)

Meteorological observations are critical to the aviation system as input to aviation forecasts and operational decision making. This session will focus on the availability and utility of aircraft-based meteorological observations, both human and automated. The session will begin with a recap of the NTSB forum entitled "PIREPs: Pay it Forward…Because Weather for One is Weather for None," which focused on the need to improve the PIREP and weather dissemination process, as well as future improvements and emerging technologies with potential to provide greater pilot awareness of weather conditions. The session will include a presentation detailing requirements for automated, near-real time reporting of Aircraft-based Observations contained in an upcoming RTCA standard on Aeronautical Information and Meteorological Data Link Services. A presentation on the potential impact of significantly increasing the availability of aircraft-based observations for numerical weather forecasting will follow. A discussion of the availability of real-time weather for pilots vs. current practices will close out the session, which will include time for audience participation.

**9:30 – 11:30 Application of Turbulence Data in Flight Operations (Tammy Farrar – FAA,** Winston Carter – Gulfstream, Judith Reif – JR Flight Services, Matt Tucker – NATCA, Bill Watts – Delta Airlines, Tenille Cromwell - Gulfstream, Deborah Sutor – Association of Flight Attendants, Tom Fahey – Delta Airlines) ***(To include a 15-minute break)***

This session will review developments in turbulence research and product development, and application of turbulence information into flight operations, to include commercial and corporate

aviation, dispatch and air traffic control, as well as cabin management safety from a flight attendant's perspective. A panel discussion will be held that will highlight unmet needs as well as recent developments. Panel participants will include representatives from the corporate and commercial aviation industry, flight attendant unions, airline dispatch and air traffic control.

**11:30 – 12:30 Runway Condition Assessment Matrix (RCAM) (Joshua Paurus -** MSP Airport, Tom Lahovski – FAA, Joe Vickers - AST, Rafal Kicinger – Metron, Geoff Bing - Boschung)

This fall the FAA implements new Takeoff and Landing Performance Assessment (TALPA) procedures and the use of the Runway Condition Assessment Matrix (RCAM) process for reporting the condition of runways during winter weather operations. This will mean significant changes to flight crews and airport operators. This session will dig into some of the details associated with the use of the RCAM, as well as technology advances that aim to streamline the process in the future.

**12:30 – 1:30 Lunch**

**1:30 – 3:00 Update of the Status of Numerical Weather Prediction (Danny Sims -** FAA**,** Stephen Weygandt - NOAA, Geoff Manikin - NOAA, Maria Pirone - Harris)

Numerical Weather Prediction (i.e., weather models), apart from climatology, are the basis for all weather forecasts beyond about 2 hours into the future. Aviation weather hazards are forecasted either through further processing (e.g., inflight icing and turbulence) or direct use of model output (e.g., convective weather). In addition, model output is used for analysis fields in data sparse areas. This session will provide an update on recent advances in aviation numerical weather prediction, future plans of NOAA National Centers for Environmental Prediction (NCEP), industry trends and capabilities, and a question and answer session ensuring aviation users are prepared to use coming information.

**3:00 – 3:15 Break**

**3:15 – 5:00 Status of Weather and UAS (Joe Burns** - Sensurion**,** Brian Haynes – Sensurion, Larry Cornman - NCAR, John Lanicci - ERAU, Doug Olsen - UND**)**

This session will review developments in operations of commercial small thru large UAVs in the NAS, weather and dispatch implications, including turbulence and boundary layer impacts, product development, and application of weather information into drone flight operations, to include commercial UAS operations, flight following, and air traffic control. A panel discussion will be held that will highlight unmet needs, research applications, NASA and FAA UTM, as well as recent developments. Panel participants will include representatives from the academic, commercial meteorology, research, and commercial UAS industry.