

Spring 2023 FPAW Meeting Agenda

Dates: 16 – 18 May 2023
 Location: National Weather Service (NWS) [Aviation Weather Center](#) (AWC)
 7220 NW 101st Terrace, Kansas City, MO 64153-2371
 Room: Training Center Auditorium unless otherwise noted
 Registration: Required via [FPAW Spring meeting website](#)
 Note: All times are Central Daylight Time (CDT)



	Day 1	Day 2	Day 3
Time	Tuesday, 5-16-23	Wednesday, 5-17-23	Thursday, 5-18-23
8:30 AM to 8:45 AM			AWC Tour 1
8:45 AM to 9:00 AM			
9:00 AM to 9:15 AM	Main Session 1a* New Observation Standards and Methods 9:00 AM - 11:30 AM	Main Session 3a* Research to Operations (R2O) 9:00 AM - 11:30 AM	AWC Tour 2
9:15 AM to 9:30 AM			
9:30 AM to 9:45 AM			
9:45 AM to 10:00 AM			
10:00 AM to 10:15 AM			
10:15 AM to 10:30 AM			
10:30 AM to 10:45 AM			
10:45 AM to 11:00 AM			
11:00 AM to 11:15 AM			
11:15 AM to 11:30 AM			
11:30 AM to 11:45 AM	Lunch 11:30 AM - 12:30 PM	Lunch 11:30 AM - 12:30 PM	Lunch 11:30 AM - 12:30 PM
11:45 AM to 12:00 PM			
12:00 PM to 12:15 PM			
12:15 PM to 12:30 PM	Main Session 1b New Observation Standards and Methods 12:30 PM - 2:00 PM	Main Session 3b Research to Operations (R2O) 12:30 PM - 2:15 PM	Main Session 4b Aviation Weather Testbed (AWT) Activities 12:30 PM - 2:00 PM
12:30 PM to 12:45 PM			
12:45 PM to 1:00 PM			
1:00 PM to 1:15 PM			
1:15 PM to 1:30 PM			
1:30 PM to 1:45 PM			
1:45 PM to 2:00 PM			
2:00 PM to 2:15 PM	Short Session 2 Wx Industry Survey 2:15 PM - 3:00 PM		Short Session 5 Review of Prior FPAW Topics 2:15 PM - 3:15 PM
2:15 PM to 2:30 PM			
2:30 PM to 2:45 PM			
2:45 PM to 3:00 PM	FPAW Steering Committee Meeting (Closed Session) Location TBD 3:15 PM - 5:00 PM	FPAW Planning Meeting 2:30 PM - 4:30 PM	Short Session 6 FPAW Org Updates 3:30 PM - 4:15 PM
3:00 PM to 3:15 PM			
3:15 PM to 3:30 PM			
3:30 PM to 3:45 PM			
3:45 PM to 4:00 PM			
4:00 PM to 4:15 PM			
4:15 PM to 4:30 PM			
4:30 PM to 4:45 PM			
4:45 PM to 5:00 PM			

	Day 1	Day 2	Day 3
Time	Tuesday, 5-16-23	Wednesday, 5-17-23	Thursday, 5-18-23
After 5:00 PM	FPAW Steering Committee Dinner 6:00 PM - ?? Location TBD	FPAW Dinner 6:00 PM - ?? Location TBD	

Notes: Gray blocks indicate hybrid meeting (both in-person and remote participation)

* includes at least one 15-minute break

Day 1 – Tuesday, May 16, 2023

Main Sessions 1a and 1b – New Observation Standards and Methods

9:00 AM – 11:30 AM CDT and 12:30 PM – 2:00 PM CDT, including at least one 15-minute break during the morning segment

NWS Training Center Auditorium and Hybrid

Session Leads: Scott Landolt/NCAR and John Steventon/FAA

New Observation Standards: FAA regulations require information in the Meteorological Aerodrome Report (METAR) to be used by aviators in their operations. Assuming that a METAR is representative of weather within 5 miles of the terminal area where the underlying observations are taken, this equates to two percent of Alaska and three percent of the lower 48 contiguous United States having reported weather information from Approved Sources at airports where a METAR is produced. Flight Standards has determined it is necessary to develop performance standards for Analyzed Weather information as a backup to and beyond where current approved weather reporting is being performed. These standards will be the basis for the approval of analyzed weather information for low altitude operations conducted where METAR information is missing or not available today.

The objective of this effort is to allow aviation operators to use Analyzed Weather Information that meets Performance Based Weather Standards (PBWS) as an approved source of weather information. This is primarily for low altitude operations where approved sensed weather information is either not available or is missing.

New Observation Methods: This portion of the session will focus on planned improvements to the Automated Surface Observing System (ASOS), which is jointly managed by the FAA, the National Weather Service, and the Department of Defense. There are a number of planned upgrades both in the near term and longer range focusing on making the higher resolution data (one-minute observations) available in real time, as well as plans to replace many of the sensors on the ASOS platform. With nearly 1,000 ASOS stations around the U.S., any changes to this system can have impacts to aviation operations, climate monitoring, and forecasting. This section will also focus on research being conducted using UAS as in situ weather platforms. Many new sensors are being designed for integration into UAS and some of the latest sensor developments will be discussed, as well as the potential impact of these measurements on nowcasting and forecasting.

Short Session 2 – Weather Industry Perspective Survey Results

2:15 PM – 3:00 PM CDT

NWS Training Center Auditorium and Hybrid

Session Leads: Tenny Lindholm/NCAR and Gary Pokodner/FAA

This session presents the results of a Pilot Industry Survey that was developed and conducted by NCAR on behalf of the FAA's Weather Technology in the Cockpit (WTIC) Program Office. The primary goal of the survey was to identify information and capability gaps that still need to be addressed for the WTIC Program minimum weather service (MinWxSvc) recommendations for cockpit weather information. We present suggested future research for the WTIC Program as derived from survey results. We also solicit feedback on prioritizing these future research areas, and suggestions for other areas that the survey and subsequent analyses may have missed. Pilots represented by the Air Line Pilots Association (ALPA), the National Business Aviation Association (NBAA), and other Part 121 airline groups participated in the survey.

FPAW Steering Committee Meeting

3:15 PM – 5:00 PM CDT

TBD AWC location and Hybrid

FPAW Steering Committee members will meet to discuss matters of its organization, mission, and best ways to impactfully guide the FPAW movement going forward. It will be a closed session for FPAW Steering Committee members only.

FPAW Steering Committee Dinner

6:00 PM - ?? CDT

TBD location, In-person only

FPAW Steering Committee Members and their guests only. Sign-up will be required. More information about the sign-up process and location will be provided.

Day 2 – Wednesday, May 17, 2023

Main Sessions 3a and 3b – Research to Operations (R2O)

9:00 AM – 11:30 AM CDT and 12:30 PM – 2:15 PM CDT, including at least one 15-minute break during the morning segment

NWS Training Center Auditorium and Hybrid

Session Leads: Apoorva Bajaj/Climavision and Danny Sims/FAA

It is estimated that millions of dollars are spent annually in the U.S. on Research to Operations (R2O) and new product development efforts in the aviation weather (AvWx) enterprise. Operationalized AvWx products are those techniques, algorithms, and software that make it into everyday use for the safe, efficient, and sustainable movement of passengers and goods in the NAS (and internationally) towards commercial, government or academic pursuits. Thus, successful AvWx R2O directly impacts the day-to-day activities conducted by aviation end users that include pilots, aircraft dispatchers, planners, air traffic controllers, airport personnel, and the aviation meteorologists that support the end users.

Steps of the R2O process can be assumed to be no different than what takes place in any other industry or enterprise and involve the identification of the needs (“customer needs”) of stakeholders, articulation of problem statements, budget preparation, securing of funds, team selection, goal and timeline setting, development and experimenting, prototyping, user testing, quality control, trials, productization and eventual operational deployment. Given the size and diversity of the AvWx enterprise, how are we doing as a nation in our effectiveness in the R2O process? Are we seeing the expected Return on Investment? Are we ‘organized’ as a community for success?

This multi-part session will focus on:

- 1) Understanding the R2O process across the AvWx enterprise
Panelists/presenters from across the enterprise will answer questions related to the R2O process itself, rather than focusing on active research or recent innovations themselves
- 2) Listening to End Users
This session will feature a diverse group of users that directly use AvWx products in their day-to-day operations and gives them a chance to talk about their unmet needs. Invited speakers will include pilots, dispatchers, air traffic controllers, and airport personnel.

We are also looking at inviting panelists from non-aviation industries to present their perspectives, approaches and best practices in R2O.

FPAW Planning Meeting

2:30 PM – 4:30 PM CDT

NWS Training Center Auditorium and Hybrid

The location, dates, and target session topics for the Fall 2023 FPAW Meeting will be discussed and decided upon. Potential locations, dates, and session topics will be similarly reviewed and catalogued for the Spring 2024 FPAW Meeting. Proposed topics submitted to <https://fpaw.aero/form/submit-a-topic> will be included in these discussions.

FPAW Dinner

6:00 PM - ?? CDT

TBD location, In-person only

FPAW Attendees and their guests. Sign-up will be required. More information about the sign-up process and location will be provided.

Day 3 – Thursday, May 18, 2023

AWC Tours

8:30 AM – 9:30 AM CDT

TBD location

There will be two 30-minute tours of the Aviation Weather Center, the first starting at 8:30 AM CDT and the second at 9:00 AM CDT. Sign-up will be required. More information about the sign-up process and where to meet will be provided.

Main Sessions 4a and 4b – Testbed Activity: User Engagement in R2O Process

9:30 AM – 11:30 AM CDT and 12:30 PM – 2:00 PM CDT, including at least one 15-minute break during the morning segment

NWS Training Center Auditorium and Hybrid

Session Leads: Stephanie Avey/NWS AWC and Ian Johnson/FAA

This session will be a follow on from the Fall 2022 Friends and Partners in Aviation Weather (FPAW) session and will be run in collaboration with the 2023 Aviation Weather Testbed (AWT) Experiment. The morning session will focus on providing an overview of current probabilistic guidance advancements and use from a variety of aviation weather experts. The afternoon portion will include focus group activities derived from the breakout group priorities identified in the Fall.

As part of the concurrent AWT experiment, participants will be tasked with developing probabilistic forecasts based on various guidance products and will then present those to the FPAW attendees. The FAA's Aviation Weather Demonstration and Evaluations (AWDE) Services group will be leading the focus group activities to better understand user utility, interpretation, and decision-making processes from the probabilistically derived forecast guidance presented. This guidance will include both forecaster-in-the-loop derived products, as well as graphical displays developed directly from probabilistic guidance.

The overall goal of this session is to establish a baseline of probabilistic guidance understanding by the user community and identify a path forward for developing and distributing probabilistic guidance products to ensure they are properly interpreted and utilized for decision making.

Short Session 5 – Review of Prior FPAW Topics

2:15 PM – 3:15 PM CDT

NWS Training Center Auditorium and Hybrid

Session Lead: Steve Darr/Dynamic Aerospace

This session will feature two updates. The first will explore how FPAW partners can create 'pull' for the implementation of ADS-B Wx with the goal of having FPAW partners commit to taking specific actions to ensure the data ADS-B Wx can deliver is delivered. The second will focus on the activities of the FAA Weather Community of Interest (Wx COI) and will be delivered by one of the Wx COI Co-Leads, Randy Bass (FAA), with input from the other COI Co-Lead, Alfred Moosakhanian (FAA).

Short Session 6 – FPAW Organizational Update

3:30 PM – 4:15 PM CDT

NWS Training Center Auditorium and Hybrid

Session Leads: Matt Fronzak/MITRE and Matthias Steiner/NCAR

Pertinent updates from the FPAW Steering Committee will be provided.