

Friends and Partners in Aviation Weather

Agenda for the Spring 2021 FPAW Meetings

Plenary Meeting: Virtual only, Tuesday-Thursday, 27-29 April 2021, 11:00 AM – 3:30 PM daily



Microsoft Teams meeting
Join on your computer or mobile app
(same link/information all three days)

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[+1 540-492-5664,,757168292#](#) United States, Roanoke

Phone Conference ID: **757 168 292#**

All Times Eastern Daylight Time

Day 1: Tuesday, 27 April 2021

11:00 – 11:10 Welcome

Matt Fronzak (MITRE) and Matthias Steiner (NCAR)

11:10 – 14:30 Digital Transformation of Flight Service: Human Assisted Briefing to Pilot Self-Briefings

Leads: James Hasemann and Janet Ford (Capital Group)

Participants: Jeff Black (FAA AJR-B), Joe Daniele (Leidos), Marilyn Pearson (CAE), Gary Pokodner (FAA WTIC), Frances Prott (FAA AJR-B)

This session will focus on the transformation of Flight Service from specialists providing preflight pilot weather briefings to pilots conducting preflight self-briefings using automated resources.

TIME	TOPIC
11:10 – 12:30	<ul style="list-style-type: none"> Introductions and Opening Survey Overview of Flight Service From Planning to Action FAA Regulations, CFR 91.103, and the Development of AC 91-92 Introductions
12:30 – 12:45	BREAK
12:45 – 14:00	<ul style="list-style-type: none"> Changes in the Delivery of Flight Service Bridging the Self-briefing Education Gap Research for Enhancing Weather in the Cockpit
14:00 – 14:15	BREAK
14:15 – 14:30	<ul style="list-style-type: none"> Future Needs and Changes in Aviation Weather Services and Closing Survey

14:30 – 15:30 Spectrum Interference and Weather Observations

Lead: Tom Fahy (Capitol Meteorologics)

Participants: Jordan Gerth (NOAA), Sai Kalyanaraman (Collins Aerospace)

This session will focus on current and future issues associated with weather observations and RF spectrum interference. See the links for more information:

<https://thehill.com/opinion/energy-environment/451216-mixing-5g-and-weather-satellites-could-skew-forecasts-of-next?rl=1>

<https://flightsafety.org/asw-article/rtca-sees-widespread-risks-to-aviation-in-plan-for-shared-radio-frequency-spectrum/>

https://www.rtca.org/wp-content/uploads/2020/10/SC-239-5G-Interference-Assessment-Report_274-20-PMC-2073_accepted_changes.pdf

TIME	TOPIC
14:30 – 15:15	<ul style="list-style-type: none">• Introductions• Weather Radar, Satellite Observations and 5G Interference• 5G Interference with Aircraft Radar Altimeter, Radio Frequency Interference with Satellite Navigation, and Spectrum Compatibility with Aircraft Safety-of-Life Functions
15:15 – 15:30	<ul style="list-style-type: none">• Q&A with the panel

Day 2: Wednesday, 28 April 2021

11:00 – 11:10 Welcome

Matt Fronzak (MITRE) and Matthias Steiner (NCAR)

11:10 – 14:30 Emerging Standards and Certification Challenges for Novel Weather Observations

Lead: Stephen Darr (Dynamic Aerospace)

Participants: Don Berchoff (TruWeather Solutions), Walter Combs (FAA AJR-B), Gary Graeff (TruWeather Solutions), Justin Hilliard (UPS Flight Forward), Jeff Massey (Amazon), Bob Maxson (NOAA NWS AWC), Gordy Rother (FAA AFS-220), Ralph Stoffler (Raytheon)

This session will explore the state-of-the-art and -practice associated with several nascent aviation weather sources and provide an opportunity for the FPAW community to discuss their potential utility alongside their possible pitfalls.

TIME	TOPIC
11:10 – 11:15	<ul style="list-style-type: none">• Session Overview
11:15 – 12:00	<ul style="list-style-type: none">• FAA Aviation Weather Cameras- Alaska and Elsewhere

12:00 – 12:45	<ul style="list-style-type: none"> • ADS-B Weather Data Distribution Planning
12:45 – 13:00	BREAK
13:00 – 13:45	<ul style="list-style-type: none"> • Low-Level Operations Weather Needs Panel
13:45 – 14:30	<ul style="list-style-type: none"> • Technology for Remote Observations Panel

14:30 – 15:30 Updates from Ongoing Topics

Lead: Tom Ryan (AvMet Applications)

Participants: Bill Bauman (FAA), Joshua Paurus (MSP Airport), Seth Linden (NCAR), Robinson (MITRE)

This session will provide three short updates of topics that were presented at recent FPAW meetings, along with time for Q&A after each.

TIME	TOPIC
14:30 – 14:50	<ul style="list-style-type: none"> • FAA Weather Community of Interest (Wx COI) Update (Bill Bauman)
14:50 – 15:10	<ul style="list-style-type: none"> • Winter Weather Update (Joshua Paurus)
15:10 – 15:30	<ul style="list-style-type: none"> • COVID-19 Pandemic: Aviation Weather Implications and Opportunities Update (Mike Robinson)

Day 3: Thursday, 29 April 2021

11:00 – 11:10 Welcome

Matt Fronzak (MITRE) and Matthias Steiner (NCAR)

11:10 – 14:30 Operational Airspace Capacity Estimation/Prediction under Convective Weather Impact

Co-Leads: Le Jiang (IMSG) and Ernie Stellings (NBAA)

Participants: Chris Brinton (Mosaic ATM), Greg Byus (FAA AJR-13), Erin Cobbet (Delta Air Lines), Jim Evans (MIT Lincoln Laboratory), Ken Fenton (NOAA/ESRL), Dean Fulmer (CGH), Mike Matthews (MIT Lincoln Laboratory), Tim Niznik (American Airlines), Curt Rademaker (FAA AJR-13), Ernie Stellings (NBAA), Bill Tuck (Delta Air Lines)

Overview: Convective weather reduces air traffic throughput rates. Studies have found significant variability in manually derived estimates of throughput reductions. This session discusses capacity estimation challenges and the opportunity to improve the utilization of convectively constrained airspace through the potential integration of capacity estimation algorithms into a decision support tool (DST). Methodologies of airspace capacity estimation will be reviewed and discussed for their maturity and usability (constrained by the accuracy of the underlying convective weather forecast),

along with human factors in the collaborative decision making (CDM) from perspectives of ATM, airlines, and other stakeholders.

TIME	TOPIC
11:10 – 11:55	<p>Characteristics of Operational ATFM Decision Making Relative to Airspace Capacity, and the Need for Decision Support Tools</p> <ul style="list-style-type: none"> • Session Introduction • Overview of Operational ATFM Decision Making relative to Airspace Capacity, Best Practices and Potential Enhancements • Operational Scenarios and Needs • Highlights and Recommendations for FET Whitepaper
11:55 – 12:10	<ul style="list-style-type: none"> • Panel Discussion and Q&A
12:10 – 12:30	BREAK
12:30 – 13:10	<p>Overview of Airspace Capacity Estimation Approaches</p> <ul style="list-style-type: none"> • Mosaic ATM Approach for FCA Capacity Estimation • Estimation of Clear Weather Capacity • Flow Constraint Index Approach and Alternative Approach based on Convective Weather Forecast • Traffic Flow Impact (TFI) Tool
13:10 – 13:20	<ul style="list-style-type: none"> • Panel Discussion and Q&A
13:20 – 13:30	BREAK
13:30 – 14:00	<p>State of the Art, Complexity, Forecast Uncertainty, Operational Focus, and Risk Management Approaches</p> <ul style="list-style-type: none"> • Integrating “New Entrants” into New Tools • Complexity and Risk Management Approach
14:00 – 14:20	<ul style="list-style-type: none"> • Panel Discussion and Q&A
14:20 – 14:30	BREAK

14:30 – 15:30 FPAW Updates

Leads: Matt Fronzak (MITRE) and Matthias Steiner (NCAR)

The FPAW Co-Chairs will provide an update on the status of FPAW, to include a discussion on the formation of an FPAW Steering Committee as outlined in the FPAW website at <https://fpaw.aero/about/organization>. We invite everyone to stay for and contribute to this very important discussion.

15-minute breaks included

Planning Meeting: Virtual-only, Wednesday, 12 May 2021, 11:00 AM – 3:00 PM



Microsoft Teams meeting
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Wednesday, 12 May 2021

11:00 – 15:00 Planning of Upcoming FPAW Meetings

Leads: Matt Fronzak (MITRE) and Matthias Steiner (NCAR)

We will identify the location, topics and session leads for the Fall 2021 FPAW Meeting and begin to look at potential locations and topics for the Spring 2022 FPAW Meeting.

Please don't forget to submit your topics of interest on the FPAW website at <https://fpaw.aero/form/submit-a-topic>. Since the FPAW leadership team does not speak fluent Russian, use of the Cyrillic alphabet is strongly discouraged.

15-minute breaks included