Fall 2023 FPAW Meeting
Biographies of the Session Leads, Presenters and Panelists

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Sonia Alvidrez (FAA)

Ms. Alvidrez is Human Factors Engineer with over 20 years of experience in the field. She has been working for the FAA for 11 years with 6 of those years focusing on aviation weather. Ms. Alvidrez is in the Aviation Weather Division and is the lead for the Aviation Weather Demonstration and Evaluation (AWDE) Services Team. Ms. Alvidrez has a vast amount of expertise in conducting research, user assessments, cognitive task analysis, task analysis, operational testing, heuristic evaluations, focus groups, iterative design, and conducting cognitive walkthroughs. These methods are aimed at understanding job tasks and user needs which is critical to identify when designing/developing new tools to ensure the new tool is focused on supporting user needs. Ms. Alvidrez's career has been to ensure products adequately support users in their operational environment and are easy to use.

Jason Baker (FAA)

 Jason earned his B. S in Meteorology, minoring in Forecasting and Broadcasting, from Penn State in 2004.Upon graduation, he earned a commission as an Air Force Officer. In the role of Weather Officer, he provided meteorological expertise and supervision to a twenty-five-person forecast team that issued over 2,300 terminal aerodrome forecasts and nearly 1,100 watches, warnings, and advisories for the Southeastern United States.

In 2007, Jason joined the National Weather Service as an Aviation Meteorologist where he briefed and provided weather products to senior-level air traffic controllers at Memphis Center. During his time at Memphis Center, Jason was recognized as NOAA's Employee of the Month for his decision support innovations and customer service to FAA and industry. In 2011, Jason moved to the program manager position for the Center Weather Service Units nationally. Key accomplishments while in this role included: obtaining a 10-year contract for NWS services at FAA facilities, securing funding to modernize computer system/communication infrastructure of 22 field units and implementing short weather video briefings to improve air traffic controllers' weather situational awareness.

Since 2018, Jason has been in the FAA's Aviation Weather Division. His primary duty is currently managing the FAA's Convective Weather Research Program. However, Jason also leads efforts to establish aviation weather requirements and serves as the FAA Lead for the Collaborative Decision Making (CDM) Weather Evaluation Team (WET) and the Wind Forecast Special Weather Action Team (SWAT) within the FAA Weather Community of Interest.

Randy Bass (FAA)

Randy Bass has over 30 years of weather experience spanning the military, private and commercial industry, and government. Since 2012, he has worked for the Federal Aviation Administration (FAA) and is currently the manager of the Aviation Weather Division within the FAA's Office of NextGen's Portfolio Management and Technology Development directorate. Randy retired from the Air Force in 2008 after 20 years as a weather officer. He earned his bachelor's degree in meteorology from North Carolina State University and a master's degree in meteorology from Texas A&M University. He obtained the Certified Consulting Meteorologist designation from the American Meteorological Society in 2014.

Steve Darr (Dynamic Aerospace)

Mr. Darr led the development of RTCA and EUROCAE standards for ADS-B Weather, the reporting of aircraft-based meteorological data via the 1090 MHz Mode S Extended Squitter and Universal Access Transceiver (UAT) ADS-B data links. He also led the incorporation of ADS-B Weather requirements into ICAO's ADS-B surveillance standards and guidance materials and is working to develop the All-purpose structured EUROCONTROL surveillance information exchange (ASTERIX) data format used for exchanging surveillance-related information, including ADS-B Weather data, in ATM applications.

Steve is a member of the World Meteorological Organization Joint Expert Team on Aircraft-based Observations and works with the FAA, the National Weather Service, and the aviation and weather communities to implement ADS-B Weather capabilities for the improvement of aviation and general weather forecasting. Dynamic Aerospace Inc develops and implements advanced aviation technologies and analytical methods supporting system safety and capacity enhancements by planning, conducting, and directing research for the FAA, NASA, airports, and commercial clients.

A commercial helicopter and airplane pilot, Mr. Darr has experience as an airplane owner-operator and as a pilot in FAA, NASA, and commercial technology trials. He was part of the NASA cohort of the ADS-B Team that won the 2007 Collier Trophy. Mr. Darr has 20+ years of military service and significant command, staff, flight, flight operations, and aircraft maintenance management experience.

Nicole Didyk-Wells (FAA)

Ms. Nicole Didyk Wells has over 20 years of enviromental engineering and international policy experience specializing in climate and air quality research, engine certification, and emission regulation, policy, and standard development. As an engineer in the FAA's Office of Environment and Energy (AEE's) Emission Division, Nicole is responsible for managing a number of FAA's modeling, research, and emission characterization programs. She works closely with aviation industry and government partners to characterize and reduce aviation's impact on climate and air quality. Due to her experience in environmental research, Nicole successfully leads the ICAO CAEP WG3 Emissions Certification Task Group which utilizes FAA's research and modeling to set international standards.

Prior to rejoining AEE, Nicole was the FAA's Senior Representative to North Asia, stationed in Beijing, China and worked in the Office of Accident and Prevention (AVP) focusing on systematic aviation safety oversight and safety management systems. She has over 10 years of private industry experience in hazardous waste cleanup, air and water system engineering, redesigning airspace, as well as airport planning.

Nicole is originally from Michigan and holds a bachelor's degree in environmental engineering from Michigan Technological University and a master's degree in environmental sustainability from Illinois Institute of Technology. In her free time, enjoys many outdoor activities with her family, especially camping and sailing. She often participates in offshore sailboat races; her favorite is racing over 300

nautical miles from Chicago, IL to Mackinaw Island, MI. Because of her love of sailing, she has an aspiration of sailing around the world with her very social Portuguese Water Dog, Calypso.

James Done (NCAR)

Dr. James Done leads the Capacity Center for Climate and Weather Extremes at the National Center for Atmospheric Research. He is also Senior Academic Fellow of the WTW Research Network. His climate research extends across a range of extreme weather and climate phenomena and connects with risk managers to strengthen the science and ensure outcomes are useful, usable, and used. In recognition of his scientific leadership, he testified before the U.S. Congress on extreme weather in a changing climate. Dr. Done received his PhD in Meteorology from the University of Reading, UK in 2003.

Matt Eckstein (Delta Air Lines)

Matt Eckstein is a B737 Captain and the Chief Electronic Flight Bag (EFB) Pilot for Delta Air Lines. He has been working as a Technical Pilot on Delta's Electronic Flight Bag program since 2017. The role, which is focused on user advocacy, includes overseeing development, testing, deployment, and support for EFB applications. Matt has served in that capacity on Delta's Flight Weather Viewer, WidgetWx and Mission+ mobile apps. His passion is WidgetWx, which is Delta's newest mobile app for providing near-real-time graphical weather to pilots in the flight deck.

Tammy Flowe (FAA)

Tammy Flowe is the Manager of the Weather Research Branch within the Federal Aviation Administration's (FAA) Aviation Weather Division. She is a subject matter expert on aviation-related turbulence and aircraft-based weather observations. In addition to her managerial responsibilities, Ms. Flowe leads the Aviation Weather Research Program's Turbulence Research and Product Development Team and represents the United States as a member of the World Meteorological Organization's Inter-Programme Expert Team on Aircraft-Based Observing Systems. She is also the government co-chair of an RTCA Special Committee working group that develops standards recommendations for the downlink of weather data from aircraft.

Ms. Flowe holds a Bachelor of Science degree in Atmospheric Sciences with a minor in Physics from the University of Arizona. She attended graduate school at Florida State University where she earned a Master of Science degree in Meteorology with an emphasis in Climatology. She served 11 years as an Air Force Weather Officer and has extensive experience in operational support to fighter and airlift units, as well as accident investigation boards.

Ms. Flowe has twice received Outstanding Leadership awards from RTCA and is a graduate of the FAA's competitive Program for Emerging Leaders. Pursuing an interest in Science, Technology, Engineering and Math (STEM) education for young women, she has completed over 30 hours of graduate level coursework in Secondary Science Education through the University of Maryland and George Mason University.

Matt Fronzak (MITRE)

Matt Fronzak is Weather Portfolio Advisor and Principal Systems Engineer in MITRE's Center for Advanced Aviation System Development (CAASD). His primary focus is on foundational applied weather and air traffic management (ATM)-Weather Integration research and analysis. He is also involved in a variety of projects revolving around weather uncertainty and ATM decision-making. He is currently the chairman of the AMS Aviation, Range and Aerospace Meteorology (ARAM) committee and co-chairman of the Friends and Partners in Aviation Weather (FPAW) group.

Prior to joining MITRE, Matt spent 34 years at Delta Air Lines working in a variety of operational and management roles, primarily in the Flight Control department at Delta's Operations Customer Center (OCC). In between Delta and MITRE, he had a short stint with Rockwell Collins (now Collins Aerospace) as a marketing manager supporting that company's airborne weather radar products.

Matt holds a B.S. in Meteorology from the University of Massachusetts Lowell and a Master of Aeronautical Science from Embry-Riddle Aeronautical University with specialties in Operations and System Safety. He is an operationally experienced aviation meteorologist, an FAA-licensed and experienced aircraft dispatcher, and an experienced operations manager and ATC coordinator.

Ian Johnson (FAA)

Dr. Ian Johnson is an Engineering Psychologist with the FAA Weather Research Branch of the Aviation Weather Division. He currently serves as the Human Factors Lead and General Aviation subject matter expert on the Weather Technology in the Cockpit program. Dr. Johnson has over 20 years of experience in Human Factors Engineering/System Safety of various cockpit display systems and user interfaces.

Dr. Johnson holds a Ph.D. in Psychology with an emphasis in Cognition and Instruction from Grand Canyon University, a Master of Aeronautical Science in Human Factors in Aviation Systems, a Master of Aeronautical Science in Aviation/Aerospace Safety Systems, a Bachelor of Science Degree in Human Factors Psychology from Embry Riddle Aeronautical University, and an Associate of Science in Computer Technology from Orlando Technical College. Additionally, Dr. Johnson holds a certificate in General Aeronautical Engineering and is also a Single and Multi-Engine Airplane pilot.

Becky Kotten (FAA)

Victor Passetti (FAA)

Matt Pollack (MITRE)

Tim Rahmes (Boeing)

Tim Rahmes is an Associate Technical Fellow in the Flight Sciences Engineering group for Boeing Commercial Airplanes located in Everett, WA. He has worked on weather, emissions, atmospheric sensors, alternative fuels, contrail models, avionics, datalink, air traffic management, and vehicle health management applications. After starting his career as a US Naval Flight officer, he's held positions ranging from systems and software engineer to research scientist studying ice clouds at South Pole Station.

He has a BS in Aeronautical Engineering from Rensselaer Polytechnic Institute, an MS in Atmospheric Science from University of Illinois at Urbana-Champaign, and an MBA from the University of Washington.

He is a member of the Emissions team concerned with atmospheric effects from aircraft, and currently leads Boeing's atmospheric observation efforts to provide customers with cross-model (777, 787, 737 MAX, 777X, etc.) weather and turbulence observations and flight efficiency applications and has been the principal investigator for recent flight test research programs as well as sensor testing in the icing tunnel. He spends much of his time conducting modeling and analyses of large atmospheric and aircraft datasets, as well as planning for next generation of atmospheric sensors (humidity, cloud & ash properties). He has been a subgroup co-chair for RTCA/EUROCAE industry standards for data link weather and aeronautical information.

Danny Sims (FAA)

Danny Sims is a Physical Scientist with the Federal Aviation Administration overseeing the Inflight Icing, and the Model Development and Enhancement weather research projects as part of the FAA's Aviation Weather Research Program. Prior to his current position, he was responsible for sustainment of the FAA Traffic Flow Management System (TFMS) used by FAA traffic flow managers to balance demand and capacity of the National Airspace System. Mr. Sims also led TFMS Weather Integration efforts, and supported test and evaluation of aviation weather products at the FAA William J. Hughes Technical Center. Prior to joining the FAA, Mr. Sims served as a weather officer in the US Air Force.

Danny holds a B.A. in Environmental Science from the University of Virginia and a B.S. and M.S. in Meteorology from the Pennsylvania State University.

Brandon Smith (FAA)

Brandon is a meteorologist with over 35 years of experience with the U.S Navy, Private Industry, National Weather Service and the Federal Aviation Administration. Brandon served as an Active Duty Aerographers Mate in the Navy during the Gulf War. He has had a number of deployments from the Navy Reserve including the Global War on Terror. He was also a meteorologist for the National Weather Service, including tours as the Aviation Program Manager for the NYC Forecast Office and the NWS Eastern Region Aviation Program Manager. He was integral in developing weather decision support services to the FAA Air Traffic Control System Command Center. He currently leads the Policy and Requirements Services Branch of the Aviation Weather Division within the FAA.

Brandon holds a B.S. and a M.S. in Atmospheric Science from the University of New York at Albany.

Matthias Steiner (NCAR)

Dr. Matthias Steiner is a Senior Scientist with the National Center for Atmospheric Research (NCAR) serving as Director for the Aviation Applications Program of the Research Applications Laboratory (RAL). Drawing from three decades of scientific experience, he leads new initiatives and directs research and development efforts broadly aimed at mitigation of avoidable weather impacts on various sectors, with a particular focus on aviation. Dr. Steiner's vision, leadership, and substantial contributions toward mitigating weather impacts on the aviation industry reach deeply across the traditional boundaries of developing more accurate weather forecasts in order to integrate weather guidance in the decision-making process to better serve aviation operators.

At present, Dr. Steiner is leading efforts to understand weather sensitivities and requirements for the rapidly growing interests in urban air mobility and using unmanned aerial systems for wide-ranging applications and safe integration into the national airspace system. Dr. Steiner has received multiple recognitions for excellent contributions to field programs, scientific missions, and outstanding publications. Most notable, Dr. Steiner is a Fellow of both the Royal and American Meteorological Societies.

Kevin Stone (NOAA NWS)

Kevin Stone is a Meteorologist in the Aviation and Space Weather Services Branch at National Weather Service (NWS) Headquarters. His primary role includes responding to aviation weather requirements from the Federal Aviation Administration (FAA) and sitting on the FAA's Collaborative Decision Making Weather Evaluation Team and Weather Information Modernization and Transition Working Group. Prior to joining the NWS in 2011, Mr. Stone served for 27 years as a weather officer in the U.S. Air Force.

Like Matt Fronzak, Kevin holds a Bachelor of Science degree in Meteorology from the University of Massachusetts Lowell. Unlike Matt, he also has a Master of Science degree in Meteorology from the Naval Postgraduate School.

Ted Thrasher (MITRE)

Ted Thrasher leads aviation environmental research and analysis projects at The MITRE Corporation. Throughout his career, he has provided technical guidance to many high-impact modeling and simulation efforts, including FAA's airport air quality Emissions and Dispersion Modeling System, and the subsequent multi-scale Aviation Environmental Design Tool.

Ted previously served as Chief, Environmental Standards, at the International Civil Aviation Organization, ICAO, where he was responsible for all activities related to setting international standards and policies for aircraft environmental performance. During his tenure, he oversaw the development of two new aircraft emissions standards for CO_2 and non-volatile particulate matter, and the update of noise and NO_x emissions standards. He also led the development of ICAO's guidance material and support tools for the quantification of aviation's impact on the environment.

Ted holds a Bachelor of Science degree in Aviation from The Ohio State University and a Master of Science degree in Systems Engineering from Johns Hopkins University, and is a former flight instructor.

Matt Wandishin (NOAA GSL)

Matt Wandishin leads the Verification and Assessment Branch at NOAA Global Systems Lab, which evaluates aviation weather forecast products for the Federal Aviation Administration (FAA), supports GSL model development efforts, and is venturing into evaluation of Machine Learning-based weather prediction models. His research interests center on the development of new verification techniques and in looking at forecast performance in the context of how the forecasts are used.

Prior to coming to GSL, he showed a contrarian nature by not studying tornadoes during twelve years at the National Severe Storms Laboratory in Norman, OK, choosing instead to focus on predictability and the use of forecast ensembles. He also has an inordinate interest in prescriptivist grammar, fonts, and color table choices. Outside of work, Matthew is kept busy with a handful of children ranging from ages 21 down to six. Any remaining time is spent listening to music and reading books without pictures.

Paul Williams (University of Reading, UK)

Dr Paul D. Williams is Professor of Atmospheric Science at the University of Reading, UK. Educated in physics to PhD level at Oxford, he specializes in atmospheric turbulence, jet streams, numerical modeling, and climate change, with a focus on weather-sensitive applications including aviation. In the field of clear-air turbulence, Paul has worked on developing improved forecasting algorithms and has also examined the effects of climate change. He has published two books and over 70 scientific papers. He is a Fellow of the Institute of Physics and the Royal Meteorological Society.