



Friends/Partners in Aviation Weather Forum (FPAW)

25th Annual Fall Meeting October 4 - 6, 2021

Virtual

BIOGRAPHIES OF PRESENTERS

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Bruce Baker
DOC/NOAA



Dr. Baker is a Senior Scientist and former Director of NOAA's Atmospheric Turbulence and Diffusion Division from 2009-2020. He has developed programs that include utilizing UxS Technology for Boundary Layer Research. Dr. Baker's current interests are developing climate observing systems, climate variability, enhancing our understanding of drought, and the use of small Unmanned Aircraft Systems for boundary layer research.

Education
College of Engineering, University of Michigan, MI
Ph.D., Atmospheric and Oceanic Science, 1983
M.S. Atmospheric and Oceanic Science, 1980
B.S. Atmospheric and Oceanic Science, 1978

Steve Bradford
FAA



Steve Bradford is the Chief Scientist for Architecture and NextGen Development in the Office of NextGen – Federal Aviation Administration. Mr. Bradford is the Chairman of the Technical Review Board that monitors technical decisions related to investments and the Enterprise Architecture. He works with elements of the FAA to develop midterm plans and five-year budget requests to implement NextGen including UAS related automation. He has a leading role in NextGen's International Engagement. He was a member of the ICAO technical team that authored the latest Global Air Navigation Plan, the past US panel member and current advisor to the ICAO Air Traffic Management Requirements and Performance Panel, and is technical advisor to the development of GANP 2019. He leads the FAA participation in several activities with SESAR Joint Undertaking, and has led several co-operative international efforts with EUROCONTROL.

Joshua Cossuth
DOD/USA/NRL
No bio received

Capt. Shane D. Cox
United States Air Force



Capt. Shane D. Cox is Flight Commander at 15th Operational Weather Squadron, Scott Air Force Base, Illinois. He leads 35 personnel who provide accurate, relevant, and timely environmental intelligence for Air Force, Army, Guard, and Reserve forces operating at 153 installations across a 25-state region of the northeastern United States, to include Canada and Greenland. The squadron characterizes the environment and provides aircrews, commanders, and planners advance warning of severe weather to protect infrastructure, personnel, and weapon systems valued at over \$226 billion. Additionally, he is responsible for initial qualification and upgrade training of new enlisted and officer weather career field accessions.

Capt. Cox is a 2013 graduate of the United States Air Force Academy where he received his commission and a Bachelor of Science degree in Meteorology. Most recently, he deployed in support of Operation INHERENT RESOLVE and Operation SPARTAN SHIELD as the Weather Flight Commander at Ali Al Salem Air Base, Kuwait. Prior to his current assignment, Capt. Cox was the Mission Support Flight Commander, Camp Humphreys, Republic of Korea.

EDUCATION

2013 Bachelor of Science, Meteorology, United States Air Force Academy, Colorado Springs, Colo.
 2017 Squadron Officer School, Maxwell Air Force Base, Ala.
 2017 Distinguished Graduate, Army Weather Support Course, Fort Huachuca, Ariz. 2019 Contingency Wartime Planning Course, Maxwell AFB, Ala.

ASSIGNMENTS

July 2013 – July 2015, Weather Officer and later Assistant Flight Commander, 21st Operational Weather Squadron, Kapaun Air Station, Germany
 August 2015 – May 2016, Wing Weather Officer, 36th Operations Support Squadron, Andersen Air Force Base, Guam
 May 2016 – September 2017, Wing Executive Officer, 36th Wing, Andersen AFB, Guam
 November 2017 – May 2019, Chief, Systems & Requirements and later Chief, Plans, Exercises & Training, 607th Weather Squadron, United States Army Garrison-Yongsan, Republic of Korea
 May 2019 – November 2019, Mission Support Flight Commander, 607th Weather Squadron, Camp Humphreys, Republic of Korea
 January 2020 – Present, Flight Commander, 15th Operational Weather Squadron, Scott AFB, Ill. (October 2020 – April 2021, Weather Flight Commander, Ali Al Salem Air Base, Kuwait)

MAJOR AWARDS AND DECORATIONS

Air Force Commendation Medal with two oak leaf clusters Army Commendation Medal

OTHER ACHIEVEMENTS

2020 557th Weather Wing Flight Commander of the Year

EFFECTIVE DATES OF PROMOTION

Second Lieutenant May 29, 2013

First Lieutenant May 29, 2015

Captain May 29, 2017

Austin Cross
 DOC/NOAA/NWS
No bio received

Bruce Entwistle
 NOAA Federal



Bruce Entwistle is in his fourth year serving as the Chief of the Aviation and Space Weather Services Branch at National Weather Service headquarters in Silver Spring, MD. Prior to his current assignment he served for 13 years at the Aviation Weather Center in Kansas City, MO.

James Gray
DOT/FHWA



UAS Program Manager
Construction Technology Engineer
Federal Highway Administration
Office of Infrastructure

Brian Gullett
EPA



Dr. Brian Gullett is a Scientific and Technical Professional (ST level), Senior Research Engineer with the Environmental Protection Agency's Office of Research and Development (ORD), located in Research Triangle Park, North Carolina. He has served as an Acting Division Director, as an Embassy Science Fellow with the Department of State in Stockholm, Sweden and has been a Visiting Scientist for one year with U.S. Navy's Naval Surface Warfare Center in Annapolis, Maryland. Since 2015 his team has completed 18 unmanned aircraft system (UAS) campaigns for emission measurements from fires and detonations. He is the author of over 150 peer reviewed journal articles, holds four U.S. patents, and has received over 20 EPA Scientific and Technological Achievement Awards including the Agency's Statesmanship Award and Science Achievement Award in Engineering. He has a Ph.D. in Environmental Engineering and a Master's of Engineering Management both from Duke University. Brian is FAA-certified Part 107 Remote Pilot.

Jack Kaye
NASA/SMD/ESD
ICAMS Research & Innovation Committee



Jack Kaye currently serves as Associate Director for Research of the Earth Science Division (ESD) within NASA's Science Mission Directorate (SMD). He has been a member of the Senior Executive Service since August, 1999, managing NASA's Earth Science Research Program. Earlier positions in his more than 37-year career at NASA include being a Space Scientist at the Goddard Space Flight Center and Manager of the Atmospheric Chemistry Modeling and Analysis Program at NASA HQ. His academic training is in chemistry (B.S. Adelphi University, 1976; Ph.D., California Institute of Technology, 1982). He also held a post-doctoral research associateship at the US Naval Research Laboratory. As Associate Director for Research, Dr. Kaye is responsible for the research and data analysis programs for Earth System Science, covering the broad spectrum of scientific disciplines that constitute it.

He represents NASA in many interagency and international activities and has been an active participant in the US Global Change Research Program (USGCRP) in which he has served for several years as NASA principal. He also serves as NASA's representative to the Subcommittee on

Ocean Science and Technology and as a co-chair of the Committee on Research and Innovation for the Interagency Council for Advancing Meteorological Services. He currently serves as vice chair for the World Meteorological Organization (WMO) Expert Team on Satellite Systems and Utilization after long service (2014-2019) as chair of the WMO Expert Team on Satellite Systems.

Kevin Johnston

FAA

Kevin Johnston is a meteorologist in the Next Generation Air Transportation System Aviation Weather Division, Policy and Requirements Branch within the Federal Aviation Administration (FAA), moving into this position in June, 2019. Prior to this position, Kevin was the Chief Meteorologist for the Director of FAA System Operations. As such, he advised the Director and Staff on weather related issues associated with Air Traffic Flow Management Decision Making activities. He was also the Contract Officer Representative for National Weather Service support to FAA Air Traffic Control Facilities and the FAA lead to the Collaborative Decision Making (CDM) Weather Evaluation Team (WET).

Kevin moved to the FAA in November of 2008 after leaving the National Weather Service where he was the Aviation Services Branch Chief and NOAA Aviation Weather Program Manager. Kevin is a retired Air Force Lieutenant Colonel where he served over 21 years as a Weather Officer providing weather decision assistance information to various Joint, Air Force, Army and Special Operations missions.

Bradley Koeckeritz

DOI/OAS

No bio received

PK Kopardekar

NASA

Parimal Kopardekar (PK) serves as the Director of NASA Aeronautics Research Institute (NARI). In that capacity, he is responsible for exploring new trends and needs related to aviation in the areas of autonomy, aeronautics manufacturing, and advanced air mobility. He also serves as NASA's senior technologist for Air Transportation Systems and principal investigator for the Unmanned Aircraft Systems Traffic Management (UTM) project. He was formerly manager of the NASA's Safe Autonomous System Operations Project, which developed autonomy related concepts, technologies and architectures that will increase efficiency, safety, and capacity of airspace operations.

Prior to that, he managed Next Generation Air Transportation Systems (NextGen) Concepts and Technology Development Project. He enjoys initiating new concepts and technology ideas that increase airspace capacity and throughput, reduce delays, and reduce the total cost of air transportation. At NASA, he has initiated many innovative research projects including reduced crew operations, net-enabled air traffic management, autonomy for airspace operations, Shadow-Mode Assessment using Realistic Technologies for the National Airspace System (SMART NAS), and low-altitude airspace management system focused on Unmanned Aircraft Systems (UAS) operations.

He is the winner of the 2020 NASA Government Invention of the Year and the 2018 Samuel J. Heyman Service to America Medals (known as the Oscars for the federal workforce) in the "Promising Innovations" category. In 2017, he was named among the 25 most influential people in commercial drone industry. He has published over 50 conference and journal papers with three best paper awards, delivered

more than 20 keynote talks at national and international conferences, and participates as an expert with media on topics related to unmanned aircraft systems, urban air mobility, autonomy, and supply chain management. He is a Fellow of the American Institute of Aeronautics and Astronautics (AIAA) and recipient of numerous NASA awards including Outstanding Leadership Medal and Engineer of the Year. He holds a doctorate and master's degrees in Industrial Engineering and bachelor's degree in production engineering. He serves as the co-editor-in-chief of the Journal of Aerospace Operations. He also serves as an adjunct faculty and teaches undergraduate and graduate courses related to operations management and supply chain management.

Joshua Maloy

Alaska Aviation Weather Unit



I represent NWS's Alaska Aviation Weather Unit/Anchorage Volcanic Advisory Center. I am the Warning Coordination Meteorologist of this dual office. In this role I serve as liaison between the office and interested parties of aviation meteorology for the area of responsibility. I have worked in the AAWU since 2014 and in the NWS since 2008. Prior to the civil service I had a several year stint in private sector meteorology (formerly WSI, now part of IBM's weather group) and four years of active-duty USAF service supporting the warfighters of Air Mobility Command.

Lt. Col. Tom Meagher

Air Force



Lt Col Tom Meagher, an active-duty Air Force Officer, leads the Prime Division for AFWERX, responsible for accelerating development and transition of dual-use technologies for the Department of the Air Force. A graduate of the U.S. Air Force Test Pilot School, he has held positions in various fields, including aircraft operations, program management, and test and evaluation.

Nancy Mendonca

NASA



Nancy Mendonca is currently the NASA Deputy in ARMD's Mission Integration Office (AMIO). The AMIO integrates ARMD's AAM efforts across the four ARMD Programs and with the AAM community. She served 24 years in the Navy flying H-46 helicopters. Between the Navy and NASA, she worked at the Missile Defense Agency, on the Marine Corps MRAP Program and at NTIA working on the Federal Strategic Spectrum Plan. She graduated from the U.S. Naval Academy with a B.S. in Aeronautical Engineering and subsequently earned M.S. degrees in Aeronautical Engineering and National Security and Strategic Studies. She is also a Certified Public Accountant and has currently prioritized rescuing Great Danes and riding horses over flying helicopters.

Kerin Olson
FAA/UAS



Kerin Olson manages the Research Strategy, Planning, and Communications Branch within the Federal Aviation Administration (FAA) Unmanned Aircraft Systems (UAS) Integration Office's Research, Engineering, and Analysis Division. She leads the development and management of the FAA's UAS and Advanced Air Mobility (AAM) research strategy, and ensures that research is effectively planned and prioritized to deliver data needed to inform FAA milestones for safe integration. She is also responsible for communicating FAA UAS and AAM research plans across the FAA and to external research partners within the government, industry, academia, and across the globe.

Ms. Olson has nearly twenty years of aviation experience, including fifteen years dedicated to the safe integration of UAS in the National Airspace System. Within the FAA, she has applied leadership and technical subject matter expertise towards a range of UAS initiatives, including certification, standards, risk analysis, test and evaluation, and UAS research portfolio management. She has led joint government and industry teams in the planning, execution, and management of collaborative research endeavors to address shared UAS integration challenges including detect and avoid, communications, human factors, and certification. She has led international collaboration efforts to advance the harmonization of UAS research.

Ms. Olson holds a B.S. in Aerospace Engineering and a Master's in Systems Engineering from the University of Maryland. She is also a certified Project Management Professional.

Travis Potter
DHS/FEMA
No bio received

Robb Randall
DOD/USA/ARL
No bio received

Colleen Reiche
FAA/ATO



Dr. Colleen Reiche is a Lead Scientist in Aviation & Weather at Quantitative Scientific Solutions ("QS-2") and has over 13 years of experience supporting various clients including FAA and NASA in data analytics, aviation weather research, aviation new entrant assessments (including UAM and UAS), technical program and project management, and stakeholder engagement. She is currently supporting the FAA Alaska Weather Camera Program for testing and evaluation of a new prototype camera platform in Alaska, as well as evaluating potential AAM applications of this platform blueprint in the future. She has a broad knowledge of the urban air mobility landscape and challenges, air traffic operations, weather and air traffic data, analytics and operational & environmental issues specific to aviation. Prior to joining QS-2, Colleen was a Lead Associate at Booz Allen Hamilton in DC where she led a comprehensive UAM Market

Study for NASA ARMD which characterized key challenges facing emergence of UAM, including a detailed quantification of potential weather barriers. She was also formerly a Senior Principal Scientist at AvMet Applications in Reston, VA where she was the technical lead on many projects related to quantification of adverse weather impacts on aviation. Prior to her time at AvMet, she was an Associate Technical Staff in the Weather Sensing Group at MIT Lincoln Laboratory in Lexington, MA where she developed approaches for conveying convective weather forecast uncertainty to air traffic managers. She received her PhD and M.S. in Atmospheric Science from Purdue University and her B.S. in Astronomy & Astrophysics from Villanova University.

Gordon (Gordy) Rother

FAA, AFS 220

Air Carrier Operations Branch

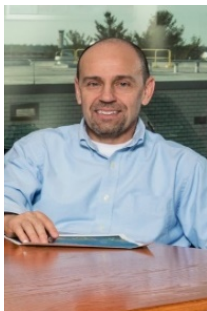


Gordon Rother currently works for Flight Standard, Air Carrier Operations Branch and is supporting the Aviation Weather policy and procedures. He recently worked for Flight Standards Aviation Weather Subject Matter Expert working with Air Traffic, NOAA, NWS, AWC and industry on weather related issues. From 2011 to 2015 he worked as a dispatch, navigation, Aircraft Performance, ETOPS and flight planning Subject Matter Expert in AFS-240. From 2009 Country Airlines certificate management teams. He was assigned team lead for the merger between Colgan Airlines and Mesaba Airlines. He started his career in the FAA in the Northwest Airlines Certificate Management office in 2001 where he worked through 2009. During that period, he instructed both the Dispatch Functions course and the

Oceanic and International Operations course in Oklahoma City. He was involved in the merger of Delta and Northwest operations as an SME to the Joint Transition Team. Mr. Rother was also involved in the FAA Landing Performance Team investigating the Southwest Airlines flight 1248 overrun at Chicago, Midway Airport in December 2005. He participated in the development of FAA SAFO guidance for landing on contaminated runways. He was then assigned as the team lead to the 121 subcommittee for the Takeoff And Landing Performance Aviation rulemaking team. Mr. Rother came to the FAA in 2001 after 15 years of air carrier Dispatch and Management experience, which included both domestic and international operations. Mr. Rother held positions as Assistant Dispatcher, Dispatcher, Supervisor/Training Dispatcher, Chief Dispatcher and Director of Systems Operations Control for three 121 airlines, (Spirit of America, Mesaba Airlines, and Sun Country Airlines). He holds a Private Pilot SEL certificate and Aircraft Dispatcher Certificate.

Tom Rubino

FAA/ANG/WISER



Mr. Rubino serves as a Systems Engineer at the Federal Aviation Administration FAA William J. Hughes Technical Center in Atlantic City, NJ. Currently, he is the NextGen Trajectory Based Operations (TBO) Integrated Test Environment lead working to establish an end-to-end integrated lab environment for research and operational integration testing of TBO Capabilities and new entrants into NAS operations, which supports the FAA's Air Traffic Systems & Enterprise Services Test & Evaluation Division's. Prior to establishing the TBO Integrated Test Environment, Mr. Rubino led the effort to create the first ever Business Continuity Plan (BCP) for Air Route Traffic Control Centers (ARTCC). Mr. Rubino received his bachelor's degree from Drexel University. He became a Certified Information Systems Security

Professional (CISSP) in 2004 and he is a member of the International Test and Evaluation Association.

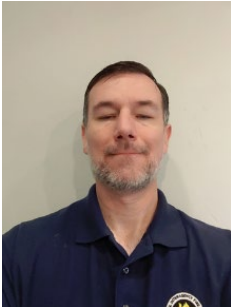
Michael Shapiro
NASA/DOT/DOD



Kirt Squires
NOAA

I am 39 years old and was born on Long Island in Mastic, NY. I have wanted to be a meteorologist for the National Weather Service since I was about 3 or 4 years old. After finishing high school I attended the University of Hawaii at Manoa for both my Bachelor's and Master's degree in Meteorology. After graduating in the Winter of 2006 I began working at the ZNY CWSU on Long Island in the Spring of 2007 and have been working here ever since.

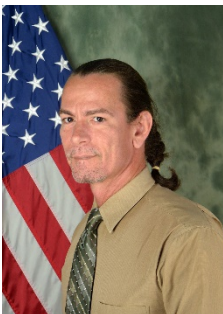
Jim Wallmann
USDA/FS/NIFC



Meteorologist – USFS
National Interagency Coordination Center (6/2021)
NWS Incident Meteorologist for 19 seasons (2002-2020)

Melissa Wagner
DOC/NOAA
No bio received

David Wagner
NASA/TACP/CAS



David Wagner is a research computer engineer assigned to the Durability, Damage Tolerance, & Reliability Branch at NASA Langley Research Center since 2017. He was granted a Ph.D. in Mechanical Engineering from the University of Texas at San Antonio in August, 2018. He also holds an M.S. in Mechanical, and a B.S. Magna cum Laude in Civil Engineering from the same institution.

Steve Weygandt

*National Oceanic and Atmospheric Administration (NOAA)
Global Systems Laboratory (GSL)*



Dr. Stephen Weygandt is the Deputy Division Chief of the Assimilation and Verification Innovation Division (AVID) within the Global Systems Laboratory (GSL) of NOAA. He helps direct the development of data assimilation systems that provide initial conditions for the Rapid Refresh (RAP) and High-Resolution Rapid Refresh (HRRR) models and has helped transition multiple versions of these models to NOAA operations since 2012. The RAP and HRRR are supported by the FAA Aviation Weather Research Program (AWRP). Dr. Weygandt manages aviation weather related modeling work at GSL and serves as the GSL lead for the Model Development and Enhancement (MD&E) Product Development Team (PDT) under the FAA AWRP. The RAP and HRRR provide short-range weather guidance to many different users and are used as input for products addressing aviation weather hazards such as convection, icing, ceiling and visibility, and turbulence. Dr. Weygandt also leads GSL efforts in regional satellite data assimilation, including use of direct broadcast radiance data and geostationary lightning mapper data. Dr. Weygandt's current work is focused on refinement of the Rapid Refresh Forecast System (RRFS) that will become a NOAA operational model, in place of the current RAP and the HRRR. Dr. Weygandt has B.S. and M.S. degrees in meteorology from Penn State and a Ph.D. in meteorology from the University of Oklahoma.