# National Business Aviation Administration (NBAA) Friends/Partners in Aviation Weather Forum (FPAW)

# July 24, 2013

# NTSB Conference Center L'Enfant Plaza Promenade in Washington

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# **Cyndie Ableman**

National Oceanic and Atmospheric Administration (NOAA)
National Weather Service (NWS)

Cynthia Abelman is currently the NOAA/NWS Aviation Weather Services Branch Chief. In her current position, she leads the domestic and international aviation weather services program for NOAA/NWS. Prior to this position, she worked for NWS Aviation Service Branch and was the Meteorologist in Charge at the NWS Office at the FAA Academy in Oklahoma City, OK. Cynthia's 20+ years in the NWS includes a variety of field positions providing weather forecasts and warnings and regional program management.

### **Steve Ableman**

Federal Aviation Administration (FAA)

Steve Abelman manages the Aviation Weather Research Team within the FAA's Aviation Weather Division. Aviation Weather Research Team sponsored activities include the Aviation Weather Research Program (AWRP) and the Weather Technology in the Cockpit (WTIC) portfolio. Steve is also coordinating efforts to improve and streamline the process for transition of weather research to operations and is leading FAA efforts on a multiagency initiative to coordinate and consolidate weather research initiatives for NextGen.

Prior to his transition to the FAA in February of 2011, Steve was the "contents" lead for National Weather Service (NWS) NextGen activities. Steve was the NWS lead for development of the 4-D Weather Functional Requirements for NextGen Air Traffic Management and lead outreach activities to promote NextGen within the NWS.

Steve worked for 4 years as the Manager of Aviation Training and Standards for Weathernews in Norman, Oklahoma. Steve also worked for American Airlines as a shift meteorologist and training coordinator for nearly 15 years.

# **Donald Berchoff**

Unisys

Don Berchoff is VP for Advanced Weather Programs at Unisys. Most recently, Don served as director of the National Weather Service Office of Science and Technology. Prior to that, he served 24 years in the U.S. Air Force retiring as a colonel. Don is an accomplished technology and innovation executive with over 27 years of senior leadership experience within the military and government. He spearheaded next-generation satellite and radar data dissemination and exploitation capabilities; fielded product and service generation production systems; built environmental services operations centers; launched cutting-edge mobile weather communication technologies; has extensive knowledge of military operations and environmental impacts on military weapon and national intelligence systems.

# Joe Bertapelle JetBlue Airways

Since 2010, Joe Bertapelle has served as JetBlue Airways' Director of Strategic Airspace Programs. He leads New York's Hometown Airline's efforts to develop and improve upon airspace management strategies, focusing on how NextGen airspace technology will affect JetBlue.

Joe joined JetBlue in 2007 as Director of System Operations. Early on, his team reengineered the airline's System Operation Center's process, structure and procedures, and achieved a 4.6% year-over-year improvement in operational reliability.

From 2004 to 2007, he worked for the MITRE Corporation, Center for Advanced Aviation System Development.

In the 28 years prior, Joe worked for American Airlines in their System Operations Control Center in various levels of responsibility.

He holds a Bachelor of Science degree in Aeronautical Meteorology from St. Louis University.

# Elizabeth Blickensderfer

Embry Riddle Aeronautical University

Dr. Beth Blickensderfer is an Associate Professor of Human Factors and Systems at Embry Riddle Aeronautical University Daytona Beach Campus. She has 15 years of experience in human-machine systems related research and development including experimental design, collecting and analyzing data (both quantitative and qualitative research methods), conducting task analyses, developing and evaluating training strategies, developing behavioral human performance metrics, implementing simulation-based training, and measuring team performance. Recent research efforts include performing a cognitive assessment of safety and training issues for Live-Virtual-Constructive Naval Aviation training environments, examining tools and strategies to enable general aviation pilots to better use weather-technology-in-the-cockpit, performing a cognitive analysis of the UAS human-machine interface and identifying the subsequent implications for FAA airworthiness regulations and guidance. She has also worked with a variety of systems and technologies including aircraft data communications/data link systems, helmet mounted displays, NexRad based weather products, technologically advanced aircraft displays in general aviation, and common control room stations for oil refineries. Dr Blickensderfer earned a M.S in Industrial/Organizational Psychology and a Ph.D. in Human Factors Psychology from the University of Central Florida.

# **Steve Bradford**

Federal Aviation Administration (FAA)

Steve Bradford is the Chief Scientist for Architecture and NextGen Development in the FAA's NextGen Office. The Chief Scientific & Technical Advisor for Architecture and

NextGen Development provides expert scientific and technical leadership, guidance, and advice on operational concept development, research on validation of these concepts, and development of the architecture and system definition to deliver capabilities defined in the concept of operations. There is a special emphasis on operations research and mathematical analyses of new air traffic control and management procedures designed to increase the safety and efficiency of the NAS. In this role he has participated in the development of the NextGen Concept, the RTCA NAS Operational Concept and the ICAO ATMCP Global Concept and he provides specialized scientific and technical guidance, advice and assistance top management official in all architecture and NextGen development areas supporting new concepts of operations in the NAS.

He is the Chairman of the Technical Review Board which monitors technical decisions related investments and the Enterprise Architecture. He also works with elements of the FAA to develop midterm plans and five year budget requests to implement NextGen. He has a leading role in several international activities with SESAR Joint Undertaking, ICAO and has led several co-operative international efforts via action plans with EUROCONTROL. Previous activities include leading efforts to validate future concepts and developing the FAA's NAS Enterprise Architecture. Prior to his current position, Mr. Bradford was the Manager of the NAS Concept Development Branch and conducted early analysis of Free Flight Concepts.

# **Bruce Carmichael**

National Center for Atmospheric Research (NCAR)
Research Applications Laboratory (RAL)

Dr. Carmichael holds a M.S. from Northwestern University in Applied Mathematics and a Ph.D. from the University of Maryland in Computer Science. He has 40 years of experience spanning a number of activities including university teaching, commercial research, government service, consulting, and academic research. His past 29 years have been involved with the aviation industry in automation of maintenance processes, air traffic control, and weather information. He has been involved in system engineering of improved FAA systems to deliver weather information to users. For the past eighteen years he has been at the National Center for Atmospheric Research, where he has acted as the Director of the Aviation Applications Program. This program is working to improve weather information for pilots, dispatchers, and controllers, particularly related to the hazards of thunderstorms, turbulence, and icing. Dr. Carmichael is also an active commercial instrument-rated pilot.

### Dan Citrenbaum

Federal Aviation Administration (FAA)

Dan Citrenbaum is the Manager of the Operations Research (OR) Group in the FAA's Investment Planning and Analysis (IP&A) Organization. Over his 20-year FAA career, Dan's duties have included providing analytical support to the NAS Enterprise Architecture and being the benefits team lead on several of the agency's major acquisition programs such as the surveillance, automation, facility, and weather domains. As an analyst and manager, Dan has been instrumental in upgrading the OR group's aviation modeling and

simulation, performance metrics, and database management capabilities. In 2011 while serving on a detail as the project manager for the FAA's Aviation Weather Metrics Program, he was further exposed to the FAA's weather-related challenges.

Prior to joining the FAA, Dan served as an Operations Research Analyst with the Department of the Army (specializing in logistics applications and cost analysis) for over 7 years and as a Survey Statistician at the Bureau of the Census for approximately 5 years. Dan holds a B.S. in Management Science/Statistics from the University of Maryland and an M.S. in Operations Research from George Washington University.

# Rick Curtis Southwest Airlines

Rick has been at Southwest Airlines for over fifteen years and serves as Chief Meteorologist for the Southwest Airlines Operations Coordination Center. He graduated with a B.S. in Meteorology from Lyndon State College. He concentrates on strategic weather forecasting, weather information integration into operational planning, weather instruction, and weather related strategic planning efforts at Southwest Airlines.

Past experience includes Account Management and Product Development at Sonalysts Inc. of Waterford, CT, Director of Weather Services at Surface Systems Inc. (SSI) of St. Louis, MO, and various technical and marketing positions at WSI Corporation of Andover, MA. While at SSI, Rick led a team of meteorologists' focused on forecasting efforts relating to airport operations and highway maintenance activities.

Rick was a 2005 recipient the Southwest Airlines President's Award. In 2011 he received the American Meteorological Society Award for Outstanding Contribution to the Advance of Applied Meteorology. In early 2013 Rick and the Southwest Airlines Meteorology Team won the "Heroes of the Heart" Award, which is the highest employee nominated recognition award at Southwest Airlines. Rick is a member of both the American Meteorological Society and the National Weather Association.

### **Donald Eick**

National Transportation Safety Board (NTSB)

Mr. Eick is a Senior Meteorologist in the Office of Aviation Safety in the Operational Factors Division (AS-30), where he provides technical weather analysis and documentation for accident investigations in all modes of transportation. He has over 37 years of experience in aviation weather, and has been with the National Transportation Safety Board (NTSB) since 1998 and during that time has been involved in hundreds of regional, majors, and international accident investigations. Some of the major investigations Included: the Colgan Air flight 3407, DHC-8 accident near Buffalo, NY, in February 2009; Continental Airlines flight 1713, B737 accident in Denver, CO, in December 2008; Southwest Airlines flight 1248, B737 accident in Chicago Midway, IL, in December 2005; U.S. Air National Guard C-23 accident in Unadilla, GA in March 2001; American Airlines flight 1420, MD-82, in Little Rock, AR, in June 1999. Before coming to the Safety Board Mr. Eick was formally with Trans World Airlines where he was an instructor and head of meteorology

supporting operational control and flight dispatch, and assisted in the daily operation of the airline. Mr. Eick has an extensive training background and provides instruction at the NTSB's Basic Accident Investigation Courses in the aviation and marine divisions, and has taught other specialized training programs previously at several air carriers, corporate flight departments, military air wings, and developed and taught a 75 hour course for aircraft dispatchers in meteorology at Flight Safety International and Pan Am Training Institutes. Mr. Eick earned a Bachelor of Science degree from Embry-Riddle Aeronautical University in Aeronautical Studies and from Florida State University in Meteorology, where he also was on staff in their weather departments. He also holds a private pilot, aircraft dispatcher, and weather observer certificates.

# Thomas H. Fahey, III Delta Air Lines

Tom is currently employed as Manager Meteorology at Delta Air Lines, Inc. He has a Bachelor degree in Geology with Math and Physics minors from St. Thomas College; and a Master of Science in Meteorology from University Wisconsin, Madison.

Tom has spent the majority of his career working in Aviation Meteorology at Northwest Airlines and then at Delta Air Lines. In the 1970's & 1980's he worked as an operational forecaster, product developer and union representative. Since 1990 he has been responsible for leading the weather forecast staff with focus on avoidance of weather hazards such as turbulence, mountain wave activity, volcanic ash, etc.. In addition he has taken on a number of temporary assignments including Airline Travel Center manager, Airline Merger Integration Team Lead, as well as Meteorology representative for aircraft accident investigations.

In the 1990's the CAST (Commercial Aviation Safety Team) was initiated by Al Gore and Tom participated in the Turbulence Joint Safety Analysis Team.

In 2000 Tom accepted on the behalf of Northwest Airlines and the Meteorology Team, the Air Transport World Technology Management Award, for the Northwest Airlines Turbulence Plot System.

In 2001, Tom received the Aviation Week & Space Technology's Aviation Laurels Award for his role in development of Collaborative Convective Forecast Product (CCFP). Also in the past Tom has done private consulting in the areas of Operational Forecasting as well as Forensic Meteorology.

In 2008-2010 during integration of Delta Air Lines and Northwest Airlines, Solar Activity and its affect on radio communications as well as humans was given additional focus and a warning product and procedures were refined.

In 2011 Tom was recognized by the FAA for his 12 years of work in the area of Collaborative Decision Making (CDM), a Government, Industry & Research community effort to address Air Traffic Management related issues. Tom volunteered as the Industry Lead for the Weather Evaluation Team, during the last 6 of those years.

Tom's recent, past Aviation Industry Activities include:

- Co-Chair Ground Deicing Work Group, Weather Sub-Committee
- IATA Representative on the ICAO Int'l Volcanic Ash Task Force (IVATF)

Tom's current professional & industry activities are:

- Operational Forecasting Editor for the Bulletin American Meteorological Society,
- Chair, Airlines Four America (A4A) Meteorology Work Group

# **Matt Fronzak** *MITRE (CAASD)*

Matt Fronzak is a Lead Aviation Systems Engineer in MITRE's Center for Advanced Aviation System Development (CAASD). His primary focus is on foundational ATM-Weather Integration research and analysis. He also is involved in a variety of projects revolving around traffic flow management (TFM), including the extended planning process and the use of gridded thunderstorm forecasts to produce automated TFM guidance.

Prior to joining MITRE, Matt spent 34 years at Delta Air Lines working in a variety of operational and management roles, primarily at Delta's Operations Control Center (OCC). In between Delta and MITRE, he had a short stint with Rockwell Collins as a marketing manager supporting that company's airborne weather radar products. Matt holds a B.S. - 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, and he is an experienced aviation meteorologist and FAA-licensed aircraft dispatcher.

# Johnnie Garza Federal Aviation Administration (FAA)

Johnnie Garza is employed by the U.S. Department of Transportation's Federal Aviation Administration, where he has worked for over 30 years. He began his career in 1982 as an Air Traffic Control Specialist at Los Angeles Air Route Traffic Control Center. He became a Staff Specialist in 1988 where he worked as a Traffic Management Coordinator. In the summer of 1989, Garza was promoted to his first Area Supervisor assignment. Later that same year, he moved to the Edwards Air Force Base Flight Test Center Radar Approach Control facility where he worked as an Operations Supervisor.

Garza returned to Los Angeles Center in 1991 as an Operations Supervisor and in 1992 was promoted into the role of Supervisory Traffic Management Coordinator. It was in this role where he expanded his knowledge of the National Airspace System, contributing to several high level projects for the FAA's Air Traffic Division. Among these projects were the Los Angeles Airport East Arrivals Plan; En Route Display System Replacement; National Severe Weather System Planning; NAS Contingency Planning & Development; and Time-Base Flow Management and Metering. In 2001, Garza was promoted to the position of Operations Manager at Los Angeles Center. He served in this capacity for two years before becoming the Traffic Management Officer at the Center in 2003.

In 2008, Garza became the Director for Tactical Operations for the Western Service Area, relocating to Seattle, Washington. There he managed day-to-day tactical air traffic management operations within the National Airspace System and was responsible for customer integration with the FAA on matters related to airspace capacity and efficiency for all major markets in the Western U.S. He has served on numerous Collaborative Decision Making workgroups, including the Radio Technical Commission for Aeronautics (RTCA) NexGen Advisory Committee. Garza was a member of the RTCA's Task Force 5, which provided NexGen mid-term implementation recommendations to the FAA in September of 2009.

In February, 2010, Garza returned to Los Angeles Center, this time as Air Traffic Manager, where he was responsible for the strategic and tactical management of the NAS's nearly 2.5 million air traffic operations a year in the Pacific-Southwest.

Garza was promoted to the position of Director, System Operations in January, 2013. There he provides leadership oversight of the FAA's National Airspace Systems Air Traffic Control System Command Center; FAA and Industry Joint Collaborative Steering Group; Partners with other International Air Navigation Service Providers; Coordinates and acts as the liaison with the Department of Defense; and performs operational analysis on National Airspace System capacity.

Outside of his work with the FAA, Johnnie has served on the Board of Directors of the California State Soccer Association, a non-profit organization which governs soccer programs on behalf of the United States Soccer Federation (USSF) in Southern California. As President and Chairmen of the Board, he led a diverse organization of nearly 200,000 members. Among his accomplishments at Cal South, Garza was instrumental in establishing industry standards for elite player development and coaching education. During his tenure, Cal South programs produced more national championships and player advancement than any other region in the country.

# **Steve Hansen**

National Air Traffic Controller's Association (NATCA)

Steve currently serves as the Chairman, National Safety Committee for the National Air Traffic Controller's Association (NATCA). He also serves as the NATCA ATSAP Coordinator, and as a member of the ASIAS Executive Board.

Steve has over 22 years ATC experience, which began by serving in the USAF with assignments at McClellan Tower, Sacramento, CA; Okinawa Approach Control, Okinawa, Japan; Eielson Tower, Fairbanks, Alaska; Tuzla Approach Control, Bosnia; and McChord Tower, Tacoma, Washington. Steve's military service was followed by a short assignment working for the Department of Defense at Eielson Tower; after which, he began his FAA career at Fairbanks Tower & Approach Control; followed by his current assignment at Albuquerque Center.

In the past Steve has represented NATCA as a Facility Representative, Area Representative, National Airspace Redesign Representative, Regional LR Team Member, and Southwest Region Safety Representative.

# Deborah A. P. Hersman

National Transportation Safety Board (NTSB)

Chairman Hersman is internationally recognized as a visionary and passionate leader that advocates for safety across all transportation modes. She brings over 20 years of Federal Executive and Legislative Branch experience to her current position at the NTSB.

In 2004, she was appointed as a Board Member by President Bush, and then reappointed to a second five-year term by President Obama. She was appointed NTSB Chairman by President Obama in 2009 and 2011 with unanimous Senate confirmation votes.

Chairman Hersman has led agency change with an agenda focused on transparency, accountability and integrity, and making the work of the NTSB accessible to all. She has been the on-scene NTSB spokesperson for more than 20 major transportation accidents, including the June 2009 collision of two Metro trains in Washington, DC. She serves as the Chief Executive of the NTSB, an organization with a five Member Board, an annual appropriated budget of over \$100 million, and over 400 full-time employees.

Widely recognized by transportation and policy leaders as an effective leader and communicator, Chairman Hersman is a frequent witness before the U.S. Congress on transportation safety issues and oversight hearings on accident investigations. Her extensive public speaking experience includes major speeches to industry, safety advocacy organizations, state and local elected officials, civic organizations, and other diverse public forums. She provides clear, informed, and direct messages in her frequent media interactions.

Chairman Hersman has led international transportation safety efforts, including as: head of an NTSB delegation to the ICAO High Level Safety Conference (March 2010) and one of the senior U.S. leaders of the U.S. delegation to the 37th General Assembly of ICAO (October 2010). As a result of her leadership and advocacy, ICAO is completing the adoption of international standards for family assistance in aviation accidents, and developing international standards and protocols for the use of data in promoting aviation safety and investigating accidents.

Earlier in her career as a congressional staffer, her efforts contributed to the passage of milestone bills such as the Motor Carrier Safety Improvement Act of 1999, Pipeline Safety Improvement Act of 2002, Transportation Equity Act of the 21st Century, and Amtrak Reform and Accountability Act.

Chairman Hersman holds two bachelors degrees from Virginia Tech University, one in Political Science and one in International Studies, as well as an M.S. in Conflict Analysis and Resolution from George Mason University.

# Mark Huberdeau MITRE (CAASD)

Mark Huberdeau is the weather and ATM integration portfolio lead at MITRE's Center for Advanced Aviation System Development (CAASD). In this capacity he works closely with

CAASD's FAA sponsors in ensuring improved system performance and operations both near-term and into the future. Prior to this role he was Program Manager for the NAS System Operations group. He has consulted in airline operations for the FAA and international clients, facilitated RNAV route development, and led the operational use of the Collaborative Routing and Coordination Tool (CRCT) as part of the FAA's Spring-2000 initiatives. Before joining MITRE, Mr. Huberdeau was employed by a major U.S. airline and held a variety of positions including manager of weather services, Airline Operational Control (AOC) duty officer, manager of international air traffic and airfield operations, dispatcher, flight crew training instructor, maintenance instructor, and mechanic. He holds the following FAA certificates and ratings; aircraft dispatcher, flight instructor, commercial pilot (single, multiengine airplane), ground instructor, and mechanic. Additionally, Mr. Huberdeau holds a M.S. in Systems Engineering from Johns Hopkins University.

# **Kevin Johnston**

Federal Aviation Administrations (FAA)

Kevin Johnston is the Chief Meteorologist for the Director of the Federal Aviation Administration's (FAA) System Operations. As such, he advises the Director on weather related issues associated with Air Traffic Flow Management Decision Making activities. He is also the Contract Officer Technical Representative for the Center Weather Service Unit Operation at each of the FAA's Air Route Traffic Control Centers and the FAA lead to the Collaborative Decision Making (CDM) Weather Evaluation Team (WET).

Mr. Johnston moved into this position in November of 2008 after leaving the National Weather Service where he was the Aviation Services Branch Chief and NOAA Aviation Weather Program Manager from 2004-2008.

Mr. Johnston 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.

Mr. Johnston has a Bachelor Degree in Meteorology from the Pennsylvania State University. Mr. Johnston is married to the former Ms. Jenny Jepson and they have three boys, William Patrick, Daniel Joseph and Thomas Michael.

# Nancy Kalinowski

Federal Aviation Administration (FAA)

As the Vice President of System Operations Services for the Air Traffic Organization (ATO), Nancy Kalinowski leads diverse programs to insure the safety, efficiency and security of the national airspace system. Kalinowski directs all national air traffic flow management initiatives along with policy and concept development for new airport surface flow management programs. She provides all national flight service functions, and operational oversight to all national airspace security issues. Her portfolio includes the management of the FAA's data policy, NAS data management and public release, and ATO system performance analysis.

Kalinowski is leading an organization which provides gate-to-gate strategic traffic management focused on stakeholder interaction through formal Collaborative Decision Making venues and customer advocacy. As she promotes the FAA's sophisticated approach to air traffic system management, she enables the global outreach to the international community on behalf of the ATO, providing subject matter experts and operational insight to global partners.

During her more than 35-year career with the FAA, she has served in management and executive positions in human resource management, budget, communications, flight services, airspace management and design, aeronautical information management, and aviation safety. Notably, she has been at the forefront of the redesign of airspace above the New York, New Jersey, and Philadelphia metropolitan areas — the busiest and most complex airspace in the nation.

Kalinowski has twice received the prestigious Secretary of Transportation's Gold Medal Award for outstanding achievement and leadership to address delays and aviation congestion in the New York area and for hurricane emergency response and system restoration.

Kalinowski earned a Bachelor's in Psychology from Eckerd College, St. Petersburg, Florida, and a holds a Master's in Science in Industrial/Organizational Psychology from University of Central Florida.

### John Kosak

National Business Aviation Administration (NBAA)

John Kosak received his Private Pilot's license in early 1991 while attending the Flight Program at Northwestern Michigan College in Traverse City Michigan. Flying around the Great Lakes is where John first gained both a healthy respect for and general interest in aviation weather. While John's life veered away from aviation for a short period, he used this time to acquire his Aircraft Dispatcher License in early 1999, which allowed him to join a fractional aircraft company that was growing exponentially later that year. While at this fractional company, John worked in numerous aspects of the business including logistics, dispatch, flight planning, operations training and operations management. After seven years working in Part 91 and Part 135 operations, John joined the National Business Aviation Association's Air Traffic Services at the FAA's Air Traffic Control System Command Center, now located in Warrenton, VA. As an Air Traffic Management Specialist working for NBAA members, John helps business and general aviation aircraft navigate the complex National Airspace System (NAS) and serves as a general aviation advocate during daily planning conference calls attended by Centers, Tracons, Towers and other operators throughout the NAS. While completing Penn State University's Weather Certificate course, John became the NBAA general aviation representative on the FAA's Collaborative Decision Making Weather Evaluation Team in 2008. Later, John began participating in the FPAW meetings in the summer of 2010. When he's not working, John can be found giving tours of the National Air and Space Museum's Steven F. Udvar-Hazy Center as a Docent.

# Tom Lloyd JetBlue Airways

Tom Lloyd is Manager, Meteorology & Route Optimization at JetBlue Airways. Tom oversees weather services and policy at JetBlue in addition to managing the Air Traffic Control Coordinator team. Prior to joining JetBlue in 2007, Tom was a Dispatcher and Dispatch/SOC Manager in the regional airline industry for 7 years. Tom studied Meteorology at St. Cloud State University.

# **Lisbeth Lee Mack**

Federal Aviation Administration (FAA)

Lisbeth Lee (Beth) Mack was appointed Director – Policy and Performance for ATO Safety and Technical Training in June 2013. Her prior job as Group Manager – Safety Programs included the Air Traffic Organization's Voluntary Safety Reporting programs (including the Air Traffic Safety Action Program – ATSAP, and the Technical Operations Safety Action Program – T-SAP), Partnership for Safety and Safety Promotion and Crew Resource Management. Mrs Mack joined FAA in June of 2009 as ATSAP Manager.

Prior to FAA, she was Managing Director of Onboard Service Strategy at United Airlines. Her responsibilities included managing training, policies and procedures for the Onboard Service division, along with safety and security procedures for in-flight personnel. During this time, United was the first major airline to introduce an Aviation Safety Action Program (ASAP) for flight attendants, under Beth's leadership.

Before joining United, Beth was a Regional Managing Director for American Airlines in Flight Service Operations, returning to American after that corporation acquired Trans World Airlines (TWA). While at TWA, Beth served as Vice President (VP) of In-Flight Services and VP of Marketing. Prior to TWA, Beth served as the VP of Sales for British West Indies Airways and VP-Sales and Marketing for KIWI International Airlines. Beth started at American Airlines as a flight attendant and spent the first 14 years of her career there, in successively more responsible positions.

Beth has a Bachelor of Science degree in Retailing from Michigan State University, where she graduated with high honors. She is also a graduate of the Leadership in a Democratic Society Program at the Federal Executive Institute. She lives in Annandale, VA with her husband, and they have three sons.

### Steve McMahon

Federal Aviation Administration (FAA)

Steve McMahon serves as the Manager of System Efficiency at the Air Traffic Control system Command Center (ATCSCC), with 24 years in various positions of increasing responsibility with the FAA. His experiences include certified professional controller at Chicago Center; and traffic management specialist, supervisor, National Operations Manager and Collaborative Decision Making Manager positions at the ATCSCC. He has also provided quality assurance guidance, developed training programs, led customer

focus meetings and system review sessions, and provided domestic and international leadership in the achievement of FAA goals.

Today, as Manager of System Efficiency, Mr. McMahon provides leadership, direction and oversight to a highly technical team providing business intelligence needed for the FAA to monitor various aspects of operational system performance and trend analysis. Under his leadership, System Efficiency has developed meaningful and useful efficiency and performance measures for FAA facilities and personnel to address emerging performance issues in the National Airspace System, monitor system efficiency and identify system bottlenecks. Mr. McMahon's collaborative team has created prototype metrics to better characterize performance and model alternative ATFM actions that provide for potential improvements in ATFM decision-making and partnership with aviation stakeholders.

Mr. McMahon earned a Bachelor of Science in Professional Aeronautics degree with Summa Cum Laude honors from Embry-Riddle Aeronautical University.

# Mark B. Miller

National Ocean and Atmospheric Administration (NOAA)
National Weather Service (NWS)
Office of Science and Technology (OST)

Mark Miller is the Program Manager for the NOAA NextGen Weather Program. As the PM, he is responsible to execute NOAA's development and deployment of capabilities to improve and enhance the weather information and services needed to facilitate more efficient management of the National Airspace System for the Next Generation Air Transportation System (NextGen) initiative. He entered government civil service in October 2006 after serving 20 years in the Air Force, retiring at the rank of Lieutenant Colonel.

Before coming to NOAA in September 2009, Mr. Miller was the chief meteorologist for the Headquarters, Department of the Army, Office of the Deputy Chief of Staff for Intelligence. He was responsible for Army weather policies and requirements validation to meet the Army's weather and environmental support requirements. During his military career, Mr. Miller served in various leadership and management positions supporting Army, Air Force, Special Operations, and intelligence operations.

Mr. Miller earned a Bachelor of Science degree in meteorology from The Pennsylvania State University and a Master of Science degree in meteorology from Florida State University, and holds a Federal Acquisition Certification at the Senior/Expert level. He has a beautiful wife and four fantastic children.

# **Missy Petty**

National Oceanic and Atmospheric Administration (NOAA) Cooperative Institute for Research in the Atmosphere (CIRA)

Missy Petty currently serves as Acting Chief of the Forecast Impact and Quality Assessment Section (FIQAS) within the Global Systems Division of NOAA/ESRL. In this role, she works closely with NWS and FAA sponsors to further aviation weather forecast

performance metrics as well as verification and decision support technologies. This includes overseeing activities such as independent assessments of the quality and skill of aviation weather forecast products, the development of operationally relevant verification techniques, and the development of technologies to provide forecast quality and skill information for analysis and decision support.

Prior to managing FIQAS activities, she worked for several years as a software engineer. Her technical career began at NCAR/RAL, where she was involved in the implementation of various forecast systems, including aviation weather forecasts for turbulence and ceiling and visibility, and a statistical forecast system that is now used in multiple market segments. This was followed by a 4 year period in the private sector working for one of the leaders in business management software. She returned to aviation weather as a software engineer in FIQAS, developing aviation forecast verification technologies.

Missy holds a Ph.D. in Mathematics from the University of Colorado and a B.A. in Mathematics from Millsaps College.

# Mike Robinson

AvMet Applications, Inc.

Mike Robinson is the Chief Technology Officer at AvMet Applications, Inc. His main research areas of interest include weather-air traffic management (ATM) translation and integration, weather-ATM functional task analysis, problem identification, and concept development, and weather-ATM decision support evaluation, metrics, and benefits assessments.

Over the past 10 years, Mike has been the project lead on 12 separate weather-ATM field evaluation campaigns and has spent over 500 hours in air traffic facilities observing and evaluating the operational decision-making environment during significant weather impact events. He has been the technical lead for evaluating the operational utility and/or user benefits for more than 10 separate aviation decision support capabilities.

Prior to joining AvMet, Mike worked as a technical staff scientist with MIT Lincoln Laboratory as well as a research analyst at the NASA Goddard Space Flight Center. Mike has a Master's Degree in Meteorology from Texas A&M University.

#### Patrick Somersall

Federal Aviation Administration (FAA)

Patrick Somersall is a National Traffic Management Officer at the FAA ATCSCC. He is currently the Operations Lead for FAA System Operations on the Traffic Flow Management Deployment Team responsible for the deployment of future Traffic Flow Management Systems automation. He has been with the FAA for 24 years in Air Traffic Control starting as an Air Traffic Controller in Denver ARTCC and been at the FAA ATCSCC since June 2000 accumulating over 16 years' experience in TFM. Patrick has experience as a Center Traffic Management Coordinator, National Traffic Management Specialist, support specialist in Airspace, Procedures and Quality Assurance, Center

Front Line Manager, and National Traffic Management Officer. He has served as the FAA Operational Lead on various FAA/Industry work groups such as Collaborative Decision Making (CDM) Ground Delay Program Enhancement Team, Flow Evaluations Team, and Future Concept Team. Patrick has been a regular speaker at various government and industry forums speaking on Traffic Flow Management integration of automation and practical application of traffic management techniques.

### Nick Stoer

### Nicholas Stoer & Associates

Mr. Stoer is president of Nicholas Stoer & Associates of Chester, Maryland, an independent aviation, management and policy consultancy. His engagements have included financing alternatives for the Federal Aviation Administration (FAA), aircraft safety and certification issues, ATC automation and weather display systems for air traffic controllers, aviation security issues, satellite navigation technology, National Weather Service modernization issues, aviation weather research issues, information systems proposals, outsourcing of air traffic control towers, and ILS and related equipment for airports. As a consultant to the National Center for Atmospheric Research (a National Science Foundation FFRDC) he has been active in interagency work groups such as the Joint Planning and Development Office to develop concepts for the Next Generation Air Transportation System (NextGen). In 2008 he was an expert consultant to the NWS on aviation weather and NextGen issues. He has supported Aviation Weather Associates of Palm Desert, CA, on aviation weather policy issues for the FAA Aviation Weather Office. Mr. Stoer's knowledge gained through more than 30 years of experience in U.S. Federal policy and executive leadership positions allows him to effectively meet client clients on a wide range of subjects: legislation, public policy analysis, new business development and government contract acquisition and regulatory issues.

Prior to his consulting practice Mr. Stoer retired in 1995 as the Chief Financial Officer (ABA-1, Assistant Administrator for Budget and Accounting) of the FAA. He had over 32 years of Federal service. From 1986 to 1991 he served as FAA's Budget Director (ABU-1). At the FAA, Mr. Stoer advised five Administrators and testified before Congress on the FAA's budget, program and legislative policies and proposals. He overhauled the agency's budget process, prepared the first FAA report under the Chief Financial Officer's Act, and championed installation of new financial and budget systems. He held leadership positions on the FAA's key management, research and capital investment committees. Mr. Stoer has dealt extensively with technology issues, staffing models for large workforces (FAA, Coast Guard), and with corporatization proposals for the FAA. He has traveled extensively in the U.S. and overseas (United Kingdom, Canada, Australia, China and elsewhere) on FAA-related issues.

Before joining the FAA in 1986, Mr. Stoer had 17 years of experience as a Senior Budget Examiner at the White House Office of Management Budget (OMB). Chronologically, at OMB he dealt with policy issues and budgets of NASA, Federal Transit Administration, Federal Railroad Administration, Amtrak, U.S. Coast Guard, FAA and other transportation-related agencies. His OMB work included review of budget, research and legislative proposals, contracting and outsourcing issues, capital investment acquisitions, interpretation of OMB guidelines, and defense and analysis of agency programs before

the OMB Director and White House officials. He continues to interact with OMB officials, the Office of Science and Technology Policy and congressional staff on appropriations and authorizing committees.

Mr. Stoer is the past president of the American Association for Budget and Program Analysis (AABPA), a professional association for Federal and State budget and program officials.

Mr. Stoer's MBA in Finance and Investments is from The George Washington University (1973). His BA in Political Science and German is from the University of Maryland (1966). He completed resident courses at the FAA Executive School, the Federal Executive Institute, King's Point, NY, and the Army Language School, Monterey, CA. Early in his career Mr. Stoer held positions at the Atomic Energy Commission and the National Security Agency. He served in the U.S. Army for three years, stationed in Berlin, Germany. He is a member of the AABPA, the Air Traffic Control Association and the Aero Club of Washington. He and his wife live on Kent Island, Maryland, where he is active in community and Chesapeake Bay environmental issues. He is also a Master Gardener.

### Mr. Stoer's Awards:

- 1995 FAA Distinguished Career Service Award from Administrator David Hinson
- 1995 Clifford Burton Medallion Award from the Air Traffic Control Association
- 1994 Senior Executive Service Presidential Rank Award from Transportation Secretary Federico Peña.
- 1993 FAA Superior Achievement Award from Acting Administrator Joseph Del Balzo
- 1993 Outstanding Service Award. American Association for Budget and Program Analysis
- 1982 OMB Outstanding Service Award from Director David Stockman.

# Christopher S. Strager

National Oceanic and Atmospheric Administration (NOAA)
National Weather Service (NWS)
Office of Climate, Water and Weather Services (OCWS)

Christopher S. Strager is the Acting Director of the NWS Office of Climate, Water and Weather Services. Mr. Strager received his Bachelor of Science degree in Meteorology from the Pennsylvania State University in May 1983 and his Master's degree in Meteorology from Texas A&M University in 1989.

Mr. Strager started his meteorological career as an enlisted weather observer with the Air Force in 1978. After tours as a weather officer at locations including K.I. Sawyer Air Force Base in Michigan and the United States Southern Command Headquarters in Panama City, Panama, he left Air Force active duty in May 1992 to begin his career with the NWS. Chris maintained his ties with the Air Force by serving as the Commander of the Pennsylvania Air

National Guard's 146th Weather Flight until his retirement in June 2012. His military awards include the Bronze Star for his leadership of a deployed Special Operations Weather Team during Operation Iraqi Freedom.

Mr. Strager started his career with the NWS at the Portland, ME, Weather Forecast Office. In November 1993, he transferred to the Federal Aviation Administration's Air Route Traffic Control Center/Center Weather Service Unit in Oberlin, OH. He returned to the NWS at the Grand Forks, ND, Weather Forecast Office in October 1995, where he received a Department of Commerce Silver Medal for his work during the Red River Flood of 1997.

He joined the Pittsburgh, PA, Weather Forecast Office in the position of Senior Meteorologist in 1998 and was promoted in October 2003 as Regional Aviation Meteorologist at the Alaska Region Headquarters in Anchorage. While in this position he also served as the national program manager for the NWS's Volcanic Ash Program. He became the Alaska Region's Deputy Regional Director in December 2004 before returning in 2008 to the Pittsburgh Weather Forecast Office as the Meteorologist-in-Charge. He served as the Pittsburgh MIC until his selection as the Director for NWS Eastern Region in February 2010.

In March 2011 Mr. Strager came to NWS Headquarters as the NWS Advisor for Science and Service Integration to develop the NWS Roadmap, which will implement the NWS Strategic Plan. This document will shape and guide NWS operations in the year 2020 and beyond. In March 2013 he was asked to lead the Office of Climate, Water and Weather as the Acting Director.

#### **Matthew Tucker**

National Air Traffic Controller's Association (NATCA)

Matt joined the US Army in June 1983, where he served as an Air Traffic Controller. In 1987 he entered the FAA at Baton Rouge ATCT as an Air Traffic Assistant and then as an Air Traffic Controller in November 1989. In March 2000 Matt became the NATCA Weather Liaison working in Washington DC. While working as the Weather Liaison he worked on all FAA weather programs as well as serving on the CAST JSAT for Turbulence and the JSIT/JSAT for remaining Risks. In February 2003 Matt transferred to Jacksonville ARTCC, In August 2012 Matt Transferred to Atlanta ARTCC, The world's busiest air traffic control facility where he currently works as an Air Traffic Controller. Matt is also currently the NATCA Weather Representative, serving on Nexgen Weather Processor (NWP) and the CDM Weather Evaluation Team.

# Mark D. Zettlemoyer

Joint Planning and Development Office (JPDO)

Mark D. Zettlemoyer is the NOAA/NWS Liaison to the FAA in the Joint Planning and Development Office (JPDO), representing NOAA and weather interests in the development of the nation's Next Generation Air Transportation System, or NextGen. Mr. Zettlemoyer joined the JPDO in 2011 after retiring from the U.S. Air Force's Directorate of Weather, where as Chief, Integration, Plans, and Requirements, he and his division planned weather

and space environmental support for the Air Force Weather (AFW) functional area and oversaw integration of technology and weather into command and control (C2) and modeling systems. Current JPDO activities include coordination of weather efforts in information sharing and Unmanned Aerial System (UAS) integration into the National Airspace.

Mr. Zettlemoyer received a Bachelor of Science degree in Meteorology from the Pennsylvania State University in 1983, and was commissioned on 28 May 1983 through the Penn State AF Reserve Officer Training Corps (ROTC) program. He completed his Master of Science degree in Meteorology at Florida State University in 1990, where his thesis examined the propagation of measurement uncertainty through an atmospheric transport model. He earned an additional Master's Degree in National Security and Strategic Studies from the Navy War College, Newport, Rhode Island, in 1997. Operational assignments included stints as a forecaster and leading forecast operations at Moody Air Force Base (AFB), Valdosta GA, Shaw AFB, Sumter SC, Wright-Patterson AFB, Dayton OH, Fort Rucker, near Dothan AL, the Joint Typhoon Warning Center, Pearl Harbor HI, and the 17<sup>th</sup> Operational Weather Squadron, Hickam AFB, Honolulu HI, where his forecasters supported flying operations across the Pacific. Staff assignments included weather support to AF acquisition and training programs (Wright-Patterson AFB and U.S. Joint Forces Command, Norfolk VA), and leading the Air Force Weather Agency's environmental modeling efforts as its Director, Air and Space Science.