

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

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BIOGRAPHIES OF SPEAKERS AND PANELIST

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**Cyndie Ableman**

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

Cyndie Ableman is currently the NOAA Aviation Weather Program Manager as well as the NWS Aviation Weather Services Branch Chief. In her current position, she leads the aviation weather 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. Cyndie's 20+ years in the NWS have included a variety of field and regional headquarters positions including weather observer, forecaster and regional program manager.

**Steve Ableman**

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

Steve Ableman is the "contents" lead for National Weather Service (NWS) efforts to populate the 4-D Weather Data Cube. Steve is also leading the NWS outreach activities related to NextGen Weather, and is the federal co-lead for the JPDO sponsored Weather Demonstration Coordination Demonstration Team. Steve was the NWS lead for development of the Four-Dimensional Weather Functional Requirements for NextGen Air Traffic Management and is actively involved in activities with the FAA to streamline the transition of aviation weather research to operations.

Prior to moving to 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.

**Paul Ackroyd**

*Raytheon  
No Bio received*

**Randy Baker**

*UPS Airlines*

Grew up in Lawrence, Kansas where the weather bug bit him at an early age. Graduated from Kansas University with a B.S. in meteorology with honors in 1985. Worked for a private weather company in Kansas City until 1986, then taught Meteorology courses for pilots at TWA Airlines 1986-1990. In 1990 he went to work for UPS Airlines and taught meteorology courses thru 1994. He also made operational weather forecasts during each December peak season from 1990-1993, and then in 1994 was asked to help start up the UPS Meteorology Department. 1994-present: UPS forecaster, with main weather focus on snow/ice storms, dense fog, thunderstorms, strong winds, volcanic ash, and hurricanes/typhoons.

In 1994 he initiated the first high-rate Ascent and Descent automated reports from commercial aircraft, which now operate on over 150 UPS aircraft, plus on several other airlines around the world. Randy was a member of the Air Transport Association Meteorology Committee 1988-2003, and served as National Weather Association Councilor 1999-2000. He is still involved in various aviation industry committees.

### **Stan Benjamin**

*National Oceanic and Atmospheric Administration (NOAA)  
Earth System Research Lab (ESRL)*

Stan Benjamin leads the development of the hourly updated weather forecast models used by NOAA as guidance for aviation forecasting, including the Rapid Update Cycle (RUC), the Rapid Refresh (RR - upcoming RUC-replacement in 2011), and the 3km storm-resolving High-Resolution Rapid Refresh (HRRR). Stan is chief of the Assimilation and Modeling Branch in the NOAA Earth System Research Lab (ESRL) Global System Division. Stan and colleague Steve Weygandt guide the work of several other scientists on the development and testing of RUC/RR/HRRR, and his group works closely with the NOAA National Centers for Environmental Prediction (NCEP), NCAR, Univ. of Oklahoma, MIT/Lincoln Labs, and others labs. Stan also guides the development of a new NOAA global model (FIM – <http://fim.noaa.gov>, one of a few NOAA global model alternatives) with colleagues at ESRL.

Stan holds a B.A. degree in math (Albion College, Michigan) and M.S. and Ph.D. degrees in meteorology from Penn State University.

### **Geoff Bing**

*Vaisala*

Geoff Bing is manages the Americas Region for Vaisala's Airports Market Segment, based out of Louisville, CO. He is a graduate of Ohio State's Aviation Program and is a licensed Commercial Multi Engine Pilot and Flight Instructor. He has over 20 years experience working with Federal, State and Private Organizations in the development of Aviation Weather Programs. He is currently serving on the NEXTGEN Weather Working Group and is a member of various industry associations.

### **James H. Block**

*Telvent/DTN*

Jim is a Certified Consulting Meteorologist (CCM) with over 30 years of experience in commercial and aviation meteorology. Jim is the Chief Meteorological Officer at Telvent DTN, and is responsible for all of the weather products and content used by Telvent DTN's 100,000 business and professional customers. He is also the Product Manager for all of Telvent DTN's aviation products, including display, data, forecasts, and alerting for global aviation clients. He is presently serving on the American Meteorological Society's Intelligent Transportation Committee, and is a past president of the National Council of Industrial Meteorologists.

## **Paul Brough**

*SITA*

Paul has been in aviation since 1979 starting as a Ramp/Gate Agent in the UK. He is currently the Snr Mgr and a Flight Ops Applications Sales Specialist with SITA, based in Atlanta and runs a global team of specialists.

Prior to joining SITA he was the VP Flt Ops of Air Foyle HeavyLift (now Ruslan Int). He has previous experience in the roles of Dispatcher, Ops Duty Officer, Crewing Officer, Load Control and Commercial Sales Executive.

## **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.

## **Gregory Cerbus**

*Raytheon Technical Services Company, LLC*

Gregory Cerbus, Principal System Engineer, RTSC-Indianapolis, IN. 25 years cockpit avionics development and integration on US Navy, Marine and Army Helos. Providing Systems Engineering, Program Management and Business Development support.

## **William Chan**

*National Aeronautics and Space Administration (NASA)*

Mr. William N. Chan is the Chief of the Aerospace High Density Operations branch at NASA Ames Research Center. The branch primarily develops concepts and algorithms to improve air traffic operations on the airport surface and in and near the terminal area airspace. Mr. Chan is also involved in improving methods to integrate weather data in ATM decision making. Previously, he developed algorithms and software to improve aircraft trajectory predictions for the Center-TRACON Automation System and conducted weather-related aircraft accident investigations using digital flight recorder data. Prior to working at NASA, Mr. Chan served as a lecturer in the Meteorology department at San Jose State

University and was a C-17 flight test engineer at the Air Force Flight Test Center at Edwards Air Force Base in California. He earned a MS degree in Meteorology from San Jose State University in California and holds BS degrees in Aeronautical Engineering and Physics from the California Polytechnic State University in San Luis Obispo, California. Mr. Chan is an Associate Fellow of the AIAA and a member of the NextGen ATM-Weather Integration Team.

**Rick Curtis**  
*Southwest Airlines*

Rick has been at Southwest Airlines for thirteen 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, and he is a member of both the American Meteorological Society and the National Weather Association.

**Rich DeLaura**  
*Massachusetts Institute of Technology*  
*Lincoln Laboratory (MIT/LL)*

Rich DeLaura has been a staff scientist at Lincoln Laboratory since 2000 and is currently working to understand the impacts of convective weather on air traffic operations. He is responsible for several ongoing research efforts, including the development of models for pilot decision making in convective weather, weather-aware decision support for air traffic management, and the Route Availability Planning Tool, a prototype convective weather-aware decision support tool that is currently being used at FAA and commercial airline facilities in the New York area to aid departure management during convective weather SWAP. Rich graduated with a Bachelor's Degree in Chemistry and Physics from Harvard University a long time ago and remembers using a slide rule to do his physics homework.

**Jim Evans**  
*Massachusetts Institute of Technology*  
*Lincoln Laboratory (MIT/LL)*

Jim Evans is a senior staff member in the Weather Sensing group at MIT Lincoln Laboratory who is responsible for initiating and contributing to research programs in

improved aviation weather decision making and operational benefits analysis.

Dr. Evans's undergraduate and graduate education was at MIT.

He led the Lincoln Laboratory programs on the Terminal Doppler Weather Radar (TDWR), the Integrated Terminal Weather System (ITWS), the Corridor Integrated Weather System (CIWS). He is currently working on weather-air traffic management (ATM) integration as well as the quantification of operational benefits. He served on the FAA R & D advisory committee (REDAC) NAS Ops subcommittee study of ATM-weather integration.

## **Thomas H. Fahey, III**

*Delta Airlines*

Tom is currently employed as Manager Meteorology and Radio at Delta Air Lines, Inc. and also contracts independently as a meteorology consultant. In 1974 he received a Bachelor degree in Geology with Math and Physics minors from College of St. Thomas; in 1981 a Master of Science in Meteorology from University Wisconsin, Madison; and in 1997 a Mini MBA Program from University of St. Thomas.

### **Fahey Meteorological Consulting**

- Operational Aviation Meteorology
- Development and Presentation of Aviation Meteorology Training Modules
- Forensic Meteorology

### **Delta Air Lines & Northwest Airlines**

- Forecaster: Produced weather products (1977-1990).
- Product Development: Implemented new forecast products & procedures (1988-1990).
- Union President: Negotiated & represented the Meteorology Union (1982-1988)
- Management: Directed weather offices (1990- Present).
- Contract Management: Added duties administrating sale of weather products and services outside of NWA (2000-Present).
- Accident Investigation Team: Meteorology representative (2004-Present)
- Operations Control: Added duties supporting both safety & efficiency (2006-Present)
- Merger Integration Team: Meteorology Lead (2008-2010)
- Manager Radio Operations and Radio Integration Team Lead (2009-2010)

Both Delta and Northwest have had a long tradition of providing weather information, including tailored reports and forecasts of turbulence, mountain wave activity, wind shear as well as other atmospheric based aviation hazards such as volcanic ash. Tom has both conducted and supervised projects that resulted in new and/or improved methods for producing and distributing weather hazard information. Tom has also initiated and oversaw development of a 2nd set of weather products focused on operations at hub airports. Over the last decade Tom expanded the scope of weather services to include contracts with other airlines. In 2009 Tom lead the effort of the integrating the copyrighted Turbulence Plot (TP) System into the merged Delta organization.

**Aviation Industry Recognition and Recent Activities**

- 2001, Aviation Week & Space Technology's Aviation Laurels Award Recipient for role in development of Collaborative Convective Forecast Product (CCFP).
- 2007-08, Industry Co-Chair Ground Deicing Work Group, Weather Sub-Committee
- 2007-09, IATA Rep on the ICAO Meteorological Warnings Study Group (METWSG)
- 2008-09 IATA Representative on the ICAO Aerodrome Meteorological Observation and Forecast Study Group (AMOFSG)
- 2006-10 Industry Lead, Collaborative Decision Making (CDM) Weather Eval. Team  
-A joint Government, Industry & Research community effort to address primarily Air Traffic Management convective wx related issues as well as other weather issues
- 2010 IATA Representative on the ICAO Int'l Volcanic Ash Task Force (IVATF)

**Tammy Farrar**

*Federal Aviation Administration (FAA)*

*Aviation Weather/Weather Policy and Requirements Group*

Tammy 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 for 11 years as a Weather Officer in the U.S. Air Force. Her positions included that of Special Projects Team Chief and Special Support Plans Officer at Air Force Global Weather Central in Omaha, Nebraska, and Wing Weather Officer for the 86th Tactical Fighter Wing and Command Briefer for the Commander in Chief, United States Air Forces Europe at Ramstein Air Base, Germany. Her military aviation weather experience includes staff and operational support to fighter and airlift units, exercise and special mission support, and accident investigation.

After leaving the Air Force, Tammy worked as an Editorial Assistant for the American Meteorological Society's (AMS) Journal of the Atmospheric Sciences. She began her current position as a Research Meteorologist for the Federal Aviation Administration's (FAA) Aviation Weather Group in January of 2008, and serves as the FAA's Turbulence Subject Matter Expert.

Tammy has twice held the position of Chapter Officer for local AMS chapters and is a member of Chi Epsilon Pi, the Meteorology Honor Society. She has also completed over 30 hours of graduate level coursework in Secondary Science Education through the University of Maryland and George Mason University.

**Eldridge Fraizer**

*Federal Aviation Administration (FAA)*

*Aviation Weather Group Weather Technology in the Cockpit (WTIC)*

Mr. Eldridge Frazier is currently the acting program manager of the Aviation Weather Group's Weather Technology in the Cockpit (WTIC) Program. He has been with FAA for 18



months, and prior to FAA he was the Chief Engineer for the NASA Glenn Research Center Weather Accident Prevention (WxAP) Project.

He has over 25 years experience in Department of Defense (DOD) and commercial aircraft systems program, project, and logistics management. His experience includes nine years hands-on avionics integration, aircraft modifications, aircraft power systems, compliance requirements, and FAA Supplemental Type Certificate (STC) documentation generation and coordination.

Mr. Frazier earned a Bachelor's Degree in Electrical Engineering from Auburn University, Auburn, AL, and a Master's of Arts in Biblical Studies, New Testament from Ashland Theological Seminary Ashland, OH.

Additionally, Mr. Frazier graduated from the USAF Communications-Electronics Engineer Program. He has attended a number of the University of Kansas Aerospace, Boeing, and MITRE Aviation Institute series of short courses. The courses include the Design and Development of the More Electric Aircraft, Fundamental Avionics, Reliability and 1309 Design Analysis for Aircraft Systems, Aeronautical Communications, Aeronautical Navigation, and RTC DO-178B/EUROCAE Software Considerations in Airborne Systems and Equipment Certification

**Matt Fronzak**  
*MITRE/CAASD*

Today: Matt is a Lead Multi-Discipline Systems Engineer in the NAS Operations department (F065) at The MITRE Corporation in McLean, VA. He has worked for MITRE in this capacity since June, 2009.

Education: Matt graduated from the University of Massachusetts – Lowell in June of 1978 with a Bachelor of Science degree in Meteorology. He returned to school in 2005, and attained a Master of Aeronautical Science degree from Embry-Riddle Aeronautical University in December, 2008.

Prior Work History: Beginning in October, 1974, Matt started a nearly 34 year career with Delta Air Lines. More than 30 of those years were spent working in or supporting the operational and operations control departments at Delta.

From July, 1978 until his retirement in August, 2008, he worked as an operational meteorologist, an aircraft dispatcher, a sector manager, an ATC sector manager and a member of the Flight Control management team on two separate occasions.

During his first stint in Flight Control management, Matt also served as the Chairman of the IATA North Atlantic/North American (NAT/NAM) Regional Coordination Group (RCG) from 1994-1996. During that same period, he was a founding member of the ICAO NAT Implementation Management Group (IMG).

Matt's final management stint spanned the period from 2000-2005. During that time, he

was responsible for Delta's Meteorology and Radio departments, the Navigation Database Group and all Flight Control automation.

He returned to a line position (Sector Manager – ATC) early in 2005 to have enough time to attend graduate school. During this same period, he became a member of the REDAC Weather/ATM Integration Work Group (WAIWG) and contributed to that group's report to its parent committee.

Shortly after his retirement from Delta, Matt began work as a Principal Systems Marketing Manager for Rockwell Collins in Cedar Rapids, IA., During his seven months there, he was named co-chairman of the Weather Integration Sub Team #1 (WIST #1) which wrote a significant portion of the FAA's Weather/ATM Integration Plan.

### **Daniel Fuka**

*Cornell University*

Daniel Fuka has a MS in Engineering, followed by 20 years of corporate research and development in the atmospheric and biological sciences, with a focus on computational complex problem solving. He is finishing his PhD/midlife crisis in Biological and Environmental Engineering with Atmospheric Sciences as a minor field. Mr. Fuka's most recent position was with Rockwell Collins, providing numerical weather forecast integration and product research and development for all the weather related member companies under the recently acquired Air Routing Group umbrella.

### **Win Heagy**

*MITRE/CAASD*

Winfield Heagy is a Principal Software Systems Engineer with The MITRE Corporation Center for Advanced Aviation Systems Development in McLean, VA. He has been employed at MITRE since 1997 and has worked in both technical and management roles in en route ATC automation focusing on aircraft and weather conflict detection, notification and resolution. He has general aviation and scheduled air carrier flight operations experience and holds an Airline Transport Pilot certificate.

### **Paul Herzegh**

*National Center for Atmospheric Research (NCAR)*

*Research Applications Laboratory (RAL)*

Dr. Herzegh serves as a Project Scientist within the Research Applications Laboratory of the National Center for Atmospheric Research in Boulder, Colorado. In this role he leads the FAA-sponsored National Ceiling and Visibility Research Team. Before joining RAL, Dr. Herzegh served as Manager of NCAR's Research Aviation Facility, and earlier roles as Manager of NCAR's Research Data Program and Associate Manager of NCAR's Field Observing Facility. Dr. Herzegh's research publications include topics on the cloud processes of winter storms and the use of polarimetric radar and aircraft in storm research.

He received a Ph.D. in Atmospheric Sciences from the University of Washington, and a B.S. in Geology from Case Western Reserve University

### **Jackie Hill**

*Federal Aviation Administration (FAA)*

Mrs. Hill is currently the Group Manager for the Aviation Weather Services organization. This organization was created in 2009 in the FAA to consolidate all of the weather program's management into one organization. The mission of the organization is to acquire, manage, and deliver weather systems and services to the Users (pilots, controllers, and technicians); to disseminate timely, accurate, and reliable weather information in support of the FAA's mission of providing a safe and efficient NAS, and aviation weather; and to improve transition planning and implementation of new weather products and services.

Prior to October 2009, Mrs. Hill served as the Terminal Weather Sector Manager. There were ten programs under the purview of Terminal Weather. The Weather Radar section included the Next Generation Weather Radar (NEXRAD), Terminal Doppler Weather Radar (TDWR) and Weather Systems Processor (WSP). Weather Processors included the Integrated Terminal Weather System (ITWS) and Medium Intensity Airport Wind System (MIAWS). Weather Sensors included the Automated Surface Observing System Pre-Planned Product Improvements (ASOS P<sup>3</sup>I), Automated Weather Sensors Systems (AWSS) Stand-Alone Weather Sensors (SAWS), Juneau Airport Wind System (JAWS), and Low Level Wind Shear Alert System (LLWAS).

Previously, from October 2000 to April 2005, Mrs. Hill served as a System Engineer in the Surveillance and Weather directorate where she was responsible for leading FAA teams in defining requirements, priorities, funding levels and system costs for weather products. She also led FAA teams in the analysis, development and execution of Business Cases. In this capacity, Mrs. Hill provided oversight and technical expertise on existing and proposed projects.

Mrs. Hill earned a Masters of Science degree in Engineering Management from Catholic University in Washington, DC, and a Bachelor of Science degree in Chemical Engineering from the University of Dayton in Dayton, OH. She is married, has three daughters and enjoys spending time with her family, and exercising.

### **Albert Homans**

*ARINC*

#### **EXPERIENCE**

Mr. Homans manages various programs at ARINC for the FAA, NOAA, and airline customers. He is responsible for the operational and technical support to weather and information systems programs and to data link services, including the management of software development efforts, interface with internal organizations and customers, business development efforts, and proposals.

Before joining ARINC, Mr. Homans held positions in engineering and program management with major corporations. He has managed hardware and software design, development, fabrication and test of communications and data handling systems, ground support equipment, and ground support software for major NASA spacecraft. He managed several programs for special aircraft communications systems for international customers.

## EDUCATION

MBA, Loyola College, Baltimore, MD

M.S., Electrical Engineering, Air Force Institute of Technology, Wright-Patterson AFB, Ohio

B.S., Mechanical Engineering, Ohio University, Athens, Ohio

### **John Huberdeau**

*MITRE/CAASD*

Mark Huberdeau is an Outcome 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.

### **John Huhn**

*MITRE/CAASD*

John Huhn is a Senior System Development Engineer within MITRE's Center for Advanced Aviation System Development (CAASD). Among his various research tasks, John is a valuable member of the National Airspace System (NAS) tactical operations division. He has extensive operational experience and cross-domain knowledge in Aviation Meteorology and Traffic Flow Management. This affords him a unique perspective during his day to day analysis from the operational floor of the Air Traffic Control System Command Center (ATCSCC). In addition to NAS tactical weather analysis, John is at the forefront of CAASD's research, developing weather integration capabilities for the Next Generation of Traffic Flow Management. John holds a Bachelor of Science in Meteorology from Kean University, a Master of Aeronautical Science from Embry-Riddle University and is a Certified Consulting Meteorologist (CCM) by the American Meteorological Society.

**Kevin Johnston***Federal Aviation Administration (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. 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.

**Al Kaehn***Private Weather Consultant**No bio received***Desmond Keany***American Airlines*

Currently the Manager Flight Planning and Weather Support at American Airlines and have worked in the Dispatch/SOC environment for 31 years.

For much of my life I have worked for TWA including 11 years based in Paris/France and 7 years in Saudi Arabia.

Originally came to the airline business from Air Traffic Control.

I hail from Dublin/Ireland

**Jimmy Krozel***Metron Aviation*

Jimmy Krozel is a Senior Engineer in the Research and Analysis Department at Metron Aviation. He received an AS (1984, Computer Science), BS (1985, Aeronautical Engineering), MS (1988, Aeronautical Engineering), and Ph.D. (1992, Aeronautical Engineering) from Purdue University. Dr. Krozel was a Howard Hughes Doctoral Fellow (1987 - 1992) while at the Hughes Research Laboratories (1987 - 1992). He is an

Associate Fellow of the American Institute of Aeronautics and Astronautics (AIAA), has over 70 technical publications, and is the winner of two AIAA best paper awards. His research interests include computational geometry, visualization, air traffic management, air traffic control, intelligent path prediction, intent inference, and control of autonomous vehicles.

### **Tenny Lindholm**

*National Center for Atmosphere Research (NCAR)  
Research Applications Laboratory (RAL)*

#### **Education:**

B.S., U.S. Air Force Academy, Aeronautical Engineering (1970)

MBA, Southern Illinois University (1974)

M.S., Air Force Institute of Technology, Physics (1982)

M.S., Ohio State University, Human Factors and Operations Research (1986)

**Experience:** Tenny has over 4000 hours of flying time in 12 types of aircraft, ranging from gliders, Air Force fighter aircraft to the C-5A transport. As the lead for two cockpit development teams—for the Air Force C-5B and C-17A—Mr. Lindholm was responsible for evaluating and integrating pilot input with the efforts of manufacturer design teams and flight test groups. He was also the Test Director responsible for planning and conducting simulator and flight tests of the new technologies associated with these aircraft. Mr. Lindholm has extensive experience matching user needs with various display functions and technologies, both in the cockpit and with ground users of advanced weather information. As the current Manager of Aviation Programs at the NCAR Research Applications Laboratory, he integrates the needs of varied weather information users with the activities of scientists and engineers, and commercial weather vendors, to ensure efficient matching of capabilities and requirements. Mr. Lindholm has been working all aspects of the uplink and downlink of weather information since 1993 through NASA programs, the RTCA, and industry. He served as lead for the FAA Oceanic Weather Product Development Team and previously led the NASA/AWIN Oceanic Convective Nowcasting Demonstration program. Tenny is now active in the Joint Planning and Development Office (JPDO) Weather Integration Subteam, and participates in an industry, government, DoD, and R&D community team that is defining a concept of operations for weather information in the cockpit.

Tenny's previous career was as a pilot, flight examiner, and test pilot in the U.S. Air Force, where he served for 21 years.

**Publications:** Tenny is the principle or co-author of over 25 publications on operations research; flight deck human factors; weather information needs and product development; cockpit displays; aircrew training; and weather integration into and decision support concepts for air traffic management. He is also a contributing author of the 1<sup>st</sup>/2<sup>nd</sup> editions of the Handbook of Aviation Human Factors, relating to weather information display concepts.

**Eric Lugger***Air Methods Corporation (AMC)*

Mr. Lugger has more than thirty-nine years of experience in the military/general aviation industry. He is a retired U.S. Army Aviator helicopter pilot, Aviation Safety and Aircraft Maintenance officer. Mr. Lugger has performed more than five hundred aircraft accident investigations, reconstructions and conducted materials failure analyses on aircraft and locomotive components. He is a Corporate Safety Manager with Air Methods, the world's largest provider of helicopter and airplane air ambulance services through 260+ national operating locations. AMC is the most progressive FAA part 135 organizations in safety initiatives: examples are Safety Management Systems (SMS), a Helicopter Flight Data Monitoring Program (HFDM) sponsored by the Flight Safety Foundation (FSF), Line Oriented Safety Audits (LOSA), Internal Evaluation Program (IEP) and an operational Aviation Safety Action Program (ASAP). Eric has been actively a champion in assisting the FAA Flight Standards Service and Air Traffic Organization with the development of the HEMS tool graphical low atmosphere weather depiction product. He has a mechanical engineering background and an MS in materials science.

**Thomas MacPhail***Federal Aviation Administration (FAA)*

Thomas MacPhail works for the FAA in the Air Traffic Organization, NextGen and Operations Planning, as the Research Transition Coordinator for the Aviation Weather Group. Prior to assuming these duties, Tom worked for the National Weather Service for almost 8 years; most recently as liaison to the FAA's Air Traffic Control System Command Center in Herndon, VA and before that as aviation forecaster at the Alaska Aviation Weather Unit in Anchorage, Alaska. Tom began his meteorology career in the USAF in 1978 after graduating from the AF Institute of Technology's basic meteorology program at Texas A&M University. He then served in several weather-related command and staff positions during his 21-year AF career before retiring from active duty in 1998 at the rank of Lt. Colonel to pursue broadcast meteorology in Anchorage. As Chief Meteorologist for CBS-affiliated KTVA as well as their partner Fox station, Tom won several broadcast awards and was also nominated and nationally elected to the Council of the American Meteorological Society. He holds a BS degree in biochemistry from the University of Massachusetts in Amherst (1977) and an MA in Computer Resource Management from Webster University (1988). Tom and his wife, Kathy, now live in Reston, Virginia but their hearts remain forever in Alaska.

**John McCarthy***Aviation Weather Associates, Inc.*

Dr. John McCarthy is the President of Aviation Weather Associates, Inc., of Palm Desert, CA. Until June 2007, he was the Chief Scientist of the Weather Integrated Product Team of the Next Generation Air Transportation System (NexGen), Joint Program & Development Office, and continues that role for the FAA Aviation Weather Office.

Prior to this, he was Manager for Scientific and Technical Program Development at the Naval Research Laboratory in Monterey, CA, from October 1997 until October 2002. Additionally, Dr. McCarthy served as Research Professor of Meteorology at the Naval Postgraduate School in Monterey, 2001-2002. During his tenure at NRL, Dr. McCarthy has developed programs in improving ceiling and visibility forecasting, Flight Operations Risk Assessment System (FORAS), and a broad program effort to improve short-term weather information to Navy battle group, entitled "NOWCAST for the Next Generation Navy."

Dr. McCarthy the founding Director of the Research Applications Program (RAP) at NCAR, from 1981-1994. As Director of RAP, he directed research associated with aviation weather hazards including NCAR activities associated with the Federal Aviation Administration (FAA) Aviation Weather Development Program, the FAA Terminal Doppler Weather Radar Program, and a national icing/winter storm research program. Previously, he directed NCAR activities associated the many aspects of NCAR's contribution to the identification of microbursts and the eventual removal of microbursts as an aviation hazard, through primarily Doppler radar detection systems. Additionally, Dr. McCarthy was the principal meteorologist associated with the development of the FAA Wind Shear Training Aid.

Prior to Dr. McCarthy's NCAR tenure, he was an Assistant Professor of Meteorology at the University of Oklahoma, Norman, starting in 1973. In 1976 he was promoted to Associate Professor with tenure. Simultaneously to his OU appointments, he was an Associate Scientist with the NOAA National Severe Storms Laboratory in Norman.

Dr. McCarthy received his B.A. in Physics from Grinnell College (1964), his M.S. in Meteorology from the University of Oklahoma (1967), and his Ph.D. in Geophysical Sciences from the University of Chicago (1973). He is a private pilot holding single-engine land, glider, and instrument ratings. He has received six major safety awards. He has been an official member of the crew as an observer on more than 500 commercial jet transport flights.

### **Joseph Miceli**

*Airline Dispatchers Federation (ADF)*

Currently I am the President of the Airline Dispatchers Federation (ADF), a non-labor organization representing the professional interests of the dispatch profession. Leading this all-volunteer corporation, ADF constituency is comprised of Licensed 121 Aircraft Dispatchers, Operational Control Personnel from 103 Aerospace Companies including Major Airlines, Express Carriers, International Members, Private Pilots, Students, and Airline Personnel. Prior to becoming President I was Executive Vice President for 4 years aiding and collaborate with all parties involved insuring FAA Part 121 rules continue to evolve around our Aircraft Dispatchers and the PIC (Pilot in Command). As a member of the Executive Board, I regularly attend JPDO and NEXTGEN meetings. As part of ATMAC (Air Traffic Management Advisory Committee), I attend meetings in Washington DC with other aviation professionals including officials within the FAA offering suggestions and solutions.



Aside from ADF activities, I have been employed with United Airlines (ORD) for the last 22 years and have been Aircraft Dispatcher for 15 years. My 22 years of operational experience involves being an ADI (Aircraft Dispatch Instructor) teaching UALs current and future dispatch prospects also instructing Recurrent Training keeping our dispatcher current, as ATC Coordinator I work with the ATC Command Center (ATCSCC) collaborating and solving daily traffic initiatives for our airline throughout North America, I'm a qualified dispatcher Domestically, North Pacific (Polar Ops), South Pacific, Atlantic, South America, CRAF (Civil Reserve Air Fleet), AMC (USAF Air Mobility Command), Part 121 Flag and Supplemental Part 91 Aircraft Dispatcher, Ramp Tower Operator (ORD), Load Planner, and Operational Employee in UAL's OCC.

Educated at a local Community College studying Business Management, I am a Private Pilot and currently reside in the western suburbs of Chicago.

### **Mark Miller**

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

Mark Miller is the Program Manager for the NOAA NextGen Weather Program in NOAA's National Weather Service, Office of Science and Technology in Silver Spring, Maryland. In this capacity, he is responsible for the execution of NOAA's development for more accessible and more accurate weather information for the Next Generation Air Transportation System (NextGen) effort. 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 was a Distinguished Graduate from the Reserve Officer's Training Corps and was commissioned in 1986. He served in various weather support positions to the Air Force in Virginia, Alaska, and Nebraska. In 1997, Mr. Miller was placed in charge of weather operations for the Global Weather Division at the Air Force Weather Agency, Offutt AFB, Nebraska, where he oversaw all worldwide severe, hazards, and tropical forecast production. He was then reassigned as Chief of the Special Support Operations Branch, providing tactical weather forecasts for special operations and intelligence missions.

Mr. Miller was reassigned as the Director of Operations at the 7<sup>th</sup> Weather Squadron in Heidelberg, Germany, in 2000. He took command of the 607<sup>th</sup> Weather Squadron in 2003 at Yongsan Army Garrison, Republic of Korea. He also served as the Joint Meteorological and Oceanographic (METOC) Officer to the Combined Forces Command and United States Forces Korea, overseeing joint, combined and US Army weather support operations in Korea. In 2005, Mr. Miller was transferred to U.S. Central Command where he became the Chief of Operations for the Joint Intelligence and Operations Center. He retired in September 2006.

Mr. Miller's military and civilian awards and decorations include the Department of the Army Commander's Award for Civilian Service, the Defense Meritorious Service Medal, the Meritorious Service Medal with two oak leaf clusters, the Air Force Commendation Medal with one oak leaf cluster, the Armed Forces Expeditionary Medal, the Korean Defense Service Medal and the NATO Medal.

Mr Miller holds a Bachelor of Science degree in meteorology from The Pennsylvania State University and a Master of Science degree in meteorology from Florida State University. He has a beautiful wife and four fantastic children.

### **Michael Murphy**

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

17 years operational meteorology experience in both private sector and National Weather Service. Currently the Warning Coordination Meteorologist Aviation Weather Center (National Weather Service), Kansas City, MO. I have worked at the Aviation Weather Center for nearly 6 years, and am certified to issue all domestic aviation products. I have over 15 years experience issuing various NWS aviation weather products. As the Warning Coordination Meteorologist I am essentially the Quality Assurance Manager for AWC, as well as the main liaison between the AWC and all our domestic and international customers, partners and user group representatives.

### **Jerry Ostronic**

*Federal Aviation Administration (FAA)*

#### **Current Assignment:**

Federal Aviation Administration  
Flight Standards Service  
Air Transportation Division  
FAA Headquarters Washington DC

#### **Focal Point:**

Contaminated Runway Performance  
(Designated Government Official,  
Takeoff and Landing Performance Assessment  
Rulemaking Project, and TALPA ARC)  
Aircraft In-flight and Ground Icing/De-icing  
Airbus A380 Operational Implementation  
Boeing B747-8 Operational Implementation

#### **Former Positions:**

Captain and Instructor Pilot for major  
US Air Carrier, Large Turbojet Operations  
Founder: Aviation Consulting and Management Services Inc.  
Air Traffic Controller Center, Tower and Approach Control

**Certificates/ Ratings:**

Airline Transport Pilot

Type ratings: Airbus A380, B737, DC-9, LR-Jet, IA-Jet, HS-125, BA-3100, EMB-120

Flight Engineer, Turbojet (B727)

Flight Instructor

Control Tower Operator

**Flight Experience:**

Approximately 18,000 hrs.

**Education:**

BA Shepherds College, Shepherdstown WV

**David Pace**

*Federal Aviation Administration (FAA)*

David Pace is a meteorologist employed by the FAA in the Policy and Requirements Team of the Aviation Weather Office. His principal responsibilities are concerned with weather in the Next Generation Air Transportation System (NextGen) and in particular the integration of weather into Air Traffic Management decisions. Other duties include interfacing with weather efforts in the European Organization for the Safety of Air Navigation (aka EUROCONTROL), membership on the Joint Planning and Development Office Weather Working Group Executive Panel, and Chairmanship of the American Meteorological Society Committee on Aviation, Range, and Aerospace Meteorology. He is the FAA representative to the DOD Joint Meteorology and Oceanography Board Steering Committee and to the Office of the Federal Coordinator for Meteorological Services and Supporting Research Joint Action Group for XML and Web Services. He has also represented the FAA at meetings of committees of the World Meteorological Organization and the International Civil Aviation Organization. Prior to joining the FAA as an employee, Mr. Pace spent 15 years as a contractor supporting FAA weather programs. Most of that time, his work was with the FAA Aviation Weather Research Program, supporting the management of weather research at various national laboratories. He is also a retired US Air Force weather officer.

**Leo Prusak**

*Federal Aviation Administration (FAA)*

Leo Prusak: Started with the Federal Aviation Administration in 1982 at Kennedy Tower as an air traffic controller. In 1986 transferred to the New York TRACON where he worked in two sectors and the traffic management unit. Subsequently Mr. Prusak has worked at FAA Eastern Regional Office as a staff specialist and Branch Manager. In field operations work he has been the Air Traffic Manager of Teterboro, Newark, and LaGuardia Towers. Currently Mr. Prusak is the Air Traffic Manager of LaGuardia Tower and the District Manager for the New York/New Jersey/Connecticut metro area which includes LGA, JFK, EWR, and 22 other air traffic facilities. He has spent several years assisting in research and development work related to weather system integration and software with ITWS, CIWS, RAPT, and other air traffic management tools. Most recently, Mr. Prusak was a

Keynote Speaker at the International Conference on Air Transportation Research and class speaker - graduate of the Federal Executive Institute.

### **Warren Qualley**

*Harris Corporation*

Warren Qualley works as the Senior Weather Engineer for Harris Corporation's Mission Critical Networks Group. He has over 30 years of aviation meteorology experience, having previously worked as the Director of Aviation Services for Weathernews Americas from 2003 until 2007 and as Manager of Weather Services for American Airlines from 1991 until 2003. He is involved in the NextGen initiative, serving on the JPDO's Weather Working Group's Executive Committee, Policy Team and Integration Team. Qualley chairs the International Air Transport Association's Meteorological Task Force, is a member of the AMS' Commission on the Weather and Climate Enterprise's Steering Committee and the NOAA Science Advisory Board's Environmental Information Services Working Group. Qualley has been an invited speaker at many conferences and has spoken to numerous college classes and community organizations. Qualley works and lives in the Washington, D.C., area.

### **Roy Rasmussen**

*National Center for Atmospheric Research (NCAR)*

*Research Applications Laboratory (RAL)*

Roy Rasmussen received a Masters and PhD from the University of California, Los Angeles in Atmospheric Sciences in 1980 and 1982, respectively, specializing in cloud physics. He is now at the National Center for Atmospheric Research (NCAR), where he is currently the FAA Winter Weather Research Team lead. He led the FAA funded effort to develop the Weather Support to Deicing Decision Making (WSDDM) winter weather nowcasting system that is currently being deployed commercially at a number of U.S. airports and was awarded the Government Technology Leadership award in Nov. 1999. He is currently involved with the design and development of a Liquid Water Equivalent system to provide real-time snowfall rates to support ground deicing users. He has five patents and over 40 peer reviewed journal papers. His paper on the relationship between snowfall rate and visibility won the NCAR paper of the year in December 2000.

### **Thomas Ryan**

*Federal Aviation Administration (FAA)*

Mr. Ryan presently serves the FAA as the Program Manager for the NextGen Network Enabled Weather (NNEW) Program. This program is one of five transitional programs designed to prepare the FAA to accrue significant benefits from NextGen. Before working on NNEW Mr. Ryan worked in the FAA's Technology Development Office on Surface Safety initiatives. Among other projects he lead the development of the business case for Runway Status Lights (RWSL) a runway occupancy warning system.

Tom has over 25 years of progressively responsible program management, technical, and leadership experience from local government, military, commercial and federal government perspectives. He joined the FAA in 1996 in the Corporate Information Technology Office where he wrote the first versions of the FAA's email and internet policies. Later he participated in selecting and implementing the FAA's email system, managing the agency's access to the internet, and several other wide-reaching FAA IT programs. Just before joining the Surface Systems Team Tom was detailed to repair, refurbish, and repopulate the FAA's Wilbur Wright Federal Office Building in Washington DC.

Mr. Ryan has a Bachelor of Science Degree in Mathematics from Frostburg State University. He is a former U.S. Air Force officer and teacher. He resides in Derwood, MD with his wife and children.

### **John Schwoyer**

*Airline Dispatcher Federation (ADF)*

I am the office of Executive Vice President for the Airline Dispatchers Federation (ADF). This all-volunteer group represents the professional interest of Aircraft Dispatchers throughout North America and the world.

I have been dispatching 23 years both Corporate to Commercial Airlines; Domestic and International Operations currently working for AMR Corporation, American & American Eagle. (I'm currently at American Eagle on furlough from American Airlines from Sep 11th.)

I am active in the current Next Gen activities: RTCA Next Gen Task Force 5, JPDO Aircraft/Avionics Working Group, JPDO Trajectory Based Operations (TBO) Tiger Team, and work with RTCA Trajectory Operations (TOPs) team, SWIM / CATM teams.

Specific Work history:

AMR Corporation, American / American Eagle Airlines Commercial 121 Domestic and International Operation; North America/Central America/South America/ Caribbean Operations and Civil Reserve Air Fleet (CRAF) Operations [after 911] for American.

Commercial 121 Aviation Safety Action Program (ASAP) industry liaisons and dispatcher for American Eagle Dispatch work group.

Corporate 91 Domestic and International Operations for SONY Corporation, Mobil Oil, MBNA, GTE / Verizon with all large fleet operations some with multiple bases world wide. Corporate 91 Aircraft Manufacture Demonstration Flights Domestic and International Operations as well as Domestic Test Flight Operations for Gulfstream Aerospace.

Corporate 91F Fractional Ownership Domestic and International Operations for Bombardier FlexJet.

Commercial 135 Schedule and On-demand Domestic North American Operations for Wings Airways / Pennsylvania Airways.

**Joe Sherry***ITT*

Joe has a Bachelor of Arts degree in Economics from the University of Massachusetts, a Bachelor of Science degree in Meteorology from Florida State University, and a Master of Science degree in Atmospheric Sciences from the Georgia Institute of Technology. He has thirty years of system engineering experience, and for the past 18 years he has provided the FAA with engineering and research support for Air Traffic Management (ATM)/weather integration. In 2003, Joe was granted a US Patent for his research involving Traffic Flow Management (TFM)/weather integration. Joe's main focus over the past decade has been planning to enable the assimilation of weather information into aviation decision making. Joe has been a key contributing author of JPDO weather-related planning documents and materials and has made significant contributions to the ATM/Weather Integration Plan. Joe currently works for ITT and is supporting the FAA's NextGen Network Enabled Weather (NNEW) program.

**Sue Spincic***Federal Aviation Administration (FAA)**Air Traffic Organization, Flight Services Safety and Operations Group*

Sue Spincic has over 39 years experience in the use, instruction, interpretation and observation of aviation weather. She currently works for the FAA's Systems Operations Service Unit, Flight Services Safety and Operations Group as an air traffic control specialist specializing in requirements. Her FAA experience includes 19 years in the Flight Service operations, and she was certified as a weather observer and pilot weather briefer. She is an active pilot and aircraft owner with over 4,000 flight hours, and holds the following certifications and ratings: Commercial pilot, airplane single- and multi-engine land, instrument airplane, flight instructor, and instrument flight instructor.

**Matthias Steiner***National Center for Atmospheric Research (NCAR)**Research Applications Laboratory (RAL)*

Dr. Matthias Steiner is the Deputy Director for the Hydrometeorological Applications Program (HAP) of the National Center for Atmospheric Research (NCAR) Research Applications Laboratory (RAL). He heads the storm prediction group and also holds a ladder-track scientist appointment at NCAR. Dr. Steiner's professional interests reach across hydrometeorology, cloud and precipitation physics, mountain meteorology, radar and satellite meteorology, and most recently aviation weather. He is a member of the AMS Committee on Aviation, Range, and Aerospace Meteorology (ARAM), a Fellow of the Royal Meteorological Society, and was the recipient of the 2002 Editor's Award for the AMS *Journal of Hydrometeorology*.

**Jim Stobie***ENSCO, Inc*

Dr. Jim Stobie is the director of aviation weather programs for ENSCO, Inc. ENSCO's aviation weather activities include both operations and research. For example, ENSCO is the weather service provider for United Airlines. ENSCO is also part of Raytheon's advanced weather interactive processing system (AWIPS) development team. A team of ENSCO scientists provide technical transition support to NASA at the Kennedy Space Center.

Dr. Stobie has over 35 years experience in aviation weather with particular interests in radar meteorology, mesoscale meteorology, numerical weather prediction, and atmospheric data assimilation. Prior to joining ENSCO, Dr Stobie spent 14 years as an engineer/atmospheric scientist with SAIC. From 2000 to 2007, he provided contractor support to the FAA's Weather and Radar Processor (WARP) program office. WARP provides a full range of weather data for the FAA's Air Route Traffic Control Centers (ARTCC). This includes NEXRAD mosaics for the controller's displays and a meteorologist workstation for the Center Weather Service Unit (CWSU). Prior to supporting the FAA, he was deputy head of NASA's Data Assimilation Office at Goddard Space Flight Center. Prior to that, Dr. Stobie served twenty-two years in the Air Force, retiring in 1993. While in the Air Force he held a wide variety of weather officer jobs ranging from detachment weather forecaster to scientific lead for the Air Forces global weather forecast models.

Dr. Stobie has a Ph.D. in Atmospheric Science from Georgia Institute of Technology, an M.S. in Atmospheric Science from Colorado State University, and a B.S. in Physics from the U.S. Air Force Academy.

**Captain Rocky Stone***United Airlines (UAL)*

Captain Rocky Stone is the Chief Technical Pilot for United Airlines. Rocky currently flies as a Boeing 777 Captain. He has previous experience at United flying the B727, B737, B757, and B767. Prior to joining United, Rocky was an experimental test pilot in the US Air Force, with pilot assignments in the F-15, T-38, A-7, and F-4. Rocky earned his B.S. degree in Aeronautical Engineering from the Massachusetts Institute of Technology and a M.S. in Systems Management from the University of Southern California. Rocky is the co-chair of RTCA SC-186, responsible for developing technical and operational standards for ADS-B. Rocky also chairs the meteorology sub-group of RTCA SC-206 on Aeronautical Information Services and Flight Information Services Data Link.

**Matthew Tucker***National Air Traffic Controllers 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 where he currently works as an Air Traffic Controller. Matt is also currently the NATCA Weather Representative, serving on the JPDO Weather Working Group and the CDM Weather Evaluation Team.

### **Bill Watts**

*Delta Air Lines*

Consultant

Managing joint FAA, NCAR, NASA and Delta team for airborne turbulence

Delta Air Lines, Atlanta, GA

Director – Flight Operations – Technical Support

Managed aircraft and other technical issues for the airline

Provided tactical and strategic plans for airspace capacity

Managed security functions for aircraft operations

Fleet Acquisition Team

Provided recommendation for 20 year fleet to senior management

MD-88/90 & B727 Program Manager

Managed technical and training issues for two aircraft fleets

### **Heidi Williams**

*Aircraft Owners and Pilots Association (AOPA)*

Heidi Williams is the Senior Director of Airspace and Modernization for the Aircraft Owners and Pilots Association “AOPA.” Having spent the past 19 years in the aviation industry, she has a strong general aviation background as both a pilot and aviation advocate. Her focus is on United States government policies affecting pilots, air traffic, airspace, and the future aviation system.

Heidi started her career at AOPA in Aviation Services in April 1999. In January of 2000, she was promoted to Government & Technical Affairs, Airport Support Network Department and in 2002 became the Associate Director in the Air Traffic Services Department. She has since served as the Manager of the Air Traffic, Regulatory and Certification Policy Department and was named Director of Air Traffic Services in October of 2005. In 2007 she was named Senior Director for Airports and July 2009 named Senior Director for Airspace and Modernization.

In her current position, Heidi handles a host of issues on behalf of general aviation including the formation of airspace and air traffic policies, special use airspace and



regulatory changes to existing airspace. She also manages aeronautical charting and aviation weather initiatives for the Association.

A graduate of Embry-Riddle Aeronautical University, Heidi holds a BS in Aeronautical Science and is a commercial instrument rated pilot and Certified Flight Instructor. Ms. Williams represents AOPA before membership, industry and government agencies. She resides in Hagerstown, Maryland.