

National Business Aviation Administration (NBAA)  
16<sup>th</sup> Annual “Friends/Partners in Aviation Weather” Forum (FPAW)

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**Steve Ableman***Federal Aviation Administration (FAA)*

Steve Ableman manages the Aviation Weather Research Team within the FAA's Aviation Weather Group. 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 multi-agency 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) efforts to populate the 4-D Weather Data Cube. 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.

**Ulf Ahlstrom***Federal Aviation Administration (FAA)*

Ulf Ahlstrom is an Engineering Research Psychologist with the Federal Aviation Administration, WJHTC Human Factors Branch. He received his Ph.D. in psychology from Uppsala University, Sweden, in 1994. Ulf has been supporting the FAA since 1997, first as a contractor, then as a federal employee, following a two-year post-doctoral research fellowship at the Vanderbilt University Vision Research Center. His current research interests are in broad areas of air traffic control user interface design, operator workload, and weather information displays.

**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 since 1994 an operational 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 has been a member of the Air Transport Association Meteorology Work Group since 1988, 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, severe weather, and energy forecasting, including the Rapid Refresh (RAP - RUC-replacement implemented at NOAA/NCEP in May 2012)), and the 3km storm-resolving High-Resolution Rapid Refresh (HRRR – <http://ruc.noaa.gov/hrrr> ). Stan is chief of the Assimilation and Modeling Branch in the NOAA Earth System Research Lab (ESRL) Global System Division. Stan and key colleagues guide the work of several other scientists on the development and testing of RAP/HRRR (and previously, RUC), 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>) 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.

**Mark Bradley**

*Delta Air Lines*

Captain Mark Bradley currently serves as Chief Technical Pilot for Delta Air Lines. As Chief Technical Pilot, his duties entail developing and executing equipage projects within Delta. In that role, future airspace initiatives play a significant role. Captain Bradley's responsibilities also include implementation of NextGen related procedures, such as RNAV, RNAV RNP AR, airspace redesign issues, and all facets of NextGen advancement. Internally, he coordinates across all divisions within Delta to help develop a corporate strategy for NextGen.

Captain Bradley currently serves as the Chairman of the Airline Operations Committee at Airlines for America.

Previously, Captain Bradley served as co-Chairman of the RTCA ADS-B Workgroup.

While at Delta, Captain Bradley held various positions within Flight Operations, to include Senior Flight Instructor for the B757, B767, and B777 aircraft. During that time, he was an FAA Aircrew Program Designee. Captain Bradley holds FAA ratings on the B757, B767, B777, DC-9 and L-188

Prior to working for Delta, Captain Bradley served 12 years as a Naval Aviator flying the Lockheed P-3C Orion. He is a 1981 graduate of the U.S. Naval Academy, with a BS in Resources Management and Technology.

**Captain Joe Burns**  
*United Airlines (UAL)*

Captain Joseph D. Burns is the Managing Director of Technology and Flight Test at United Airlines. At United, he previously held positions as Managing Director – Flight Standards, FAA Certificate Director of Operations, Director – Flight Standards, Director – Technology, Chief Pilot – FFDO Program, Manager – Automation Systems, Pilot Instructor on both the A320/319 and B-727 fleets, served as ALPA LEC Safety Chairman, and has flown A-320/319, B-737, and B-727 in line operations for UA. He is currently flying Captain on the B-767/757 and A319/320. He is type-rated in B767, B757, A320, A319, B-727, DHC-8, BE-1900 and BE300 aircraft.

Previous to United, Joe was the Director of Operations and Chief Pilot for USAir Express/Stateswest Airlines, a BAE-146 Pilot for USAir, B-727 Instructor and Pilot for Braniff Airlines, and Metroliner Pilot for Air Midwest.

He is currently a member of the FAA's NextGen Advisory Council Subcommittee (NACSC); on the Executive Advisory Board for Position, Navigation, and Time (GPS); an Advisory Board Member for the National Center for Atmospheric Research (NCAR/UCAR); Board Member for Aspen Avionics, Former Board Member for EMS Technologies, Inc., Board Member for Optical Detection Systems, Inc., Board Member and is the Chairman of the Board of ATN Systems, Inc., Chairman of the Board for Agile Defense LLC., and Board Member for Sensurion LLC, and former Board Member for AirDat LLC. Additionally he is Chairman Emeritus for the ATA Air Traffic Control Council, Chairman Emeritus of the ATA Airline Operations Committee, former Vice-Chairman of the Airborne Internet Consortium, and former Board Member of the FAA's Free Flight Steering Committee.

His engineering experience includes President of Inertia Technology, developing AWOS and Flight Sensor Systems, Chief Pilot and systems engineer for Coffeen, Fricke, and Associates (Lenexa, KS), Chief Systems Engineer for Ericsson, Inc.'s Fiber Optic Network Communications Division (Overland Park, KS), and Engineering Manager for Sprint's Telenet/UniNet Division.

He holds an M.B.A. in Management from the Miami University School of Business and a B.S. in Aeronautics/Aeronautical Engineering from Miami University. Joe also holds multiple patents in Communications, Security, and Sensor Technology.

**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.

**Sal Catapano**

*ITT Exelis*

Mr. Catapano is a Project Manager with ITT Exelis, supporting Systems Engineering 2020 (SE2020) contracts. Currently, Mr. Catapano serves as the deputy project manager of the Federal Aviation Administration (FAA) Eddy Dissipation Rate (EDR) Standards Project. Mr. Catapano is responsible for the project management aspects of the EDR Standards Projects with the goal of developing EDR Performance Standards and data and label definitions. Mr. Catapano is a certified Project Management Professional (PMP), holds a B.S. in Aviation Management with Flight from Florida Institute of Technology, and is currently pursuing a Master of Business Administration in Aviation graduate degree from Embry Riddle Aeronautical University.

**Rick Curtis**

*Southwest Airlines*

Rick has been at Southwest Airlines for fourteen 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 2011 recipient of the American Meteorological Society award for "Outstanding Contribution to the Advance of Applied Meteorology", and a winner of the Southwest Airlines President's Award in 2005, He is a member of both the American Meteorological Society and the National Weather Association.

**Steven Darr***Dynamic Aerospace, Inc.*

Mr. Darr has experience developing and implementing advanced aviation technology in the areas of safety and capacity. He has planned, conducted, and directed research for FAA, NASA, airports, and other clients in systems analysis, operations research, concept of operations development, investment decision-making, and implementation of advanced aviation technologies, and in aircraft design, construction, and operation. Mr. Darr also has experience in systems integration and software development management. A commercial and military instrument-rated helicopter pilot with single and multiengine airplane ratings, Mr. Darr has extensive flight operations experience, including as a NASA contract test pilot. Mr. Darr retired from military service with significant command and staff experience in addition to aviation maintenance management experience.

**Thomas H. Fahey, III***Delta Air Lines*

Tom is currently employed as Manager Meteorology 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 (2000-2011).
- 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. From

2008-2011 Tom lead the effort of integrating the copyrighted Turbulence Plot (TP) System into the merged Delta organization. From 2000-2011 Tom expanded the scope of weather services to include contracts with other airlines. In 2012 Tom lead the effort of refocusing Delta's meteorology resources on Delta operations and the termination of external revenue contracts.

### **Aviation Industry Recognition and Recent Activities**

- Feb 2001, Aviation Week & Space Technology's Aviation Laurels Award Recipient for role in development of Collaborative Convective Forecast Product (CCFP).
- 2007, Chair, Air Transport Association, Aviation Industry Weather Work Group
- 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
- 2010-12 IATA Representative on the ICAO Int'l Volcanic Ash Task Force (IVATF)
- 2000-Present, Bulletin American Meteorological Society, Editor, Operational Forecasting/Services.

### **Bryce L. Ford** *SpectraSensors, Inc.*

Bryce Ford is the Vice President of Atmospheric Programs at SpectraSensors Inc., developers of the Water Vapor Sensing System, WVSS-II. Bryce brings over 28 years of experience in the global Weather community serving in various roles including Program Management, Business Development, Functional Management, Systems Engineering and Software Engineering.

Prior to SpectraSensors, Bryce served at Lockheed Martin for 10 years as a Sr. Business Development Manager and Engineering Project Manager for Meteorological and Hydrological programs in domestic and international markets. Prior to this he served at Harris Corporation for 16 years in various roles supporting weather information systems and weather data services for the FAA, Defense, and Commercial customers.

Bryce is a Council Member of the association of the HydroMeteorological Equipment Industry, HMEI. He represents HMEI on the World Meteorological Organization Commission for Basic Systems Expert Team on Aircraft Based Observations, WMO CBS ET-ABO which oversees the WMO AMDAR program. Bryce has served on the Board of Directors for an international Joint Venture company in Beijing China and in 2008 he was invited by the U.S. NWS to support the U.S. Government Delegation to the 60<sup>th</sup> WMO Executive Council. Bryce began his career in 1978 at the Boeing Company in Wichita KS, after graduating from Eastern Illinois University with a B.S. in Physics.



**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.

**Ronald Guy**  
*Unisys Corporation*

Ronald Guy is director of the Unisys Weather Information Services (UWIS), which provides weather data, products, and engineering services to federal agencies and commercial businesses for mission critical operations. Ron is responsible operating the Unisys weather data hub facilities, providing the weather domain leadership for Unisys to develop solutions to operations sensitive to weather, for delivering weather application hardware and software for enabling operations to meet mission, and to follow and identify the emerging

technology and information systems that will support the trends and needs of the Weather Enterprise. Major customers of Unisys Weather include the FAA, NOAA, and commercial airline operations.

Ron joined Unisys in 1984 for the NEXRAD program when he started as a meteorological programmer to implement the weather algorithms in NEXRAD, and later became the software development supervisor for the Radar Product Generation (RPG) Functional Area of the NEXRAD system that was delivered to the National Weather Service in the early 1990's. After the delivery of the NEXRAD system, Ron joined a team to start the commercial operations of Unisys Weather Information Services (UWIS) in 1992 when the NWS awarded the NEXRAD Information Dissemination Service (NIDS) to Unisys. In 1999, he took leadership of UWIS where he continues to work in delivering services related to weather information and systems as well as participates in the Weather Enterprise community.

Prior to Unisys, Ron worked at Raytheon Engineers & Constructors serving as air pollution meteorologist in the Environmental Sciences Department. The work included assessment of environmental impacts of fossil fuel and nuclear electric power generation facilities related to construction licensing with the Environmental Protection Agency and the Nuclear Regulatory Commission.

Ron is active in the weather community with participation in the annual American Meteorological Society (AMS) Meetings, NWS Partnership Meetings and Family of Services meetings for over a decade. He has made presentations at the NWS Partnership Meetings. He regularly participates in the AMS Public, Private, Partnership (PPP) Meetings. He is on the board of directors of the trade organization American Weather and Climate Industry Association (AWCIA). He is a member of the American Meteorological Society.

Ron holds a bachelors degree in physics from Thiel College and a masters of science degree in physics (atmospheric science curriculum) from Drexel University.

**Cheri Haynes**  
*XCELAR*

Cheri Haynes is a Director at XCELAR, a Minneapolis based aviation consulting and technology company. She brings 21 years of aviation management experience to her position, primarily in products and services that bridge the gap between State and Federal programs, such as AWOS/ASOS networks and aviation weather and flight planning systems. Currently Mrs. Haynes is working with the FAA's Safety Office on programs such as Advanced Qualification Program and Safety Management Systems, developing programs and data management systems for small air carriers and airport management. She also oversees XCELAR's programs with the FAA and NASA, including Weather Technology in the Cockpit (WTIC) and Technology Candidates for Air-To-Air and Air-To-Ground Data Exchange.

**Brian Hughes**  
*Unisys Corporation*

Brian Hughes works as the Weather Program Manager for Unisys Corporation, Federal Systems in Reston, VA. He currently manages Unisys Weather operations and assists in the management of Federal and commercial business within the Commerce, Transportation, Energy, and NASA cluster. Brian is a meteorologist originally serving in operations within the Satellite Analysis Branch of NOAA's Satellite and Information Service, including the Washington Volcanic Ash Advisory Center (VAAC). From there, Brian served as Operations Manager for the Satellite Environmental Processing System and User Services Manager for the Satellite Products and Services Division. Brian worked on GOES-R technical requirements and the Ground System Project before moving to Unisys in 2011. Brian is a member of the AMS and a graduate of the Department of Commerce Science and Technology Fellowship Program (ComSci).

**Richard Heuwinkel**  
*Federal Aviation Administration (FAA)*

Rick Heuwinkel is the Acting Manager of the Aviation Weather Division in the Federal Aviation Administration's (FAA) NextGen Office. In this role, he manages the four branches within the Aviation Weather Division that are collectively responsible for planning and developing the weather capabilities necessary to support implementation of the Next Generation Air Transportation System (NextGen). This includes overseeing the FAA's Aviation Weather Research Program (AWRP), the Weather Technology in the Cockpit (WTIC) program, Reduce Weather Impact program, and NextGen Surveillance and Weather Radar Capability (NSWRC) program, as well as developing aviation weather policy and harmonizing NextGen weather standards with the International Civil Aviation Organization (ICAO) and the Single European Sky ATM Research (SESAR) Joint Undertaking.

In this current position, Mr. Heuwinkel facilitates cross-agency collaboration to eliminate redundancies in aviation weather projects, supports the integration of weather information into decision support tools, and focuses aviation weather research initiatives to meet NextGen requirements and operational improvements. He works cooperatively with other FAA lines of business, including the Air Traffic Organization and Aviation Safety, the National Weather Service, and various other government agencies to achieve NextGen goals.

Mr. Heuwinkel has spent the past 23 years with the FAA working on aviation weather programs. Prior to joining the FAA, he spent 10 years in policy and program planning at the National Oceanic and Atmospheric Administration (NOAA). Mr. Heuwinkel received a Masters degree in Political Science and Economics from Iowa State University and an MBA from Stanford University. He served in the U.S. Army and holds a private pilot's certificate with an instrument rating.

**Mark Huberdeau**  
*MITRE Corporation*

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.

**Geri Jarrett**  
*JetBlue Airways*

Geri Jarrett is the Manager, Inflight Safety for JetBlue Airways and joined the organization in 2011. She brings more than 20 years of aviation experience to her position which includes flight attendant experience as well as a strong safety background. Geri has held qualifications as a flight attendant on the Airbus 319/320, Boeing 737, 757, 767, 777, 747, Saab 340, Shorts 369 and Convair 580 aircraft. In addition, prior to her position at JetBlue Airways Geri worked as Sr. Staff Auditor, in the Safety Department at United with a primary focus on Inflight Safety policy and procedures.

**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. Mr. Johnston is the Contract Officer Technical Representative for the Center Weather Service Unit Operation that provides weather information at each of the FAA's twenty-one Air Route Traffic Control Centers and is also the FAA lead for the Collaborative Decision Making Weather Evaluation Team with the Aviation Industry. 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.

### **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. 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.

### **John Lanicci**

*Embry-Riddle Aeronautical University (ERAU)*

John Lanicci is a Professor of Applied Meteorology and the Coordinator for the M.S. in Aeronautics program at Embry-Riddle Aeronautical University in Daytona Beach, Florida. He joined the Embry-Riddle faculty in 2006 after completing a 27-year career in the U.S. Air Force. Among his military assignments were two staff tours at the Pentagon; two tours as a weather forecaster and chief of model development at A.F. Global Weather Central (now the A.F. Weather Agency), Offutt AFB, Nebraska; an assignment as a research scientist and project manager at the A.F. Research Laboratory at Hanscom AFB, Massachusetts; and three command assignments, the last of which was as Commander of the Air Force Weather Agency. Dr. Lanicci received a B.S. degree (summa cum laude) in physics from Manhattan College, Bronx, New York, in 1979; a B.S. degree (with highest distinction) in meteorology from The Pennsylvania State University in 1980, and M.S. and Ph.D. degrees in Meteorology from Penn State in 1984 and 1991 through Air Force Institute of Technology sponsorship. In addition to his USAF command and staff experience, Dr. Lanicci spent three years on the faculty at Air War College, Maxwell AFB, Alabama, where he was also the college's Chief Information Officer, and six years as an adjunct assistant professor with Embry-Riddle's Worldwide campus program. Dr. Lanicci has taught undergraduate and graduate courses in synoptic and mesoscale meteorology, weather analysis and forecasting, aviation meteorology, and environmental security. His research interests

include the integration of weather information into aviation decision-making, central Florida severe-storms, and the effects of climate change on national and international security. Dr. Lanicci is Chair of the American Meteorological Society's Committee on Environmental Security, part of the AMS Commission on the Weather and Climate Enterprise. He also is a member of the AMS Board on Higher Education, which is part of the AMS Commission on Education and Human Resources. Since 2008 he has been the national co-chair of the annual AMS Student Conference.

### **Tom Lloyd**

*JetBlue Airways Corporation*

Tom Lloyd is Manager, Meteorology & Route Optimization at JetBlue Airways and the Industry Co-Lead for the CDM Weather Evaluation Team. Tom's responsibilities at JetBlue include oversight of weather products, policy and procedure, supervision of the Air Traffic Coordination desk, and working with the FAA on en route and terminal air traffic matters.

Prior to joining JetBlue in 2007, Tom was head of System Operations Control for Skyway Airlines/Midwest Connect, and previously a Flight Dispatcher. Tom studied Meteorology at St. Cloud State University.

### **Jennifer Mahoney**

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

Jennifer Mahoney is the Chief of the Forecast Impact and Quality Assessment Section (FIQAS) at NOAA's Earth System Research Laboratory in Boulder, CO. The goals for FIQAS are to advance the understanding and use of weather information through impact-based assessments and targeted information delivery to benefit decision making in response to high impact weather events. Jennifer leads an interdisciplinary team of meteorologists, mathematicians, and engineers to perform detail assessments of aviation forecast quality to support the transition of weather products to NWS operations. Her team develops automated verification tools that provide translated weather information and forecast skill to both weather forecasters and Aviation Traffic Flow Planners. Jennifer services on several aviation committees and is a member of the American Meteorological Society. Outside of her professional career, she serves as the President of the Rocky Mountain Figure Skating Club. Jennifer received her B.A. degree in Earth Sciences from the University of Northern Colorado and her M.S. degree in Atmospheric Sciences from Colorado State University.

### **Melissa McCaffrey**

*Aircraft Owners and Pilots Association (AOPA)*

Melissa McCaffrey works in the Government Affairs department at Aircraft Owners and Pilots Association (AOPA) as a Senior Government Analyst, Air Traffic. McCaffrey is responsible for assisting in the development of policies related to airspace, air traffic procedures and related regulations. She also manages policies related to aeronautical

charting, aviation weather services, aeronautical information services and represents AOPA before membership, industry and government agencies. McCaffrey is a graduate of Embry Riddle Aeronautical University with a B.S. in Air Traffic Management; she has held a Private Pilot license since 2002 and is currently attaining an instrument rating.

### **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.

**Michael McPartland***MIT Lincoln Laboratory*

Dr. Michael McPartland is a staff member of the Weather Sensing Group at MIT Lincoln Laboratory, focusing on ATC operations and optimizations. He leads the group's NAS data interfaces team, manages the Immersive ATC Tower Facility and is an expert in modeling and simulation. Prior to joining Lincoln Laboratory in 2010, he was at Avidyne for six years where he was the project lead on that company's primary flight display as well as a lead software engineer on its integrated flight display system. Michael is an insistent proponent of human-factors research and design in aviation display systems, i.e., "It's the interface stupid." Michael has held academic appointments at Harvard Medical School and George Washington University and has held industry positions at Textron Systems and Metron Scientific amongst others. He is a private pilot and holds a bachelor's, masters and doctorate in aerospace engineering from the University of Buffalo.

**Mark B. Miller**

*National Oceanic and Atmospheric Administration (NOAA)  
National Weather Service (NWS)  
Office of Science and Technology*

Mark Miller is the Program Manager for both the NOAA NextGen Weather Program and the NWS Integrated Dissemination Program (IDP). As the PM for the NextGen Weather Program, 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) initiative. As the IPD Program Manager, he is responsible for implementing enterprise dissemination capabilities for the NWS. 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 weather staff 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.

**Cecilia Miner**

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

In the National Weather Service Aviation Services Branch, Cecilia Miner works aviation weather issues in coordination with the World Meteorological Organization (WMO), the Federal Aviation Administration (FAA), and the International Civil Aviation Organization (ICAO). As a member of a WMO expert team on improved weather services for terminal areas, she collaborates with meteorologists from around the world on possible solutions



to the limitations of the Terminal Aerodrome Forecast. She is also the NWS volcanic ash program manager and coordinates with Volcanic Ash Advisory Centers in the U.S. and with FAA, the Office of the Federal Coordinator for Meteorology, the U.S. Geological Survey, and ICAO on global volcanic ash issues concerning products, services, and collaboration. In addition, Cecilia participates in the NWS NextGen program and represents NWS on several FAA research and requirements teams.

**Alfred Moosakhanian**

*Federal Aviation Administration (FAA)*

Alfred is currently the Aviation Weather Services Dissemination Manager in the Program Management Organization (PMO). He is a PMP and FAA Senior Level Certified Program Manager that currently manages the Next Generation Air Transportation System (NextGen) Common Support Services - Weather (CSS-Wx), Weather and Radar Processor (WARP), and more.

Previously, he served as the En-route Weather programs manager that included FIS Data Link (FISDL), Corridor Integrated Weather System (CIWS), and WARP. He has 30 years of engineering and management experience in the Industry and FAA working on numerous programs involving advanced Communications, Weather, and Automation technologies, from concepts to full scale development and system operation. Alfred has MS in Electrical Engineering, MS in Engineering Management, and BS in Electrical Engineering.

**Craig Peterson**

*Rockwell Collins*

Craig is Director of Commercial Avionics and Flight Control Marketing at Rockwell Collins. Craig Peterson has worked in numerous domains during his career of 23 years in aviation. During his 12 years with Rockwell Collins, Craig has had tenures in Systems Engineering, Product Marketing, Strategy Development, and Radar and Navigation Program Management. Prior to joining Rockwell Collins, Craig worked for almost 10 years at The Boeing Company in Seattle WA where he was a Flight Operations Engineer working on Air Transport Aircraft development programs. Craig is an instrument rated pilot who enjoys photography, biking, and camping with his wife and three children. He has a Bachelor of Science degree from Purdue University in Aerospace Engineering and a Masters in Business Administration from The University of Iowa.

**Gary Pokodner**

*Federal Aviation Administration (FAA)*

Since graduating from Lehigh University as an electrical engineer, Gary Pokodner has worked in design, reliability, development, test, and acquisition of avionics. Gary came to the FAA in January 2011 after working for ARINC for 25 years on military avionics acquisition programs. Gary is the FAA's Weather Technology in the Cockpit (WTIC) Program Manager. In this role, Gary has been working to identify new research efforts

related to bringing weather information into the cockpit to address near term needs and to enable various mid and far term NextGen concepts.

**Nathan Polderman**  
*United Airlines (UAL)*

Nathan is the Sr. Manager of Training in the Network Operations Center at United Airlines where he oversees the Dispatcher training and Enhanced Weather Information Systems (EWINS) programs. Nathan began his airline career in 2005 as a Dispatcher for Pinnacle Airlines and joined Continental Airlines in 2007 where he worked as an Aircraft Dispatcher, Chief Dispatcher, and Dispatch Training Instructor. Since assuming oversight of the EWINS Program at Continental Airlines in 2008, he has worked to expand and modernize the weather training for Dispatchers. Nathan holds an M.S. degree in Atmospheric Science from Indiana University and a B.A. in Geography from Calvin College. Prior to entering aviation, he spent two years teaching Weather & Climate to college undergraduate students as a Lecturer at Indiana University-Purdue University in Indianapolis.

**Warren Qualley**  
*Harris Corporation*

Warren Qualley works as the Senior Weather Expert for Harris Corporation's Mission Critical Networks group. He has 30+ years of aviation meteorology experience, having worked the majority of his career in the American Airlines System Operations Control department. His role as Manager of Weather Services at AA has led Qualley to his current leadership roles in numerous areas of aviation weather: chair of the International Air Transport Association's (IATA) Meteorological Task Force since 1999; liaison to the Aviation Weather Center on the UCAR Community Advisory Committee for NCEP (UCACN); member of the FAA's Collaborative Decision Making Weather Evaluation Team; member of the JPDO's Weather Team; and member of NOAA's Science Advisory Board's Environmental Information Services Working Group. Qualley has served on numerous other industry, government and academic groups and has been an invited speaker at many national and international conferences and at numerous college classes and community organizations. Qualley lives and works in the Washington, D.C., area.

**Mike Robinson**  
*AvMet Applications*

Mike Robinson is the Manager for Weather Integration Research and Development at AvMet Applications. He joined AvMet in 2010. Prior to that Mike was a Technical Staff Scientist with MIT Lincoln Laboratory. Over the past 10+ years, Mike's primary areas of research have included:

- Weather-ATM translation and integration,
- Weather-ATM functional task analysis, problem identification, and concept development,
- Weather-ATM decision support evaluation, metrics, and benefits assessments, and operational user training.

Mike has been the project lead on 11 separate weather-ATM field evaluation campaigns and has spent over 400 hours in air traffic facilities observing operations and decision-making during significant weather impact events.

Mike has a Master's Degree in Meteorology from Texas A&M University.

**Captain Jean-Michel Roy (JMR)**  
*Weather Technology in the Cockpit (WTIC)*

JMR graduated in 1979 from the French Aeronautical Engineering School ENSICA. After serving two years in the Brazilian Flight Test Center, he joined Airbus in 1981 as an engineer at the Flight Test Division.

In 1983, he moved within Aerospatiale to the ATR program to lead the Flight Operations Engineering department. ATPL and flight instructor, he became head of training for ATR.

Later on with the creation of Al( R ), he became vice president training & flight operations of this regional aircraft manufacturer.

The opening of Airbus Training center in China was an opportunity to return to the Airbus family as its chief training pilot.

He graduated as a test pilot by the French Test Pilot School in 2000 and was affected to Hamburg for the acceptance of Airbus A319 and 321 before taking the lead of Airbus Training & Flight Operations.

He returned to the Engineering division in 2007 to support Sales and Marketing for Flight Operations matters.

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

Jun Ryuzaki is now working with the Aviation Services Branch of NOAA/NWS as a visiting researcher from the Japan Meteorological Agency (JMA). In Japan, a project named "CARATS" - Collaborative Actions for Renovation of Air Transportation System - has been launched by the Japanese Civil Aviation Bureau (JCAB) which looks at establishment of future air transportation systems, just as the other preceding projects, such as the NextGen in the U.S. and the SESAR in Europe, do. Now he works as a member of the CARATS' Meteorology Working Group and in October 2012, he came to join the NOAA/NWS to study their progress and future plans in the NextGen, in order to enhance development of future meteorological services in the CARATS in harmonization with the NextGen Weather.

After spending 4 years in the Office of Aviation Weather Forecast in the JMA, he moved to his current position, a Senior Scientific Officer of Aeronautical Meteorology Division in the JMA. In the most recent 3 years, he has been in charge of international affairs regarding aeronautical meteorological services, actively participating international conferences and

meetings. He still continues his work as a member of the ICAO Meteorological Warnings Study Group (METWSG) and Aerodrome Meteorological Observation and Forecast Study Group (AMOFSG), in addition to the World Meteorological Organization (WMO) Commission of Aeronautical Meteorology (CAeM) Expert Team on Meteorological Services for Terminal Area and Meteorological Information Exchange (ET-M&M).

**Robert Sharman**

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

Dr. Robert Sharman has been a project scientist at the Research Applications Laboratory (RAL), National Center for Atmospheric Research (NCAR) in Boulder, CO since 1996. Since coming to NCAR/RAL, he has been heavily involved in aviation turbulence research programs, and is currently the lead for the FAA's Aviation Weather Research Program (AWRP) Turbulence Product Development Team. This team is responsible for developing an automated turbulence prediction system (Graphical Turbulence Guidance, GTG) that is operational through NOAA's ADDS (Aviation Digital Data Service) website. He also leads a team working on free atmosphere turbulence characterization, concentrating on using high resolution fluid dynamical numerical simulations to better define the turbulence structures associated with severe turbulence encounters by aircraft.

He holds a BS and MS in Engineering and a PhD in Atmospheric Science, all from UCLA. His research interests include turbulence characterization and prediction for aviation hazard applications, and in the prediction of topographically and convectively generated gravity waves, and their breakdown into turbulence. He has over 50 publications on these subjects. For his work in characterization and airborne radar detection of turbulence he received one of the Top 50 Scientists (SA 50) Awards from *Scientific American* in 2003.

**Captain Robert P. "Rocky" Stone, Jr.**  
*United Airlines (UAL)*

Captain Rocky Stone is the Chief Technical Pilot - Surveillance 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 Special Committee-186, responsible for developing technical and operational standards for Automatic Dependent Surveillance – Broadcast (ADS-B). Rocky is a member of the "ADS-B in" Aviation Rulemaking Committee (ARC), and co-chairs the operations working group of the ARC. Rocky is also co-chair of RTCA Special Committee-206 on Aeronautical Information Services (AIS) Data Link.

**Kevin L. Stone**

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

Kevin L. Stone is a meteorologist in the Aviation Services Branch of the Office of Climate, Water and Weather Services at National Weather Service Headquarters. He joined NWS in 2011 as the lead for the Traffic Flow Management Weather Requirements Working Group, a joint effort between NWS and the Federal Aviation Administration to develop and implement solutions to meet current and emerging weather requirements in support of the FAA's management of air traffic flow in the National Airspace System. Prior to joining NWS, he served 27 years in the United States Air Force in various roles from weather observer to deputy group commander.

Mr. Stone holds a Master of Science degree in Meteorology from the Naval Postgraduate School and a Bachelor of Science degree in Meteorology from the University of Massachusetts-Lowell.

**Roger Sultan**

*Federal Aviation Administration (FAA)*

Roger M. Sultan is a FAA Aviation Safety Inspector/Operations in AFS-430, Future Technologies Branch. Mr. Sultan works at FAA HQ in Washington, DC. FAA responsibilities include NextGen Aviation Weather Policy and TCAS/NextGen Collision Avoidance Systems Policy.

Mr. Sultan holds a degree in Aeronautical Science from Embry-Riddle Aeronautical University. Prior to joining the FAA, Mr. Sultan was a pilot at United Airlines flying the B-727, B-737, and A320. Mr. Sultan also previously flew DC-9s at TWA as well as Jetstream 32s and Jetstream 41s at Trans States Airlines.

Mr. Sultan's previous general aviation experience includes flying Cessna Citation IIs in Part 135 Operations as well as flight instructing for several years.

**Matthew Taylor**

*WSI Corporation*

Matt Taylor represents WSI Corporation's federal aviation focus area and notably leads the company's offerings to the FIS-B service in the FAA ADS-B program, the ETMS program, and to the Navy and Marine Corps aviation forecasting centers. In addition to federal, he conducts business development to promote partnering for product enhancements and sales channel development. Prior to working with WSI, he was the general manager for IPS MeteoStar and a meteorologist with the US Air Force. Matt has depth of experience in meteorological system engineering and design, satellite meteorology, aviation meteorology, and business leadership. Matt has a BS in meteorology from the USAF Academy and a MS in meteorology from the Naval Postgraduate School.

**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

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