

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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**Mark Anderson**  
**AirData**

Mr. Anderson is the Founder, President, and CTO of AirDat, where he has invested the past six years developing ice detection and TAMDAR sensor technology. Mark is a physicist, with extensive experience in new product development and management. Over the years Mr. Anderson has founded several successful new technology companies, including Anderson Scientific, a major satellite TV manufacturing company, and Phase Technologies, a power conversion and conditioning company. Mark holds six technology patents, including three patents related to aircraft ice detection and atmospheric sampling. Mark is also a private pilot, and taught university physics for seven years.

**Debi Bacon**  
**Federal Aviation Administration (FAA)**

Ms. Bacon currently facilitates the Aviation Weather Technology Transfer (AWTT) process in the Policy and Standards Office, Operations Planning, Air Traffic Organization. AWTT was created to move aviation weather products through the research and development path to operational use by users such as air traffic controllers, pilots, dispatchers and meteorologists. Ms. Bacon has previously worked as an air traffic control specialist in FAA (flight service and terminal) and the U.S. Army (terminal).

Ms. Bacon has a Bachelor's degree in Business Administration from University of Maryland and a Master's in Public Affairs from Parkville College, Parkville, MO.

**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, and 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.

In 1994 he initiated the first high-rate Ascent and Descent automated reports from commercial aircraft, which now operate on over 100 757 and 767 UPS aircraft, plus on several other airlines around the world. He is now working on the implementation of the Water Vapor Sensor 2 System on 30 UPS aircraft. 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 with the MDCRS Committee and the National Weather Association Aviation Committee

***Lisa Bee***  
***Federal Aviation Administration (FAA)***

Lisa Bee, Director of the Operations Planning National Airspace System Weather Office, for the Federal Aviation Administration's Air Traffic Organization, and Deputy Lead for the JPDO Weather IPT, is responsible for ensuring that the ATO's weather strategies, align with the FAA Flight Plan, the ATO Business Plan, and the Next Generation Air Transportation System Plan, and for integrating weather strategies and activities within the ATO, and across all FAA lines of business.

Bee joined the FAA in 1986, beginning her career as an air traffic control specialist at Denver Air Route Traffic Control Center, where she also served as a traffic management coordinator. In 1992, she moved to Washington, DC, and led a team in developing air traffic procedures for NAS modernization programs. She later served as a program manager with the Office of Independent Operational Test and Evaluation (IOT&E), where she managed IOT&E programs for NAS modernization efforts such as Oceanic Data Link, the Capstone program and the Operational and Supportability Implementation System.

Most recently, Bee served as the Special Assistant for Technical Operations to the Associate Administrator for Air Traffic Services.

Ms. Bee hold's a bachelor's of science degree in technology and management from the University of Maryland.

***Kevin Browne***  
***Federal Aviation Administration (FAA)***

Mr. Browne joined the Federal Aviation Administration (FAA) in June of 1975 in Massena, New York (NY) Flight Service Station (FSS). He has attended and successfully completed both the FSS and Terminal Initial Qualification Courses at the FAA Academy in Oklahoma City, Oklahoma. In addition to Massena FSS he has worked in three FSSs and three Automated FSSs as well as an air traffic control tower. During this 19 year period he performed the duties of a specialist, air traffic controller, first and second line supervisor and facility manager. Mr. Browne was selected for a FAA Headquarters assignment and worked as a staff specialist in FSS Procedures for two years and FSS Operations for a several months. The last eight years have been spent with the Weather Organization in its various organizational entities.

Mr. Browne currently works in the Air Traffic Organization, Operations Planning, NAS Weather Office, Weather Policy, Planning and Requirements Group. His principal duties include representative to various International Civil Aviation Organization (ICAO) Regional Planning Groups and Working/Study Groups dealing with automated observations and satellite communication of weather required for international aviation. In addition, Mr. Browne has responsibilities in needs and requirements development, development of a 30 hour Terminal Forecast template to meet ICAO requirements and working with the Aviation Weather Research Program on the provision of weather to the

Traffic Flow Management Organization. He also is working on the use of probabilistic forecasts in aviation.

**Larry Burch**  
**NOAA's National Weather Services**

Larry Burch is the Deputy Director of NOAA/NWS Aviation Weather Center (AWC) in Kansas City, MO. He is active general aviation pilot and flight instructor, holding an Airline Transport Pilot (ATP) license as well as 3 flight instructor ratings. He has 29 years of government weather service, 24 with the NWS and 5 years as a weather officer in the USAF. He has served as an aviation meteorologist at the Los Angeles (Palmdale) Center Weather Service Unit (CWSU); Meteorologist In Charge (MIC) of the NWS Office in Santa Maria, CA; Western Region Headquarters' Regional Aviation Meteorologist (RAM); Western Region's Modernization Transition Manager; and Lead Forecaster at the NWS Office in Salt Lake City, UT. Before coming to the AWC he was the MIC of the Salt Lake City CWSU. He helped begin the flight operations program at Westminster College (Utah) in 2000, and then served as a part-time flight instructor and Assistant Chief Flight Instructor. He's an accomplished search and rescue pilot for USAF Auxiliary's Civil Air Patrol (CAP), CAP Instructor and Check Pilot, and former Director of Safety for CAP's Utah Wing and also Rocky Mountain Region. He volunteers as an FAA Aviation Safety Counselor, and has given over 100 aviation weather training seminars to pilot groups over the past 10 years, specializing in mountain weather. His greatest aviation forecasting accomplishment was planning the flight route, and then forecasting the weather for the Voyager World flight in 1986, as part of the Voyager Weather Team.

**Steve Caisse**  
**Airline Dispatchers Federation**

Mr. Caisse, a Flight Superintendent at the Delta Air Lines' Operations Control Center has just completed 27 years of service with the Atlanta, Georgia based airline. At Delta, Caisse has served in a variety of technical, operations, passenger service, marketing and management positions during his career.

Mr. Caisse has been a member of the Airline Dispatchers Federation for 12 years. During that period, Caisse served as ADF's Director of Information Technologies, Director of Safety, Executive Vice-President and ADF National President 1998-1999. He also created and functioned as webmaster of the popular ADF Website at [www.dispatcher.org](http://www.dispatcher.org).

**Bruce Carmichael**  
**National Center for Atmospheric Research (NCAR)**

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 30 years of experience spanning a number of activities including university teaching, commercial research, government service, consulting, and academic research. His past 18 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 seven years he has been at the National Center for Atmospheric Research, where he has acted as the Program Manager for FAA Programs. These programs are 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.

***Nancy Lauck Claussen***  
***Federal Aviation Administration (FAA)***

Nancy Lauck Claussen is an Aviation Safety Inspector with the Air Transportation Division of the Federal Aviation Administration in Washington, DC. Her work consists primarily in the development of regulations, policy and guidance regarding air carrier operations. She was part of FAA's government and industry partnership in the Commercial Aviation Safety Team (CAST), as well as the FAA Turbulence Working Group, which both contributed to the development of the advisory material in the FAA's recently published Turbulence Advisory Circular, "Preventing Injuries Caused by Turbulence".

Prior to joining the FAA nine years ago, she worked in the aviation industry for sixteen years and also completed her Master's Degree in Aeronautical Science.

***Robert J. Conyers***  
***General Aviation Services***  
***Global Aerospace – North America***

Mr. Conyers is a highly experienced aviator with over 6,400 total pilot hours. He holds an Airline Transport Pilot certificate as well as Certified Flight Instructor and Instrument Instructor ratings. He is currently Assistant Director, General Aviation Services, Global Aerospace - North America, Short Hills, New Jersey.

He is a graduate of the *Aviation Safety Management* course at the University of Southern California and of the *Accident Investigation and Human Factors in Aviation* courses at Embry Riddle Aeronautical University.

After serving eight years as a Naval Aviator in reconnaissance, training, and recruiting commands, Mr. Conyers swapped headsets for that of an air traffic controller. He worked at New York's John F. Kennedy Airport for five years. Subsequently, his management skills were expertly applied during six years as Operations Manager of one of the nation's largest flight training organizations.

At Global Aerospace, Mr. Conyers travels extensively, performing detailed operations surveys of insured organizations within the regional airline, airport, and business aviation communities. Additionally, he is an active member of two industry committees -

NBAA's Airspace and Air Traffic Committee (past Chairman) and the FAA's Air Traffic Procedures Advisory Committee (current Chairman).

**Larry B. Cornman**  
***National Center for Atmospheric Research (NCAR)***

Larry Cornman is a project scientist at the National Center for Atmospheric Research. His educational background includes undergraduate degrees in Mathematics and Physics from the University of California and a graduate degree in Physics from the University of Colorado. He started working at NCAR in 1983 in support of the FAA's Low Level Windshear Alert System (LLWAS). From 1983 to 1990, Larry was involved in the development of the Phase II and Phase III LLWAS algorithms and the Terminal Doppler Weather Radar (TDWR) algorithms. In 1989, he developed the TDWR/LLWAS Integration algorithms, for which he holds numerous U.S. and International patents. Since 1990, Larry's research focus has been on atmospheric turbulence. He has developed turbulence detection algorithms for remote sensors including ground-based and airborne Doppler radars, lidars and wind profilers, as well as developing a methodology for making in situ measurements of turbulence from commercial aircraft. He has twice been the recipient of an Aviation Week and Space Technology magazine Laurel Award, a recipient of a NASA "Turning Goals into Reality" award, and was named to the 2003 "Scientific American 50" list as Research Leader in Aerospace.

**Rick Curtis**  
***Southwest Airlines***

Rick has been at Southwest Airlines for eight years and works in the Flight Dispatch. He graduated with a B.S. in Meteorology from Lyndon State College. He concentrates on Dispatch technology initiatives, weather product development, managing weather information, weather instruction, and weather strategic planning efforts at Southwest Airlines. He earned his FAA Dispatch License in 2001. 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 - now located in Andover, MA. While at SSI, Rick led a team of meteorologists' focused on forecasting efforts relating to airport operations and highway maintenance activities. Rick is a member of both the American Meteorological Society and the National Weather Association.

**Joan Devine**  
***Federal Aviation Administration (FAA)***

Ms. Devine is currently the ATO liaison to the Joint Planning and Development Office (JPDO) Safety Integrated Product Team. She leads the safety culture improvement effort on the Safety management System team. The Safety IPT is one of eight IPTs working to develop the next generation air transportation system to meet increased demand for capacity, while creating a proactive approach to safety. She is also a Program Manager in the ATO Safety Service, which is responsible for implementing the

FAA's safety management system (SMS) for air traffic service, as well as evaluating new FAA acquisitions. Prior to the creation of the ATO, Ms. Devine led teams of controllers and maintainers to evaluate the Weather and Radar Processing (WARP) and Controller Pilot Data Link Communications (CPDLC) systems. She is currently leading the independent team evaluating the Advanced Technologies and Oceanic Procedures (ATOP) System. Ms. Devine has a Masters degree in Mathematics from Villanova University.

***Thomas H. Fahey, III***  
***Northwest Airlines, Inc.***

Tom Fahey holds an MS degree in Meteorology from the University of Wisconsin. Tom is currently employed as Manager Meteorology at Northwest Airlines (NWA) and also contracts independently as a meteorology consultant.

**Fahey Meteorological Consulting**

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

**NWA**

- Forecaster: Producing weather products (1977-1990)
- Product Development: Developing forecast procedures (1988-1990)
- Union President: Negotiating & representing the Meteorology Union (1982-1988)
- Management: Directing the weather offices (1990-Current)

NWA has a long tradition of over 35 years providing forecasts of turbulence and wind shear using the copyrighted Turbulence Plot (TP) System. Tom has both conducted and supervised projects that resulted in new and/or improved methods for producing and distributing both turbulence and wind shear information. Tom also initiated and oversaw development of a 2nd set of products focused on operations at NWA's hub airports. Most recently Tom has expanded NWA weather services via contracts with other airlines and is now covering a large amount of the department's annual expenses with revenue.

Recent aviation industry recognition and activities include:

- Feb 2000, Recipient of Air Transport World's Technology Management Award
- Feb 2001, Recipient of Aviation Week & Space Technology's Aviation Laurels Award for his role in the development of the Collaborative Convective Forecast Product (CCFP).
- Author of a number of articles in professional journals

Effective Nov 2005 Tom was appointed the Industry Chair of the Weather Work Group, a joint Government, Industry & Research community effort to address primarily Air Traffic Management weather related issues as well as other weather issues of concern to Air Transportation Association (ATA) member airlines. Tom is also currently serving as an Operational Forecasting representative for the Editorial Board of the American Meteorological Society.

**Paul C. Fiduccia**  
**Small Aircraft Manufacturers Association (SAMA)**

Paul Fiduccia is President of the Small Aircraft Manufacturers Association (SAMA), the national trade association representing the leading producers of experimental, kit-built aircraft and new-design certified small aircraft. SAMA also represents manufacturers of engines, propellers, avionics, and other components and services for small aircraft that are flown for personal and business use. SAMA's goal is to "expand the market for small aircraft" by supporting efforts to make their operation safer, more reliable, easier to operate, and more affordable.

Mr. Fiduccia holds various leadership positions in FAA, NASA and industry programs that support SAMA's goal, including the FAA Safer Skies Initiative General Aviation Weather teams, and various FAA and NASA research advisory and review committees. He is currently the Chair of the Weather Products Change Work Group and the Aviation Digital Data Service Steering Committee.

He holds a Mechanical Engineering degree from Purdue University and worked as an R&D engineer. He also has a law degree from Georgetown University, and before founding SAMA in 1990, he was a partner in a national law firm where he specialized in federal relations. Mr. Fiduccia is an airplane owner and an active pilot for more than 35 years, with commercial, instrument, multi-engine, and sea plane ratings.

**Dave Fleming**  
**United Airlines**

**Bob Gillen**  
**ENSCO, Inc.**

Mr. Gillen has over 17 years of experience in aviation weather. He was the Chief Software Engineer for the FAA WARP program which provides real-time weather radar mosaics to the en-route air traffic controllers. He is also responsible for managing several Research and Development projects to improve weather forecasting tools interfacing with national labs and universities.

**Steve Green**  
**NASA Ames Research Center**

Steven Green manages NASA's en route ATM research. An instrument-rated pilot, he received a M.S. degree (Aeronautics & Astronautics) from Stanford University, and joined NASA Ames in 1985 to pursue ATM research. One of the four CTAS "founders," he led the development and field testing of the CTAS Descent Advisor and pioneered NASA's concepts for integrating FMS and ATM automation through data link. Mr. Green co-chaired RTCA's FMS-ATM-AOC Integration Work Group and currently co-leads



NASA's Distributed Air-Ground Traffic Management (DAG) effort. He currently leads three technical activities including the enhancement of the CTAS Traffic Management Advisor for regional en route metering, the development of "common" trajectory-prediction technologies for the FAA, and the development of integrated weather/forecast and DST capabilities for TFM operations.

**Brian Haynes**  
**United Airlines**

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

- Pilot
- 16 years in FAA
- 10 years in NOAA
- Present Position: Manager, Aviation Weather Policy and Requirements Group, Operations Planning Service Unit, FAA
- Principle Duties:
  - Develop FAA/Federal policies and strategic plans for NAS aviation weather services
  - Assess/document pilot, dispatcher, controller, and airport operator users' needs for aviation weather services.
  - Establish FAA requirements for aviation weather services provided by FAA and NWS.
  - Manage the joint FAA/NWS process for approving products for operational use.
  - Represent U.S. aviation weather policies and requirements to ICAO
  - Provide liaison between the Air Traffic Organization of FAA and external stakeholders, especially NWS and industry
  - Facilitate integration of aviation weather strategic plans between FAA and the Joint Planning and Development Office (JPDO) Weather Integrated Product Team (WxIPT).

**Albert C. Homans**  
**ARINC**

**EXPERIENCE**

Mr. Homans manages various programs at ARINC for the FAA, NASA, and airlines. 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

Certificate, Software Engineering, George Washington University, Washington, D.C.

Graduate Study, Electronics, University of Florida, Gainesville, FL

### ***Jim Jansen*** ***Airline Dispatcher Federation***

Jim Jansen is a Flight Dispatcher and Operations Coordinator in the Systems Operations Center at American Airlines, where he has worked for 38 years. In addition to his dispatcher's license, he holds a commercial pilot's license with instrument and multi-engine ratings, a ground instructor certificate, and has been an FAA Designated Dispatch examiner for the past 14 years. He is currently the Executive Vice President of the Airline Dispatcher Federation.

### ***David L. Johnson*** ***NOAA's National Weather Service***

David L. Johnson has served as the Director of NOAA's National Weather Service since January 2004. He is responsible for the day to day civilian weather operations of 122 local Weather Forecast Offices in the United States, Puerto Rico, and Guam. He also leads operations in 13 River Forecast Centers, 8 National Environmental Centers, and 21 Aviation Center Weather Service Units.

Under General Johnson's leadership, NOAA's National Weather Service provides timely, accurate, and focused daily forecasts and event driven warnings to the American media, emergency managers, fire land managers, commercial weather partners, and the general public. Event driven warnings are issued for weather and natural hazards such as hurricanes, tornadoes, severe thunderstorms, flash floods, winter storms, extreme fire weather conditions, and tsunamis. NOAA's National Weather Service is also a leader in the application of weather research to operational meteorology and hydrology in the areas of radar, satellite, environmental modeling, and homeland security. The 4,600 people of NOAA's National Weather Service recently received a highly commendable score of "84" from the general public in an American Customer Satisfaction Index survey conducted by the University of Michigan.

Prior to his service as the Director of NOAA's National Weather Service, General Johnson served for 30 years as a United States Air Force officer. He commanded airdrop and air/land operations in Bosnia-Herzegovina and was deputy commander of the Joint Task Force for Operation Support Hope in Rwanda. He commanded the 43rd

Airlift wing and Pope AFB in North Carolina and served his last operational assignment as the vice Commander of Air Force Special Operations Command in Hurlburt, Florida. Because of his diverse operational credentials, General Johnson served as the U.S. Air Force Director of Weather and retired from that position in 2004.

General Johnson is an honor graduate of the University of Kansas and earned his masters degree from Webster's University. He and his wife Elizabeth live in Silver Spring, Maryland.

***Kevin Johnston***  
***NOAA's National Weather Service (NWS)***

Kevin Johnston is the National Weather Service (NWS) Aviation Services Branch Chief and the National Oceanographic and Atmospheric Administration Program Manager for Aviation Weather as of November 2004. Kevin entered the NWS in 2001 after retiring from the Air Force after 21 years of Service providing weather support to the Air Force, Army, and Special Operations.

***Ken Leonard***  
***Federal Aviation Administration (FAA)***

Mr. Leonard joined the Communication, Navigation and Surveillance office in January 2001, and serves as the Deputy Integrated Product Team Leader for Safe Flight 21 and Surface Technology Assessment. He moved to CNS from the Office of Systems Architecture and Investment Analysis, where he managed investment analysis teams that interpreted agency requirements in order to determine the optimal solutions for satisfying FAA mission needs.

From 1991 to 1999, Mr. Leonard supported, and successfully led, the advanced weather programs, including the Integrated Terminal Weather System and the Aviation Weather Research Program. Before joining the FAA, Mr. Leonard provided business and program management services to the Strategic Defense Initiative Organization, the Naval Sea Systems Command, the United States Synthetic Fuels Corporation, and various trade association clients.

Mr. Leonard has over twenty years experience in industry and government, as a leader and contributor to a broad range of interdisciplinary project teams providing systems analysis, research and development, and solution integration for transportation, defense, energy, and environment. Mr. Leonard received his BA in International Affairs and has completed extensive graduate coursework in business, economics, and finance.

***Rich Mamrosh***  
***NOAA's National Weather Service***

B.S. Meteorology 1987 University of Oklahoma  
Meteorologist Intern 1987-1991 NWS Burlington, Vermont  
Journeyman Forecaster 1991-1994 NWS Buffalo, New York  
Journeyman Forecaster 1994-1998 NWS Chicago, Illinois  
Senior Forecaster 1998-present NWS Green Bay, Wisconsin

Interest in aircraft weather data began in late 1980s. Worked with FSL's Stan Benjamin and Bill Moninger in early 1990s to get NWS Forecast Office access to automated aircraft data (ACARS). Received permission in mid 1990s to serve as test site for this new data source.

Assisted with formal assessment of ACARS data in the late 1990s. Compared data from WVSS-I with NWS radiosondes in 2001. Assisted in the design and organization of the TAMDAR Great Lakes Fleet Experiment 2004-present.

***Jack May***  
***NOAA's National Weather Service***

Jack has served as Director of the Aviation Weather Center since 2001. He is a graduate of Parks College of Aeronautical Technology of Saint Louis University, holding Bachelor of Science Degree in Aeronautical Meteorology. He earned a Masters Degree in Public Administration from the University of Kansas.

While in college as an undergraduate, Jack worked part time at Weather Corporation of America, a private weather forecasting firm in St. Louis.

Jack began his National Weather Service career as an intern in 1974 at the Albany, New York, forecast office. He continued his internship in 1976 in Raleigh, North Carolina.

His first forecaster position was attained in 1977 at Portland, Maine. The following year he was promoted to forecaster in Cleveland, Ohio. At Cleveland, Jack managed the marine service program where he worked closely with the Lake Carriers Association, 9th Coast Guard District Headquarters, and yacht clubs along the south shore of Lake Erie. Jack also was given the opportunity to be one of three National Weather Service forecasters to support the 1980 Winter Olympics in Lake Placid, New York.

In 1980 while the National Weather Service was transitioning to the Automation of Field Operations and Services (AFOS), Jack was placed in charge of the AFOS program in Ohio. In 1982 he moved to Eastern Region Headquarters on Long Island to become the Regional AFOS System Manager.

Jack's first supervisory position was that of Deputy Meteorologist in Charge at Cleveland in 1983. In 1987 Jack became Manager for the state of Kansas while stationed at Topeka. Jack was selected as Deputy Director of the NWS Central Region

in 1991. During that time was a leader in the transition to the modernized NWS in the Central Region.

Jack is a native of Rome, New York. Although he considers Rome his hometown, while growing up he also lived in Park Forest, Illinois; Westport, Connecticut; and the western suburbs of Cleveland.

Jack and his wife Christine have been married for 32 years. They have two daughters Rebekah (27) and Elizabeth (21). Their son David (30) is an active duty Captain in United States Air Force KC-135 commander.

***Jim Menard***  
***WSI Corporation***

Jim Menard is Vice President of Meteorology at WSI. In this role Jim is responsible for WSI's forecasting and operation centers in both its United States and United Kingdom facilities. Most recently Jim played a lead role in the implementation of the operational forecasting service for American Airlines. Jim is actively involved in many of WSI's business development and R&D efforts for both the aviation and energy market segments. Jim has been with WSI since 1987 in various senior management roles. Prior to joining WSI, Jim was television meteorologist in the Tampa Bay Area and taught a number of college course on meteorology at both the University of South Florida and University of Tampa. Jim holds both a Bachelors and Masters degree in physical geography and meteorology.

***David Metzbower***  
***Federal Aviation Administration (FAA)***

Mr. Metzbower is a native of Baltimore, Maryland, and obtained both his B.S. Business Management and Juris Doctor (Law) degrees from the University of Baltimore. He serves as an Aviation Safety Inspector (ASI) in the Flight Operations Branch of the FAA's Flight Technologies and Procedures Division (AFS-410), Flight Standards Service. Coming from a private law practice, Mr. Metzbower joined FAA HQ in 1987 as a Staff Attorney in the Operations Law Branch (Air Carrier) in the Office of the Chief Counsel. With an extensive aviation background, he joined the Flight Standards Service in 1992 as an ASI in the Air Transportation Division (AFS-200). He was selected to join the Flight Technologies and Procedures Division in 1998.

Mr. Metzbower's aviation background includes both civilian and military. He holds an Air Transport Pilot (ATP) Certificate for fixed-wing multi-engine and rotary-wing (helicopter) aircraft, several type ratings, and a flight instructor certificate including instrument and multi-engine land aircraft. Mr. Metzbower has logged over 5500 total hours in numerous aircraft and helicopters in civilian, charter, and military operations. He recently retired as a U.S. Army pilot and safety officer after flying Hueys, OH6, C12, and C26 aircraft with over 37 years of service. Currently, he flies turboprops and small jets for a local charter company on a part-time basis (with FAA permission).

Mr. Metzbowler lives with his wife of 38 years, Sharon, in Bel Air, Maryland. Their son, Craig, resides in Santa Barbara, CA.

***Darin Meyer***  
***MIT/Lincoln Labs***

Darin Meyer works for Massachusetts Institute of Technology Lincoln Laboratory in the Weather Sensing Group. The Weather Sensing Group's goals are to improve the safety and efficiency of the aviation system by providing operationally effective and fully automated weather systems to help the full spectrum of aviation users. Two examples of systems developed by MIT/LL Weather Sensing are: the Integrated Terminal Weather System (ITWS) and the Corridor Integrated Weather System (CIWS). Darin has been actively involved with training a wide-range of users from FAA specialists and managers, to airline dispatchers and air traffic coordinators, to general and private aviation community users. Darin is also a member of both the Collaborative Decision Making (CDM) joint training workgroup and the weather applications integration workgroup. Darin has 9 years of aviation experience and holds both a Bachelors and Masters in Meteorology from The Florida State University.

***Walt Mitchell***  
***Harris Corporation***

***Cindy Mueller***  
***National Center for Atmospheric Research (NCAR)***

***Bill Phaneuf***  
***ALPA Engineering and Air Safety Department***

More than sixteen years with ALPA dealing with Aviation Weather and All Weather Operations matters. Also responsible for Airport and Ground Environment issues. Prior to ALPA, served for three years as the Flight Safety Manager for United Air Lines.

Retired USAF Lt. Col. and Command Pilot. Commercial Pilot Instrument, Single Engine, and Multi-engine ratings 8,700 plus hours flying time.

***Mark Phaneuf***  
***AvMet Applications International***

Mark Phaneuf is Vice President and Technical Lead at AvMet Applications International, a small firm with expertise in aviation and aviation weather. AvMet provides its customers with in-depth, practical, technical, and operational expertise in a wide variety of areas including aviation, meteorology, weather systems, systems engineering, modeling and simulation. Mark has led many projects in support of AvMet's FAA customers in Weather Policy and Standards and Traffic Flow Management Weather

Programs as well as the Collaborative Decision Making (CDM) group. He supports many ICAO working groups and RTCA working groups. Mark has over 22 years of aviation experience and holds a Bachelors degree in Aviation Management from The Ohio State University. He is a commercially licensed and instrument rated pilot, and a retired military flight crewmember with over 5000 hrs combined military and civilian time.

***Marcia Politovich***  
***National Center for Atmospheric Research (NCAR)***

Project Scientist III and Deputy Director for Science, Aviation Applications Program, Research Applications Laboratory, National Center for Atmospheric Research

As lead of RAL Aviation Applications Program in-flight icing projects, Dr. Politovich coordinates in-flight icing research efforts under the FAA-sponsored Aviation Weather Research Program, NASA's Advanced Satellite Aviation-weather Products program, and NASA's Icing Remote Sensor display development. In addition to coordinating these activities, her contributions include analyses of weather conditions leading to icing, development of a severity index, and the use of combined remote sensors to diagnose icing conditions. She also works with the Juneau Airport Wind System Program on development and evaluation of the prototype turbulence warning system.

Dr. Politovich's educational background is in the area of cloud physics. In summer 1976, she was an observer onboard the University of Washington's B-23 research aircraft as part of the High Plains Experiment, and the data collected in seeded and natural clouds formed the basis of her Master's thesis under the supervision of Prof. Peter Hobbs. At the University of Wyoming she worked as a Research Associate and analyzed data sets from the Elk Mountain Observatory, both for evaluation of water drop and ice crystal measuring instruments and for weather studies. She was Co-PI (with Prof. Gabor Vali) of the Wyoming Queen Air studies of convective clouds during CCOPE in 1981, and also worked on a project to characterize icing environments at altitudes <10,000 ft. AGL. In 1982 she returned to school to pursue the Ph.D. in Atmospheric Science; her dissertation examined the effect of turbulence on the broadening of droplet size distributions in cumuli.

***Leo Prusak***  
***Federal Aviation Administration (FAA)***

***Warren Qualley***  
***Weather News America***

***Roy Robertson***  
***Rockwell Collins***

**Debbie Roland**  
**Association of Professional Flight Attendants (APFA)**

**SUMMARY OF QUALIFICATIONS:**

**American Airlines Flight Attendant 29 years**  
**Association of Professional Flight Attendants (APFA) 25 years**  
**APFA National Safety Committee 13 years**  
**Accident Investigation Team Member 9 years**

**EDUCATION:** 1969 - 1973 Towson High School, Towson MD  
 Towson State University, Towson, MD

**Professional Experience and Activities:**

**1976 - Present** American Airlines Flight Attendant  
**2002 - Present** President and Co-Founder of Aviation Cabin Safety Specialists, Inc.  
**2004** Attended and completed Spiritual Care on the Frontlines  
**1992 - 2002** APFA National Safety Committee Member  
**1992 - 2002** Attended Cabin Safety Workshops, FAA CAMI  
 CAST Turbulence JSIT Member  
 NASA-sponsored Cabin Secure Exercise Member  
 GAIN Cabin Safety Compendium Member  
**1996 - 2002** APFA Accident Investigation Team Member  
**November 2001** **American Airlines Flight 587 - Belle Harbor, New York**  
 Assisted NTSB by conducting witness interviews  
**1999 - 2000** CAST Turbulence JSAT Member  
**November 2000** **American Airlines Flight 1683 - Washington Dulles Airport**  
 Assisted NTSB by conducting flight attendant interviews  
**June 1999** **American Airlines Flight 1420 - Little Rock, AR**  
 Assisted NTSB as a member of party to the investigation by conducting passenger and flight attendant interviews  
**July 1998** **American Airlines Flight 594 - San Juan, Puerto Rico**  
 Assisted NTSB in review and documentation of the Cockpit Voice Recorder  
 Attended / Evaluated FAA-TSI Aircraft Cabin Safety Investigation Course  
 Attended/ Evaluated FAA-TSI Cabin Safety Investigation Course  
**1993** Completed *Understanding Stress/Trauma/Critical Incident Course*

**PUBLICATIONS:** **2002** Co-authored *ISASI Cabin Safety Investigation Guidelines*

Participated in the development of *GAIN Cabin Safety Compendium*  
 Participated in the development of the *FAA Guidelines for Common Strategy*

**PROFESSIONAL**

**MEMBERSHIPS:** International Society of Air Safety Investigators (ISASI)



**ACCREDITATIONS:** Ireland 2000 ISASI -- Co-presented ISASI Cabin Safety Investigation  
 Guidelines California 2001 SCSI -- Co-presented ISASI Cabin Safety Investigation Guidelines  
**CLIENTS:**  
**June 2002- Present** NASA - Cabin Turbulence Warning Experiment  
**March 2003** New Orleans International Airport  
**April 2003** Fire Department Instructor's Conference (FDIC)

***Sandra Schmidt***  
***Federal Aviation Administration (FAA)***

Ms. Sandra Schmidt supports the FAA's ATO, Operations Planning, Aviation Weather Policy and Standards Organization. She is currently the Program Manager for the Meteorological Data Collection and Reporting Service (MDCRS). The MDCRS program provides over 100,000 automated in-situ weather observations per day from 7 air carriers (NWA, DL, SWA, UPS, FedEx, UA, AA). The data is used to support several FAA safety systems and National Weather Service modeling systems. She also supports several domestic and international programs including Tropospheric Airborne Meteorological Data Reporting (TAMDAR) service, World Meteorological Organization (WMO) Aircraft Meteorological Data Relay (AMDAR) system, Flight Information Service Data Link (FISDL), and the International Civil Aviation Organization (ICAO) Meteorological Data Link Study Group (MetLinkSG). Ms. Schmidt has previously worked as an air traffic control specialist and an automation specialist. Ms. Schmidt has a Bachelor's degree in Business Administration.

***Bob Sharman***  
***National Center for Atmospheric Research (NCAR)***

Robert Sharman is a project scientist at the Research Applications Laboratory (RAL), National Center for Atmospheric Research (NCAR) in Boulder, CO. At NCAR/RAL, Dr. Sharman is heavily involved in aviation turbulence programs, and is currently the lead for the FAA's Aviation Weather Research Program (AWRP) Turbulence Product Development Team (PDT). This team is responsible for developing an automated upper- and mid-level turbulence prediction system (Graphical Turbulence Guidance, GTG) that is operational through NOAA's ADDS (Aviation Digital Data Service). He also leads a team working on turbulence characterization under sponsorship from NASA's ASAP, 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. He continues to concentrate on the prediction of topographically generated gravity waves (lee waves), and their breakdown into

turbulence. He is also involved in the characterization of stable and urban boundary layers using high resolution measurements and CFD simulations; and in sound propagation and ducting studies using ray tracing and spectral techniques.

***Bob Smith***  
***Boring Commercial Aircraft***

***Dan Stack***  
***AirLine Pilots Association***

Dan Stack - Ohio State University 1962 – Flight Training U S Navy completed in 1964. Three years with Navy Hurricane Hunters (1964-1967). Aircraft commander WC-121 – Radar Constellation. 31 years with Northwest Airlines. Captain and check airman on B757 and DC-10. 22,000 flight hours domestic and international. Involved with aviation weather and air safety issues for the Air Line Pilots Association for some 20 years most recently in-flight turbulence threat – the joint industry effort of the Turbulence JSAT and JSIT as well as the ongoing efforts of turbulence detection – warning and avoidance. Now retired from active flying.

***Laurence Vigeant-Langlois***  
***WSI Corporation***

Laurence Vigeant-Langlois, PhD, is a Product Manager with WSI Corporation. As such, she leads the development of WSI InFlight, WSI's satellite broadcast cockpit datalink weather solution. Laurence is also a soaring instructor and commercial pilot with Part 135 Learjet experience. Her academic education includes SM and PhD from MIT in Aeronautics and Astronautics with a focus on aviation humans and automation issues and a B.Eng from McGill University.

***Gene Wilhelm***  
***The MITRE Corporation***