

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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**Steve Abelman***National Weather Service (NWS)*

Steve Abelman works in the National Weather Service's Office of Science and Technology as the aviation focal point. He is the National Weather Service lead on the JPDO's Functional Requirements Team. Steve has worked in Aviation meteorology for over 20 years including spent 4 years with Weathernews in Norman, Oklahoma as the manager of Aviation Training and Standards. Before Weathernews, Steve spent nearly 15 years as an operational aviation forecaster with American Airlines in Ft. Worth, TX. He received his B.S. in meteorology from Northern Illinois University and did a 3 year stint with the NWS office in Corpus Christi, TX, before leaving to join American.

**Steven R. Albersheim***Federal Aviation Administration (FAA)*

In his current position, Steven is the program leader for coordinating policy and requirements on aviation weather with the International Civil Aviation Organization (ICAO) for Annex 3, Meteorological Service for International Air Navigation. In this capacity he serves on several different ICAO operations and study groups, such as the International Airways Volcano Watch Operations Group, Aerodrome Meteorological Observing and Forecasting Study Group, and ICAO Regional MET Sub-groups. Steven is also the program leader for the development of operational requirements for a graphical area forecast that will improve the quality of aviation weather information provided to the pilot and weather briefer to support their decision making process. Most recently he co-chairs the Office of Federal Coordinator for Meteorology working group on volcanic ash where they recently published the National Volcanic Ash Operations Plan for Aviation. He is also leading the effort on the development of aviation weather space requirements.

Steven has over 30 years in operational meteorology that involves air pollution, urban planning, environmental, and aviation meteorology. He began his career at the FAA in 1980 in environmental meteorology in support airport planning and noise abatement. Since that time he has been principally involved in aviation weather in support of en route and terminal operations in developing and coordinating FAA aviation weather requirements with the National Weather Service. Prior to government service Steven was in the private sector as a consultant providing expertise in meteorological services.

Steven is a graduate of the University of Maryland with a Bachelor of Science in Geography, Masters in Climatology/Meteorology, and Masters in Urban & Regional Planning. He has received many different awards for outstanding leadership, peer recognition, and letters of appreciation including letter of appreciation of services from the International Civil Aviation Organization.

**Doug Arbuckle***Joint Planning and Development Office (JPDO)*

No bio received

**Mark J. Andrews***Joint Planning and Development Office (JPDO)*

Mark J. Andrews attended and graduated from Waterford Township (Michigan) High School in the spring of 1975. In the fall, he attended the University of Michigan, where he graduated with a Bachelor's of Science in Atmospheric and Oceanic Science in 1979.

After finishing college he was admitted into the Officer Training School, Medina Annex, Lackland Air Force Base, where he was commissioned a Second Lieutenant in the Air Force.

Mark's first assignment was to Air Force Global Weather Central, Offutt AFB, Nebraska, where he was assigned as Officer In Charge, CONUS Severe Weather Warning section. There he was responsible for providing advance severe weather warning advisories to over 500 CONUS locations.

Promoted to First Lieutenant in 1981, and then finishing out a 3 year tour, his next assignment took him to Hickam AFB, Hawaii, in 1982, where he served as the lead CINCPACAF weather briefer and operations planner. While serving a three year tour there Mark was promoted to Captain in 1983. Upon the conclusion of this tour in 1985 he was competitively selected to attend the Air Force Institute of Technology Masters program at the Florida State University, where he graduated summa cum laude in 1987 with a Masters Degree in Meteorology, with special emphasis in satellite remote sensing.

Mark was then picked to move to Wright-Patterson AFB, Ohio, where he served as Staff Meteorologist, and supporting Special Access Required (SAR) programs from 1987 to 1991. There he acted as environmental lead engineer for over 15 separate SAR programs, to include the B-2 bomber, the F-117A and F-22 fighters, the Advanced Cruise Missile, and the Tri-Service Standoff Attack Missile. In 1989 he was selected as the Air Force's Outstanding Staff Meteorologist (Bud Long Award), and the Air Force's top climatologist (Air Force Zimmerman Award). Mark was also promoted to Major while at Wright-Patterson AFB in 1991.

Based on his SAR background, Mark was then selected to become Commander, Detachment 8, Air Weather Service, at Tonopah Test Range, Nevada, where he oversaw weather support to the 37<sup>th</sup> Fighter Wing (3 F-117A fighter squadrons) and the closure of the facility from 1991 to 1992.

After the successful closure, Mark was assigned to the Air Staff (Pentagon) in 1992, where he served a four year tour as the Air Force weather lead for Defense Meteorological Satellite Program (DMSP). Mark was selected to represent the Department of Defense in the formation of the Tri-Agency Convergence Transition Team (TACTT), which laid the ground work and supporting Memorandum of Agreements between the Secretaries of Commerce, State, and Defense for the merging of the civilian and defense polar-orbiting meteorological satellite programs. Mark was awarded the Vice-President's "Hammer" Award in 1996, for his work in overcoming agency concerns and saving an estimated 2 billion dollars by combining both programs. Mark was promoted to the rank of Lieutenant Colonel upon his departure from the Pentagon during May, 1996.

Mark was then selected to become Director of the Joint Typhoon Warning Center (JTWC), which provides tropical cyclone advisories and warnings to all U.S. Defense and State Department assets for an area encompassing over 53 million square miles (roughly 70%) of the ocean's surface. Under his command, the JTWC was recognized by the Director of the National Hurricane Center and the National Weather Service for shattering historical records for warning accuracy in 1997. The JTWC was also selected as PACAF's weather unit of the year-1997.

Mark concluded his military career serving as the Commander of the 3<sup>rd</sup> Weather Squadron, Fort Hood, Texas. In his role as the Staff Weather Officer to the Army's III Corps Commander, Mark's squadron provided support to two Army divisions. Mark was inducted into the Army's "Knowlton" Society, for excellence in supporting the Army's intelligence missions.

Upon retirement from the Air Force, Mark was hired by NOAA's National Weather Service in 2000 to serve as the aviation services chief and NOAA's Aviation Weather Program Manager, a position served in for four years prior to his selection to represent the Department of Commerce as the weather IPT lead.

While in the Service, Mark was awarded the Defense Meritorious Service Medal, the Meritorious Service Medal with one oak leaf cluster, the Air Force Commendation Medal with one oak leaf cluster, the Army Commendation Medal, the Air Force Achievement Medal, the National Defense Medal, and the Humanitarian Service Medal with one device.

Mark Andrews married the former Bella (Dina) C. Kandarakis, of Tallahassee, Florida, in 1987.

***Raymond J. Ban***  
*The Weather Channel, Inc.*

Raymond J. Ban is Executive Vice President of Meteorology Science and Strategy at The Weather Channel, Inc. He is responsible for the meteorological quality and integrity of all TWC's products and services, and for growing TWC's relationships with the weather community across the entire weather climate enterprise.

Prior to joining TWC in 1982, Mr. Ban worked as an operational weather forecaster at Accu-Weather, Inc. from 1973 – 1982. He graduated from Pennsylvania State University with a degree in meteorology.

Mr. Ban has been an active member of the AMS for over 30 years. He holds both the Television and Radio Seal of Approval from the Society. Previously Ray was the Commissioner on Professional Affairs for the AMS for six years and is now serving on the AMS Council and on the Steering Committee of the Commission on The Weather and Climate Enterprise. He was named a Centennial Fellow of Penn State's College of Earth and Mineral Sciences, an Alumni Fellow of Penn State University, has served on the Board of Atmospheric Science and Climate of the National Academy of Sciences and has also served as President of the Alumni Board of the College of Earth and Mineral Sciences at Penn State.

Additionally, Mr. Ban is currently a member of the advisory board to The National Center for Atmospheric Research (NCAR) and the NCAR Societal Impacts Program and serves on The Board of Visitors of The College of Geosciences at the University of Oklahoma. Mr. Ban is Co-Chair of The Weather Coalition, sits on the Board of Directors of the National Environmental Education Foundation and is a member of the National Oceanic and Atmospheric Administration (NOAA) Science Advisory Board.

***Stan Benjamin***

*NOAA/FSL*

No bio received

***Arden Berge***

*National Weather Service (NWS)*

Arden Berge holds a MS degree in meteorology from the University of Wisconsin, Madison. Arden is currently the National Weather Service Meteorologist in Charge of the Center Weather Service Unit at the FAA Minneapolis MN Air Route Traffic Control Center Farmington, MN.

Aviation Forecasting experience:

NWS Center Weather Service Unit, forecaster 1983-1984, Indianapolis IN ARTCC

NWS Center Weather Service Unit, forecaster 1984-2003, Minneapolis MN ARTCC

NWS Center Weather Service Unit, meteorologist in charge, 2003-present Minneapolis MN ARTCC

Arden was a part of a group of National Weather Service forecasters that tested and evaluated one of the early versions of the computer system for display and analysis of weather information at a Center Weather Service Unit.

He was one of the team of “subject experts” that provided information and input into a training module develop by UCAR and the “COMET” and titled “The Impact of Weather on Air Traffic Management.” The group was awarded a 2006 Department of Commerce Bronze medal for their work.

He is a part of a group from the National Weather Service (NWS), the Federal Aviation Administration (FAA), and Northwest Airlines (NWA) that is working on developing new weather forecast products to better serve the users and managers of the airspace in and around major “hub” or “pacing” airport.

***Jim Block***

*DTN/Meteorlogix*

Jim Block has spent his entire professional career in the private sector. He received a B.S. (1977) and M.S. (1979) in Meteorology from the University of Wisconsin-Madison. After working as forecaster providing radio broadcasts, and as an aviation forecaster for

Republic Airlines, he joined Kavouras Inc. (now DTN/Meteorlogix). He was one of two people who started Meteorlogix's Meteorological Operations department; designed and helped to develop the Meteorlogix weather database, and now serves as Chief Meteorologist for all of the DTN divisions, including the management and marketing of weather content and services for DTN's 100,000 business clients.

He has been an active member of the AMS for his entire career, and holds the Radio Seal of Approval from the Society. In 1989 he was named a Certified Consulting Meteorologist (CCM), and in 2000 was elected to the Board of Directors of the National Council of Industrial Meteorologists (NCIM). In 2002, he served as president of NCIM. He currently chairs the Board for Private Sector Meteorologists, and has served on this board since 2002. He has served on numerous working groups with the National Weather Service, working to make the private side of the public-private partnership function. He has served as part of the US delegation to World Meteorological Organization (WMO) Executive Council meeting in 2003. He has made numerous presentations at various AMS conferences, including many presentations on the private sector side of the weather enterprise.

***Dave Brinker***

*NASA Glenn Research Center*

David Brinker works on the development of remote sensing technologies and systems for the detection of hazardous in-flight icing conditions. He serves as the Technical Task Manager for Icing Remote Sensing within the Integrated Intelligent Flight Deck Project of the NASA Aviation Safety Program. He holds a Ph.D. in Electrical Engineering from Wayne State University and has been with NASA Glenn Research Center since 1980, the last seven years with the Icing Branch.

***Larry Buehler***

*Federal Aviation Administration (FAA)*

No bio received

***Captain Joseph D. Burns***

*United Airlines*

Captain Joseph D. Burns is the Managing Director of Flight Standards and Technology and Director of Operations for United Airlines. At United, he previously held positions as Director – Flight Standards, Director – Technology, Chief Pilot – FFDO Program, Manager – Automation Systems/MIS, Pilot Instructor on both the A320/319 and B-727 fleets, served as the Council 93 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 A319/320. He is type-rated in 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 on the Board of Directors for Optical Detection Systems, AirDat LLC, and is the Chairman/CEO of ATNSI. Additionally he is Chairman Emeritus of the ATA Airline Operations Committee, Vice-Chairman of the Airborne Internet Consortium, and Vice-Chairman of the ATA - Air Traffic Control Council.

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.

### **Steve Caisse**

*Airline Dispatchers Federation*

Mr. Caisse, a Flight Superintendent and certificated Aircraft Dispatcher at the Delta Air Lines' Operations Control Center, has completed 29 years of service with the Atlanta-based operator. During his career, Caisse has served in a variety of technical, operations, passenger service, marketing, training and management positions. He is currently working as Supervisor - Flight Control Standards & Training with responsibilities for: Delta's dispatch ASAP program, Safety Management System (SMS), departmental audits, recurrent and new hire training programs and technical document development for Delta Flight Control.

Mr. Caisse has been a member of the Airline Dispatchers Federation for 15 years where he served as ADF National President in 1998-1999. He also created and functioned as webmaster of the popular ADF Website at [www.dispatcher.org](http://www.dispatcher.org).

Mr. Caisse has served on numerous industry and government panels and committees over the years, continually touting the value and benefit of the dispatch profession, discussing meteorological topics and exploring air traffic control issues. He has also served in consulting roles covering dispatch specific topics on several evolving research projects.

Mr. Caisse's wife Carla is a Southwest Airlines dispatcher. The couple resides in the Dallas, Texas area where they stay busy raising their 11 year old daughter. The couple also has a 26 year old son who resides in Tampa and performs as the Principle Horn musician for the Florida Symphony Orchestra.

***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.

***Mike Cetinich****Jeppesen*

Mr. Cetinich has been employed with Jeppesen since 1983, first as part of Lockheed DataPlan, and with Jeppesen since 1989 when Jeppesen acquired Lockheed DataPlan. Mike is currently the Product Manager for Weather and NOTAM Services at Jeppesen, a position he has held since 2000. Mike has P&L responsibility as well as strategic and tactical planning and product development for the Weather and NOTAM product lines. Prior to Mike's current responsibilities, he was the Manager of Meteorology Operations from 1991 to 2000, responsible for the day to day operations as well as product development in this role. Mike was a software developer for the Meteorology department, maintaining and developing software for the production environment from 1986 to 1991. Initially, Mike was an Aviation Forecaster from 1983 to 1986.

Mike received a B.S. in Meteorology from San Jose State University in 1982, and attended graduate school at San Jose State University working towards a M.S. in Meteorology from 1982 to 1985. Mike has been a member of the American Meteorological Society (AMS) since 1983, and has authored papers that have appeared in the Bulletin of the AMS. Mike has also served on various RTCA, IATA and ICAO weather committees, and has given presentations at numerous industry meetings, including the AMS Annual Meeting, ICAO Safety Seminar, IATA Weather Committee Meeting, NASA ICNS Conference, NBAA and IOC Conventions, EAA Air Venture Annual meetings, and Civil Air Patrol meetings. Mike was a student pilot from 1981-1983. Mike also recently traveled to Antarctica to study the weather and flight operations for the National Science Foundation.

***Dave Clark****MIT Lincoln Laboratory*

Dave is a technical staff member in the Weather Sensing Group at MIT Lincoln Laboratory. He received degrees in meteorology from the University of Lowell (B.S., 1981) and MIT (S.M., 1983). He worked at Raytheon Company on the Next Generation Weather Radar

system (WSR-88D) prior to joining Lincoln Laboratory in 1987. His early work within the Weather Sensing Group was associated with hazardous wind shear detection, making contributions to the Terminal Doppler Weather Radar (TDWR), Low Level Wind Shear Alert System (LLWAS), and the Integrated Terminal Weather System (ITWS). He served for five years as the lead of the Terminal Ceiling & Visibility Product Development Team within the FAA's Aviation Weather Research Program. He now serves as the technical lead for development of a runway crosswind prediction algorithm in support of the FAA/NASA Wake Turbulence Mitigation for Departures (WTMD) system. Dave is a member of the American Meteorological Society.

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

Rick has been at Southwest Airlines for ten years and works in 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. 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.

***Ernie Dash***  
*Raytheon (FAA FISDL Support)*

Ernie is an aviation meteorologist with 44 years experience supporting the Air Force for 27 years and now the FAA for 17 years. He's originally from Illinois and has a Bachelor's Degree in Engineering Administration from Millikin University in Decatur, Illinois. The Air Force then offered him the opportunity to become a meteorologist and sent him to Texas A&M. Later on, he got a Master's in System's Engineering from the University of Southern California.

While in the Air Force, he became a satellite meteorologist and among many assignments was the program manager for the Air Force tactical terminals for receiving direct readout of the Defense Meteorological Satellite Program. He also participated in the initial drafting of Air Force requirements for a ground Doppler weather radar system which ultimately became the Tri-Agency (DOD, DOC, and DOT) NEXRAD program. Ernie retired in 1989 as the Commander of the 5<sup>th</sup> Weather Wing at Langley Air Force Base in Hampton, Virginia; and has stayed in the area as a resident of York County, Virginia.

In 1989, Ernie began providing contract support to the FAA FIS Data Link program. One of his initial tasks was to draft the requirements and demonstrate the operational concepts for an uplink-only broadcast service. Through that task, he co-edited publication of the RTCA

document DO-232, *Operations Concepts for Data Link Applications of Flight Information Services*, March 14, 1996.

Ernie is with Raytheon Technical Services Company and supports the FAA FIS Data Link (FISDL) program office.

**Bill Dupree**  
*MIT Lincoln Laboratory*

Bill Dupree is an associate technical staff member at MIT Lincoln Laboratory. He received a B.A. degree in Geological Sciences from Hartwick College and an M.S. degree in Geophysics from Boston College. Bill joined Lincoln Laboratory in 2000 where he has worked continuously on the FAA's Aviation Weather Research Program (AWRP) Convective Product Development Team, Integrated Terminal Weather System (ITWS), and the Corridor Integrated Weather System (CIWS) projects. His primary research interests are in developing automated weather tools with application to solving the Nation's aviation delay problem. He is currently the Lincoln technical lead of the Consolidated Storm Prediction for Aviation (CoSPA) project. During his tenure at Lincoln he has led many technical projects including the design and development of the Weather Classification, Multi-scale Tracking and Echo Tops Forecast algorithms. In addition he has contributed to key components of the CIWS Precipitation Forecast. These modules have become critical components of the CIWS and CoSPA algorithms and are in use in the NAS today. Other research interests include pattern classification, image and signal processing, algorithm development, software engineering and application of numerical techniques to physical problems.

Prior to working at Lincoln, Bill was employed as a Software Engineer at Instron Corp. and a Research Assistant at the Theoretical and Applied Geophysical Group at the University of Colorado.

**Thomas H. Fahey, III**  
*Northwest Airlines (NWA)*

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
- Operational Aviation Meteorology

**NWA**

- Forecaster: Producing weather products (1977-1990).
- Product Development: Developing forecast procedures (1988-1990).
- Union President: Negotiating & representing the Meteorology Union (1982-1988)
- NWA Management: Directing the NWA weather offices (1990-1999).
- Contract Management: Added duties administrating sale of weather products and services outside of NWA (2000-Current).

- Operations Control: Added duties supporting Systems Operations Control management (2006-present)

NWA has a long tradition of over 40 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 as well as other atmospheric based aviation hazards such as volcanic ash. Tom also initiated and oversaw development of a 2nd set of weather products focused on operations at NWA's hub airports. Most recently Tom has expanded NWA weather services via contracts with other airlines and has lead efforts to develop new forecast products to support NWA System Operations Control processes.

#### Aviation Industry Recognition and Current Activities

- Feb 2001, Aviation Week & Space Technology's Aviation Laurels Award Recipient for role in development of Collaborative Convective Forecast Product (CCFP).
- Author of a number of articles for conferences & professional journals.
- Member, NGATS, Joint Planning & Development Office, Weather IPT
- 2006-07 Industry Lead, Collaborative Decision Making (CDM) Weather Eval. Team -A joint Government, Industry & Research community effort to address primarily Air Traffic Management convective weather related issues as well as other weather issues of concern to Air Transportation Association (ATA) member airlines.
- 2007, Industry Co-Chair Ground Deicing Work Group, Weather Sub-Committee
- 2007, Chair, Air Transport Association, Aviation Industry Weather Work Group

### **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.

**John Foottit***Nav Canada*

John Foottit received his BA degree in History from Carleton University in 1969, during the days when entrance requirements were low and anyone could find a job. Following completion of military pilot training he flew helicopters in the search and rescue, flight instructor, and army support roles. He is a 1984 graduate of the Canadian Forces Staff College.

After electing early retirement from the Air Force in 1987, he worked as a Civil Aviation Inspector with the Department of Transport, primarily in the aviation weather services area.

Upon commercialization of the Air Navigation System in November 1996, he accepted a position with Nav Canada's Head Office in Ottawa. He became the Manager of their Aviation Weather Services Branch in 1998. His responsibilities include:

Determining the operational weather information requirements of pilots, flight dispatchers, flight service specialists, and air traffic controllers and providing the appropriate products and services to satisfy them;

Managing a product and service contract with the Meteorological Service of Canada (MSC);

Managing Community Aerodrome Radio Station and Contract Weather Observation operations; and

Delivering flight planning services over the Internet.

Mr. Foottit has held Airline Transport Pilot Licenses for both helicopters and airplanes.

**Judy E. Ghirardelli***National Weather Service (NWS)*

Judy Ghirardelli is the Task Manager for the Local Aviation MOS Program (LAMP) in the Meteorological Development Laboratory (MDL) of the National Weather Service. She oversees the development and operational implementation of the LAMP system, which provides objective probabilistic and deterministic forecast guidance of sensible weather with a focus on aviation elements. She has been working with statistical forecast guidance for MDL for the past 13 years.

Ms. Ghirardelli earned her Bachelors of Science Degree in Mathematics from Davidson College in Davidson, NC. After graduating she worked as an actuarial analyst responsible for ratemaking for both personal and commercial lines of insurance. In 1992, she decided on a career change and chose to pursue a career in meteorology. She earned her Masters Degree in Meteorology from the University of Maryland in 1994, and began working for MDL upon graduation.

***Mick Gosdin***

*XM Wx Satellite Weather*

No bio received

***Tim Helms***

*ATL Center TMU*

No bio received

***Richard J. Heuwinkel***

*Federal Aviation Administration (FAA)*

- Pilot
- 18 years in FAA
- 10 years in NOAA
- Present Position:     Manager, Aviation Weather Policy & Requirements Group  
Operations Planning Air Traffic Organization FAA
- Principal Duties:
  - Develop FAA/Federal policies on aviation weather services to the NAS
  - Assess and document pilot, dispatcher, controller, and airport operator users' requirements for aviation weather services.
  - Manage the joint FAA/NWS process for approval of products for experimental and operational use.
  - Represent U.S. aviation weather interests to ICAO
  - Provide liaison between ATO and external stakeholders, especially NWS and industry
- Education:
  - Masters of Business Administration, Stanford University, 1974
  - Masters, Political Science and Economics, Iowa State University, 1967

***Tom Hicks***

*Harris Corporation*

No bio received

***Al Homans***

*ARINC*

No bio received

**Mark Huberdeau**

MITRE

No bio received

**Jim Jansen***Airline Dispatcher Federation*

Jim Jansen is the Executive Vice-President of the Airline Dispatchers Federation, a non-profit, professional organization whose goal is promoting aviation safety and the Dispatch profession. Jim retired from American Airlines in 2005 after 39 years of service, the last 30 of which were spent in the Systems Operations Center as a Flight Dispatcher, ATC Coordinator and Operations Coordinator.

His work with ADF has included presentations at NASA Safety Symposiums, FBI Airport training Conferences, U.S. State Department-Department of Transportation briefing to the government of China and as a member of the recent FAR 121 rewrite committee.

Jim is a member of the Friends and Partners in Aviation Weather group and has participated in several FAA Dispatch Inspector training courses in Oklahoma City. He recently completed a six month consulting contract at China Eastern Airlines in Shanghai, China.

Jim holds an Aircraft Dispatcher certificate, Commercial Pilot Certificate with instrument and multi engine ratings, CFI and ground instructor certificates, and he has been a Designated Aircraft Dispatcher Examiner since 1992.

**Fred R. Johnson***NOAA Aviation Weather Center*

Fred is the Chief of NOAA Aviation Weather Center's, Domestic Operations Branch, Kansas City, Missouri. His Branch produces all the en-forecasts, advisories and warnings for the conterminous United States: Convective SIGMET, SIGMET, AIRMET, Area Forecasts, Collaborative Convective Forecast Product and the Low Level Significant Weather Chart.

Fred is an Air Force Reserve officer (Colonel) and presently serves as an Emergency Preparedness Liaison Officer representing the Air Force National Security Emergency Preparedness Agency in support of the Federal Emergency Management Agency Region VII office in Kansas City, Missouri.

He holds a Bachelor of Science in Meteorology from Penn State (1980), a Master of Aeronautical Science from Embry-Riddle (2001) and a Commercial Pilot Certificate: airplane, single engine land, instrument.

**Kevin Johnston***National Weather Service (NWS)*

Kevin Johnston is the National Weather Service Aviation Services Branch Chief and NOAA Aviation Weather Program Manager. As such, Mr. Johnston establishes policy and procedures for the National Weather Service to meet FAA stated weather requirements for the National Airspace System. In addition, Mr. Johnston manages the \$17M Aviation Weather program within the NOAA Commerce and Transportation Goal.

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.

**Dr. Alexander (Sasha) Klein***Air Traffic Analysis, Inc.*

Dr. Alexander (Sasha) Klein has almost 25 years of experience in advanced visualization, simulation, decision support, and air traffic analysis systems development. He was the principal designer of TAAM, a fast-time air traffic simulation model that became a de-facto world standard in its field. After a long career in the industry, from a software engineer to a senior executive, Dr. Klein joined George Mason University in Virginia in 2004 as a Research Professor, where he developed the NAS Weather Index, a performance metric that is now used by the FAA on a regular basis. In August 2006, as a result of transitioning successful academic research to commercial environment, Dr. Klein started his own business, Air Traffic Analysis, Inc. His customers include the FAA, NASA, MITRE, and the National Weather Service.

**Bill Leber***National Weather Service (NWS)*

No bio received

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

Steve Lang is the Manager of the FAA Wake Turbulence Program with Air Traffic Operations, System Operations Planning and Procedures. Mr. Lang joined the FAA in 1984. Prior to his current position, he was the Operations Manager for the St. Louis Radar Approach Control. His Air Traffic Control background includes eight years in the United States Air Force as an Air Traffic Controller, and his FAA field experience also includes assignments to Omaha Radar Approach Control as well as Traffic Management Officer at

the St. Louis Radar Approach Control and Tower. Mr. Lang holds a Bachelors Degree in the field of Psychology.

### ***Pete Lehmann***

Aircraft Owner and Pilots Association (AOPA)

Pete Lehmann served six years in the U.S. Army as a UH-60 Blackhawk Helicopter Crewchief, residing in Savannah, GA with the 3rd Infantry Division, and then Hanau, Germany with the 1st Armored Division. After his service, Mr. Lehmann finished his BS in Aviation Science from Bridgewater State College, Bridgewater, MA. While attending Bridgewater State, Mr. Lehmann was an active flight instructor for a 14CFR Part 141 flight school located in Southeastern Massachusetts.

After graduating, Mr. Lehmann joined Liberty Aerospace as the North East Sales Manager. Liberty Aerospace is a start up aircraft manufacturer who's product, the Liberty XL-2, is the first Part 23 certified FADEC Controlled reciprocating engine. Mr. Lehmann continued his career with Liberty as the Service Center Development Manager, tasked with the development and implementation of maintenance training for the Liberty XL2.

Mr. Lehmann currently holds the position of Government Analyst, for the Air Traffic Services department on the Aircraft Owners and Pilot's Association (AOPA). His primary duty is to monitor any Special Use Airspace initiative brought forth by the Federal Government or military, and take the appropriate action, in light of member impact. Mr. Lehmann current holds a single and Multi engine Commercial Pilot certificate with an Instrument ratings as well as maintaining his Certified Flight Instructor, Instrument Instructor, and Multi-engine Instructor Ratings. Additionally, Mr. Lehmann is a licensed Airframe and Powerplant Mechanic.

### ***Ken Leonard***

*Federal Aviation Administration (FAA)*

Mr. Leonard recently accepted the position as Director of the Aviation Weather Office, part of Air Traffic Organization Operations Planning Services. In this role, Mr. Leonard is in charge of weather policy and requirements, all new weather capabilities for the Next Generation Air Transportation System (NextGen), and the improvement of existing weather products to ensure accurate, real time weather information.

Prior to joining the weather group, Mr. Leonard was the Acting Director of the Technology Development Office for two years. He served as Lead on the Planning and Technology Scouting team, where he worked to identify, evaluate and mature promising new capabilities such as ADS-B, Runway Status Lights, and SWIM.

Mr. Leonard has over twenty five 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. He has managed investment analysis teams that built business cases with optimal solutions for satisfying FAA mission needs. He successfully led two of

FAA's advanced weather programs, the Integrated Terminal Weather System and the Aviation Weather Research Program.

Before joining the FAA, Mr. Leonard provided business and management consulting services to the Strategic Defense Initiative Organization, the Naval Sea Systems Command, the United States Synthetic Fuels Corporation, and various trade association clients. He received his BA in International Affairs and has completed extensive graduate coursework in business, economics, and finance.

***Mike Lewis***

*Boeing ATM*

No bio received

***Eric C. Lugger, MS***

*Air Evac Life Team*

Eric has more than thirty-seven years of aviation experience in the military/general aviation industry. He is a former Army Aviator, Aviation Safety and Aircraft Maintenance officer. Mr. Lugger has performed many more than five hundred aircraft accident investigations, reconstructions and conducted materials failure analyses on aircraft and locomotive components. He is currently the manager of a group of pilots with duty in the Air Evac Life Team Communication Center overseeing positive flight operational control of the Company's seventy-five Helicopter Emergency Medical Services (HEMS) bases. The service is FAA accepted as a weather advisory resource through the Company Operations Specifications. Eric has been actively involved assisting Flight Standards Service office, AFS-250-safety oversight of Federal Aviation Regulations Part 135 Certificated aircraft operators, with the development of the HEMS tool graphical low atmosphere weather depiction product.

***Shawn Mechelke***

*Flight Explorer*

No bio received

***Cecilia Miner***

*National Weather Service (NWS)*

Cecilia Miner has worked nearly 30 years in aviation meteorology. She is currently an aviation meteorologist at National Weather Service (NWS) headquarters in the Aviation Services Branch, where her primary focus is aviation weather for NextGen. Before joining NWS, Cecilia supported FAA as an employee of AvMet Applications International, and prior to that, she spent 22 years as an Air Force meteorologist in jobs ranging from operational forecasting to requirements and acquisition. Cecilia received her Ph.D. in meteorology from Texas A&M University in 1989. She is also a private pilot and user of aviation weather products.

***Tim Miner****Allied Pilots Association*

Tim Miner is a 17-year pilot with American Airlines, Inc., and a volunteer member of the National Safety Committee of the Allied Pilots Association where he specializes in aviation meteorology and its impacts to safety. He has also served on the weather team at six NTSB aviation investigations. Prior to his acceptance at American, he was an active duty Air Force pilot who received graduate education at Ohio State University and was the Acting Head of the Geography Program at the US Air Force Academy in 1988, where he created the meteorology major and worked to create partnerships with the Air Weather Service and the emerging COMET program. After leaving active duty to fly for American, he remained an Air Force Reserve meteorologist where he rose to serve as the senior reservist in the Air Force Weather program between 2001 and 2006. He was named the National Weather Association's Member of the Year in 2002 and received that organization's Aviation Meteorology Award the same year for his work in computer education programs in meteorology for pilots around the world. He has published in academic journals and in popular aviation safety magazines in four countries. He is married to Dr. Cecilia Miner (Lt Col, USAF Ret.) who is an aviation meteorologist with the NOAA National Weather Service.

***Patrick Minnis****NASA Langley Research Center*

Dr. Patrick Minnis serves as a senior research scientist at NASA Langley Research Center. He received a B.E. in Materials Science and Metallurgical Engineering from Vanderbilt University in 1972, a M. S. in Atmospheric Science from Colorado State University in 1978 and a PhD in Meteorology from the University of Utah in 1991. Dr. Minnis has been studying the satellite remote sensing of clouds and determination of the Earth's radiation budget since 1978. He joined NASA in 1981 and has co-authored more than 150 peer-reviewed articles and numerous conference papers. He currently leads a research team that derives cloud, contrail, surface, and radiation properties from a variety of operational and research satellites. HE is a member of a variety of science teams including those associated with the NASA Clouds and Earths Radiant Energy System (CERES) project, the Advanced Satellite Aviation Products program, the CloudSat-CALIPSO Projects, ICESat, and the DOE ARM team.

***Ray Moy****Federal Aviation Administration (FAA)*

Mr. Moy has over 20 years of engineering and major systems acquisition experience in both the private sector and the Federal Government. He was the FAA Team Lead for the Corridor Integrated Weather System (CIWS), the Technical Lead for the CIWS and Weather and Radar Processor (WARP) integrated acquisition investment analysis, and the functional lead for the security and interface design of the Integrated Terminal Weather System (ITWS). Prior to joining

the FAA, Mr. Moy was employed by the National Weather Service in the modernization efforts for the Advanced Weather Interactive Processing System (AWIPS). He was the product team lead for the AWIPS - System Monitoring and Control capabilities. The results of his efforts led to the design and development of the AWIPS Network Control Facility (NCF). Mr. Moy is the New Weather Capabilities Group Manager (Acting) in the Air Traffic Organization, Operations Planning, Aviation Weather Office. Mr. Moy has a Bachelor of Science in Electrical Engineering from Case Western Reserve University, Cleveland, Ohio and a Master of Science in Electrical Engineering from The Johns Hopkins University, Baltimore, MD. He is a certified by the Project Management Institute as a Project Management Professional.

### **Bill Murtagh**

*NOAA Space Environment Center*

Bill Murtagh is a Space Weather Forecaster at the National Weather Service (NWS) Space Environment Center (SEC) in Boulder, Colorado. He also serves as the SEC Customer Focus Representative and is the principal point of contact for NWS space weather outreach and education activities. Bill works closely with private industry, national and international agencies, emergency managers, and government officials to ensure operational impacts of space weather are minimized through appropriate response and adequate preparedness plans.

Bill transferred to the Space Environment Center in 1997 as a space weather forecaster and liaison between the SEC and the DoD. He entered NOAA and the SEC in 2003 after retiring from the Air Force after 23 years of service.

Bill is a regular guest speaker at universities, government organizations, and national and international conferences. He recently spoke on space weather issues at the House of Representatives in Washington D.C. He has provided numerous interviews to major media outlets in the U.S. and around the world.

### **David J. Pace**

*Federal Aviation Administration (FAA)*

David J. Pace is a meteorologist in the FAA's Aviation Weather Division, Policy and Requirements Group. His principal activities are with the Joint Planning and Development Office (JPDO) Weather Working Group and as chairman of the Weather Community Of Interest (COI) for System Wide Information Management. His work areas on the JPDO are the Executive Council, the Policy Team (determining roles and missions for the DOD, NWS, FAA and private sector) and the Dissemination Team (initiating Network Enabled Operation for weather information), all aimed at creating the Next Generation Air Transportation System. As chairman of the weather COI, he coordinates all FAA weather systems and weather inputs from other agencies to create Network Enabled Operations in weather within the FAA. He is also a US delegate to the WMO Committee for Aeronautical Meteorology and a US representative to the World Area Forecast System for international aviation weather. Prior to becoming an FAA employee, Mr. Pace spent 15 years as a contractor supporting FAA weather programs. Most of that time, his work was with the FAA Aviation Weather Research Program, which managed weather research at NCAR, various NOAA laboratories, and at the MIT Lincoln Laboratory. He is also a retired USAF weather

officer, where his duties included weather support directly to the President of the United States, the Secretary of Defense, and the Joint Chiefs of Staff. Mr. Pace has a bachelor's degree in mathematics from the University of Virginia, graduate studies in meteorology from St. Louis University, and a master's degree in Astronomy from San Diego State University.

***Bill Phaneuf***

*Air Lines Pilots Association (ALPA)*

Supervisor for Airspace and Operations in the 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 consulting 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 23 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 K. 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 head of the InFlight Icing Product Research Team, Dr. Politovich leads in-flight icing research efforts under the FAA-sponsored Aviation Weather Research Program. In

addition to coordinating activities under this program, her contributions include analyses of weather conditions leading to icing, development of a meteorology-based icing severity index, and the use of in situ and remote sensors to diagnose icing conditions. She served as Co-Operations Director for the four field efforts supporting basic atmospheric research for this program.

Dr. Politovich's educational background is in 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. At the University of Wyoming she worked as a Research Associate and analyzed data sets from the Elk Mountain Observatory, both for evaluation of droplet and ice particle measuring instruments and for weather studies. She also participated in airborne studies of convective clouds and icing environments. 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.

In addition to leading icing research, she is also lead scientist on the Juneau Turbulence Project, which is deploying an operational turbulence warning system for the Juneau Airport. Finally, she serves as Deputy Director of the Aviation Applications Program at NCAR's Research Applications Laboratory, working to insure that the products developed for various sponsors are based on high-quality and highly-regarded science.

Dr. Politovich is a Councillor of the American Meteorological Society and member of the American Institute of Aeronautic and Astronautics' Atmospheric and Space Environment Committee.

***Warren Qualley***  
*Harris Corporation*

Warren Qualley is an aviation weather consultant. Qualley has nearly 30 years of aviation meteorology experience, having worked as the Director of Aviation Services for Weathernews Americas from 2003 until early 2007, and as Manager of Weather Services for American Airlines from 1991 until mid-2003. He chairs the International Air Transport Association's Meteorological Task Force and is involved in many industry activities, including NextGen. He has been an invited speaker at many conferences and frequently gives talks to classes at the University of Oklahoma's School of Meteorology and its Aviation department. Living in the Norman, OK, area, Qualley is both a member of the Board of Directors of the Norman Chamber of Commerce and co-chair of the Chamber's Weather Committee.

***Jim Ries***  
*Federal Aviation Administration (FAA)*  
No bio received

***James T. Riley***  
*Federal Aviation Administration (FAA)*

As team leader for the Aircraft Icing Research Program (since 1996), Dr. Riley's responsibilities include both in-flight and ground icing research. In addition to coordinating research activities with other members of the icing research team, he works with members of the FAA Certification and Flight Standards Services to ensure that the research is responsive to their requirements. He has served as technical monitor for agreements with NASA Glenn Research Center, the National Science Foundation, Environment Canada, and Transport Canada. He has authored or co-authored technical reports on ice accretion prediction using computer codes, icing droplet sizing instrumentation, and icing in mixed-phase and glaciated conditions.

***Doug Schwartz***

*AT&T Aviation*  
No bio received

***Joe Sherry***

*MITRE/CAASD*

Joe Sherry has been with MITRE/CAASD for the past 15 years, providing the FAA with support in a variety of aviation weather and Air Traffic Management (ATM) areas. His main focus for the past decade has been the assimilation of weather into decision-making. Joe is one of the founding members of the Weather/ATM Integration community of interest, which for many years promoted integration through its annual workshops. Joe is currently providing weather and systems engineering support to the JPDO's Weather Working Group.

***Danny Sims***

*Federal Aviation Administration (FAA)*

Danny Sims works within System Operations Programs at the Federal Aviation Administration (FAA) Air Traffic Organization. He is responsible for program management of Traffic Flow Management Weather Programs where the emphasis is on improved application of existing weather products and integration into decision support tools of future weather capabilities. He works closely with aviation users primarily through the Collaborative Decision Making framework where he is the lead of the Weather Evaluation Team. Prior to his current position, Mr. Sims worked at the FAA's William J. Hughes Technical Center for 9 years providing test and evaluation support to aviation weather products. Before working for the FAA, Mr. Sims spent 8 years as a Weather Office in the United States Air Force and 2 years in private industry.

Mr. Sims has a Bachelor's Degree in Environmental Science from the University of Virginia, and Bachelor's and Master's Degrees in Meteorology from the Pennsylvania State University. He and his wife of 26 years have four children and three grandchildren.

**Marc J. Singer***National Weather Service (NWS)*

Marc Singer is a Techniques Development Meteorologist in the Aviation Support Branch (ASB) at NOAA's Aviation Weather Center (AWC) in Kansas City, Missouri. In his role at the AWC, Marc is responsible for the flow of a wide variety operational data such as observational and numerical model output. He is the focal point for the Joint Aviation Weather Testbed. Marc also plays a major role in the transition of Aviation Weather Research Program products from the research environment at NCAR to the operational environment of the AWC. He participates in many aviation related customer outreach activities, as well as occasionally working operational forecast shifts. In addition to his work at the AWC, Marc is also an active member of the Missouri Academy of Science by serving as the Atmospheric Science section chair. Prior to his service at the AWC, Marc received his B.S. in Aeronautics with a major in Meteorology from Parks College of Saint Louis University, and an M.S. in Meteorology from Saint Louis University.

**Matthias Steiner***National Center for Atmospheric Research (NCAR)*

Dr. Matthias Steiner is the Deputy Director for the Hydrometeorology Applications Program (HAP) of the National Center for Atmospheric Research (NCAR) Research Applications Laboratory (RAL). He heads the Convective Weather Program and also holds a tenured scientist appointment at NCAR. Before joining NCAR in the summer of 2006, Dr. Steiner has been at Princeton University for more than a decade, researching a variety of topics that straddle the interface between atmospheric and hydrologic sciences. His professional interests reach across hydrometeorology, cloud and precipitation physics, mountain meteorology, radar and satellite meteorology. Dr. Steiner received his degrees from the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland. He has been contributing to several interdisciplinary, national and international field experiments and programs, such as the Mesoscale Alpine Program (MAP), the Tropical Rainfall Measuring Mission (TRMM), and the Tropical Ocean Global Atmosphere (TOGA) Coupled Ocean-Atmosphere Response Experiment (COARE). His work has been published in the leading journals of major professional societies on three continents. Dr. Steiner served on a couple of recent National Research Council (NRC) committees, the Committee on Radar Meteorology of the American Meteorological Society (AMS), and chaired the Technical Committee on Precipitation of the American Geophysical Union (AGU) Hydrology Section. He is a member of the Precipitation Missions Science Team of the National Aeronautics and Space Administration (NASA), a Fellow of the Royal Meteorological Society, and was the recipient of the 2002 Editor's Award for the AMS Journal of Hydrometeorology.

**Bob Smith***Boeing Commercial Aircraft*

Bob joined United Airlines as a pilot in 1967. He retired as a B777 Captain in 2003. On military leave from United, he flew in the Canadian Armed Forces for six years.

During his career at United, he was involved in a number of technical and administrative activities. He was the United Airlines' pilot supporting the development of the FAA Windshear Training Aide. And he was the United project pilot helping to implement the first Supplemental Type Certificate for the Enhanced Ground Proximity Warning System. Additionally, Bob served as the United Airlines' Manager of Flight Dispatch and Manager of Flight Operations Training.

After his retirement from United, Bob joined Boeing in 2005. His work is now directed to research and development of new commercial aircraft electronic display concepts for aeronautical charting and weather applications.

**Roy Strasser**

*WSI Corporation*

No bio received

**Harold Summers**

*Helicopter Association International*

No bio received

**Steve Velotas**

*AeroTech Research*

Mr. Velotas is the Vice President of Operations for AeroTech Research. He provides overall direction and guidance to the operational activities of the organization as well as day-to-day leadership and management to all company operations functions. At AeroTech, he has held the positions of Program Manager and Business Development Manager.

Previous to AeroTech, Mr. Velotas led evaluations of systems engineering projects in communications, command and control, and information technology for the United States Joint Forces Command's Joint Battle Center. He also served as a Naval Flight Officer on E-2C Hawkeye command and control aircraft, including two squadron tours, a joint tour to Riyadh, Saudi Arabia, and a tour as director of fleet information warfare support.

Mr. Velotas earned an M.B.A. in Information Systems from Old Dominion University and a B.S. in Aerospace Engineering from the U.S. Naval Academy.

**Ron Westheimer**

*Universal Weather and Aviation, Inc.*

After serving as a meteorologist in the U.S. Air Force, Ron joined Universal Weather and Aviation as a Staff Meteorologist in 1989. After two years at Universal's White Plains, New York office, Ron transferred to the Universal World Headquarters in Houston, Texas. He transitioned between several positions within the Meteorology Department before moving to his current position of Manager, Flight Planning & Meteorology Systems and Process

Development in 2002. Ron's primary responsibilities are to oversee technology initiatives, design and manage new product development and coordinate research & development efforts, while improving operational tools, processes and systems.