



Keynote Speakers



Vincent Capezzuto
Director, Surveillance and Broadcast Services
Federal Aviation Administration (FAA)

As the Director of the FAA's Surveillance and Broadcast Services program office, Vincent Capezzuto has coordinated and obtained funding to support, develop, implement and manage Automatic Dependent Surveillance-Broadcast (ADS-B) program.

Previously as an FAA senior engineer, Capezzuto was integral in transitioning concepts and technologies from research to production on many FAA projects.

Capezzuto has been with the FAA for 12 years and prior to joining the FAA he worked for private sector companies including United Technologies, Westinghouse and Republic Electronics. He was involved in the design, integration, test, implementation, and manufacturing of electronic equipment for commercial, civil, and military applications.

Capezzuto is a graduate of George Washington University where he obtained a Master of Science Degree in Systems Engineering. He holds a Bachelor of Technology Degree from New York Institute of Technology.



R. John Hansman, Jr.
Professor of Aeronautics & Astronautics Director
Massachusetts Institute of Technology (MIT)

R. John Hansman is a Professor of Aeronautics & Astronautics MIT, where he is the Director of the MIT International Center for Air Transportation. He conducts research in the application of information technology in operational aerospace systems. Dr. Hansman holds 6 patents and has authored over 250 technical publications. He has over 5300 hours of pilot in-command time in airplanes, helicopters and sailplanes including meteorological, production and engineering flight test experience. Professor Hansman chairs the US Federal Aviation Administration Research & Development Advisory Committee (REDAC). He is a Fellow of the AIAA and has received numerous awards including the AIAA Dryden Lectureship in Aeronautics Research, the ATCA Kriske Air Traffic Award, a Laurel from Aviation Week & Space Technology, and the FAA Excellence in Aviation Award.



John Kefaliotis
Vice President Next Generation
Air Transportation Systems
ITT Corporation

Mr. Kefaliotis leads ITT's business development activities in the air traffic control arena. His duties include strategic planning for this important ITT business area, identifying and bringing to the Defense Headquarters level those initiatives requiring a companywide focus, coordinating division level ATC business development activities, and leading company level pursuit initiatives. His most recent activity was the leading of ITT's successful ADS-B proposal effort. He is currently serving as ITT's ADS-B Program Director with overall responsibility for this vital NextGen initiative.

Mr. Kefaliotis has 39 years of experience in the air traffic control arena. From 1970 to 1983 Mr. Kefaliotis was an FAA employee serving as an air traffic controller, an air traffic control facility staff specialist, a supervisor and manager in air traffic control facilities, and as an air traffic control research and development program project manager. Mr. Kefaliotis has both terminal and en route experience serving in the Oakland and Chicago Air Route Traffic Control Centers and in the Cleveland Air Traffic Control Tower. From 1983 until the present Mr. Kefaliotis has served as an engineer and executive level employee with Stanford Telecommunications, Inc. and subsequently, after purchase by ITT of Stanford Telecom, with ITT Corporation focusing on ATC system engineering and development activities.



John Marksteiner
Manager, High Density Airports, Flexible Airspace, and Weather
Technology Development and Prototyping Group
Federal Aviation Administration

John has been with the FAA since October 2001. He initially worked for the Safe Flight 21 Team as the Terminal Applications Manager responsible for development and demonstration of air-to-air ADS-B applications. In December 2005 he joined the Surveillance and Broadcast Services Program Office as the lead for Operations Support activities to implement ADS-B into the National Airspace System (NAS). These activities included CONOPS development, controller Computer Human Interface requirements, future applications development, and airspace design requirements. In May 2008 John joined the Advanced Technology Development and Prototyping Group as a manager for activities supporting High Density Airports, Flexible Airspace, and Weather.

Prior to joining the FAA, John was with the Department of the Army for six years managing Air Traffic Control and avionics modernization programs. He also worked as a Senior Systems Engineer with Lockheed Martin supporting DoD NAS Modernization. John served for 20 years in the Army as a communications officer, helicopter pilot and air traffic control officer.

John has a BS in Computer Science from West Virginia University and a MS in Aviation Management from Embry Riddle Aeronautical University.



Jere S. Meserole

Director, Advanced Air Traffic Management
Boeing Research and Technology

Dr. Meserole is Director of Advanced Air Traffic Management in Boeing Research and Technology. This group executes Boeing's contracts and internal R&D aimed at transformation of the air traffic system through NextGen in the US and SESAR in Europe. Activities of the group have included the Network Enabled Operations and Global Air Traffic Interoperability programs with the Federal Aviation Administration, the Oceanic Tailored Arrivals project with the NASA Ames Research Center, and a supporting role in SESAR with Airbus. He has been with Boeing Advanced ATM since 2001; previously, he worked on R&D in space systems at Boeing for 17 years. He has a B.S.E. degree from Princeton University, an M.S. from Cornell University, and a Ph.D. from MIT, each in aerospace and mechanical engineering.

Speakers



Hamsa Balakrishnan

Assistant Professor Aeronautics and Astronautics
Massachusetts Institute of Technology (MIT)

Hamsa Balakrishnan is the T. Wilson Career Development Assistant Professor of Aeronautics and Astronautics at the Massachusetts Institute of Technology. She received her Ph.D. in Aeronautics and Astronautics from Stanford University in April 2006, following which she was a researcher at the University of California, Santa Cruz and the NASA Ames Research Center. Her research interests include algorithms for the scheduling and routing of air traffic, techniques for the collection and processing of air traffic data, and mechanisms for the allocation of airport and airspace resources. She was the recipient of an NSF CAREER Award in 2008.



Richard Barhydt

Project Scientist
NASA Langley Research Center

Richard Barhydt is on detail to the Airspace Systems Program Office at NASA Headquarters. The Airspace Systems Program conducts research on gate-to-gate concepts and technologies designed to improve the capacity and efficiency of the national airspace system. At the program office, Richard assists with technical planning and strategic partnerships. His research background concentrates on flight deck automation, separation assurance, and ADS-B. He is also a certified flight instructor and commercial pilot for single-engine aircraft.



Brian T. Baxley
Aerospace Engineer
NASA Langley Research Center

Brian Baxley is a research engineer at NASA Langley working with the FAA to design and test new flight procedures using ADS-B technology. He currently works the flight-deck portion of Interval Management to develop the concept, algorithms, displays, and procedures to enable flight crew to achieve their assigned arrival sequence and spacing to a particular point. He recently completed an experiment for the FAA that examined the impact Data Comm has on flight crew in a high-density terminal area. He is a member of the FAA/Eurocontrol Action Plan 23, Long-Term ADS-B and ASAS Applications, and recently joined SC-186/WG6 to develop ADS-B standards for Interval Management. Brian is a current member and former Chairman of the AIAA Aircraft Operations Technical Committee. He has a BS in Aerospace Engineering and a MS in Systems Management, holds an Airline Transport Pilot certificate, has flown F-4s, F-15s, and is currently a Lear 35 First Officer.



Juan A. Besada
Professor
Universidad Politecnica de Madrid

Dr. Juan A. Besada received a degree in Telecommunication Engineering from the Universidad Politecnica de Madrid in 1996 and a Ph.D. from the same university in 2001. He is currently Professor at Universidad Politecnica de Madrid.

He has worked in the Signal Processing and Simulation Group of the same university since 1995, participating in several National and European projects related to Air Traffic Control & Air Traffic Management. In the last years he has collaborated in the design and modernization of INDRA SACTA and AIRCON trackers and in the definition of the data fusion algorithms of Eurocontrol SASS-C surveillance assessment tools.



Jean Francois Bousquie
Flight Test Engineer
Airbus

Mr. Bousquie is a Flight Test Engineer who joined the Airbus Flight Test Department in 1987, just prior to the A320 first flight.

He has followed the development and certification of all the Airbus Fly By Wire a/c types since the A320. As an avionics specialist he has been involved in the Communications Navigation and Surveillance / Air Traffic Management (CNS/ATM) matters for more than 15 years. As such, he is an active member of numerous international groups (ICAO, FAA-EASA, Eurocontrol) for the deployment of CNS tools and systems throughout the world.

JFB is also a Human Machine Interface specialist, one of the co-authors of the Airbus cockpit philosophy, a document which defines the philosophy which presides to the development of the Airbus cockpits.

JFB is graduated from the ENAC (National School for Civil Aviation).



Terry L. Davis
Boeing Technical Fellow
Boeing Commercial Airplanes

Terry has over 30 years experience in large-scale systems and network design, security, implementation, and operations. He is currently working on Aircraft Network and Security, Architecture & Strategy, for Boeing Commercial Airplanes. He was previously served as both the Chief Network Engineer and CIO of Connexion by Boeing; in this role he developed he developed the Connexion routing architecture that allowed seamless VPN handoffs across multiple satellites and between ground stations on different continents.

He has been Vice-President of Professional Services for ViaLight, a fiber to the home company; a Technology Leader for Adario, an Internet security company; and the Senior Corporate Security Architect for the Boeing Company as well as an aircraft simulation designer, network engineer, and system programmer for Boeing. He has been an active contributor to and participant in the Internet Engineering Task Force's (IETF) since 1992 and he is a member of the North American IPv6 Task Force (NAv6TF). He currently also is a Councilor on the "Generic Names Supporting Organization" (GNSO) of the "Internet Corporation for Assigned Names and Numbers" (ICANN) which governs the global Internet.

Further back, in the 70's and early 80's, Terry worked for several agencies of the US government in SCADA, hydro-electric operations, irrigation, and construction plus the Agency for International Development in the United Arab Emirates doing early infrastructure planning for them.

Terry holds a B.S. in Civil Engineering from Oklahoma State University and an M.S. in Strategic Planning for Critical Infrastructure from the University of Washington. He is a Boeing Technical Fellow, a member of the IEEE, and the American Society of Civil Engineers; he is registered professional engineer in Oklahoma, Colorado, and Washington. He and his wife Jennie have been residents of Issaquah, Washington for 25 years.



Emory Thomas Evans Jr.
Research Engineer
NASA

Tom Evans is a computer engineer at NASA Langley Research Center. He is currently modeling flight deck information management for the Integrated Intelligent Flight Deck Project under the NASA Aviation Safety Program. He serves as Secretary of RTCA's Special Committee 206 (joint with EUROCAE Working Group 76) developing standards for data linking aeronautical and meteorological information to the flight deck. He is also an active member of RTCA Special Committee 217 (joint with EUROCAE Working Group 44) updating standards for information used in airport moving map systems. He holds a Bachelor of Science degree in Computer Engineering and Master of Engineering in Modeling and Simulation from Old Dominion University and an MBA from the College of William and Mary.



Michael Garcia
Research Analyst
ITT Corporation

Dr. Michael Garcia is a Research Engineer at ITT (Information Systems division) in Herndon, VA. He is a development and test lead, field engineer, and standards support representative for the SBSS/ADS-B program. Prior to joining ITT, he was a National Research Council Postdoctoral Fellow at Duke University, where he received his PhD in Electrical Engineering.



Daniel P. Johnson
Staff Research Scientist
Honeywell Int'l. Inc.

Daniel has over 20 years of experience in systems engineering, design and development of reliable advanced planning, scheduling, and maintenance software for industrial and avionics systems. He is currently responsible for network security design and certification oversight for the Crew Information System and Maintenance System for the Boeing 787. Daniel is Co-Chair of the RTCA Special Committee SC-216 on Aeronautical Systems Security and also represents Honeywell in the EUROCAE Working Group 72 (Aeronautical System Security) where he is the industry editor for the forthcoming ED-202 standard on Airworthiness Security.



Blake Kelly
Assistant Chief Flight Instructor
Embry-Riddle Aeronautical University

Blake Kelly is the Assistant Chief Flight Instructor at Embry-Riddle Aeronautical University, Daytona Beach Campus. Blake is from San Diego, California and earned his Bachelor of Science in Statistical Science from the University of California, Santa Barbara. While Blake was attending UCSB he earned his pilot and flight instructor certificates. He worked as a Flight Instructor in college and after college Blake worked for the British Consulate in Los Angeles as a Business Development Associate for Aerospace while still providing flight instruction. In 2008 he joined Embry-Riddle as a Flight Instructor in Daytona Beach and began to earn his Masters of Science in Aeronautics. Now as Assistant Chief Flight Instructor he is responsible for the day to day operations of the Flight Department which maintains and operates a fleet of over 65 aircraft, a staff of over 150 flight instructors and responsible for the training of more than 1000 flight students. Blake holds a Commercial Pilot Certificate with Airplane Single and Multiengine Land, Instrument Airplane ratings and a Flight Instructor Certificate with Airplane Single and Multiengine, Instrument Airplane ratings. Blake has over 2200 hours of flight time including aerobatics, gliders, and tail wheel with over 1600 hours of flight dual given.



Ratan Khatwa

Senior Fellow, Flight Deck & Flight Safety Human Factors
Honeywell International

Dr. Ratan Khatwa is Senior Fellow (Flight Deck & Flight Safety Human Factors) with Honeywell International in Seattle. He is currently providing human factors leadership for the development of advanced flight deck systems for air transport, regional and corporate aircraft. His flight deck systems development expertise spans product conception, pilot-in-the-loop human factors evaluation, certification, flight crew training, flight crew procedures development, and accident/incident investigation.

Ratan has held previous positions at Rockwell Collins (USA), Netherlands National Aerospace Laboratory NLR (Amsterdam), and British Aerospace Commercial Aircraft/University of Bristol (UK).

He has made significant contributions to the development of multiple advanced flight deck systems and concepts for various products offered by Honeywell and Rockwell Collins. He has authored over 100 patents and technical publications.

Ratan is an elected member of the Flight Safety Foundation's (FSF) European Advisory Committee and European Human Factors Advisory Group (EHFAG). He has previously served on a number of other industry committees including the SAE G-10 Executive Advisory Board, FSF/ICAO Runway Safety Team, and industry CFIT/Approach & Landing Accident Reduction (ALAR) Task Force.

He is the recipient of the 2003 Honeywell Technical Achievement Award, 2000 National Business Aviation Association (NBAA) Flight Safety Award, 2000 Aviation Week/Business & Commercial Aviation "Vision Award", and is co-recipient of the 2000 *Flight International* annual award for "Training & Safety" and 1998 *Flight International* Aerospace Industry Award (CFIT Task Force). In 2005, his work on Honeywell's Runway Awareness and Advisory System (RAAS) was "runner up" for *Flight International's* Aerospace Industry Award for "Training & Safety." Ratan is recipient of the 2009 "Services to AIAA" Award.

Ratan holds a Doctorate in Aeronautical Engineering from the University of Bristol, UK. He is an elected Fellow of the UK Royal Aeronautical Society.



Alexander Kuenz

Need job Title
German Aerospace Center

Alexander Kuenz finished his study of computer science in 2001. From 1994 until 2001, he was member of the human factors department at DLR Braunschweig as developer of future pilot displays, from 2001 member of the department for pilot assistance at DLR Braunschweig as specialist for noise abatement procedures, air-ground integration, and conflict detection & resolution. From 2007 to 2009, he was project manager of the DLR-funded project Future Air Ground Integration (FAGI). Since 2007, he is project manager for DLR's contributions to the FP6 ERAT project.



Gary Livack
Aviation Safety Inspector
Federal Aviation Administration (FAA)

Gary Livack is an aircraft owner and pilot. He holds an aeronautical engineering degree from the University of Virginia, and an MBA from Arizona State University. Since 1985, he has been employed by FAA and is currently assigned to FAA's Washington, DC Headquarters. While with FAA, Mr. Livack has worked on various projects to enhance flight crew situational awareness, including ADS-B surveillance, terrain and obstacle data and alerting systems, aerodrome mapping data bases, and MET / AIS data link services. Mr. Livack is a member of several RTCA and SAE G-10 technical committees, including RTCA's SC-186 special committee on ADS-B, SC-206 / EUROCAE WG-76 on AIS Data Link Services, SC-217 on airport mapping data bases, SC-223 on 802.16e-2009 data communications, and various SAE G-10 committees on cockpit displays and symbology.



Roland Mallwitz
Technical Secretary
EUROCAE

Roland Mallwitz is the Technical Secretary of EUROCAE, the European Organisation for Standardisation of Civil Aviation Equipment. He is supervising most of the active EUROCAE working groups and coordinates the EUROCAE activities related to communication, navigation and surveillance systems (CNS) and Air Traffic Management (ATM) with requirements of the European Commission and EASA, projects within SESAR (the European equivalent to NextGen), and standardisation activities of other standardisation bodies.

Before joining EUROCAE he was with the German Air Navigation Service Provider DFS managing international and European projects with multidisciplinary teams for aviation systems specification and development, technical verification and operational validation. During his career he was always actively contributing to the standardization of ground-based and airborne equipment supporting EUROCAE, RTCA and ICAO, where he served as the German member and chairman of the Aeronautical Surveillance Panel for more than 9 years.



David Miller
Senior Systems Engineer
Advanced Development Division
Sensis Corporation

David Miller is a senior systems engineer in the Advanced Development Division of Sensis Corporation. He has over 16 years of experience in software development, requirements analysis, system design and integration, simulation and modeling, and program management. Mr. Miller has worked on systems for the Ohio River Valley ADS-B trials, speech recognition to gist ATC ground controller speech, traffic flow management modernization, airport automation, and ATM system-wide simulation and modeling. His most recent activities include computational models of human workload in fast-time simulation, simulation and modeling of advanced vehicle concepts in a NextGen environment, and aviation environmental analysis. He graduated with a B.S. in Electrical Engineering from Rochester Institute of Technology and is a United States Marine Corps veteran.



Timothy M. Mitchell
Senior Principal Engineer
The Boeing Company

Timothy M. Mitchell is a Senior Principal Engineer at The Boeing Company and is a Principal Investigator for Enhanced Offboard Communications. He has over 25 years of experience in Circuit Design, Accident Investigation, Field Service Engineering and Network Systems. He holds a BS in Electrical Engineering from the University of Wyoming and PMP certification. He is a registered professional engineer in Washington State and is an inventor on several US and International patents. He is serving as Secretary of the RTCA SC223 committee for Airport Surface Wireless Communications.



Richard H. Mogford
Project Manager
NASA Ames Research Center

Richard Mogford received his B.A. degree in psychology from York University and his M.A. degree in psychology from Sonoma State University. He obtained his Ph.D. in experimental psychology and human factors from Carleton University in 1990. He worked as an Engineering Psychologist at the FAA William J. Hughes Technical Center in New Jersey for nine years. For the past eleven years, he has been employed by the NASA Ames Research Center as a Project Manager and Research Psychologist.



Natasha Neogi
Professor
Univ. of Illinois at Urbana-Champaign

Natasha Neogi received her Ph.D in Aeronautical and Astronautical Engineering from the Massachusetts Institute of Technology in 2002. She is currently at the National Institute of Aerospace in the Formal Methods Group as a Visiting Research Professor from the University of Illinois, Urbana Champaign Coordinated Sciences Laboratory. Her research interests include verification and validation of safety critical systems, applying formal verification to autonomous aerial systems, as well as engineering safety, reliability and security into the next generation air transportation system.



Sergio Torres
Systems Engineer (LM Fellow)
Lockheed Martin Corp.

Dr. Sergio Torres is a systems engineer (LM Fellow) with Lockheed Martin IS&GS-Civil where he is the test lead for accuracy requirements of the ERAM system and technical lead for various Independent Research and Development (IRAD) projects related to Trajectory Based Operations . Dr. Torres has worked for 11 years in research (astrophysics) and 13 in development of Air Traffic Management systems, including: ERAM, FPPP (Flight Plan Pre-Processor, prototype system), ATOM (FDP operational in the Eastern Caribbean), Attila (arrival sequencer operational with Delta at Atlanta). Author of numerous studies including: URET/Direct-to (D2) interoperability, assessment of GDP efficiency, and potential savings of Lufthansa arrivals at Frankfurt. Dr. Torres has a Ph.D degree in Physics from Virginia Tech where he was a Fulbright scholar.



Ian A. Wilson
Senior Research Engineer
The Boeing Company

Controller at high intensity airfields in UK and Germany, and at Scottish and Oceanic Control Centre. Systems analyst programmer on London ATCC host computer worked as systems programmer to systems manager on various London ATCC computer systems. UK NATS ATM systems development including designer and Network Systems Manager of flight data and messaging system installed in all UK Military flying and related operations units worldwide.

Project Manager of EUROCONTROL research programme managing and contracting teams from 7 European national ATM research centres developing advanced ATM software tools and concepts in advance of SESAR for 4D ATM. Defined and developed metrics methodology for measurement of simulated novel ATM systems. Director of Center for Applied ATM Research at Embry Riddle Aeronautical University, Daytona Beach FL, PI of FAA, NASA and Industry research projects into advanced ATM concepts, human factors and systems in support of NextGen, ADS implementations and 4D ATM.

System Engineer and SME with Boeing AATM, PI on FAA Oceanic project for implementation of 4DATM and as SME to other projects.