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2010 ICNS Conference Agenda (Final, as Presented)

Tuesday, May 11, 2010 Plenary Session – NextGen Integration and Implementation (I & I) Chair: Mike Romanowski, Federal Aviation Administration Room: Rivanna D		
07:30 – 08:30 am	Registration/Continental Breakfast	
08:30 – 08:35 am 08:35 – 08:40 am	Opening Remarks Introduction of Plenary & Keynote Speaker	Jim Dieudonne, ICNS Chair, MITRE, and John Gonda AIAA DATC Chair Jim Dieudonne, ICNS Chair, MITRE
08:40 – 09:00 am	Keynote - NextGen Today	Dr. Mike Romanowski, Director, FAA NextGen integration and Implementation
	Introduction of Panel Chair Dr. Mik	e Romanowski
09:00 – 10:00 am	Panel 1 – NextGen Integration	Panel Chair: Jay Merkle, FAA, Acting Systems Engineering Integration Manager • Neal Suchy, Project Lead, FAA 4D Flight Management System, Trajectory Based Operations • Mike Hritz, FAA SWIM Concepts & Evolution Manager • Kip Spurio, FAA, Acting NAS Operational Integration Manager
10:00 – 10:20 am 10:20 – 10:35 am	Questions* BREAK	
	Introduction of Panel Chair Dr. Mik	e Romanowski
10:35 – 11:35 am	Panel 2 – Airspace Integration	Panel Chair: Elizabeth Lynn Ray, FAA, Director, Airspace & Aeronautical Information Mgmt Tim Stull, United Airlines William Crowe, Executive Director, USAF/FAA Airspace Management John McGraw, FAA, Deputy Division Manager for Policy Oversight Mary McMillan, CSSI, VP Safety and Environmental Division Lee Merry Brown, Mitre/CAASD
11:35 – 12:00 pm	Questions*	
12:00 – 01:00 pm	LUNCH	

Session A – Data Communications Session Chairs: Michael Schnell, German Aerospace Center (DLR) and Brent Phillips, Federal Aviation Administration Room: Rivanna D		
01:00 – 01:30 pm	Future Communications Study – L-Band CONUSE, Requirements, and Architecture	Steve Henriksen, ITT Corporation - Information Systems
01:30 – 02:00 pm	L-DACS1 Physical Layer Laboratory Demonstrator	Nico Franzen, German Aerospace Center (DLR), Alexander Arkhipov, German Aerospace Center (DLR)Michael Schnell, German Aerospace Center (DLR)
02:00 – 02:30 pm	Analysis of Temporal Impairments on Airborne VDL Mode 2 Packet Reception	Wayne Genter, ITT-Information Systems
02:30 – 03:00 pm	Aeronautical Mobile Airport Communications System Development Status	Edward Hall, ITT Corporation, James Budinger, NASA Glenn, Robert Dimond, NASA Glenn, Jeffrey Wilson, NASA Glenn, Rafael Apaza, FAA
03:00 – 03:30 pm	BREAK	
03:30 – 04:00 pm	Advanced Airplane Offboard Communications to support Network Centric Operations	Timothy M. Mitchell, Boeing
04:00 – 04:30 pm	On the Economic Feasibility of the IPS Over Aeronautical Communication Links	Max Ehammer, University of Salzburg, Thomas Gräupl, University of SalzburgCarl-Herbert Rokitansky, University of Salzburg
04:30 – 05:00 pm	Routing in the Airborne Internet	Daniel Medina, German Aerospace Center (DLR), Felix Hoffmann, German Aerospace Center (DLR), Francesco Rossetto, German Aerospace Center (DLR), Carl-Herbert Rokitansky, University of Salzburg, Austria
05:00 – 05:30 pm	Dimensioning Requirements for the ANTARES ATM Satellite Data-Link	Thomas Gräupl, University of Salzburg, Catherine Morlet, European Space Agency, Lorena Albiol Schnitger, Indra Espacio Paolo Conforto, Thales Alenia Space – Italia

Session B – Surveillance and Navigation Technologies Session Chair: Lance Sherry, George Mason University Room: Rivanna A		
01:00 – 01:30 pm	Frequency and Severity of Deviations During Simultaneous Independent Approaches to Parallel Runways	Sebastian Massimini, MITRE/CAASD
01:30 – 02:00 pm	Analysis of Performance of Q Routes for Establishing Future Design Criteria	Akshay Belle, Center for Air Transportation Systems Research, George Mason University, Lance Sherry, Center for Air Transportation Systems Research, George Mason UniversityArash Yousefi, Metron Aviation Inc., Jerome Lard, Metron Aviation Inc
02:00 – 02:30 pm	Collaborative and Adaptive Sensing of the Atmosphere (CASA) and Low Cost Distributed Multi-function Sensor Surveillance Network (MSSN)	Peter Drake, Raytheon Company
02:30 – 03:00 pm	SBSS Multi-Sensor Fusion Tracker Configuration and Assessment	Robert Mueller, ITT - Information Systems
03:00 – 03:30 pm	BREAK	
03:30 – 04:00 pm	Towards A Mixed Integer Linear Optimization Model for Universal Beacon Code Assignment	Vivek Kumar, George Mason University, Lance Sherry, George Mason University
04:00 – 04:30 pm	Rigorous Bounding of Position Error Estimates for Aircraft Surface Movement	Kyle O'Brien, Tufts University, Jason Rife, Tufts University

Session C – Information Sharing and SWIM Session Chairs: Mike Hritz, Federal Aviation Administration Room : Luray 1		
01:00 – 01:30 pm	A Domain Specific Approach to Aviation Data	Paul Comitz, The Boeing Co.
01:30 – 02:00 pm	System Wide Information Management: The SWIM-SUIT Prototype	Dario Di Crescenzo, Antonio Strano, and Massimiliano De Angelis, SELEX Sistemi Integrati; Georg Trausmuth, Frequentis,
02:00 – 02:30 pm	Ontology-Based CNS Software Development	Eduard Gringinger, Frequentis USA, Inc., Dieter Eier, Frequentis USA, Inc. Dieter Merkl, Vienna University of Technology
02:30 – 03:00 pm	Making Swim Interoperable Between US and Europe	Richard Houdebert, Thales Air Operations, Bruno Ayral, Thales Air Operations
03:00 – 03:30 pm	BREAK	
03:30 – 04:00 pm	Design and Implementation of the TFDM Information Management Architecture	William Moser, M.I.T. Lincoln Laboratory
04:00 – 04:30 pm	Designing a Service Oriented Architecture (SOA) for a Net-Enabled National Airspace (NAS)	Mark Simons, MITRE/CAASD
04:30 – 05:00 pm	US and European Interoperability using SWIM- SUIT	Samet Ayhan, The Boeing Company, Paul Comitz, The Boeing Company, Steve Bliesner, The Boeing Company, Sean Walden, The Boeing Company, Edgar Vanlieshout, The Boeing Company
05:00 – 05:30 pm	EUROCAE WG-67 Standards for Voice-Over-IP in ATM for Advanced NextGen ConOps	Dieter Eier, Frequentis USA Inc., Wolfgang Kampichler, Frequentis USA Inc.

Tuesday, May 11, 2010			
	Session D – CNS Systems and Architectures Session Chair: Denise Ponchak, NASA Glenn Research Center Room: Rivanna G		
01:00 – 01:30 pm	Applying SoS Capability Approach to Manage the FAA NAS Transformation	Winona Smith, SAIC	
01:30 – 02:00 pm	Performance Assessment of Multilateration Systems - A Solution to NextGen Surveillance	Ning Xu, SRA International Inc. /Era Systems Corporation, Rick Cassell, SRA International Inc. /Era Systems Corporation, Carl Evers, SRA International Inc. /Era Systems Corporation, Scott Hauswald, SRA International Inc. /Era Systems Corporation, Werner Langhans, SRA International Inc. /Era a.s.	
02:00 – 02:30 pm	Airborne Test Platform for SBSS Verification	David Stewart, Capital Sciences, LLC / ITT Corporation	
02:30 – 03:00 pm	ADS-B Link Augmentation System	Robert (Skip) Nelson, ADS-B Technologies, LLC	
03:00 – 03:30 pm	BREAK		
03:30 – 04:00 pm	Applying Intelligent Video to Remote Tower Operations	Moodie Cheikh, Searidge Technologies Inc.	
04:00 – 04:30 pm	TCP/IP On-Time System	Michael McGrady, Topia Technology, Inc., M. Scott Kuehn, Topia Technology, Inc.	
04:30 – 05:00 pm	Withdrawn by author		
05:00 – 05:30 pm	Analysis of a Monopole Antenna with G Type Structure	Levent KURU, Technical University of Istanbul	

Tuesday, May 11, 2010			
	Session E – Performance Based ATM Session Chair: Ben Levy, Sensis Corporation Room: Rivanna L2		
01:00 – 01:30 pm	Modeling Time-Based Flow Management under Conditions of Transient Disruptions to Arrival Capacity	James DeArmon, MITRE/CAASD	
01:30 – 02:00 pm	An ATM System Performance Evaluation Framework: Development of an Initial RTSP Construct	Panta Lucic, CSSI, Inc, Richard Western, CSSI, Inc, Donghai He, CSSI, Inc	
02:00 – 02:30 pm	A Traffic Information Service-Broadcast Model for Mixed-Equipage Aircraft Simulation	Goutam Satapathy, Intelligent Automation Inc., James Sturdy, Raytheon, Jensan Chen, Intelligent Automation Inc., Devendra Tolani, Intelligent Automation Inc, James Henion, Raytheon	
02:30 – 03:00 pm	Preliminary Assessment for a Graph-Based Dynamic Airspace Configuration Algorithm	Tong Wang, Beijing Institute of Technology, Beijing, China, Jinhua Li, Purdue University, Jian Wei, Purdue University, Inseok Hwang, Purdue University	
03:00 – 03:30 pm	BREAK		
03:30 – 04:00 pm	Analysis of "Tarmac Delays" at New York Airports	Maricel Medina Mora, Center for Air Transportations Systems Reseach, George Mason University, Lance Sherry, Center for Air Transportations Systems Reseach, George Mason University	
04:00 – 04:30 pm	Learning-Based Models for Estimating Airport Taxi-out Time Using Approximate Dynamic Programming	Rajesh Ganesan, George Mason University	
04:30 – 05:00 pm	Network Cell Routing Model for Control of Throughput and Delay of Air Traffic	Alex Nguyen and John Baras, University of Maryland	
05:00 – 05:30 pm	Improving Airport Operations with Accelerated Microweather Predictions	Yosef Tirat-Gefen, Castel Research Inc.	

Wednesday, May 12, 2010 Plenary Session – Interagency Systems Transformation Chair: Jim Williams, Federal Aviation Administration Room: Rivanna D			
07:30 – 08:30 am	Registration/Continental Breakfast		
08:30 – 08:35 am 08:35 – 08:40 am	Opening Remarks Introduction of Plenary & Keynote Speaker	Jim Dieudonne, ICNS Chair, MITRE Jim Williams, FAA, Director Systems Engineering & Safety Office	
08:40 – 09:00 am	The Challenges of NextGen: New Issues for Aviation's Future: A DOD Perspective	Dr. Tim Rudolph, Department of Defense	
	Introduction of Panel Chair Jim Williams, FAA		
09:00 – 10:00 am	Panel 1 – Net Centric Communications	Panel Chair: Jim Eck, FAA, Director of Program Operations • Ahmad Usmani, FAA, SWIM PM • Patty Craighill, JPDO & USAF	
10:00 – 10:20 am 10:20 – 10:35 am	Questions* BREAK		
	Introduction of Panel Chair Jim Will	liams, FAA	
10:35 – 11:35 am	Panel 2 – Interagency Surveillance	Panel Chair: Spanky Kirsch, Dir, DHS S&T Special Programs LtCol. Tommy Smith, USAFR Glen Dyer, ITT Ken Arkind, Raytheon Jud Stailey, OFCM	
11:35 – 12:00 pm	Questions*		
12:00 – 01:00 pm	LUNCH		

Session F – Aeronautical Spectrum Session Chair: Izabela Gheorghisor, The MITRE Corporation Room: Luray 2			
01:00 – 01:30 pm	Withdrawn by author.		
01:30 – 02:00 pm	Simplified Airport Surface Channel Model Based on the WSSUS Assumption	Snjezana Gligorevic, German Aerospace Center (DLR)	
02:00 – 02:30 pm	Compatibility of Wireless Broadband Networks with Satellite Feeder Links in the 5091-5150 MHz Band	Izabela Gheorghisor, MITRE/CAASD, Yan-Shek Hoh, MITRE/CAASDAlexe Leu, MITRE/CAASD	
02:30 – 03:00 pm	An Overview of VHF Civil Radio Network and the Resolution of Spectrum Depletion	Behnam Kamali, Mercer University	
03:00 – 03:30 pm	Interference Analysis Status and Plans for Aeronautical Mobile Airport Communications System	Robert Kerczewski, NASA Glenn Research Center	
	Session G – Air Ground Integration Session Chair: John Gonda, The MITRE Corporation Room: Rivanna A		
01:00 – 01:30 pm	Automated NOTAM Processing for a Graphical and Textual Integration on Data Link Equipped Aircraft	Andreas Sindlinger, Jeppesen, Nico Zimmer, Jeppesen Thorsten Wiesemann, Jeppesen Roger Li, LFV, Sam van der Stricht, EUROCONTROL	
01:30 – 02:00 pm	Reducing Runway Incursions / Excursions by Utilizing Data Link Enabled Onboard Aeronautical Databases	Gary Livack, FAA, Tom Evans, NASA LaRC	
02:00 – 02:30 pm	NextGen Equipage Interoperability	Ronald Stroup, Federal Aviation Adminstration	
02:30 – 03:00 pm	NextGen Air-Ground Integration Challenges	Ronald Stroup, Federal Aviation Administration, Gary Schaffer, CSSI, Jerry Whittaker, CSSI, Kevin Niewoehner, OpusTek International Corporation	
03:00 – 03:30 pm	Air Ground Collaboration Through Delegated Separation	David Domino, MITRE Corporation, Center for Advanced Aviation System Development, David Tuomey, MITRE Corporation, Center for Advanced Aviation System Development, Anand Mundra, MITRE Corporation, Center for Advanced Aviation System Development, Smith Arthur, MITRE Corporation, Center for Advanced Aviation System Development	

Wednesday, May 12, 2010			
	Session H – ICNS Analysis - JPDO Study Session Chair: Robert Kerczewski, NASA Glenn Research Center Room: Luray 1		
01:00 – 01:30 pm	NextGen Institute/JPDO ICNS Study Effort – Overview of Approach and Results	Paul Ackroyd, Raytheon Company	
01:30 – 02:00 pm	NextGen Institute/JPDO ICNS Study Effort – Evaluation of Alternative Architectures	Michael Thomas, Raytheon Company	
02:00 – 02:30 pm	NextGen Institute/JPDO ICNS Study Effort – Overview of NextGen ICNS Functional Requirements	Stephen Koczo, Rockwell Collins	
02:30 – 03:00 pm	NextGen Institute/JPDO ICNS Study Effort – Portfolio Management	Michael Harrison, Aviation Management Association	
03:00 – 03:30 pm	NextGen Institute/JPDO ICNS Study Effort – Quality of Service Evaluation for Comparison of Alternate ICNS Architectures	Joseph d'Hedouville, Thales ATM Inc.	
	Session I – Air Traffic Management Session Chair: Chris Brinton, Mosaic Room: Rivanna D		
01:00 – 01:30 pm	Trajectory Based Operations Arrival Scenarios for 2025	Mary Ellen Miller, Raytheon	
01:30 – 02:00 pm	Analysis of Stakeholder Benefits on NextGen Trajectory-Based Operations	Guillermo Calderon-Meza, CATSR, George Mason University, Lance Sherry, CATSR, George Mason University	
02:00 – 02:30 pm	Ration By Schedule for Airport Arrival and Departure Planning and Scheduling	Chris Brinton, Mosaic ATM, Inc., Stephen Atkins, Mosaic ATM, Inc., Lara Cook, Mosaic ATM, Inc., Steven Lent, Mosaic ATM, Inc., Thomas Prevost, Federal Aviation Administration	
02:30 – 03:00 pm	TCAS Solution for Low Altitude Flights	Chin Lin, National Cheng Kung University, Yi-Yu Wu, National Cheng Kung University	

Thursday, May 13, 2010 Plenary Session – NextGen Beyond 2018 Chairs: Bob Pearce, JPDO & John Cavalowsky, NASA Room: Riyanna D		
07:30 – 08:30 am	Registration/Continental Breakfast	
08:30 – 08:35 am 08:35 – 08:40 am 08:40 – 09:00 am	Opening Remarks Introduction of Plenary & Keynote Speaker Next Gen, the JPDO and the New Vision	Jim Dieudonne, ICNS Chair, MITRE Bob Pearce, Deputy Director JPDO Dr. Karlin Toner, Director, Joint Program Development Office (JPDO)
Introduction of P	Panel Chair Dr. John Cavalowsky, Director of the Airs	space Systems Program Office, NASA
09:00 – 10:00 am	Panel 1 –NextGen Vehicles	Panel Chair: Bob Pearce, JPDO • Dr. Bruce Holmes, CEO & CSO NextGen AeroSciences, LLC • Dave Nakamura, Boeing • Herb Resnick, Raytheon Corporation • Matt Blake, Sensis Corporation
10:00 – 10:20 am 10:20 – 10:35 am	Questions* BREAK	
	Introduction of Panel Chair Bob Pearce, Deput	ty Director JPDO
10:35 – 11:35 am	Panel 2 – Air Traffic Management (ATM)	Panel Chair: Dr. John Cavalowsky, NASA • Stephen Irmo, Lead Enterprise Architect, JPDO • Mark Andrews, Assistant Director- Commerce, JPDO • Dr. Steve Young, NASA LaRC Principal Investigator • Brenda Mulac, NASA Airborne Science Program
11:35 – 12:00 pm	Questions*	
12:00 – 01:00 pm	LUNCH	

Thursday, May 13, 2010			
	Session J – Aircraft/Airline Operations for NextGen Session Chair: Chip Meserole, Boeing Room: Luray 2		
01:00 – 01:30 pm	Utilizing Simplified Dynamic Density for Estimating Benefits of NextGen Concepts	Alexander Klein, Air Traffic Analysis, Inc, Mark Rodgers, CSSI, Inc	
01:30 – 02:00 pm	Departure Management Achievable Today: Savings in Taxi Time, Fuel Burn, and Emissions	Steve Stroiney, Sensis Corporation	
02:00 - 02:30 pm	Draft ConOps and Departure Manager Prototype	Benjamin Levy, Sensis Corporation	
02:30 – 03:00 pm	Analysis of Airport Stakeholders	David Schaar, George Mason University, Lance Sherry, George Mason University	
03:00 – 03:30 pm	BREAK		
03:30 – 04:00 pm	Trends in Airline Passenger Trip Delays (2007 to 2009)	Lance Sherry, Center for Air Transportation Systems Research, George Mason University, Guillermo Calderon-Mesa, Center for Air Transportation Systems Research, George Mason University, Ashwin Samant, Center for Air Transportation Systems Research, George Mason University	
04:00 – 04:30 pm	Airline Response to Changing Economics and Policy	John Ferguson, George Mason University, Karla Hoffman, George Mason University, Lance Sherry, George Mason University, George Donohue, George Mason University, Abdul Qadar Kara, George Mason University	
04:30 – 05:00 pm	Sensitivity Analysis to the Cost of Delay Model for NextGen Benefit Analysis	Abdul Qadar Kara, George Mason University, John Ferguson, George Mason University, Karla Hoffman, George Mason University, Lance Sherry, George Mason University	
05:00 – 05:30 pm	Tarmac Delay Surveillance and Mitigation System: Requirements Analysis for NextGen	Lance Sherry, Center for Air Transportation Systems Research, George Mason University, Maricel Medina, Center for Air Transportation Systems Research, George Mason University	

Thursday, May 13, 2010			
Sessio	Session L – NextGen Surveillance Session Chair: Anastasios Daskalakis, Volpe National Transportation Systems Center Room: Rivanna A		
01:00 – 01:30 pm	An Introduction to Model-Based ADS-B Service Volume Engineering Design	Erton Boci, ITT Corporation, Dr. Shahram Sarkani, The George Washington University, Dr. Thomas A. Mazzuchi, The George Washington University	
01:30 – 02:00 pm	UAT-Portable (UAT-P) Low Cost Ground Surveillance Vehicle Management System	Robert (Skip) Nelson, ADS-B Technologies, LLC	
02:00 – 02:30 pm	Operational Evaluation of 5 Nautical Mile ADS-B Separation Services in the Gulf of Mexico	Constantine Speridakos and Anastasios Daskalakis, Volpe National Transportation Systems Center	
02:30 – 03:00 pm	Surveillance Data Object Revisited	Dave Whitman, Sunhillo Corporation	
03:00 – 03:30 pm	BREAK		
03:30 – 04:00 pm	Advanced Solutions for Integrated Surveillance	Dr. Jerry Johnson, Thales	
04:00 – 04:30 pm	ADS-B MOPS Updates & Impact on Surveillance & Broadcast Services System (SBSS)	Tricia Gilbert, ITT - Information Systems, Michael Garcia, ITT - Information Systems	
04:30 – 05:00 pm	Monopulse Secondary Surveillance Radar Azimuth Error Distribution Analysis	Leslie Crane, The MITRE Corporation, Robert Eftekari, The MITRE Corporation	
Session M – Topics in Next Generation Air Transportation Session Chair: Chris Wargo, Mosaic ATM, Inc. Room: Luray 1			
01:00 – 01:30 pm	Quality of Service (QoS) Management for NextGen Network Enabled Weather (NNEW)	Praveen Sharma, MIT LL	
01:30 – 02:00 pm	Human-Automation Interaction in Future ATM	Ian Wilson, The Boeing Company	
02:00 – 02:30 pm	Technical Risk Analysis for Satellite Based Tracking Systems	Pasi Kämppi, Laurea University of Applied Sciences, Robert Guinness, Laurea University of Applied Sciences	
02:30 – 03:00 pm	A Clock Recovery Algorithm for Software Defined Radios and Performance Analysis over a Frequency Nonselective Fading Channel	Ali Montazeri, University of Texas at Dallas, Kamran Kiasaleh, University of Texas at Dallas	

Thursday, May 13, 2010		
Session N – Safe and Secure Transportation Systems Session Chair: Kevin Harnett, Volpe National Transportation Systems Center Room: Rivanna D		
01:00 – 01:30 pm	Elements Needed to Support a Crisis Management Collaboration Framework	Emily Beaton, The MITRE Corporation, Lindsley Boiney, The MITRE CorporationJill Drury, The MITRE CorporationRobin GreenPope, The MITRE CorporationMaurice Howland, The MITRE Corporation
01:30 – 02:00 pm	Aviation Security: Flight Risk Profile	Joyce Forman, MITRE Corporation, Catherine Bolczak, MITRE Corporation
02:00 – 02:30 pm	The Ingredients of Risk Management in the Enterprise Setting	Ken Kepchart, FAA
02:30 – 03:00 pm	Aviation Security Collaboration Stakeholder Governance Review	Robin GreenPope, The MITRE Corporation, Emily Beaton, The MITRE Corporation, Lindsley Boiney, The MITRE Corporation, Jill Drury, The MITRE Corporation, Maurice Howland, The MITRE Corporation
03:00 – 03:30 pm	BREAK	
03:30 – 04:00 pm	Assessing the Impact of Airspace Security Measures During Several 2009 Events	Paul Ostwald, The MITRE Corporation, Dennis Rowe, The MITRE Corporation
04:00 – 04:30 pm	Airspace Security Metrics: Design for Assessing the Impact of Airspace Security Incidents	Dennis Rowe, The MITRE Corporation, Thomas Berry, The MITRE Corporation, David Callner, The MITRE Corporation, Patricia Liguori, The MITRE Corporation
04:30 – 05:00 pm	Multimode Safety Metric Analysis	DongHyeok Sohn, Virginia Tech, Antonio Trani, Virginia Tech
05:00 – 05:30 pm	Design Principles and Algorithm Development for Two Types of NextGen Airborne Conflict Detection and Collision Avoidance	Roxaneh Chamlou, MITRE/CAASD