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Special Event Presentations

Presentation	Title	Author(s)
Awards Lunch	One Small Step and One Short Word	Hugh Blair-Smith
Thursday Lunch	From UAV to UAS: a 30 Year Graduation? ALREADY?	Laurence Mutuel

Track 1 - Air Traffic Management

**Bernd Korn, German Aerospace Center (DLR) and
Wolfgang Schuster, Imperial College London**

Session A - Arrival Management

Hunter Kapold and Elida Smith, MITRE/CAASD

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1A2	18	Evaluation of the Terminal Sequencing and Spacing System for Performance-Based Navigation Arrivals	Jane Thippavong, Jaewoo Jung, Lynne Martin, Melody Lin, Jimmy Nguyen
1A3	54	Time-Based Arrival Management Concept with Mixed FMS Equipage	Johan De Prins, Ramon Gomez Ledesma, Max Mulder
1A4	68	Integrated Arrival and Departure Weather Avoidance Routing Within Extended Terminal Airspace	Jit-Tat Chen, Arash Yousefi, Shubh Krishna, Daniel Wesely, Phil Smith
1A5	85	Improved Throughput With Cooperating Futuristic Airspace Management Components	Patricia Glaab

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Aditya Saraf, Saab Sensis Corporation and

Alexander Kuenz, German Aerospace Center (DLR)

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1B2	; 6	Assessing the Impacts of the JFK Ground Management Program	Steven Stroiney, Benjamin Levy, Harshad Khadilkar, Hamsa Balakrishnan
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1B5	14;	Ground Control Support to Evaluate Runway Sequence Modifications: Design and Evaluation	Joris Koeners, Richard Rademaker
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Mary Ellen Miller, Mosaic ATM and Art Tank, Lockheed-Martin			
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1C3	19:	Analysis of Deficiencies in Terminal Operations	Paul Diffenderfer, Travis Gaydos, Simon Heitin, Avinash Pinto, Mark Simons
1C4	1: ;	Assessment of Imperfect Weather Forecasts on Airline and Passenger Planning	Frederick Wieland, Rohit Sharma, Mark Zettlemoyer
1C5		Strategic Airspace Constraint Analysis and Environmental Impact of Dynamic Weather Routes	Kapil Sheth, Banavar Sridhar, Dave McNally, Julien Petersen
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Bill Bateman and Tom Becher, MITRE/CAASD			
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1D2	449	Robust Airspace Design Methods for Uncertain Traffic and Weather	Arash Yousefi, Tim Myers, Joseph Mitchell, Irina Kostitsyna, Rohit Sharma
1D3	45:	A Method to Design a Tie-Point-Based Optimized Profile Descent (OPD) Solution	Christian Grabow
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1D5	485	A Template-Based Approach To Dynamic Airspace Configuration In Presence Of Weather	Panta Lucic, Alexander Klein, Kenneth Leiden, Chris Brinton
1D6	499	Design Considerations For Shortcut Path-Based Time Recovery	Shannon Zelinski
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Ralf H. Mayer, MITRE/CAASD and Patricia Glaab, NASA Langley Research Center			
1E1	4; 2	Individualism in Global Airspace - User-Preferred Trajectories in Future ATM	Alexander Kuenz, Gunnar Schwoch, Franz-Erich Wolter
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Al Herndon, MITRE

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Forrest Colliver, MITRE/CAASD

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2A4	5; 8	Preference and Operational Acceptability of Flightdeck Interval Management Avionics	Kara Latorella, Raleigh B. Perry, Richard Shay , William Merritt, Robert Cameron

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Mark Simons, MITRE/CAASD

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Denise Ponchak, NASA Glenn Research Center

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2C3	6: 7	Time and Energy Management during Descent: Human vs Automated Response	Paul de Jong, Nico de Gelder, Frank Bussink, Ronald Verhoeven, Max Mulder
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Justin Littlefield, GE Aviation			
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Steve DeHart, Saab Sensis Corporation			
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Jeff Beyer, Clarius			
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3C2	969	The Last 200 Feet - A Low-Cost Approach to Landing Aircraft in Zero-Zero Conditions	William McDevitt III
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3C6	999	LDACS1 Ranging Performance - An Analysis of Flight Measurement Results	Dmitriy Shutin, Nicolas Schneckenburger, Michael Walter, Michael Schnell
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Lou Knotts, Calspan			
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Jonathan Lee, US Department of Transportation

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Radha Poovendran, University of Washington and Krishna Sampigethaya, Boeing

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4A5		Candidate Security Solutions for TTEthernet	Wilfried Steiner

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Robert Kerczewski, NASA Glenn Research Center and Art Tank, Lockheed-Martin

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Ryan Wu, Saab Sensis Corporation

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4C5	1020	Wireless Asynchronous Transfer Mode Based Fly-by-Wireless Avionics Network	Chao Zhang, Jialuo Xiao, Liang Zhao

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Michael Schnell, German Aerospace Center (DLR)

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Todd Lovell and Scott Crawford, Raytheon

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Erik Blasch, Air Force Research Lab

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5A3	32: 8	Motion-Based Piloted Flight Simulation Test Results for a Realistic Weather Environment	Taumi Daniels, Philip Schaffner, Emory Evans, Steven Young
5A4	3323	Foundations for Deriving Empirical Model to Predict Selection Times with Soft Keyboard in the Flight Deck	Sridher Kaminani
5A5	3328	Enhanced Air Operations Using JView for an Air-Ground Fused Situation Awareness UDOP	Erik Blasch

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Paul Kostek, Air Direct Solutions

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5B5	3383	Automatic Speech Semantic Recognition and Verification in Air Traffic Control	Daniel Johnson, Val Nenov, Gustavo Espinoza
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5D6	3462	Cloud Computing for Air Traffic Management - Framework Analysis	Liling Ren, Benjamin Beckmann, Thomas Citriniti, Mauricio Castillo-Effen
Track 6 - Emerging Technologies and Systems Jon Paris, Saab Sensis Corporation and Cynthia DeBisschop, Center for Naval Analyses (CNA)			
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6A2	34; 2	A Conflict Avoidance Approach Based On Memetic Algorithm Under 4d-Trajectory Operation Concept	Ji Lv, Xuejun Zhang, Xiangmin Guan
6A3	34; :	A Track Search Optimization Method for Implicit Coordination	Pengfei Duan, Maarten Uijt de Haag
6A4	3532	Preliminary Safety Assessment for a Sectorless ATM Concept	Bettina Birkmeier, David Martín, Karsten Straube, Marcus Biella
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6B1	355;	Wake Vortex Detection, Prediction and Decision Support	Frederic Barbaresco, Philippe Juge, Mathieu

		Tools in SESAR Program	Klein, David Canal, Yves Ricci
6B2	3576	Automated Conflict Resolution for Airport Traffic Using Graduated Intervention	Timothy Waldron, Steven Stroiney, Rachel A Haga
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6B5	359:	A Tool for Objective Evaluation of Pilot's Ability to Determine Dangerous Flight Situations	Pavel Paces, Milan Hruska, Ondrej Bruna
6B6	35; 2	Pilot Compliance to TCAS Resolution Advisories	Amy Pritchett, Elizabeth Fleming
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Jon Paris, Saab Sensis Corporation and Cynthia DeBisschop, Center for Naval Analyses (CNA)			
	P I C	Incorporating Aircraft Extent Into Airport Safety Analysis	Timothy Waldron
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6C3	3633	Applying Automatic Speech Recognition Technology to Air Traffic Management	Hunter Kopald, Ari Chanen, Shuo Chen, Elida C. Smith, Robert M. Tarakan
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Sherif Ali, GE Aviation			
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6D2	3668	Unmanned Aircraft System Demand Generation and Airspace Performance Impact Prediction	Sricharan Ayyalasomayajula, Frederick Wieland, Antonio Trani, Nicolas Hinze
	P I C	UAV Following of Ground Vehicles for Airport Security	Erik Blasch
6D4	367;	Influence of UAS Pilot Communication and Execution Delay on Controller's Acceptability Ratings of UAS-ATC Interactions	Kim-Phuong Vu, Gregory Morales, Dan Chiappe, Thomas Strybel, Vernol Battiste
6D5	368:	Frequency Spectrum for Integration of Unmanned Aircraft	Robert Kerczewski, Jeffrey Wilson, William Bishop
6D6	3699	Towards the Automation of the UAS Mission Management	Pablo Royo, Raul Cuadrado, Cristina Barrado, Esther Salami, Marc Pérez-Battle
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Cynthia DeBisschop, Center for Naval Analyses (CNA)			
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6E2	3722	Multichannel Sense-and-Avoid Radar for Small UAVs	Lei Shi, Christopher Allen, Mark Ewing, Shahriar Keshmiri, Mikhail Zakharov
6E3	3734	Research Paper on the Topic of Different UAV Drive Train Qualification and Parameter Sets	Nicolas Faundes, Volker Wunsch, Stefan Hohnstein, Benjamin Glass, Marcus Vetter

Track 7 - Software Design and Evaluation in Complex Systems

Phil Smith, Ohio State University

Session A - Advances in Software Development Processes I

*Rachel Haga, Georgia Institute of Technology and
Natasha Neogi, National Institute of Aerospace*

7A1	3749	Automated Software Design and Synthesis for Distributed Control of Aircraft Fuel Systems	Carlos C. Insaurralde, Jose M. Giron-Sierra, Santiago Cifuentes, Juan F. Jimenez
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7A3	3773	Prototyping Framework for Digital Flight Control Systems	Petr Dittrich, Peter Chudy, Jan Vlk
7A4	3785	Knowledge Based Engineering to Support Electric and Electronic System Design and Automatic Control Software Development	Fengnian Tian, Mark Voskuijl
7A5	3774	Knowledge-Driven Software Development for Distributed Aircraft Fuel Management	Carlos C. Insaurralde

Session B - Certification and System Safety

Pavel Paces, Czech Technical University in Prague

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7B2	37: 8	Architectural Considerations for Certification of Real-Time Multi-Core Systems	Patrick Huyck
7B3	382:	Reducing Certification Granularity to Increase Adaptability of Avionics Software	Martin Rayrole, David Faura, Marc Gatti
7B5	3857	Certification-Cognizant Real-Time Scheduling for Mixed-Criticality Tasks in Avionics System	Yao Chen, Qiao Li, Xiaojie Tu, Huagang Xiong

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Chris Wargo, Mosaic ATM

	P IC	Integrating Test and Proof in the Verifiable SPARK Language using Contracts and SMT Solvers	Tucker Taft
7C2	3868	Elaboration of Safety Requirements	Kristina Forsberg, Eva Mårbring Isaksson, Barbara Gallina, Kristina Lundqvist, Achille Penna
7C3	3877	Evolution Assisted Flight Control System Design	Petr Dittrich, Peter Chudy, Jan Vlk
7C5	3886	Automated Generation of Test Cases for Critical Systems Based on MC/DC Criteria.	Mateus Almeida, Juliana Bezerra, Celso Hirata

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Mauricio Castillo-Effen, GE Aviation

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7D6	373;	Research on Distributed Integrated Modular Avionics System Architecture Design and Implementation	Guoqing Wang, Qingfan Gu

Session E - Advances in Software Development Processes II

Phil Smith, Ohio State University and Yosef Gavriel Tirat-Gefen, Castel Research

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	P IC	Advances in Software Development Processes	Victoria Spinanger

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Al Helfrick, Embry-Riddle Aeronautical University

Sessions A and C: Al Helfrick, Embry-Riddle Aeronautical University

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8C1	397:	Modeling and Reliability Evaluation of Avionics Clouds Based on AADL and GSPN	Xiaojie Tu, Jinrui Xu
8C2	398;	Analysis of the Airspace Design Trade Space	Antoine Genton, Amy Pritchett
8C3	3998	Performance Evaluation of Two Altimeters Intended for Euler Angles Measurement	Pavel Paces, Jan Popelka

Session B - Awards Lunch Presentation

Hugh Blair-Smith, Down to the Metal

8B1	3972	One Small Step and One Short Word	Hugh Blair-Smith
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