



12th USA/EUROPE Air Traffic Management R&D Seminar **AGENDA**



27 - 30 June 2017
Seattle, Washington, USA

Monday • 26 June 2017

18:30 -
20:30

Registration: *Prefunction - Great Room 1*

Tuesday • 27 June 2017

07:00

Registration: *Prefunction - Great Room 1*

Plenary Opening Session: *Great Room 1*

08:00

Welcome to Seattle: **David C. Suomi**, FAA Acting Regional Administrator, Northwest Mountain Region

08:15

Welcome to ATM2017: Introduction, Program & Logistics

Colin Meckiff (EUROCONTROL) and **Eric Neiderman** (FAA), ATM2017 Chairs

08:30

Opening Keynote (Europe): **Bo Redeborn**, Former Principal Director ATM and R&D, EUROCONTROL

"Opportunities taken, opportunities missed and opportunities ahead"

09:15

Opening Keynote (U.S.): **Kourosh Hadi**, Senior Director of Airplane Product Development, Boeing Commercial Airplanes

"Challenges in Aviation Innovation"

10:00

Coffee: *Prefunction - Great Room 1*

10:30

11:15

12:00

Track 1: *Studio 1/2*

Performance Measurement and Management

Session Chair: Jose Miguel de Pablo

110 Koelle

123 Balakrishnan, Gopalakrishnan

128 Estes, Ball, Lovell

Track 2: *Studio 4/5*

Integrated Airport/ Airside Operations

Session Chair: Miquel Angel Piera

3 Huet, Pickup

105 Sanz, Comendador, et al.

107 Herrema, Treve, Desart, et al.

Track 3: *Great Room 2A/B*

Terminal Area Operations

Session Chair: Eric Hoffman

61 Vanwelsenaere, Ellerbroek et al.

43 Lascara, Weitz, Monson, Mount

30 Priess, Weitz, Bowman, Levitt

12:45

Lunch: *Great Room 1*

14:00

14:45

Performance Measurement and Management

Session Chair: Joseph Post

50 Shah

130 Liu, Hansen, Lovell, Chuang, et al.

Integrated Airport/ Airside Operations

Session Chair: Hamsa Balakrishnan

23 Papenfuss, Carstengerdes, et al.

116 Schultz

Terminal Area Operations

Session Chair: Hartmut Fricke

57 Bronsvort, Hochwarth, et al.

103 Christien, Hoffman, et al.

15:30

Coffee: *Prefunction - Great Room 1*

16:00

16:45

Complexity and Big Data

Session Chair: Michael Ball

52 Yang, Yin, Hu, Xu

129 Wang, Xu, Hu, Zhan

Human Factors

Session Chair: Sandy Lozito

20 Kopald, Chen, Chong, et al.

22 Helmke, Ohneiser, Buxbaum, et al.

Surveillance and Navigation

Session Chair: Dirk Kuegler

27 Schaad

118 Trenevskas, De Smedt, Moek

Wednesday • 28 June 2017

06:00

5K Fun Run

07:00

Registration Desk Open: *Prefunction - Great Room 1*

07:45

08:30

09:15

10:00

Track 1: *Studio 1/2*

Complexity and Big Data

Session Chair: Michael Ball

66 Sun, Ellerbroek, Hoekstra

83 Ellerbroek, Verbraak, Sun, Hoekstra

67 Sunil, Ellerbroek, Hoekstra, Maas

97 Radanovic, Eroles, Koca, Nieto

Track 2: *Studio 4/5*

Human Factors

Session Chair: Billy Josefsson

33 Svensson, Forsell, et al.

37 Gianazza

74 Idris, Burke, Wing, Enea

84 Pelchen-Medwed, Biede

Track 3: *Great Room 2A/B*

Separation

Session Chair: John Robinson

134 Ramos, Scheffers, Radanovic, et al.

75 Zhao, Meng, Xu, Geng

31 Wang, Allignol, Durand, et al.

9 Wei, Li, Fei Liu, Wei Liu

10:45 **Coffee: Prefunction - Great Room 1**

	Trajectory Prediction <i>Session Chair: Craig Wanke</i>	Network and Strategic Flow <i>Session Chair: Nicolas Durand</i>	Safety and Resilience <i>Session Chair: Dirk Schaefer</i>
11:15	25 Sun, Ellerbroek, Hoekstra	15 Schmidt, Granberg, et al.	46 Moss, Londner
12:00	94 Chati, Balakrishnan	80 Fomeni, Zografos, Lulli	68 Tra, Sunil, Ellerbroek, Hoekstra
12:45	121 Vandermeersch, Marmont	139 Pratts, Xu	13 Kuhn

13:30 **Lunch: Great Room 1**

Thursday • 29 June 2017

07:00 **Registration: Prefunction - Great Room 1**

	Track 1: Studio 1/2	Track 2: Studio 4/5	Track 3: Great Room 2A/B
	Environment and Energy <i>Session Chair: Tom Reynolds</i>	Network and Strategic Flow <i>Session Chair: Guglielmo Lulli</i>	Safety and Resilience <i>Session Chair: Natesh Manikoth</i>
08:00	98 Enea, Bronsvoort, Fricke, et al.	55 Alam, Chaimatanan, et al.	136 Roy, Xue, Sridhar
08:45	138 Kang, Hansen	60 Conze, Simonetto, Huens, et al.	104 Blom, Bakker
09:30	17 Howell, Dean	125 Balakrishnan, Chandran	59 Palumbo, Filippone

10:15 **Coffee: Prefunction Great Room 1**

	Environment and Energy <i>Session Chair: Tom Reynolds</i>	Network and Strategic Flow <i>Session Chair: Midori Tanino</i>	Weather In ATM <i>Session Chair: Mark Weber</i>
10:45	135 Jensen, Thomas, Brooks, et al.	51 Moehlenbrink, Parke, Yoo, et al.	8 Matthews, Veillette, Venuti, et al.
11:30	113 Rosenow, Förster, Lindner, Fricke	101 Taylor, Liu, Wanke, Stewart	137 Liu, Hansen, Zhang, Li, et al.

12:15 **Lunch: Great Room 1**

	Environment and Energy <i>Session Chair: Karen Marais</i>	UAS and RPAS <i>Session Chair: Peter Hecker</i>	Finance and Policy <i>Session Chair: Mark Hansen</i>
13:30	108 Finck, Martins, Stelkens-Kobsch	16 Balachandran, Narkawicz, et al.	89 Jacquillat, Vaze
14:15	124 Prats, Dalmau, Verhoeven, Bussink	64 Allignol, Barnier, Durand, et al.	111 Vaze, Harder
15:00	119 Reynolds, Clemons, et al.	140 Rodriguez, Balampanis, et al.	70 Schmidt, Polishchuk, et al.

15:30 **Coffee: Prefunction - Great Room 1**

	Weather In ATM <i>Session Chair: Mark Weber</i>	UAS and RPAS <i>Session Chair: Kenneth Allendoerfer</i>	Finance and Policy <i>Session Chair: Michael Standar</i>
16:15	99 Dhief, Dougui, Delahaye, Hamdi	54 Thipphavong, Cone, Lee.	91 Kirby, Pilon
17:00	72 Jones, Delaura, Pawlak, et al.	76 Johnson, Jung, Rios, Mercer, et al.	132 Ball, Swaroop, Barnhart, et al.

19:00 **Dinner - Guest Speaker: Great Room 1**

Gregory J. Bowles, Vice President, Global Innovation and Policy, General Aviation Manufacturers Association (GAMA)

Friday • 30 June 2017: Great Room 1

08:00	Perspectives from NextGen and SESAR FAA Speaker: James T. Eck , Assistant Administrator for NextGen SESAR Speaker: Michael Standar , Chief Strategy & External Affairs, SJU Joint Question and Answer Session
09:30	Coffee: Prefunction - Great Room 1
10:00	Panel Session - Innovation, New Entrants, and ATM (see page 13 for Moderator & Panel Members)
11:30	Best Paper Awards and Closing Colin Meckiff (EUROCONTROL) and Eric Neiderman (FAA), ATM2017 Chairs

Tuesday • 27 June - Opening Session: **Great Room 1**

07:00	Registration Desk Open: Prefunction - Great Room 1
08:00	Welcome to Seattle: David C. Suomi , FAA Acting Regional Administrator, Northwest Mountain Region
08:15	Welcome to ATM 2017: Colin Meckiff (EUROCONTROL) and Eric Neiderman (FAA), ATM2017 Chairs
08:30	Opening Keynote (Europe): Bo Redeborn , Former Principal Director ATM and R&D, EUROCONTROL <i>"Opportunities taken, opportunities missed and opportunities ahead"</i>
09:15	Opening Keynote (U.S.): Kourosh Hadi , Sr. Director of Airplane Product Development, Boeing Commercial Airplanes <i>"Challenges in Aviation Innovation"</i>

10:00 Coffee: Prefunction - Great Room 1

Tuesday • 27 June - Tracks

Track 1: Performance Measurement and Management: **Studio 1/2**

Session Chair: *Jose Miguel de Pablo (CRIDA)*

Time	Paper	Title	Authors (presenter in bold)
10:30	110	Open source software and crowd sourced data for operational performance analysis	Rainer Koelle (EUROCONTROL)
11:15	123	A Comparative Analysis of Models for Predicting Delays in Air Traffic Networks	Hamsa Balakrishnan , Karthik Gopalakrishnan (MIT)
12:00	128	Predicting Performance of Ground Delay Programs	Alexander Estes , Michael Ball , David Lovell (University of Maryland)

Track 2: Integrated Airport/Airside Operations: **Studio 4/5**

Session Chair: *Miquel Angel Piera (Universitat Autònoma de Barcelona)*

Time	Paper	Title	Authors (presenter in bold)
10:30	3	Local and network impact assessment of Airport Collaborative Decision Making (A-CDM)	Denis Huet (EUROCONTROL), Simon Pickup (Atlas Chase)
11:15	105	Analysis of Saturation at the Airport-Airspace Integrated Operations	Alvaro Rodriguez-Sanz , Fernando Gomez Comendador , Rosa Arnaldo Valdes (Technical University of Madrid), Jose Manuel Cordero Garcia and Lucia Meler Garcia (CRIDA)
12:00	107	A novel machine learning model to predict abnormal Runway Occupancy Times and observe related precursors	Floris Herrema (EUROCONTROL AND TUDelft), Vincent Treve and Bruno Desart (EUROCONTROL), Ricky Curran , Dries Visser (TUDelft)

Track 3: Terminal Area Operations: **Studio 2 A/B**

Session Chair: *Eric Hoffman (EUROCONTROL)*

Time	Paper	Title	Authors (presenter in bold)
10:30	61	Analysis on the Impact of Pop-Up Flight Occurrence when Extending the Arrival Management Horizon	Alexander Vanwelsenaere , Joost Ellerbroek , Jacco M. Hoekstra (Delft University of Technology), Evert Westerveld (Air Traffic Control the Netherlands)

Tuesday • 27 June - Tracks (continued)

11:15	43	Measuring Performance of Initial Ground-based Interval Management - Spacing (GIM-S) Operations	Brock Lascara , Lesley Weitz, Thomas Monson (MITRE), Robert Mount (FAA)
12:00	30	Analysis of the Use of Estimated Time of Arrival Broadcast for Interval Management	Stephanie Priess , Lesley Weitz, Stuart Bowman (MITRE), Ian Levitt (FAA)

12:45 Lunch: Great Room 1

Track 1: Performance Measurement and Management (continued): **Studio 1/2**

Session Chair: Joseph Post (FAA)

Time	Paper	Title	Authors (presenter in bold)
14:00	50	Causal Inference for ATM Counterfactual Estimation	Akhil Shah (RAND Corporation)
14:45	130	Causal Analysis of En Route Flight Inefficiency – the US Experience	Yulin Liu , Mark Hansen (University of California, Berkeley), David Lovell, Cara Chuang, Michael Ball (University of Maryland), John Gulding (FAA)

Track 2: Integrated Airport/Airside Operations (continued): **Studio 4/5**

Session Chair: Hamsa Balakrishnan (MIT)

Time	Paper	Title	Authors (presenter in bold)
14:00	23	What to say when: Guidelines to Decision Making	Anne Papenfuss , Nils Carstengerdes, Sebastian Schier and Yves Günther (DLR)
14:45	116	Aircraft Boarding – Data, Validation, Analysis	Michael Schultz (DLR e.V.)

Track 3: Terminal Area Operations (continued): **Studio 2 A/B**

Session Chair: Hartmut Fricke (TU Dresden)

Time	Paper	Title	Authors (presenter in bold)
14:00	57	Design Considerations of Vertically-Constrained PBN Procedures for Trajectory Management	Jesper Bronsvoort (Airservices Australia), Joachim Hochwarth (GE Aviation), Christina Young (FAA) Greg McDonald (Independent), Jean Boucquey (EUROCONTROL), Sergio Torres (Leidos), Mike Paglione (FAA)
14:45	103	Toward the characterisation of sequencing arrivals	Raphael Christien , Eric Hoffman, Aymeric Trzmiel, Karim Zeghal (EUROCONTROL)

15:30 Coffee: Prefunction - Great Room 1

Track 1: Complexity and Big Data: **Studio 1/2**

Session Chair: Michael Ball (University of Maryland)

Time	Paper	Title	Authors (presenter in bold)
16:00	52	A case study of non-linear dynamics of “human-flow” behavior in terminal airspace	Lei Yang , Suwan Yin, Minghua Hu (NUAA), Yan Xu (Technical University of Catalonia)

Tuesday • 27 June - Tracks (continued)

16:45	129	The Structure and Dynamics of the Multilayer Air Transport System	Yanjun Wang , Xinhua Xu, Minghua Hu (Nanjing University of Aeronautics and Astronautics, Jianming Zhan (Air Traffic Management Bureau, Civil Aviation Administration of China)
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Track 2: Human Factors: *Studio 4/5*

Session Chair: *Sandy Lozito (NASA Ames)*

Time	Paper	Title	Authors (presenter in bold)
16:00	20	Read Back Error Detection using Automatic Speech Recognition	Hunter Kopald , Shuo Chen, Ronald Chong, Yuan-Jun Wei and Zachary Levonian (MITRE)
16:45	22	Increasing ATM Efficiency with Assistant Based Speech Recognition	Hartmut Helmke , Oliver Ohneiser (German Aerospace Center, DLR), Jörg Buxbaum (DFS Deutsche Flugsicherung GmbH), Christian Kern (Austro Control GmbH)

Track 3: Surveillance and Navigation: *Studio 2 A/B*

Session Chair: *Dirk Kuegler (DLR)*

Time	Paper	Title	Authors (presenter in bold)
16:00	27	PBN Hybrid Procedures as an Enabler for Airport Accessibility in Challenging Terrain	Philipp Daniel Schaad (Austro Control)
16:45	118	Using PBN for Terminal and Extended Terminal Operations	Dijana Trenevskaa , David De Smedt, (EUROCONTROL), Geert Moek (Netherlands Aerospace Centre)

Wednesday • 28 June

06:00 **5K Fun Run**

07:00 **Registration Desk Open: Prefunction - Great Room 1**

Wednesday • 28 June - Tracks

Track 1: Complexity and Big Data (continued): **Studio 1/2**

Session Chair: Michael Ball (University of Maryland)

Time	Paper	Title	Authors (presenter in bold)
07:45	66	Modeling Aircraft Performance Parameters with Open ADS-B Data	Junzi Sun , Joost Ellerbroek, Jacco Hoekstra (Delft University of Technology)
08:30	83	Large-Scale ADS-B Data and Signal Quality Analysis	Joost Ellerbroek , Ted Verbraak, Junzi Sun, Jacco Hoekstra (Delft University of Technology)
09:15	67	Modeling Airspace Stability and Capacity for Decentralized Separation	Emmanuel Sunil , Joost Ellerbroek, Jacco Hoekstra, Jerom Maas (Delft University of Technology)
10:00	97	Self-Reorganized Supporting Tools for Conflict Resolution in High-Density Airspace Volumes	Marko Radanovic, Miquel Angel Piera Eroles , Thimjo Koca (Universitat Autònoma de Barcelona), Francisco Javier Saez Nieto (Cranfield University)

Track 2: Human Factors (continued): **Studio 4/5**

Session Chair: Billy Josefsson (LFV)

Time	Paper	Title	Authors (presenter in bold)
07:45	33	Analysis of work patterns as a foundation for human-automation communication in multiple remote towers	Åsa Svensson , Camilla Forsell, Jimmy Johansson, Jonas Lundberg (Linköping University)
08:30	37	Learning Air Traffic Controller Workload from Past Sector Operations	David Gianazza (ENAC)
09:15	74	Assessment of Air Traffic Controller Acceptability of Aircrew Route Change Requests	Husni Idris (NASA Ames), Kelly Burke, David Wing (NASA Langley), Gabriele Enea (Engility Corporation)
10:00	84	Effectiveness of the application of the Human Performance Assessment Process in SESAR 1	Renee Pelchen-Medwed (EUROCONTROL), Sonja Biede (Airbus)

Track 3: Separation: **Studio 2 A/B**

Session Chair: John Robinson (NASA Ames)

Time	Paper	Title	Authors (presenter in bold)
07:45	134	A Constraint Programming Model with Time Uncertainty for Cooperative Flight Departures	Juan Jose Ramos , Nina Schefers, Marko Radanovic, Miquel Angel Piera, (Universitat Autònoma de Barcelona), Pau Folch (ASLOGIC)
08:30	75	Agent-based Formation Flight Coalition under Incomplete Information	Yifei Zhao , Linghang Meng, Xiaohao Xu and Zengxian Geng (Civil Aviation University of China)
09:15	31	Large Scale 3D En-Route Conflict Resolution	Ruixin Wang , Cyril Allignol, Nicolas Durand, Alexandre Gondran, Nicolas Barnier (ENAC)

Wednesday • 28 June - Tracks (continued)

10:00	9	Methods of Aircraft Re-categorizations for Reducing Wake Vortex Separations	Zhiqiang Wei , Zhiyuan Li, Fei Liu, Wei Liu (CAUC)
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10:45 **Coffee: Prefunction - Great Room 1**

Track 1: Trajectory Prediction: **Studio 1/2**

Session Chair: Craig Wanke (MITRE)

Time	Paper	Title	Authors (presenter in bold)
11:15	25	Bayesian Inference of Aircraft Initial Mass	Junzi Sun , Joost Ellerbroek, Jacco Hoekstra (Delft University of Technology)
12:00	94	Statistical Modeling of Aircraft Takeoff Weight	Yashovardhan Sushil Chati, Hamsa Balakrishnan (MIT)
12:45	121	A simple method to integrate Mode S Indicated Airspeed with Ground Based Trajectory Prediction	Bram Vandermeersch , Jonathan Marmont (NATS)

Track 2: Network and Strategic Flow: **Studio 4/5**

Session Chair: Nicolas Durand (ENAC)

Time	Paper	Title	Authors (presenter in bold)
11:15	15	A Novel MIP-based Airspace Sectorization for TMAs	Christiane Schmidt , Tobias Andersson Granberg, Tatiana Polishchuk, Valentin Polishchuk (Linköping University)
12:00	80	An optimization model for assigning 4D- trajectories to flights under the TBO concept	Franklin Djeumou Fomeni, Konstantinos G. Zografos, Guglielmo Lulli (Lancaster University Management School)
12:45	139	Including Linear Holding in Air Traffic Flow Management for Flexible Delay Handling	Yan Xu, Xavier Prats (Technical University of Catalonia)

Track 3: Safety and Resilience: **Studio 2 A/B**

Session Chair: Dirk Schaefer (EUROCONTROL)

Time	Paper	Title	Authors (presenter in bold)
11:15	46	A Bayesian Network Model of Pilot Response to TCAS Resolution Advisories	Robert Moss , Edward Londner (MIT Lincoln Laboratory)
12:00	68	Modeling the Intrinsic Safety of Unstructured and Layered Airspace Designs	Martijn Tra, Emmanuel Sunil , Joost Ellerbroek, Jacco Hoekstra (Delft University of Technology)
12:45	13	Topics and Trends in Incident Reports	Kenneth Kuhn (RAND Corporation)

13:30 **Lunch: Great Room 1**

Thursday • 29 June

07:00 **Registration Desk Open: Prefunction - Great Room 1**

Thursday • 29 June - Tracks

Track 1: Environment and Energy: **Studio 1/2**

Session Chair: Tom Reynolds (MIT LL)

Time	Paper	Title	Authors (presenter in bold)
08:00	98	Fuel Burn Estimation Modeling for ATM Benchmark Applications Perspectives from an International Collaboration	Gabriele Enea (MITRE), Jesper Bronsvort (Airservices Australia), Hartmut Fricke, Christian Seiß, Judith Rosenow, (TU Dresden), Almira Ramadani, Mike Paglione (FAA)
08:45	138	Quantile Regression Based Estimation of Statistical Contingency Fuel	Lei Kang, Mark Hansen (University of California, Berkeley)
09:30	17	Have Descents really become more Efficient?	Daniel Howell , Rob Dean (Regulus Group)

Track 2: Network and Strategic Flow (continued): **Studio 4/5**

Session Chair: Guglielmo Lulli (University of Lancaster)

Time	Paper	Title	Authors (presenter in bold)
08:00	55	A Distributed Air Traffic Flow Management Model for European Functional Airspace Blocks	Sameer Alam (University of New South Wales), Supatcha Chaimatanan (Geo- informatics and Space Technology Development Agency), Daniel Delahaye (French Civil Aviation University), Eric Feron (Georgia Institute of Technology)
08:45	60	Probabilistic Occupancy Counts and Flight Criticality Measures for ATM	François Gonze , Andrea Simonetto, Etienne Huens, Raphaël M. Jungers (Université catholique de Louvain), Jean Boucquey (EUROCONTROL ATM/RDS/ATS)
09:30	125	A Distributed Framework for Traffic Flow Management in the Presence of Unmanned Aircraft	Hamsa Balakrishnan (MIT), Bala Chandran (Resilient Ops, Inc.)

Track 3: Safety and Resilience (continued): **Studio 2 A/B**

Session Chair: Natesh Manikoth (FAA)

Time	Paper	Title	Authors (presenter in bold)
08:00	136	Vulnerability Metrics for the Airspace System	Sandip Roy , Mengran Xue (Washington State University), Banavar Sridhar (Independent)
08:45	104	Emergent Behaviour of Trajectory Based Operations Under Very High En-route Traffic Demand	Henk Blom (NLR and TUDelft), Bert Bakker (NLR)
09:30	59	A Quantitative Approach to Resilience Engineering for the Future ATM System: Case Studies Results	Roberto Palumbo , Edoardo Filippone (CIRA – Italian Aerospace Research Center)

10:15 **Coffee: Prefunction - Great Room 1**

Thursday • 29 June - Tracks (continued)

Track 1: Environment and Energy (continued): *Studio 1/2*

Session Chair: *Tom Reynolds (MIT LL)*

Time	Paper	Title	Authors (presenter in bold)
10:45	135	Analytical Approach for Quantifying Noise from Advanced Operational Procedures	Luke Jensen , Jacqueline Thomas, Callen Brooks, Morrisa Brenner, R. John Hansman (MIT)
11:30	113	Impact of Multi-criteria Optimized Trajectories on European Air Traffic Density, Efficiency and the Environment	Judith Rosenow , Stanley Förster, Martin Lindner, Hartmut Fricke (Technische Universität Dresden)

Track 2: Network and Strategic Flow (continued): *Studio 4/5*

Session Chair: *Midori Tanino (FAA)*

Time	Paper	Title	Authors (presenter in bold)
10:45	51	Evaluation of Integrated Demand Management looking into Strategic & Tactical Flow Management	Christoph Moehlenbrink , Bonny Parke, Hyo-Sang Yoo, Connie Brasil, Nathan Buckley, Constantine Speridakos, Francisco Muro, Gita Hodell (San Jose State University Research Foundation), Paul Lee, Nancy Smith (NASA Ames)
11:30	101	Generating Diverse Reroutes for Tactical Constraint Avoidance	Christine Taylor , Sheng Liu, Craig Wanke, Timothy Stewart (MITRE)

Track 3: Weather in ATM: *Studio 2 A/B*

Session Chair: *Mark Weber (NOAA)*

Time	Paper	Title	Authors (presenter in bold)
10:45	8	Translating Convective Weather Forecasts into Strategic Traffic Management Decision Aids	Michael Matthews , Mark Veillette, Joseph Venuti, Richard Delaura, James Kuchar (MIT)
11:30	137	Modeling Ground Delay Program Incidence using Convective and Local Weather Information	Yi Liu , Mark Hansen, Danqing Zhang, Yulin Liu, Alexey Pozdnukhov (University of California, Berkeley)

12:15 **Lunch: *Great Room 1***

Track 1: Environment and Energy (continued): *Studio 1/2*

Session Chair: *Karen Marais (Purdue)*

Time	Paper	Title	Authors (presenter in bold)
13:30	108	Operational Feasibility of Segmented Independent Parallel Approaches	Tobias Finck , Bernd Korn, Ana Paz Gonçalves Martins, Tim Stelkens-Kobsch (DLR – Institute of Flight Guidance)
14:15	124	Human-in-the-loop Performance Assessment of Optimized Descents with Time Constraints: Results from Full Motion Flight Simulation and a Flight Testing Campaign	Xavier Prats , Ramon Dalmau (Technical University of Catalonia), Ronald Verhoeven, Frank Bussink (Netherlands Aerospace Center)
15:00	119	Analyzing & Implementing Delayed Deceleration Approaches	Tom Reynolds , Emily Clemons (MIT Lincoln Laboratory), John Hansman, Jacquie Thomas (MIT)

Thursday • 29 June - Tracks (continued)

Track 2: UAS and RPAS: **Studio 4/5**

Session Chair: *Peter Hecker (TU Braunschweig)*

Time	Paper	Title	Authors (presenter in bold)
13:30	16	A Path Planning Algorithm to Enable Well-Clear Low Altitude UAS Operation Beyond Visual Line of Sight	Swee Balachandran (National Institute of Aerospace), Anthony Narkawicz, Cesar Munoz, Maria Consiglio (NASA)
14:15	64	Assessing the Robustness of a UAS Detect & Avoid Algorithm	Cyril Allignol , Nicolas Barnier, Nicolas Durand, Guido Manfredi (ENAC), Éric Blond (DSNA/DTI)
15:00	140	Wind Efficient Path Planning and Reconfiguration of UAS in Future ATM	Leopoldo Rodriguez, Fotios Balampanis, Jose A. Cobano , Ivan Maza, Anibal Ollero (University of Seville)

Track 3: Finance and Policy: **Studio 2 A/B**

Session Chair: *Mark Hansen (UC Berkeley)*

Time	Paper	Title	Authors (presenter in bold)
13:30	89	Balancing Reliability, Efficiency and Equity in Airport Scheduling Interventions	Alexandre Jacquillat (Carnegie Mellon University), Vikrant Vaze (Dartmouth College)
14:15	111	A Game-Theoretic Modeling Approach to Air Traffic Forecasting	Vikrant Vaze, Reed Harder (Dartmouth College)
15:00	70	A Step Towards Remote Tower Center Deployment: Optimizing Staff Schedules	Christiane Schmidt , Tatiana Polishchuk, Valentin Polishchuk, (Linköping University), Billy Josefsson (LFV)

15:30 **Coffee: Prefunction - Great Room 1**

Track 1: Weather in ATM (continued): **Studio 1/2**

Session Chair: *Mark Weber (NOAA)*

Time	Paper	Title	Authors (presenter in bold)
16:15	99	Strategic planning of North Atlantic Oceanic air traffic based on a new wind-optimal route structure	Imen Dhief , Nour Houda Dougui (ENSI), Daniel Delahaye (Ecole National D'Aviation Civile), Nouredine Hamdi (INSAT)
17:00	72	Predicting & Quantifying Risk in Airport Capacity Profile Selection for Air Traffic Management	James Jones , Richard Delaura, Margo Pawlak, Seth Troxel, Ngaire Underhill (MIT Lincoln Laboratory)

Track 2: UAS and RPAS (continued): **Studio 4/5**

Session Chair: *Kenneth Allendoerfer (FAA)*

Time	Paper	Title	Authors (presenter in bold)
16:15	54	Ensuring Interoperability between UAS Detect-and-Avoid and Manned Aircraft Collision Avoidance	David Thipphavong , Andrew Cone (NASA), Seungman Lee (Crown Consulting, Inc.)
17:00	76	Flight Test Evaluation of an Unmanned Aircraft System Traffic Management (UTM) Concept for Multiple Beyond-Visual-Line-of-Sight	Marcus Johnson , Jaewoo Jung, Joseph Rios, Joey Mercer, Thomas Prevot, Daniel Mulfinger, Parimal Kopardekar (NASA)

Thursday • 29 June - Tracks (continued)

Track 3: Finance and Policy: *Studio 2 A/B*

Session Chair: *Michael Standar (SJU)*

Time	Paper	Title	Authors (presenter in <i>bold</i>)
16:15	91	Minimizing the Cost of Delay for Airspace Users	Stephen Kirby , Nadine Pilon (EUROCONTROL)
17:00	132	Service Level Expectation Setting for Air Traffic Flow Management: Practical Challenges and Benefits Assessment	Michael Ball , Prem Swaroop (University of Maryland), Cynthia Barnhart, Chiwei Yan (MIT), Mark Hansen, Lei Kang, Yi Liu (University of California, Berkeley), Vikrant Vaze (Dartmouth College)

19:00 Dinner - Guest Speaker: *Great Room 1*

Greg Bowles, Vice President, Global Innovation and Policy, General Aviation Manufacturers Association (GAMA)

Friday • 30 June: **Great Room 1**

- 08:00** **Perspectives from NextGen and SESAR**
FAA Speaker:
 James T. Eck, Assistant Administrator for NextGen

SESAR Speaker:
 Michael Standar, Chief Strategy & External Affairs, SJU

Joint Question and Answer Session

09:30 **Coffee: Prefunction - Great Room 1**

- 10:00** **Panel Session - Innovation, New Entrants, and ATM**
Panel Moderator: Parimal Kopardekar, Senior Technologist, Air Transportation System (NASA)
 Gur Kimchi, Vice President, Amazon Prime Air
 Joe Polastre, Senior Product Lead, A³ by Airbus
 Alex Roetter, Vice President Software, KittyHawk Corporation
 Greg Bowles, Vice President, Global Innovation and Policy, General Aviation Manufacturers Association (GAMA)

11:30 **Best Paper Awards and Closing**
 Colin Meckiff (EUROCONTROL) and **Eric Neiderman** (FAA), ATM2017 Chairs



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