Day 1 – Monday – June 27, 2005

7:00 a.m. - 8:30 a.m. Breakfast (Atrium/Harborview)

8:00 a.m. Registration – Constellation Rooms D, E, F

9:00 a.m. Plenary - Welcome
   Sabrina Saunders-Hodge – FAA (USA Chair)
   Christian Pusch – EEC (Europe Chair)
   Joan Bauerlein – FAA (Director, ATO-P R&D)
   Pierre Andribet – EEC (Deputy Director, EEC)

9:30 a.m. Break (Atrium)

10:00 a.m. Tracks Begin – See attached Track Descriptions & Locations

11:45 a.m. Lunch (Atrium/Harborview)

1:15 p.m. Tracks Continue

2:45 p.m. Break (Atrium)

5:30 p.m. Adjourn

7:00 p.m. - 9:00 p.m. Reception – Hyatt Hotel – Pisces Lounge
Access to Pisces Lounge via Elevators 3 & 4 – Elevators accommodate 10 people at one time.
Please wear your badge.
Track 1 – Metrics and Performance Management (Room- Constellation D)

Metrics Rapporteur: Wim Post – Eurocontrol HQ
Session Chair: Jean-Marc Pomeret – CENA

10:15 a.m.  Economic Contribution and Productivity of ATM  Paula Leal de Matos – Eurocontrol DAS

11:00 a.m.  Extent and Impact of Future NAS Capacity Shortfalls in the United States: A Socio-Economic Demand Study  Shahab Hasan - LMI

Session Chair: Ann Tedford - FAA

1:15 p.m.  Flight Efficiency Studies in Europe and the United States  Tarja Kettunen – ISA Software

2:00 p.m.  A Preliminary Analysis of the Impact of Mile-In-Trail Restrictions on NAS Flight Operations  Tim Myers – Metron Aviation, Inc.

Session Chair: Mark Hansen – University of California at Berkeley

3:15 p.m.  Modeling Delays and Cancellation Probabilities to Support Strategic Simulations  David Lovell - University of Maryland

4:00 p.m.  Estimation of Arrival Capacity and Utilization at Major Airports  Husni Idris – Titan Corp.

4:45 p.m.  The Feasibility of Measuring Capacity in a Real-Time ATM Simulation Independent of Subjective Controller Workload Measurement  Mick van Gool - Eurocontrol/Kevin Corker-San Jose State Univ.

Track 2 – Airspace Management/Decision Support (Room - Constellation E)

Airspace Management Rapporteur: Vojin Tosic – University of Belgrade
Session Chair: Mark Hansen – University of California at Berkeley

10:15 a.m.  An Efficient Method for Airspace Analysis and Partitioning Based on Equalized Traffic Mass  Alexander Klein - George Mason University

11:00 a.m.  Assessment of the 3D-Separation of Air Traffic Flows  David Gianazza - CENA/LOG

1:15 p.m.  Emergence and Impact of Secondary Airports in the United States  Philippe Bonnefoy - MIT
### Track 3 – Safety (Room - Constellation F)

**Safety Rapporteur:** George Donohue – George Mason University  
**Session Chair:** Jan Terlouw – NLR

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<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>10:15 a.m.</td>
<td>Preliminary Results from a European Safety R&amp;D Program</td>
<td>Barry Kirwan – Eurocontrol EEC</td>
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<tr>
<td>11:00 a.m.</td>
<td>The Link between Operational Performance and Operational Errors in the National Airspace System</td>
<td>Mark Hansen - University of California at Berkeley</td>
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<tr>
<td>1:15 p.m.</td>
<td>Safety Analysis for Advanced Separation Concepts</td>
<td>John Andrews - MIT Lincoln Laboratory</td>
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<tr>
<td>2:00 p.m.</td>
<td>Safety Analysis Methodology for Unmanned Aerial Vehicle (UAV) Collision Avoidance Systems</td>
<td>James Kuchar - MIT Lincoln Laboratory</td>
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<td>3:15 p.m.</td>
<td>Applying Qualitative Hazard Analysis to Support Quantitative Safety Analysis for Proposed Reduced Wake Separation Conops</td>
<td>John Shortle - George Mason University</td>
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<tr>
<td>4:00 p.m.</td>
<td>Quantitatively Estimating Wake Vortex Safety Using P2P Model</td>
<td>Yue Xie – George Mason University</td>
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<tr>
<td>4:45 p.m.</td>
<td>A Method for Rating the Severity of Runway Incursions</td>
<td>Kim Cardosi – DOT/Volpe Center</td>
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Day 2 – Tuesday – June 28, 2005

7:30 a.m. - 9:00 a.m  Breakfast (Atrium / Harborview)

9:00 a.m.  Tracks Begin – See Track Description and Locations

10:30 a.m.  Break (Atrium)

12:30 p.m.  Lunch (Atrium/Harborview)

2:00 p.m.  Tracks Continue

3:30 p.m.  Break (Atrium)

5:30 p.m.  Adjourn

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Track 1 – Airport Management (Room Constellation D)

Airport Management Rapporteur: Christoph Meier – DLR
Session Chair: Sandy Lozito – NASA Ames Research Center

9:00 a.m.  An Analysis of Potential Capacity Enhancements Through Wind Dependent Wake Turbulence Procedures
Jeff Tittsworth – MITRE Corp.

9:45 am.  Improving Flight Efficiency Through Terminal Area RNAV
Kevin Sprong - MITRE Corp.

11:00 a.m.  Verification and Validation Results from the Operational A-SMGCS Field Trials of the Project BETA
Joern Jakobi-DLR

11:45 a.m.  Airline Operational Benefits of Surface Surveillance
Dan Howell-MCR, LLC

2:00 p.m.  Outbound Punctuality Sequencing by Collaborative Departure Planning
Eugene Tuinstra-NLR

2:45 p.m.  Tactical Departure Management with the Eurocontrol / DLR DMAN
Dietmar Bohme-DLR

4:00 p.m.  Linking Existing on Ground, Arrival and Departure Operations
Maria Mas-Isdef
Patricia Pina-AENA

4:45 p.m.  Benefits Obtained from the Estimation and Distribution of Realistic Taxi Times
Jose Miguel de Pablo Guerro-AENA
Patricia Pina-AENA
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<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter</th>
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</table>
| 9:00 a.m. | Air Ground Communications Miami Controller Pilot  
Data Link Communications Summary and Assessment | John Gonda-MITRE-CAASD  
William Saumsiegle-MITRE |
| 9:45 a.m. | Integration of Downlink Aircraft Parameters in a French En Route ATC HMI | Vincent Kapp-DSNA |
| 11:00 a.m. | Managing Sector Congestion Using Airspace Restriction Planner | Parimal Kopardekar - NASA Ames Research Center |
| 11:45 a.m. | Quantifying Convective Delay Reduction Benefits for Weather/ATM Systems | James Evans-MIT Lincoln Laboratory |
| 2:00 p.m. | SOURDINE II Assessment Aspects of Noise Abatement Procedures | Ruud den Boer-NLR |
| 2:45 p.m. | Human Factors Implications of Continuous Descent Approach Procedures for Noise Abatement in Air Traffic Control | Hayley Davison Reynonlds-MIT |
| 4:00 p.m. | Variability of Contrail Formation Conditions and the Implications for Policies to Reduce the Climate Impacts of Aviation | Victoria Williams-Imperial College London |
| 4:45 p.m. | Environmental Tradeoffs Assessment Around Airports | Kenny Martin-ISA Software |
Track 3 – Innovative ATM Concepts (Room - Constellation F)

Rapporteur: Hartmut Fricke – Technical University Dresden
Session Chair: Hartmut Fricke – Technical University Dresden

9:00 a.m.  Statistical Performance Evaluation Between Linear and Nonlinear Designs for Aircraft Relative Guidance  
Thierry Miquel-DSNA

9:45 a.m.  Estimation of Delay Propagation in the National Aviation System Using Bayesian Networks  
Chun-Hung Chen-George Mason University

11:00 a.m. Route Charging Policy for a Functional Block of Airspace (CEATS)  
Lorenzo Castelli-University of Trieste

11:45 a.m. Analyzing Air Traffic Management Systems Using Agent-Based Modeling and Simulation  
Amy Pritchett-George Institute of Technology

Session Chair: Patrizia Marti – DeepBlue

2:00 p.m.  Interactive and Immersive 3D Visualization for ATC  
Matt Cooper-Linkopkings Universitet

2:45 p.m.  Shifting the ATM Paradigm: From the Use of System Resources to the Management of Objectives  
Laurent Guichard-Eurocontrol EEC

Session Chair: Gene Wilhelm – MITRE CAASD

4:00 p.m.  Design for Innovation in ATM  
Patrizia Marti-DeepBlue

4:45 p.m.  Co-operative Air Traffic Management: A Technology Enabled Concept for the Next Generation Air Transportation System  
Everett Palmer-NASA Ames Research Center
Day 3 – Wednesday – June 29, 2005

7:30 a.m. - 9:00 a.m  Breakfast (Atrium /Harborview)

9:00 a.m.  Tracks Begin – See Track Description and Locations

10:30 a.m.  Break (Atrium)

12:30 p.m.  Lunch (Atrium/Harborview)

2:00 p.m.  Tracks Continue

3:30 p.m.  Break (Atrium)

5:30 p.m.  Adjourn

7:00 pm.  Dinner – James Joyce Restaurant, 616 President Street
(You may walk, taxi or use the water taxi to get to the restaurant)

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Track 1 – Air Ground Cooperation (Room - Constellation D)

Air Ground Cooperation Rapporteur: Steve Bussolari – MIT Lincoln Lab
Session Chair: Tom Edwards – NASA Ames Research Center

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<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>09:00 a.m.</td>
<td>Joint NASA Ames/Langley Experimental Evaluation of Integrated Air/Ground Operations for En Route Free Maneuvering</td>
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<tr>
<td>09:45 a.m.</td>
<td>Design of an Airborne Spacing Director to Minimize Pilot Speed Actions</td>
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<tr>
<td>11:00 a.m.</td>
<td>Pilot Perspective of ASAS Self-Separation in Challenging Environments</td>
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Session Chair: Billy Josefsson - Luftfartsverket

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<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>2:00 p.m.</td>
<td>Air and Ground Simulation of Terminal-Area FMS Arrivals with Airborne Spacing and Merging</td>
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<td>2:45 p.m.</td>
<td>Spacing Instructions in Approach: Benefits and Limits from an Air Traffic Controller Perspective</td>
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<td>Time</td>
<td>Session</td>
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<tr>
<td>4:00 p.m.</td>
<td>Airborne Precision Spacing in Merging Terminal Arrival Routes: A Fast-Time Simulation Study</td>
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<tr>
<td>4:45 p.m.</td>
<td>Ground-Side Perspective on Mixed Operations with Self-Separating and Controller-Managed Aircraft</td>
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**Track 2 – Traffic Flow Optimization (Room Constellation E)**

**Rapporteur:** Amy Pritchett – Georgia Institute of Technology  
**Session Chair:** Fred Wieland-Aegis Technologies

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<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker/Institution</th>
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<tbody>
<tr>
<td>9:00 a.m.</td>
<td>Probabilistic Congestion Management</td>
<td>Craig Wanke-MITRE Corp.</td>
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<tr>
<td>9:45 a.m.</td>
<td>Advance Planning Through Schedule Analysis</td>
<td>Michelle Somerday-Metro Aviation, Inc.</td>
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<tr>
<td>11:00 a.m.</td>
<td>On the Feasibility of Traffic Synchronization in Central European Upper Airspace</td>
<td>Lenka Dravecka-CRDS, Budapest</td>
</tr>
<tr>
<td>11:45 a.m.</td>
<td>Airline Operations Managers: An Introduction to the Third Leg of the National Air Transportation System</td>
<td>Karen Feigh-Georgia Institute of Technology</td>
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<tr>
<td>2:00 p.m.</td>
<td>Expanding the Use of Time-Based Metering: Multi-Center Traffic Management Advisor</td>
<td>Steve Landry-NASA Ames Research Center</td>
</tr>
<tr>
<td>2:45 p.m.</td>
<td>Dynamic Stochastic Optimization Model for Air Traffic Flow Management with En Route and Airport of Capacity Constraint</td>
<td>Mark Hansen-University California at Berkeley</td>
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<tr>
<td>4:00 p.m.</td>
<td>Evaluating En Route Congestion Management Through Interactive Simulation</td>
<td>Michael Brennan-Metron Aviation, Inc.</td>
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<td>4:45 p.m.</td>
<td>Response Mechanisms for Dynamic Air Traffic Flow Management</td>
<td>Michael Ball-University of Maryland</td>
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<tr>
<td>Time</td>
<td>Session Title</td>
<td>Speaker(s)</td>
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<td>9:00 a.m.</td>
<td>As Rapid as Paper Strips? Evaluation of Vertidigi, a New Control Tool for Terminal Sectors</td>
<td>Railane Benhacene-CENA</td>
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<td>9:45 a.m.</td>
<td>Controller-Pilot Radio Channel Utilization and Cognitive Issues</td>
<td>Jasenka Rakas-NEXTOR</td>
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<td>11:00 a.m.</td>
<td>Organizational Issues and Safety Culture in ATM, Part 1: Stability Analysis</td>
<td>Marcus Arvidsson-Lund University</td>
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<tr>
<td>11:45 a.m.</td>
<td>User Request Evaluation Tool (URET) Adoption and Adaptation; Three Center Case Study</td>
<td>Tatjana Bolic-University of California at Berkeley</td>
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<td>2:00 p.m.</td>
<td>Simulated Free Routing Operations in the Marseille UIR: Results and Issues from a Human Factors Perspective</td>
<td>Thomas Kircher-DSNA</td>
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<tr>
<td>2:45 p.m.</td>
<td>On the Integration of Human Performance and Collision Risk Simulation Models of Runway Operation</td>
<td>Henk Blom-NLP</td>
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<tr>
<td>4:00 p.m.</td>
<td>Conflict Perception by ATCS Admits Doubt But Not Inconsistency</td>
<td>Philippe Averty-CENA</td>
</tr>
<tr>
<td>4:45 p.m.</td>
<td>Relationship of the Aircraft Mix Index with Performance and Objective Workload Evaluation Research (Power) Measures and Complexity Ratings</td>
<td>Elaine Pfleiderer-FAA</td>
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Day 4 – Thursday – June 30, 2005
Plenary Session – Constellation Rooms D, E, F

7:30 a.m. - 9:00 a.m.  Breakfast (Atrium/Harborview)

9:00 a.m.  Welcome Address / Best Papers  Charlie Keegan-FAA
           Vice President ATO-P

9:30 a.m.  JPDO Research Needs  Steve Bradford – JPDO
           Deputy Agile ATS IPT Lead

9:50 a.m.  European Research Needs  Bo Redeborn - Eurocontrol
           Director ATM Strategies

10:10 a.m. Q&A

10:30 a.m. Break (Atrium)

11:00 a.m. Human Factors Rapporteur  Paul Krois - FAA

11:20 a.m. Safety Rapporteur  George Donohue - George
           Mason University

11:40 a.m. Innovative ATM Concepts Rapporteur  Hartmut Fricke - Technical
           University Dresden

12:00 p.m. Traffic Flow Optimization Rapporteur  Amy Pritchett – Georgia
           Institute of Technology

12:20 p.m. Lunch (Atrium/Harborview)

1:30 p.m.  Decision Support Rapporteur  Lluis Vinagre - ISDEFE

1:50 p.m.  Airspace Management Rapporteur  Vojin Tosic – University of
           Belgrade

2:10 p.m.  Environmental Impacts and Mitigation Rapporteur  Lourdes Maurice – FAA

2:30 p.m.  Break (Atrium)

3:00 p.m.  Metrics and Performance Management Rapporteur  Wim Post - Eurocontrol HQ

3:20 p.m.  Air Ground Cooperation Rapporteur  Steve Bussolari - MIT
           Lincoln Lab

3:40 p.m.  Airport Management Rapporteur  Christoph Meier – DLR

4:00 p.m.  Wrap-up

4:30 p.m.  Seminar Adjourn