



DAY 1

Monday 7 December 2020




10:00 – 10:30	<p>WELCOME</p> <ul style="list-style-type: none"> • Florian Guillermet, Executive Director, SESAR Joint Undertaking • Andrew Cook, University of Westminster, Leader of Engage, SESAR Knowledge Transfer Network
10:30 – 11:00	<p>OPENING KEYNOTES</p> <ul style="list-style-type: none"> • Henrik Hololei, Director-General, Mobility and Transport, European Commission • Eamonn Brennan, Director General, EUROCONTROL
11:00 - 11:05	<p>PROGRAMME OVERVIEW</p> <ul style="list-style-type: none"> • Dirk Schaefer, SESAR Innovation Days Programme Committee Chair
11:05 - 11:35	<p>VIRTUAL NETWORKING</p>

TECHNICAL SESSION 1

11:35 - 13:00	<p>Arrival and Departure Management</p> <p><i>Session Chair: Paola Pellegrini, University Gustave Eiffel</i></p> <p>Devising Strategies for Aircraft Arrival Processes via Distance-based Queuing Models Eri Itoh, University of Tokyo/ENRI</p> <p>Algorithmic Efficiency Comparison of Centralised and Distributed Arrival Management (AMAN) Problem In Terminal Airspace Ying Huo, ENAC</p> <p>Fine-Grained Evaluation of Arrival Operations Henrik Hardell, Linköping University</p>	<p>Economics and Performance</p> <p><i>Session Chair: Radosav Jovanovic, University of Belgrade</i></p> <p>Traffic Complexity in ANSP Evaluation - Applicability of Current Metrics for Benchmarking Purposes Thomas Standfuss, TU Dresden</p> <p>ACC Capacity, Cost and Overload Avoidance Trade-Offs Sebastian Wangnick, EUROCONTROL</p> <p>Arrival Flight Efficiency in Numbers: What New the Covid-19 Crisis is Bringing to the Picture? Anastasia Lemetti, Linköping University</p>
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13:00 – 15:00	COMFORT BREAK
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15:00 - 15:45	<p><u>EUROCONTROL Aviation Hardtalk Live</u></p> <p><i>An exclusive interview with Michael O'Leary, CEO of Ryanair Holdings</i></p>	
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15:45 - 16:30	<p>VIRTUAL EXHIBITION</p> <p><i>Connect to the dedicated Whova platform to discover the SIDs2020 posters. Our poster presenters will be available to connect with you and some have also organised dedicated webinars.</i></p>
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DAY 2

Tuesday 8 December 2020

09:30 – 10:20

WELCOME DAY 2

- Florian Guillermet, Executive Director, SESAR Joint Undertaking

KEYNOTES

- Simon Hocquard, Director General, CANSO
- Marc Baumgartner, Air Traffic Controller, IFATCA

PROGRAMME OVERVIEW

- Dirk Schaefer, SESAR Innovation Days Programme Committee Chair

TECHNICAL SESSION 2

10:20 - 11:20

Advanced Air Traffic Services

Session Chair: Tatjana Bolić, University of Westminster

Volcanic SO₂ height SWIM service

Hugues Brenot, Royal Belgium Institute for Space Aeronomy

How to Achieve CDOs for All Aircraft: Automated Separation in TMAs

Christiane Schmidt, Linköping University

Network and Flow Management

Session Chair: Guglielmo Lulli, Lancaster University

Concept of a Long-Range Air Traffic Flow Management

Michael Schultz, TU Dresden

Air Traffic Structuration based on Linear Dynamical Systems

Paveen Juntama, ENAC

11:20 - 12:00

VIRTUAL NETWORKING

12:00 - 13:30

COMFORT BREAK

13:30 - 14:00

VIRTUAL EXHIBITION

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14:00 - 15:00

GLOBAL NETWORKING COFFEE

TECHNICAL SESSION 3

15:00 - 16:30

ATM Architecture and Operations

Session Chair: Henk Blom, TU Delft

Influence of FRA Implementation on Traffic, Safety, Complexity, and Workload in MUAC Airspace.

Fedja Netjasov, University of Belgrade

Integrating Weather Impact in RTC Staff Scheduling.

Tatiana Polishchuk, Linköping University

Evaluation of Flight Prioritisation Mechanisms through Agent-based Modelling

David Mocholí González, Nommon

Modelling and Optimization

Session Chair: Daniel Delahaye, ENAC

Parallelized RRT for Flight Planning Considering Ensemble Forecasting of Thunderstorms

Eduardo Andrés, University Carlos III Madrid

Speed Control Strategies for E-AMAN using Holding Detection-Delay Prediction Model

Imen Dhief, Nanyang Technological University

Real-time Identification of High-Lift Devices Deployment in Aircraft Descents

Homeyra Khaledian, Technical University of Catalonia

16:30 - 17:30

VIRTUAL SOCIAL ACTIVITY





DAY 3



Wednesday 9 December 2020

10:00 - 10:20

WELCOME DAY 3

- Florian Guillermet, Executive Director, SESAR Joint Undertaking

KEYNOTE

- Vanessa Rullier-Francaud, Senior Manager ATM and Special Projects, European Business Aviation Association (EBAA)

PROGRAMME OVERVIEW

- Dirk Schaefer, SESAR Innovation Days Programme Committee Chair

TECHNICAL SESSION 4

10:20 - 11:20

Airports

Session Chair: Bruno Lamiscarre, NeoMetSys

Development of Stochastic Delay Cost Functions

Jan Evler, TU Dresden

Adaptive Point Sampling for LiDAR-based Detection and Tracking of Fast-moving Vehicles using a Virtual Airport Environment

Hannes Braßel, TU Dresden

Trajectory Prediction

Session Chair: Lorenzo Castelli, University of Trieste

Traffic Characterisation for a Dynamic and Adaptive Trajectory Prediction Data-Driven Approach

José Manuel Cordero, CRIDA

Clustering Climb Profiles for Vertical Trajectory Analysis

Matthias Poppe, DFS

11:20 - 12:00

VIRTUAL NETWORKING

12:00 - 13:30

COMFORT BREAK

13:30 - 14:00

VIRTUAL EXHIBITION

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14:00- 15:30

GLOBAL PANEL ON HIGHER AIRSPACE OPERATIONS, in collaboration with ICAO and ATCA

- Steve Bradford, Office of Chief Scientist, NextGen, FAA
- Henk Hof, Manager ICAO and Concepts, EUROCONTROL; and Manager European Concept for Higher Airspace Operations (ECHO) project
- Dragos Tonea, Manager iNEO – Integration of new entrants in European ATM Network operations, EUROCONTROL
- David Hansell, Head of Global Policy for Loon LLC
- Paulo Vila, Air Navigation Coordinator, Civil Aviation Authority of Peru
- Marc Vales, Space Programs Senior Vice President, Dassault Aviation

Moderated by Silas Udahemuka, Director General Rwanda Civil Aviation Authority

15:30 - 16:00

GLOBAL NETWORKING COFFEE

TECHNICAL SESSION 5

16:00 - 17:30

Machine Learning I

Session Chair: George Vouros, University of Piraeus

Air Traffic Control Using Message Passing Neural Networks and Multi-Agent Reinforcement Learning

Ramon Dalmau, EUROCONTROL

A Novel Methodology to Predict Regulations using Deep Learning

Sergi Mas-Pujol, Technical University of Catalonia

Determining Optimal Conflict Avoidance Manoeuvres At High Densities With Reinforcement Learning

Marta Ribeiro, TU Delft

Environment and Meteorology

Session Chair: Dirk Schaefer, EUROCONTROL

A Probabilistic Storm Avoidance Concept for En-Route Flight

Antonio Franco, University of Seville

Dynamic Noise Maps for Ljubljana Airport

Emir Ganić, University of Belgrade

Strategic and Probabilistic Aircraft Conflict Detection and Resolution for Three-dimensional Trajectories

Eulalia Hernández-Romero, University of Seville





DAY 4

Thursday 10 December 2020



WELCOME DAY 4

- Florian Guillermet, Executive Director, SESAR Joint Undertaking

10:00 – 10:20

KEYNOTE

- Olivier Jankovec, Director General, ACI EUROPE

PROGRAMME OVERVIEW

- Dirk Schaefer, SESAR Innovation Days Programme Committee Chair

TECHNICAL SESSION 6

Machine Learning II

Session Chair: Marc Bourgois, EUROCONTROL

Predicting Requested Flight Levels with Machine Learning
Manuel Mateos, Nommon

Aircraft Push-back Prediction and Turnaround Monitoring by Vision-based Object Detection and Activity Identification
Phat Thai, Nanyang Technological University

10:20 – 11:20

UAS and UAS Traffic Management

Session Chair: Javier Lopez Leones

Altitude Zoning for UTM
Leonid Sedov, Linköping University

Towards a Continuous Demand and Capacity Balancing Process for U-space
Chris Forster, Altitude Angel & Pablo Sánchez Escalonilla, CRIDA

11:20 – 12:00

VIRTUAL NETWORKING

12:00 - 14:00

COMFORT BREAK

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14:30 - 15:45

YOUNG SCIENTIST AWARD CEREMONY

15:45 - 16:30

CLOSING KEYNOTE SESSION

- Isabel Del Pozo de Poza, Head of UTM, Airbus
- Bernhard Quendt, CTO, Thales
- Laurent Renou, Head of Air Transport Innovation, EUROCONTROL

Chaired by Florian Guillermet, Executive Director, SESAR Joint Undertaking

16:30– 17:00

What's coming up for SESAR?

- Florian Guillermet, Executive Director, SESAR Joint Undertaking

Engage: how to get involved in 2021

- Andrew Cook, University of Westminster, Leader of Engage, SESAR Knowledge Transfer Network

Closing remarks

- Florian Guillermet, Executive Director, SESAR Joint Undertaking

