



# DAY 1

# Monday 7 December 2020



<p><b>10:00 - 10:30</b></p>	<p><b>WELCOME</b></p> <ul style="list-style-type: none"> <li>• Florian Guillermet, Executive Director, SESAR Joint Undertaking</li> <li>• Andrew Cook, University of Westminster, Leader of Engage, SESAR Knowledge Transfer Network</li> </ul>	
<p><b>10:30 - 11:00</b></p>	<p><b>OPENING KEYNOTES</b></p> <ul style="list-style-type: none"> <li>• Henrik Hololei, Director-General, Mobility and Transport, European Commission</li> <li>• Eamonn Brennan, Director General, EUROCONTROL</li> </ul>	
<p><b>11:00 - 11:30</b></p>	<p><b>NETWORKING BREAK</b></p>	
<p style="text-align: center;"><b>TECHNICAL SESSION 1</b></p>		
<p><b>11:30 - 13:00</b></p>	<p><b>Arrival and Departure Management</b></p> <p><i>Session Chair: Paola Pellegrini, University Gustave Eiffel</i></p> <p><b>Devising Strategies for Aircraft Arrival Processes via Distance-based Queuing Models</b> Eri Itoh, University of Tokyo/ENRI</p> <p><b>Algorithmic Efficiency Comparison of Centralized and Distributed Arrival Management (AMAN) Problem In Terminal Airspace</b> Ying Huo, ENAC</p> <p><b>Fine-Grained Evaluation of Arrival Operations</b> Henrik Hardell, Linköping University</p>	<p><b>Economics and Performance</b></p> <p><i>Session Chair: Radosav Jovanovic, University of Belgrade</i></p> <p><b>Traffic Complexity in ANSP Evaluation - Applicability of Current Metrics for Benchmarking Purposes</b> Thomas Standfuss, TU Dresden</p> <p><b>ACC Capacity, Cost and Overload Avoidance Trade-Offs</b> Sebastian Wangnick, EUROCONTROL</p> <p><b>Arrival Flight Efficiency in Numbers: What New the Covid-19 Crisis is Bringing to the Picture?</b> Anastasia Lemetti, Linköping University</p>
<p><b>13:00 - 14:45</b></p>	<p><b>COMFORT BREAK</b></p>	
<p><b>14:45 - 16:00</b></p>	<p><b>EUROCONTROL Aviation Hardtalk Live</b></p> <p><i>An exclusive interview with Michael O'Leary, CEO of Ryanair Holdings</i></p> <p><a href="#">Register online via the EUROCONTROL website</a></p> <div style="text-align: right;">  </div>	
<p><b>16:00 - 16:30</b></p>	<p><b>DEDICATED POSTER SESSION / VIRTUAL EXHIBITION</b></p>	





# DAY 2

## Tuesday 8 December 2020



09:30 - 10:15

### WELCOME DAY 2

- Florian Guillermet, Executive Director, SESAR Joint Undertaking

### KEYNOTES

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

### 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

### NETWORKING BREAK

12:00 - 13:30

### COMFORT BREAK

13:30 - 14:00

### DEDICATED POSTER SESSION / VIRTUAL EXHIBITION

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 Prioritization 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)

## 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 Characterization 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

NETWORKING BREAK

12:00 - 13:45

COMFORT BREAK

13:45 - 14:15

DEDICATED POSTER SESSION / VIRTUAL EXHIBITION

14:15 - 15:30

GLOBAL PANEL ON HIGHER AIRSPACE OPERATIONS

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

10:00 – 10:15

## WELCOME DAY 4

- Florian Guillermet, Executive Director, SESAR Joint Undertaking
- Olivier Jankovec, Director General, ACI EUROPE

## TECHNICAL SESSION 6

10:15 – 11:45

### 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

### UAS and UAS Traffic Management

*Session Chair: Dirk Kuegler, DLR*

**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

11:45 - 12:00

## NETWORKING BREAK

12:00 - 14:00

## COMFORT BREAK

14:00 - 14:30

## DEDICATED POSTER SESSION / VIRTUAL EXHIBITION

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

