

Research Workshop

Climate change and the role of air traffic control

22-23 September 2021 in Vilnius, Lithuania

Conference venue: Vilnius Gediminas Technical University, Saulėtekio al. 11, 10223 Vilnius

1st day – 22 September

Moderation: Francis Schubert, Adjunct Professor, IASL, McGill University

9:30-10:30 **Registration and welcome**

10:30-11:15 **Opening statements**

Virginijus Sinkevičius – *European Commissioner for the Environment, Oceans and Fisheries*
Julius Skačkauskas – *Deputy Minister of Transport and Communications of the Republic of Lithuania*
John Santurbano – *FABEC CEO-Champion Environment, Director Maastricht UAC*
Saulius Batavičius – *CEO Oro Navigacija*
Alfonas Daniūnas – *Vilnius Gediminas Technical University (VILNIUS TECH)/Rector (TBC)*

11:15-12:00 **Setting the scene: Climate change and its impact on air traffic control**

David Lee – *University of Manchester*

Lunch break

13:00-14:30 **Panel discussion 1: Effects of climate change on aviation (present and future)**

Moderator: Justas Kažys, Vilnius University

Enabling air traffic control to support carbon neutral growth and reduce effects on global warming. Role and Requirements

Heinz-Michael Kraft, Peter Oelsner, Ivar Mägi – *DFS Deutsche Flugsicherung*

How and to what extent will climate change impact European aviation?

Rachel Burbidge – *Eurocontrol*

Climate induced meandering jet stream and its impact on fuel planning

Björn-Rüdiger Beckmann, Andreas Walter, Alexander Lau, Majed Swaid – *German Aerospace Center/DLR, German Meteorological Service/DWD*

15:00-16:30 **Panel discussion 2: Options for reducing CO₂ emissions**

Moderator: John Santurbano, Eurocontrol

Real-time thunderstorm information enables fuel savings for long-haul flights

Caroline Forster, Benjamin Lührs, Martin Gallagher, Andreas Petzold, Thomas Gerz, Alexander Lau – *WxFusion, TU Hamburg, University of Manchester, Forschungszentrum Jülich, German Aerospace Center/DLR*

Mitigating the climate impact of non-CO₂ emissions: EUROCONTROL MUAC Live Trial 2021

Rüdiger Ehrmanntraut, Ilona Sitova, Kacper Walczak, Anja Burrige-Diesing, Milena Bowman, Nick Miller – *Eurocontrol*

Multi-aircraft environmentally-scored weather-resilient optimised 4D-trajectories

Nick van den Dungen, Kinanthi Sutopo – *Royal Netherlands Aerospace Centre (NLR)*

16:30-16:45 **Wrap-up Day 1 and outlook**

Francis Schubert

Social Event 19:00

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2nd day – 23 September

9:00-9:15

Starting the day

9:15-10:45

Panel discussion 3: Reducing CO₂ emissions – Interdependencies and potential trade-offs

Moderator – Vidmantas Kairys, Vilnius Gediminas Technical University

Toward novel environmental assessments for ANSPs using machine learning

Gabriel Jarry – DSNA

Reducing Europe's impact on climate change using enriched air traffic forecasts and improved efficiency benchmarks

Hartmut Fricke, Markus Vogel, Thomas Standfuß –
Technische Universität Dresden, GfL- Gesellschaft für
Luftverkehrsforschung

Towards limited impact on environment

Jean-Michel Edard, Ilona Sitova – FABEC, MUAC/Eurocontrol

Coffee break

11:30-13:15

Panel discussion 4: Holistic view on policy options

Moderator: Lado Kuljanishvili, DGCA Georgia

Economic estimates of the climate costs of the aviation sector due to air management: Insights for 2018 and 2019

Ibon Galarraga, Dr Herbert Pümpel, Luis M^a Abadie,
Itziar Ruiz-Gauna, Nestor Goicoechea – BC₃, WMO, World
Bank, Metroeconomica, University of Basque Country

Policy aspects of the sustainability of the aviation sector, with a special focus on a potential new role for ATM

Iván Arnold, Mira Bognár, Péter Székács, György Lovas and
Vilmos Somosi – Hungarocontrol

Destination 2050

Thijs Boonekamp, Bram Peerlings – SEO Amsterdam
Economics, Royal Netherlands Aerospace Centre/NLR

Lunch break

14:15-15:15

Final panel: Key messages on climate change and the role of air traffic control

Moderator: Francis Schubert

Julius Skačkauskas – Deputy Minister of Transport and
Communications of the Republic of Lithuania
Marcel Zuckschwerdt – Director General Civil Aviation
Switzerland, FABEC
András Hujber – European Commission
Regina Dettling-Ott – Chair Performance Review Body
Justas Nugaras – Antanas Gustaitis' Aviation Institute

15:15-15:30

Wrap-up of the workshop

Francis Schubert

15:30-15:40

Closing remarks

Saulius Batavičius – CEO Oro Navigacija

