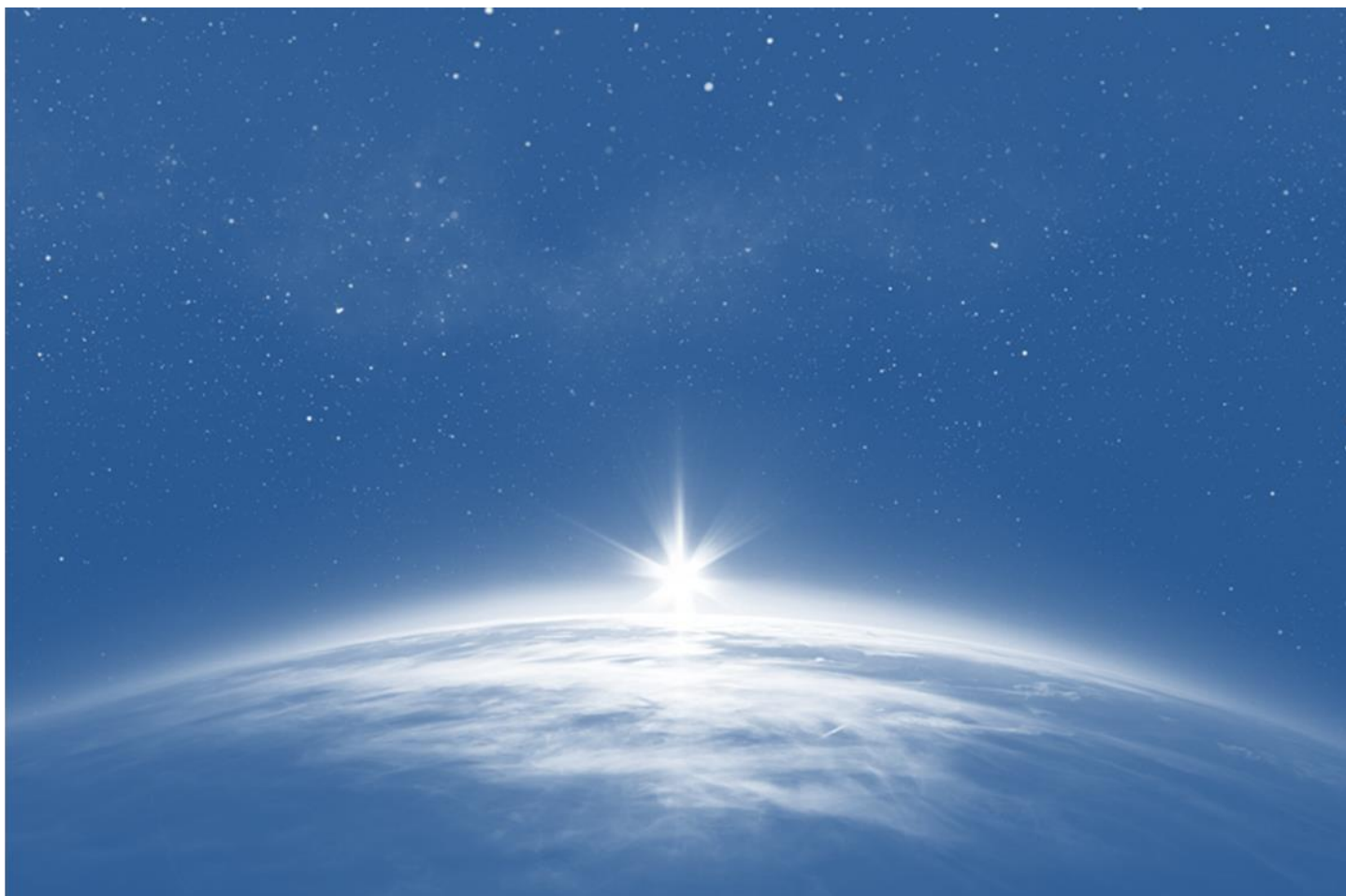


PROGRAMME AGENDA

3rd ICAO / UNOOSA Aerospace Symposium

Vienna International Centre, Vienna, Austria

29 – 31 August 2017





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ICAO / UNOOSA Aerospace Symposium

Emerging space activities and civil aviation – challenges and opportunities

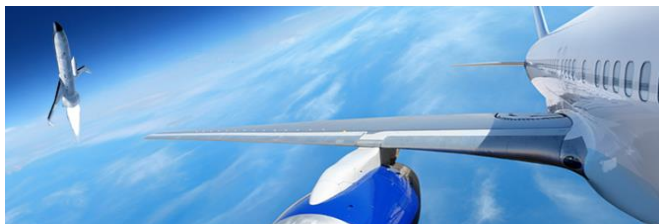
Vienna International Centre, Vienna, Austria

29 – 31 August 2017

DAY 1 – TUESDAY, 29 AUGUST 2017

OPENING SESSION

9:30 – 10:15	<p>Welcome Remarks</p> <p>Speeches</p> <ul style="list-style-type: none"> • Simonetta Di Pippo, <i>Director, UNOOSA</i> • Hajime Yoshimura, <i>President, Air Navigation Commission, ICAO</i> • H.E. Mohammed Nasser Alahbabi, <i>Director General, UAE Space Agency</i>
10:15 – 10:45	<p>Coffee Break (Family Photo)</p>
<p>THEME 1 <i>Uniting the Aerospace Community and International Aerospace Aspiration and Innovation Showcases</i></p>	
10:45 – 12:30	<p>In this panel, the latest trends in aviation, commercial space transportation and suborbital operations will be demonstrated in order to enhance the understanding of the wide range of activities in the aerospace sector. The panel will provide the basis for the subsequent panels with the aspiration of promoting closer partnerships between public and private actors in the overall aerospace community.</p> <p>Moderator</p> <ul style="list-style-type: none"> • Steve Creamer, <i>ICAO</i> <p>Presenters</p> <ul style="list-style-type: none"> • John Roth, <i>Sierra Nevada Corporation</i> • Patrice Desvallées, <i>DGAC France, Deputy Technical Director, European and Int'l cooperation and safety regulation, "Latest innovative technology trends in France in suborbital and air launch systems"</i> • Alessandro Cardì, <i>ENAC - Italian Civil Aviation Authority, Deputy Director General, "Regulatory progress CSFFs for suborbital operations in Italy"</i> • Kristoffer Liland, <i>CEO, Ripple, "Creating fair and equal access to space through oceanic rocketry"</i> • Christophe Chavagnac, <i>Airbus (Defence & Space), Spaceplane program Manager & Chief engineer, "Space Plane and environmentally sustainable flight operations"</i>
12:30 – 14:00	<p>Lunch Break</p>



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DAY 1 – TUESDAY, 29 AUGUST 2017 (continued)

THEME 2 *Practices in Aerospace Activities and Cooperation with Stakeholders*

14:00 – 15:30	<p>This panel will address contemporary and future cooperative endeavours, such as in the development of ground infrastructures to accommodate commercial space transportation and emerging sub-orbital operations. This panel will also address the emerging cooperation between governments and the industry on commercial perspectives and opportunities to engage in public-private partnerships in the aerospace field. Efforts to facilitate compatibility and interoperability of spaceport infrastructures will be addressed</p> <p>Moderator</p> <ul style="list-style-type: none"> • Kenneth Hodgkins, <i>US State Department, Director of Space and Advanced Technology</i> <p>Presenters</p> <ul style="list-style-type: none"> • Luc Tytgat, <i>Strategy & Safety Management Director, European Aviation Safety Agency, “European aviation safety policy and space developments”</i> • Juliana Scavuzzi, <i>Airport Council International</i> • Stefano Ferretti, <i>European Space Policy Institute, “Are We on the Verge of Suborbital Flights?”</i> • Dorothy Reimold, <i>Federal Aviation Administration, Director of Strategic Operations, Commercial Space Transportation and Chair, Space Learning Group</i>
15:30 – 16:00	Coffee Break

THEME 3 *Regulatory , Operational and Practical Perspectives of Aerospace Activities*

16:00 – 18:00	<p>This panel endeavours to foster a better understanding on legal and regulatory mechanisms under international air law and international space law. The panel will address factors that impact aerospace operations, in order to ensure the safe and sustainable operation of civil aviation, suborbital operations, and space activities. Regulatory perspectives for the purpose of promoting reliable, consistent and predictable frameworks at the national level will be explored.</p> <p>Moderator</p> <ul style="list-style-type: none"> • Christian Schleifer, <i>Secretary General, EUROCAE and former President of the Air Navigation Commission, ICAO</i> <p>Presenters</p> <ul style="list-style-type: none"> • Nastasja Schnorfeil-Pauthe, <i>DGAC France, Legal Advisor, European and International Law section, “Legal and regulatory issues of suborbital and air launch systems”</i> • Holger Krag, <i>European Space Agency, “Areas of interaction between air- and space-traffic and the role of space surveillance”</i> • Naser AlRashedi, <i>Director of Space Policy and Regulation, UAE Space Agency</i> • Sabrina Jawed, <i>Federal Aviation Administration, Attorney, Chief Counsel's Office Regulations Division, “U.S. Regulatory Framework for Commercial Space Transportation”</i> • Nathalie Le Cam, <i>DG GROW, EC, “The Space Strategy for Europe and civil aviation”</i> • Tommaso Sgobba, <i>Executive Director, International Association for the Advancement of Space Safety, “Progress with Commercial Space Safety Institute”</i>
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DAY 2 – WEDNESDAY, 30 AUGUST 2017

THEME 4 *Perspectives on Air Traffic Management and Future Potential Space Traffic Management*

9:30 – 11:00	<p>In this panel air traffic management will be addressed in comparison with elements to possibly constitute future space traffic management. An important component will be how sub-orbital operations may affect activities in airspace and in outer space. The impact of small satellite launches and deployment and future mega-constellation projects will also be addressed. Possible gaps in air law and Space Law in ensuring sustainability of aerospace activities will also be addressed.</p> <p>Moderator</p> <ul style="list-style-type: none"> • Jean-Jaques Tortora, <i>Director, European Space Policy Institute</i> <p>Presenters</p> <ul style="list-style-type: none"> • Nico Voorbach, <i>Civil Air Navigation Services Organization, “Global Air Traffic Management and Space Traffic”</i> • Rick Garceau, <i>Federal Aviation Administration, Manager, Airspace, Procedures and Space Operations, “US Airspace Traffic Integration”</i> • Dragos Tonea, <i>EUROCONTROL, “Integrating commercial space operations in the European network”</i> • Bernhard Schmidt-Tedd, <i>German Aerospace Center (DLR) “The specific framework for space activities and perspectives on future regulatory and practical developments”</i> • George Kyriakopoulos, <i>National and Kapodistrian University of Athens, “Space Traffic Management as a sine qua non prerequisite for the sustainability of outer space activities: Evaluating Regulatory Patterns Provided by the Airspace Paradigm”</i> • Hao Liu, <i>Beihang University, “The Jurisprudence of Aerospace Law to Facilitate the New Aerospace Practice”</i> • Peter Stubbe, <i>German Aerospace Center (DLR) “Space Traffic Management as an International Legal regime”</i>
11:00 – 11:30	<i>Coffee Break</i>
THEME 4 <i>Perspectives on Air Traffic Management and Future Potential Space Traffic Management</i>	
11:30 – 12:30	Theme 4 Panel (cont.)
12:30 – 14:00	<i>Lunch Break</i>



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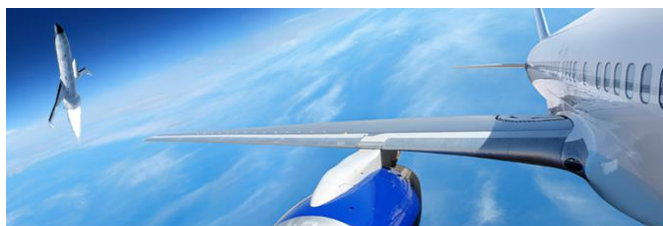
DAY 2 – WEDNESDAY, 30 AUGUST 2017 (continued)

THEME 5 *The Way Ahead - Concepts for Evolution in Aerospace Regulation and Operation, Looking Ahead Towards a Broader Aerospace Community*

14:00 – 15:30	<p>This panel will outline the ways and means to strengthen capacity of new stakeholders to enlarge the aerospace community and intensify its activities. One key objective will be to study opportunities of relevant stakeholders with regard to the creation of the competencies necessary for the future of commercial space industries, and assess capacity-building needs. Trends in the aerospace sector will be studied, including sharing experience on the protection of communication and navigation systems and critical infrastructures, in order to assess where further efforts are desired within the broader aerospace community.</p> <p>Moderator</p> <ul style="list-style-type: none"> • Dorothy Reimold, <i>Federal Aviation Administration, Director of Strategic Operations, Commercial Space Transportation and Chair, Space Learning Group</i> <p>Presenters</p> <ul style="list-style-type: none"> • Chuen Chern Loo, <i>Space Publications and Registration Division, Space Services Department, International Telecommunication Union, “Radio Regulations and update on post WRC-15 studies”</i> • Andy Quinn, <i>Managing Director, Saturn SMS Ltd, “Regulating Airworthiness (Spaceworthiness) of Future Suborbital Commercial Spaceflight (SCS) Vehicles”</i> • Mona Al-achkar Jabbour, <i>Lebanese University, “Cyb-Air Security”</i> • Sharafat Gadimova, <i>UNOOSA, “ICG Spectrum Protection and Interference Detection and Mitigation Activities”</i>
15:30 – 16:00	<i>Coffee Break</i>

THEME 6 *Roundtable Discussion on The Way Ahead and Observations of the Symposium*

16:00 – 18:00	<p>Round table</p> <p>Chair</p> <ul style="list-style-type: none"> • Paul Dempsey, <i>McGill University</i> <i>Assisted by Niklas Hedman, UNOOSA, Yuri Fattah, ICAO</i> <p>Participants</p> <ul style="list-style-type: none"> • Kenneth Hodgkins, <i>Moderator Panel 2</i> • Christian Schleifer, <i>Moderator Panel 3</i> • Jean-Jaques Tortora, <i>Moderator Panel 4</i> • Dorothy Reimold, <i>Moderator Panel 5</i>
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DAY 3 – THURSDAY, 31 MARCH 2017

OBSERVATIONS AND OUTCOMES OF THE SYMPOSIUM

10:00 – 11:30

Moderators

- Niklas Hedman, *UNOOSA* / Yuri Fattah, *ICAO*

11:30 – 12:00

Coffee Break

CLOSING OF SYMPOSIUM

12:00 – 12:30

Closing of Symposium

Speakers

- Hajime Yoshimura, *President, Air Navigation Commission, ICAO*
- Simonetta Di Pippo, *Director, UNOOSA*

End of Symposium