



ICAO

UNITING AVIATION

UNOOSA



PROGRAMME AGENDA

2nd ICAO / UNOOSA Symposium

Rosewood Hotel, Abu Dhabi, United Arab Emirates

15 – 17 March 2016





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SPACE2016

ICAO / UNOOSA Symposium

Emerging space activities and civil aviation – challenges and opportunities
 Abu Dhabi, United Arab Emirates
 15 – 17 March 2016

DAY 1 – TUESDAY, 15 MARCH 2016

OPENING SESSION

09:00 – 09:15	Opening Ceremony
09:15 – 09:45	Opening and Keynote Addresses Objective, scope and output of the Symposium
	Speeches <ul style="list-style-type: none"> • Dr. Olumuyiwa Benard Aliu, <i>President of the Council, ICAO</i> • Simonetta Di Pippo, <i>Director, UNOOSA</i>

WELCOME SESSION

09:45 – 10:15	Welcome Remarks by Host State
	Speeches <ul style="list-style-type: none"> • H.E. Eng. Sultan Al Mansouri, <i>UAE Minister of Economy and Chairman of GCAA</i> • H.E. Dr. Khalifa Al Romaiti, <i>Chairman of Space Agency, UAE</i>

THEME 1 *Aerospace Innovation & Suborbital Operations*

10:15 – 10:45	Keynote Address Aerospace Innovation and Suborbital Operations
	Speeches <ul style="list-style-type: none"> • H.E. Dr. Mohammed Al Ahbabi, <i>Director General, Space Agency, UAE</i> • George Thomas Whitesides, <i>CEO and President of Virgin Galactic</i>
10:45 – 11:15	<i>Coffee Break</i>



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DAY 1 – TUESDAY, 15 MARCH 2016 (continued)

THEME 1 *Aerospace Innovation & Suborbital Operations (continued)*

<p>11:15 – 13:00</p>	<p>Panel 1: International Aerospace Aspiration and Innovation Showcases</p> <p>In this panel, various representatives from all-over the world in the areas of aviation, space, ICT, academic and private sectors will showcase their efforts to promote innovation in aerospace. Different backgrounds on commercial space transportation will be presented by leaders of various countries, international organizations, and industries, describing the latest trends and innovative practices.</p> <p>This panel will also open the dialogue between governments and the industry on commercial perspectives and opportunities to engage in public-private partnerships in this field. It will also address the role of training institutes, academies, and education systems in the creation of the competencies necessary for the success of commercial space transportation.</p> <p>Moderator Eric W. Stallmer, <i>President, Commercial Spaceflight Federation</i></p> <p>Presentations</p> <ul style="list-style-type: none"> • Mark Sirangelo, <i>Corporate Vice President of Space Systems, Sierra Nevada Corporation</i> • Christophe Chavagnac, <i>SpacePlane Programs Manager & Chief Engineer, Airbus</i> • José Mariano López Urdiales, <i>Founder and CEO, Zero2Infinity</i> • Antoine de Chassy, <i>Senior Business Development Executive, Spire Global Inc.</i> • Pascal Jaussi, <i>Founder, Swiss Space Systems (S3)</i> • Oscar Garcia, <i>Chairman and CEO, Interflight Global Corporation</i> • George Thomas Whitesides, <i>CEO and President, Virgin Galactic</i> <p>Question and Answer</p>
<p>13:00 – 14:30</p>	<p><i>Lunch Break</i></p>
<p>14:30 – 16:15</p>	<p>Panel 1: International Aerospace Aspiration and Innovation Showcases (Continuation)</p> <p>Moderator Stephen P. Creamer, <i>Director of the Air Navigation Bureau, ICAO</i></p> <p>Presentations</p> <ul style="list-style-type: none"> • Laila Ali Bin Hareb, <i>Assistant Director General of Strategy and International Affairs, UAE GCAA</i> • Attila Matas, <i>Head of the Space Publication and Registration Division (SPR), ITU</i> • Alexander Soucek, <i>Legal Officer, ESA</i> • Christopher Brain, <i>Free Route Airspace Manager, EUROCONTROL</i> • Khaled Al Hashemi, <i>Director of Space Missions, Space Agency, UAE</i> • HAN Pengxin, <i>Engineer, China Academy of Launch Vehicle Technology</i> • Will Porteous, <i>General Partner & COO, RRE Ventures</i> • Salem Humaid Al Marri, <i>Assistant Director General, Scientific & Technology Affairs, Mohammed Bin Rashid Space Centre (MBRSC)</i> <p>Question and Answer</p>



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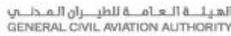
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DAY 1 – TUESDAY, 15 MARCH 2016 (continued)

THEME 1 *Aerospace Innovation & Suborbital Operations (continued)*

<p>16:15 – 17:00</p>	<p>Panel 2: Ground infrastructure for commercial space transportation</p> <p>This panel will address the minimum ground infrastructure required to accommodate commercial space transportation and emerging sub-orbital operations. It will look into voluntary cooperative mechanisms to facilitate compatibility and interoperability of spaceport infrastructure.</p> <p>Moderator Yuri Fattah, <i>Programme Manager Multidisciplinary Priorities, ICAO</i></p> <p>Presentations</p> <ul style="list-style-type: none"> • John Sloan, <i>Federal Aviation Administration (FAA) Office of Commercial Space Transportation (AST)</i> • Simon Kloppenburg, <i>Commercial Developer, Airport Development, Curacao Holding Company</i> • Brian Gulliver, <i>Aerospace Practice Leader, Kimley-Horn</i> <p>Question and Answer</p>
<p>18:00 – 23:00</p>	<p style="text-align: center;">Welcome Reception</p> <p style="text-align: center;">Desert Gala Dinner in Abu Dhabi</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  الهيئة العامة للطيران المدني GENERAL CIVIL AVIATION AUTHORITY </div> <div style="text-align: center;">  وكالة الإمارات للفضاء UAE SPACE AGENCY </div> <div style="text-align: center;">  </div> </div> <p style="text-align: center;">A gala dinner at the Abu Dhabi Desert, hosted by the General Civil Aviation Authority & UAE Space Agency. All participants are invited to this event. Transportation will be provided. Casual dress code.</p>
<p><i>End of Day 1</i></p>	



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DAY 2 – WEDNESDAY, 16 MARCH 2016

THEME 1 *Aerospace Innovation & Suborbital Operations (continued)*

09:00 – 10:45

Panel 3: Risks posed to civil aviation and suborbital operations

This panel will outline the risks to civil aviation and suborbital operations posed by space hazards, including space debris and space weather, and will study risk management solutions to these problems, including the role of Space Situational Awareness in mitigating risks to space and aviation operations.

Moderator

Ismaeil Mohammed Al Blooshi, *Assistant Director General, Aviation Safety Affairs, GCAA, UAE*

Presentations

- **J.-C. Liou**, *Chief Scientist, NASA Orbital Debris Program, NASA*
- **Holger Krag**, *ESA and Incoming chair of IADC*
- **Video Message by Terry Onsager**, *NOAA*
- **Sharafat Gadimova**, *Programme Officer, UNOOSA*
- **Rick Garceau**, *Manager, Airspace, Procedures and Space Operations, Air Traffic Control System Command Center, FAA*
- **Ferdinando Dolce**, *Head of Aero-Space System Engineering Group, Italian Air Force*
- **Yuri Fattah**, *Programme Manager Multidisciplinary Priorities, ICAO*
- **Ali Al Hashemi**, *YahService General Manager, Yahsat, UAE*

Question and Answer

10:45 – 11:15

Coffee Break

THEME 2 *Effective Regulatory and Legal Frameworks for Aerospace Operations*

11:15 – 12:45

Panel 4: Legal and regulatory issues relevant to aerospace operations

This panel will study legal and regulatory mechanisms under international aviation law and international space law to address authorization, licensing, supervision and liability issues for commercial space transportation, suborbital operations, as well as the relationship between air traffic management and future space traffic management.

Moderator

Naser Al Rashedi, *Director, Space Policy and Regulations, UAE Space Agency*

Presentations

- **Frans Von Der Dunk**, *University of Nebraska-Lincoln*
- **Jose Monserrat Filho**, *Chair of COPUOUS LSC WG on Definition/Delimitation of Outer Space*
- **Attila Matas**, *Head of the Space Publication and Registration Division (SPR), ITU*
- **LIU Hao**, *Director of Institute of Aviation Law and Standard, Beihang University China*
- **Jan-Willem Storm van Gravesande**, *Aviation Independent Consulting BV*
- **Rosa Maria Ramirez De Arellano Y Haro**, *General Coordinator of International Affairs and Space, Mexican Space Agency*
- **Alexander Soucek**, *Legal Officer, ESA*



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DAY 2 – WEDNESDAY, 16 MARCH 2016 (continued)

THEME 2 *Effective Regulatory and Legal Frameworks for Aerospace Operations (continued)*

12:45 – 14:30	<i>Lunch Break</i>
14:30 – 15:00	<p>Panel 4: Legal and regulatory issues relevant to aerospace operations <i>- Question and Answer</i></p> <p>Moderator Naser Al Rashedi, <i>Director, Space Policy and Regulations, UAE Space Agency</i></p>
15:00 – 15:30	<i>Coffee Break</i>
15:30 – 17:00	<p>Panel 5: Governmental cooperation with aerospace stakeholders This panel will identify the different models/approaches for coordination between various stakeholders and regulatory bodies at national and international levels to ensure the safety of civil aviation and suborbital operations. The UN backed International Committee on Global Navigation Satellite Systems (ICG) is an example of an intergovernmental coordination mechanism to be taken into account.</p> <p>Moderator Niklas Hedman, <i>Chief of the Committee, Policy and Legal Affairs Section, UNOOSA</i></p> <p>Presentations</p> <ul style="list-style-type: none"> • Dr. Margaret Polkowska, <i>Representative of Poland on the Council of ICAO</i> • Patrice Desvallees, <i>Deputy Director, DGAC France</i> • Giovanni Di Antonio, <i>ENAC Italy</i> • John Sloan, <i>Program Lead for International Outreach, Federal Aviation Administration</i> • Kenneth Hodgkins, <i>Director of Space and Advanced Technology, USA State Department</i> • Sharafat Gadimova, <i>Programme Officer, UNOOSA</i> <p>Question and Answer</p>
<i>End of Day 2</i>	



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DAY 3 – THURSDAY, 17 MARCH 2016

THEME 3 *Towards the Establishment and Evolution of Aerospace Operations*

<p>09:00 – 10:30</p>	<p>Panel 6: The Aviation and space education program needs in the region</p> <p>Moderator <i>Sheikha Al Maskari, Chief Innovation Officer, Space Agency, UAE</i></p> <p>Presentations</p> <ul style="list-style-type: none"> • <i>Adnan Mohammad Al Rais, Manager, Business Development and External Relations, Mohammed Bin Rashid Space Centre (MBRSC)</i> • <i>Mahmoud Fayyad, University of Sharjah</i> • <i>Stjepan Bedic, CEO and head of mission control, Team Stellar</i> • <i>Taro Kuusiholma, Senior Vice President, Regulation and Space, Sharper Shape Ltd</i> • <i>Niklas Hedman, Chief of the Committee, Policy and Legal Affairs Section, UNOOSA</i> <p>Question and Answer</p>
<p>10:30 – 11:00</p>	<p><i>Coffee Break</i></p>
<p>CLOSING SESSION</p>	
<p>11:00 – 12:30</p>	<p>Panel 7: Concepts for evolution in aerospace transportation and looking ahead</p> <p>This panel will address various means for stakeholder operations. It will highlight key points and summarize perspectives from aerospace transportation providers, aerospace operators, launch site/air and space port operators. The panel will also describe how sub-orbital operations will affect activities in airspace and outer space, addressing segregation vs. integration of airspace. The panel will end with recommendations on the way forward, leading up to the next symposium.</p> <p>Moderator <i>Simonetta Di Pippo, Director, UNOOSA</i></p> <p>Panelists (Moderators of all the previous panels)</p> <ul style="list-style-type: none"> • <i>Eric W. Stallmer, President, Commercial Spaceflight Federation</i> • <i>Yuri Fattah, Programme Manager, Multidisciplinary Priorities, ICAO</i> • <i>Ismaeil Mohammed Al Blooshi, Assistant Director General, Aviation Safety Affairs, GCAA, UAE</i> • <i>Naser Al Rashedi, Director, Space Policy and Regulations, UAE Space Agency</i> • <i>Niklas Hedman, Chief of the Committee, Policy and Legal Affairs Section, UNOOSA</i> • <i>Sheikha Al Maskari, Chief Innovation Officer, Space Agency, UAE</i>
<p>12:30 – 13:00</p>	<p>Keynote Speech on the Next Generation of Aerospace Professionals <i>Julie Payette, Canadian Astronaut, VP Canada Lands, Director Montreal Science Center</i></p>
<p>13:00</p>	<p>Closing</p>
<p><i>End of Symposium</i></p>	