Bridging the aviation and the space communities: the role of UNOOSA

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We witness a progressive development and awareness of the importance of space activities, with more and more players entering the space arena and with the developments in the aerospace field which will impact more and more the application and implementation of space and law instruments. This situation brings to the need of bringing the space and aviation communities to explore existing mechanisms and practices in aviation and space transportation.

ICAO/UNOOSA Aerospace Symposium
Emerging space activities and Civil Aviation – Challenges and Opportunities

- Hosted by the UAE in Abu Dhabi from 15-17 March 2016
- Symposium attended by nearly 200 participants representing international intergovernmental organizations, government agencies, non-governmental organizations and commercial entities
Objectives and intended outcomes

• To bring together representatives of the aviation and space transportation community with relevant national and international air and space legislators and regulators

• To review the status of commercial space transportation activities (including point-to-point transport and human space transportation), in particular also those of non-governmental actors

• To review the status of the existing relevant legal frameworks and practices at international and national levels

• To discuss and agree on possible follow-up activities
Themes and Panels

• **Theme 1:** “Aerospace Innovation & Suborbital Operations”, with panels on International Aerospace Aspiration and Innovation Showcases, Ground infrastructure for Commercial Space Transportation, and Risks Posed to Civil Aviation and Suborbital Operations

• **Theme 2:** “Effective Regulatory and Legal Frameworks for Aerospace Operations”, with panels on Legal and Regulatory issues relevant to aerospace operations, and Governmental cooperation with aerospace stakeholders

• **Concluding session:** “Concepts for evolution in aerospace transportation and looking ahead
UNOOSA Panel on Governmental Cooperation with Aerospace Stakeholders

- The panel identified the different models and approaches for coordination between various stakeholders and regulatory bodies at the 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) was examined as an example of an intergovernmental coordination mechanism that was taken into account.

UNOOSA Panel on Concepts for Evolution in Aerospace Transportation and Looking Ahead

- The panel addressed various means for stakeholder operations. It highlighted key points and summarized perspectives from aerospace transpiration providers, aerospace operators, launch site/air and space port operators. This panel also described how sub-orbital operations will affect activities in airspace and outer space, addressing segregation vs. integration of airspace, and concluding with recommendations on the way forward, leading up to the next symposium.
General Observations of the Symposium

- There is an increase number and types of aerospace vehicles and development, in particular also by non-governmental actors. There is also an increasing number and variation of proposed mission profiles (point-to-point transportation, space tourism applications, intercontinental transport etc). Several new spaceports (launch and landing sites) have been under development in recent years.

- Safety is the fundamental and guiding principle for activities both in the air and space domain. Risk assessment procedures are key. Areas under particular consideration at the Symposium were space weather, space debris and frequency interference.

- There will therefore be an increasing need for a seamless and efficient integration of air and space traffic.

- The burgeoning space transportation industry, in particular the non-governmental sector, will require legal and regulatory certainty to successfully plan and conduct its activities.

- International organizations together with national legislators and regulators should provide guidance and direction.
The Way Ahead

• The Symposium succeeded in bringing together representative of the aviation and space communities at the governmental and non-governmental levels, including the commercial and private sector to explore existing regulatory mechanisms and practices in aviation and space transportation in a cross sectoral dialogue.

• The Symposium explored challenges and opportunities to the emerging field of sub-orbital flights and engaged participants in topics on risks posed to aerospace activities, such as space weather and space debris.

• Presentations were made by: NOAA, NASA, ESA, ITU, UNOOSA, ICAO, FAA, EUROCONTROL, IADC, DGAC France, ENAC Italy, GCAA UAE, among others. The Chair of the LSC WG on Definition/Delimitation of Outer Space, as well as the representative of Mexico also made presentations.

• Next year, the 3rd Symposium will focus on observations, conclusions, and recommendations of the series of ICAO/UNOOSA Aerospace Symposium.

• The 3rd Symposium will be held in Vienna, Austria in the first half of 2017, again jointly organized by ICAO and UNOOSA.
The Way Ahead (con’t)

• UNOOSA has a strategic, and, in the UN system, unique role with its broad mandate and competence to deal with the full spectrum of space activities from science and technology to law and policy and implements the decisions of the General Assembly and COPUOS.

• With the evolution of the space awareness in society, COPUOS is positioning itself at the forefront of the sustainable development process tackling issues related to transparency and confidence-building measures and the long-term sustainability of outer space activities.

• The 1st and 2nd ICAO/UNOOSA symposia (held in 2015 and 2016) have already provided a hint of how complex the matter currently is.

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The Way Ahead (con’t)

• The 3rd Symposium next year will be organized in the middle of the preparation of UNISPACE+50.
• Its deliberations and final conclusions will help COPUOS and the Office to shape the discussions on these challenging topics.
• It is of extreme importance that the Vienna community gets fully involved in the process because it is imperative that we take the lead in this field in the light also of the long-term sustainability of outer space activities.
• Next year, the ICAO/UNOOSA symposium will mark the end of the first phase of consultations and will lead to a second phase, considering the increased awareness in both the space and aviation community that the time to act is now.

I encourage you all to attend this symposium next year and to contribute actively to its success.
THANK YOU

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