

ICAO/UNOOSA AeroSPACE Symposium

# COPUOS and Global Space Governance, Sustainability and Space Security

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## Committee on the Peaceful Uses of Outer Space

- Committee on the Peaceful Uses of Outer Space (COPUOS)
  - Scientific and Technical Subcommittee (STSC)
    - 3 Working Groups (Whole; Use of Nuclear Power Sources in Outer Space; Long-term Sustainability of Outer Space Activities): Expert Groups on space weather; global health
  - Legal Subcommittee (LSC)
    - 3 Working Groups (Status of United Nations Treaties on Outer Space; Definition and Delimitation of Outer Space; and Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space)
- Current issues - Space agenda today:

Space and  
climate change

Disaster  
Management

Space debris  
mitigation

National space  
legislation

International  
mechanisms for  
cooperation

Long-term  
sustainability of  
outer space activities

Definition and  
delimitation  
of outer space

Space applications  
for socioeconomic  
development

Near-Earth  
objects

Global Navigation  
Satellite Systems

Space  
Weather

GGE-report



## Outer space, aerospace objects and suborbital flights

UNOOSA web page dedicated to WG on Definition and Delimitation of Outer Space (<http://www.unoosa.org/oosa/en/COPUOS/Legal/wg-ddos/index.html>)

- Responses to questionnaire on possible legal issues with regard to aerospace objects, 1996-2009 (including analytical summary)
- Responses to questionnaire on the definition and delimitation of outer space, 2007-
- Responses to questionnaire on national legislation and practice relating to definition and delimitation of outer space 2006-
- Responses to questionnaire on suborbital flights for scientific missions and/or for human transportation, 2013-
- CRPs (2006-) including 2005 ICAO concept paper on suborbital flights (2010), Working Papers and other documents (1967-1992)



## COPUOS processes and platforms for coordination

- UNISPACE III+5 Action Teams (innovative approach in implementing recommendations of a major conference – States members took action and voluntarily coordinated activities under dedicated areas – result: ICG, UN-SPIDER, Global health, NEO)
- Recommendations on international response to near-Earth object impact threat: Space Mission Planning Advisory Group (SMPAG), and International Asteroid Warning Network (IAWN)
- Procedures under the agenda item on long-term sustainability of outer space activities (Working Group and four Expert Groups)



## Long-term Sustainability of Outer Space Activities

- Working Group of the Scientific and Technical Subcommittee on the Long-term Sustainability of Outer Space Activities (extended work plan to 2016)
- Core thematic areas:
  - Sustainable space utilization supporting sustainable development on Earth
  - Space debris mitigation, safety of space operations, tools to support space situational awareness
  - Space weather
  - Regulatory regimes and guidance for actors in the space arena
- Areas of expert groups findings: Sustainable development objectives; spectrum protection; space debris mitigation; space debris monitoring; accuracy of orbital data; conjunction assessment (launch phase/orbital phase); space weather prediction and forecasting; registration information; regulatory practices; contact information; prior notice of launches and controlled re-entries; standards for sharing orbital information
- Interlink with the report of the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities (A/68/189)
- 52nd session of the Scientific and Technical Subcommittee in February 2015: Proposals for new draft guidelines, including on unified platform for near-Earth information and data sharing (Russian Federation), and security and resilience of shared critical infrastructures for space systems (USA)





## GGE report on TCBMs in outer space activities

GGE report (A/68/189) and GA resolution 68/50

- **GGE-recommendations** include information on national space policy, military expenditure, notifications on status of space objects, safety of space operations (including collision avoidance, scheduled manoeuvres, re-entry risks, emergency situations, intentional break-ups), hazards (natural), visits
- **Resolution** decides to refer the recommendations of the GGE report to COPUOS, Disarmament Commission and Conference on Disarmament (CD) for consideration, as appropriate
- **COPUOS consideration:** GGE recommendations to be considered in 2015 (safety of space operations and long-term sustainability of outer space activities)
- **LTS Working Group** will during COPUOS review the recommendations of the GGE as far as LTS process is concerned
- **UN-system coordination** is encouraged by the resolution in operative paragraph 5; GGE report paragraph 66 recommends coordination between OOSA, ODA and other appropriate UN entities. Inter-agency mechanism could be useful (UN-Space decision at its 34th session 13 May 2014 to include GGE report as item on its agenda for 2015)
- **GA First and Fourth Committee** to hold joint ad hoc session at 70th session of the GA (recommended by GGE report in its paragraph 72 and by resolution on TCBMs at 69<sup>th</sup> session)



## UNISPACE+50

- 2018 Theme of STSC, LSC and COPUOS marking 50th anniversary of UNISPACE I held in 1968 and take stock of the contribution of the three UNISPACE conferences (I in 1968, II in 1982 and III in 1999) to global space governance (Proposal by troika of past, present, incoming Chairs of COPUOS)
- COPUOS unique platform for Interrelationship between major space faring nations and emerging space nations. Space agenda is evolving and becoming more complex. Broader concept of space security. Expanding commercial space sector
- Pillars for consideration: (a) governance; (b) capacity-building; (c) resiliency of space systems; (d) interoperability; (e) space for sustainable development
- No change in format of sessions. No additional cost. Group of Bureaux members (G-15) to serve as steering committee. Report of COPUOS in 2018 labelled under the theme and dedicated GA resolution
- Secretary-General report under UN-Space in 2016 to explore how UN system interact and support Member States



## Conclusion

- With the fast approaching 2015 target date for Millennium Development Goals, focus is shifting to the post-2015 development agenda, where “Global Sustainable Development” not only implies the use of space tools, but also requires that space-related activities, as well as outer space environment itself, continue to be sustainable in the long-term.
- Near-earth environment is fragile and the broadening of application and space operations and the increased strategic value of space have resulted in a growing need to enhance the safety of space operations, security of space assets, and the long-term sustainability of outer space activities.
- Complexity of broader space security encompass security related measures as well as mechanisms for safety of space operations, handling of hazards either by natural causes (near-Earth objects and space weather) or man-made (in-orbit collisions, other emergency situations, loss of control, break-ups, re-entry risks).
- Global space governance may involve strengthened international mechanisms for transparency and confidence-building; space-traffic management; tools for space situational awareness.





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# Role of UNOOSA

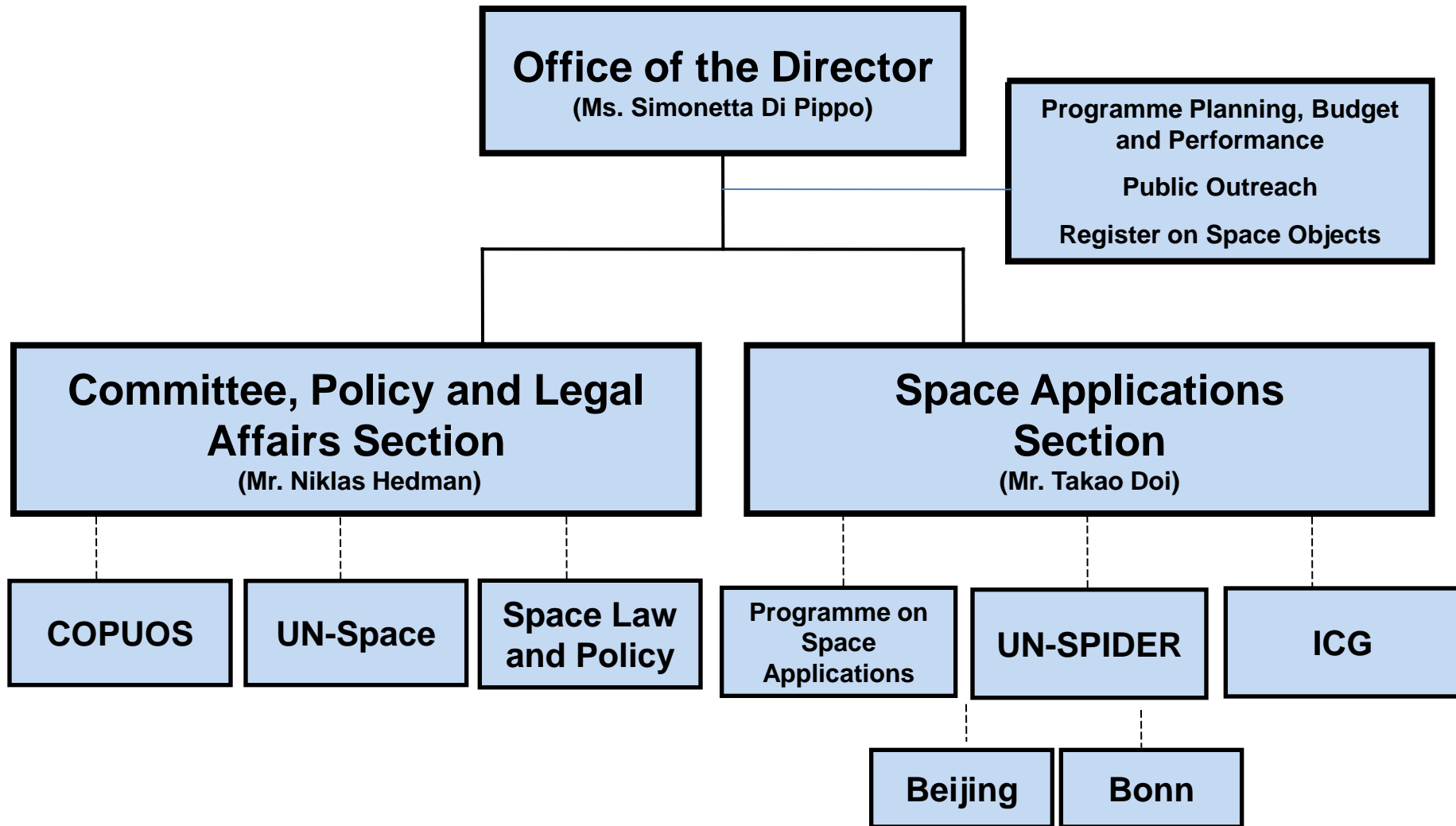


## United Nations Office for Outer Space Affairs: Mandate

- The Office **implements** the decisions of the **General Assembly** and of the United Nations **Committee** on the Peaceful Uses of Outer Space (COPUOS);
- Performs **functions** of substantive **Secretariat** of the Committee on the Peaceful Uses of Outer Space and its Scientific & Technical Subcommittee and Legal Subcommittee;
- **Coordinates** the inter-agency coordination within the United Nations on the use of space technology (**UN-Space**);
- **Maintains** coordination and cooperation with space agencies and intergovernmental and non-governmental organizations involved in space-related activities;
- **Implements** the United Nations **Programme on Space Applications**;
- Is **responsible for** the implementation of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (**UN-SPIDER**) programme;
- Serves as **Executive Secretariat** for the International Committee on Global Navigation Satellite Systems (**ICG**); and
- **Maintains**, on behalf of the United Nations Secretary-General, the **Register** of Objects Launched into Outer Space, and discharges responsibilities of UNSG under the treaties.



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## Inter-Agency Coordination on Outer Space Activities

- UN-Space: Secretary-General report on coordination of space activities in the UN system 2014-2015 – addressing the post-2015 development agenda;
- UN-Space: Special report on Space for Global Health (to be issued in 2015). In addition joint WHO/UNOOSA workshop in 2015;
- UN-Space: Secretary-General report to address UN system contribution to global space governance (planned for 2016-2017);
- UN-Space: GGE-report as pertaining to UN system entities. ODA and UNIDIR invited;
- GA/Fourth Committee panel discussion jointly with Division for Sustainable Development, DESA on post-2015 development agenda, held October 2014;
- Joint ICAO/UNOOSA Aerospace Symposium in Montreal, 18-20 March 2015

www.unoosa.org

**34th** Session of the United Nations Inter-Agency Meeting on Outer Space Activities (UN-Space)

Open session for Member States and stakeholders on

**Engaging space tools for development on Earth**

contribution of space technology and applications to the post-2015 development agenda

14 May 2014; 10:00-13:00, CR-3  
United Nations Headquarters, New York

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The poster features a red and white abstract background with a satellite image of Earth. It contains text about the 34th session of the UN-Space meeting, including the title, date, time, and location. The United Nations logo and the name of the Office for Outer Space Affairs are at the bottom.



## Key Events in 2015

- Proposed Official Working Sessions and side event at The Third World Conference on Disaster Risk Reduction (WCDRR) in Sendai (14 – 18 March 2015)
  - “Earth observations to support national and local disaster-risk reduction initiatives“
  - Showcase how geospatial and space-based applications are used, identify the areas for improvement and launch international partnerships to facilitate their use
- UN/Germany International Conference – Global Solutions for the Challenges of Sustainable Development in Societies at Risk, in Bonn (26 – 28 May 2015)
  - Facilitate the coordination of global efforts by the space community and provide guidance to decision-makers from the disaster management and climate change communities
  - Identify ways in which Earth observations can be used explicitly to contribute to the implementation of the post-2015 frameworks (DRR, CC and SDGs)
  - UN-Space session planned in conjunction with the Bonn Conference to focus on space and climate change, disaster management, use of space-derived data and information
- High Level Forum on Space as Driver for Socio-economic Sustainable Development (planned to be held with United Arab Emirates in November 2015) – to address space economy, space society, space accessibility, space diplomacy





## Moving Ahead Strategically

- Space economy that creates and provides value
  - Space creating economic growth and new markets
  - The importance of space activities for economic sustainable development
- Space society in a social sustainable environment
  - Benefitting of and social attention to state-of-art technologies and space based services
  - Extension of the socio-economic prospects and evolving social setting
- Space accessibility for the benefit of every human being
  - Capacity-building and enhanced access to space for everyone
  - Tools and platforms to facilitate more open and free access to and exchange of space-based data and information
  - More attention of the Governments to regulatory and legislative actions
- Space diplomacy to establish knowledge-based international partnerships
  - Cooperation in space can improve international relations
  - Use of space for improving international relations

[www.unoosa.org](http://www.unoosa.org)

**Thank You**

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