

Bonn Conference , 27 May 2015

Global Space Governance: The Role of COPUOS and UN-Space

Niklas Hedman
United Nations Office for Outer Space Affairs
United Nations Office at Vienna



UNITED NATIONS
Office for Outer Space Affairs



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



Coordination processes and platforms

- 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)
- International Committee on Global Navigation Satellite Systems (ICG)
- 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)
- STSC expert groups on global health and space weather



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), WG Chairs and Director OOSA 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



The road to UNISPACE+50

- 2015 GA First and Fourth Committee joint meeting
- 2015 Tenth anniversary of ICG
- 2016 Tenth anniversary of UN-SPIDER
- 2016 Scheduled adoption of guidelines on LTS
- 2017 Fiftieth anniversary of OST
- 2017 Finalization of LSC agenda item on cooperation mechanisms
- 2018 Conclusion of work plan on socioeconomic development



UNISPACE+50 Thematic priorities and Synergies

- Thematic priorities of STSC, LSC and COPUOS building upon the cross-cutting topics of governance, capacity-building, resiliency, interoperability, and space for sustainable development
- Consideration of governance structures such as national spatial data infrastructures, regional and interregional coordination mechanisms; potential new mechanisms for resiliency and interoperability such as in the fields of DRR and NEO; TCBM and LTS within the broader context of space security
- Third UN World Conference on Disaster Risk Reduction and its outcome on a framework for disaster risk reduction for 2015-2030
- UN Summit in September 2015 to adopt the post-2015 development agenda, including SDGs
- COP 21 in Paris November-December 2015



UNITED NATIONS Office for Outer Space Affairs

UN/Indonesia
International Conference
on Integrated Space
Technology Applications to
Climate Change
(September 2013)

The 8 Millennium Development Goals



UN/Pakistan International
Workshop on Integrated
Use of Space Technology
for Food and Water
Security (March 2013)

UN/Italy Long-term
Fellowship Programme on
Global Navigation Satellite
Systems and Related
Applications (2014)



UN/International
Astronautical Federation
Workshop on Space
Technology for Socio-
Economic Benefits
(September 2014)

United Nations/Morocco
International Conference on
the Use of Space Technology
for Water Management
(United Nations, Morocco, ESA
and PSIPW) (April, 2014)



United Nations Expert
Meeting on the
International Space Station
Benefits for Health
(February 2014)



New Sustainable Development Goals (SDGs)

<p>GOAL 1 END POVERTY IN ALL ITS FORMS EVERYWHERE</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>	<p>GOAL 2 END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>	<p>GOAL 3 ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>	<p>GOAL 4 ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>	<p>GOAL 5 ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>	<p>GOAL 6 ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>
Poverty	Food Security	Health	Education	Gender Equality	Water
<p>GOAL 7 ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>	<p>GOAL 8 PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>	<p>GOAL 9 BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>	<p>GOAL 10 REDUCE INEQUALITY WITHIN AND AMONG COUNTRIES</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>	<p>GOAL 11 MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>	<p>GOAL 12 ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>
Energy	Employment	Resilient Infrastructure	Reduce Inequality	Cities	Sustainable Consumption
<p>GOAL 13 TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS*</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>	<p>GOAL 14 CONSERVE AND SUSTAINABLY USE THE OCEANS, SEAS AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>	<p>GOAL 15 PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>	<p>GOAL 16 PROMOTE PEACEFUL AND INCLUSIVE SOCIETIES FOR SUSTAINABLE DEVELOPMENT, PROVIDE ACCESS TO JUSTICE FOR ALL AND BUILD EFFECTIVE, ACCOUNTABLE AND INCLUSIVE INSTITUTIONS AT ALL LEVELS</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>	<p>GOAL 17 STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALIZE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT</p> <p>SUSTAINABLE DEVELOPMENT GOALS World's Sustainable Development Goals Report 2016</p>	
Climate Change	Marine Resources	Ecosystems and Biodiversity	Justice and Good Governance	Partnerships for Implementation	



Six Essential Elements for Delivering on the SDGs

(Secretary-General synthesis report (A/69/700))

- **DIGNITY:** To end poverty and fight inequalities
- **PEOPLE:** To ensure healthy lives, knowledge and the inclusion of women and children
- **PROSPERITY:** To grow a strong, inclusive and transformative economy
- **PLANET:** To protect our ecosystems for all societies and our children
- **JUSTICE:** To promote safe and peaceful societies and strong institutions
- **PARTNERSHIP:** To catalyse global solidarity for sustainable development



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

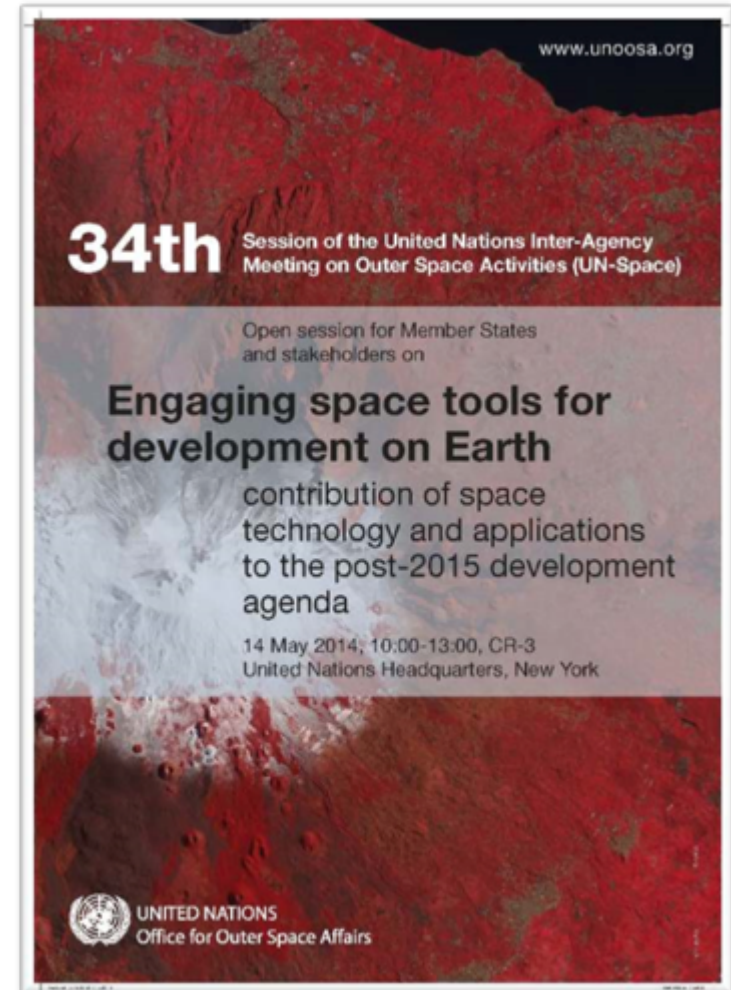
GGE report (A/68/189) and GA resolution 68/50

- **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 69th session)



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);
- GA/Fourth Committee panel discussion jointly with Division for Sustainable Development, DESA on post-2015 development agenda, held October 2014;
- UNOOSA/ITU Guidance on small satellite registration and frequency management , published April 2015
- Joint ICAO/UNOOSA Aerospace Symposium in Montreal, 18-20 March 2015





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



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.

www.unoosa.org

Thank You

United Nations Office for Outer Space Affairs
United Nations Office at Vienna



UNITED NATIONS
Office for Outer Space Affairs