



5th UNISEC-Global Meeting

UNOOSA and Space for Sustainable Development

4.12.2017

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Let me tell you my story...



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Vision

Bringing the benefits of space to
humankind

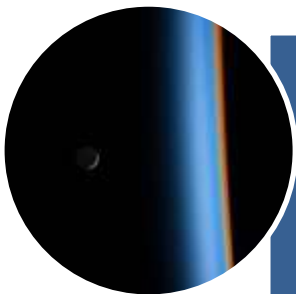
Mission Statement

To promote **international
cooperation** in the peaceful uses
of outer space





Unique Roles of UNOOSA



CAPACITY-BUILDER

UNOOSA brings the benefits of space to humankind by building space capacity of non-space-faring countries.



GLOBAL FACILITATOR

UNOOSA plays a leading and facilitating role in the promotion of the peaceful uses of outer space.



GATEWAY TO SPACE

UNOOSA is the main UN office on space matters and facilitates the coordination of UN activities using space technology to improve lives around the world.



Committee on the Peaceful Uses of Outer Space



COPUOS 2016 in Vienna, Austria

- UNGA committee that reviews peaceful use of outer space, **encourages space research** programmes, and **studies legal issues** arising from exploration of space.
- COPUOS developed **5 treaties and 5 principles** of outer space.
- The Committee's membership has continued to expand. (87 States will be members of COPUOS by the end of 2017, though the Office serves all 193 Member States of the UN).
- Two subcommittees: Scientific and Technical, and Legal.



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COPUOS Membership





International Space Law

COPUOS is the forum for the development of international space law.

The Outer Space Treaty (fifty years old this year) provides the basic framework on international space law, including the following principles:

- The exploration and use of outer space shall be carried out for the **benefit and in the interests of all countries**;
- Outer space is **not subject to national appropriation** by claim of sovereignty;
- States shall not place nuclear weapons or other weapons of mass destruction in orbit;
- States shall be **responsible for national space activities** whether carried out by governmental or non-governmental entities.



Astronauts aboard the Mir Space Station in 1995



Register of Objects Launched into Outer Space



- Launching state parties agree to keep a **national register** of objects launched into outer space.
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- UNOOSA **maintains a central register** of objects launched into outer space as the only treaty-based TCBM in outer space.
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- UNOOSA assists state parties with the **identification of space objects**.
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International Committee on GNSS (ICG)

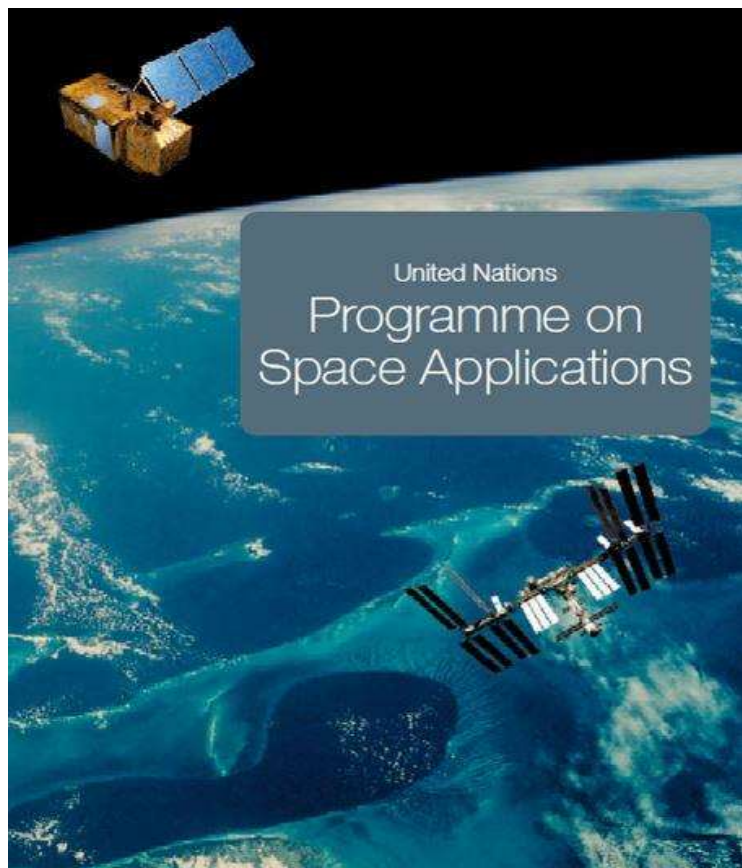


- **Encourages coordination** among GNSS providers.
- Promotes the introduction and utilization of **GNSS services in developing countries.**
- Assists GNSS users with their development plans and applications.
- Contributes to **sustainable development.**
- Discuss GNSS **interoperability and compatibility** among providers and users globally for enhanced services and applications.

The ICG promotes **voluntary cooperation** related to civil satellite-based positioning, navigation, timing, and value-added services.



UN Programme on Space Applications



- The Programme on Space Applications (PSA), since its creation in 1971, has made substantial progress in **furthering knowledge and experience of space applications** around the world.
- The Programme on Space Applications has **established regional centres** for space science and technology education in each region covered by the United Nations Economic Commissions: Africa, **Asia and the Pacific**, Europe, Latin America and the Caribbean, and Western Asia.



UN-SPIDER

UNOOSA's **UN Platform on Space-based Information for Disaster Management and Emergency Response (UN-SPIDER)** programme was created in 2006 to help communities, particularly in developing countries, to take full advantage of disaster-risk management from space-based technologies.

Advisory Missions:

- **TAM:** Technical Advisory Mission
- **ISM:** Institutional Strengthening Mission
- **EM:** Expert Missions

UN-SPIDER has aided over 35 countries with the various advisory missions, and the **Asia-Pacific region is highly involved** in UN-SPIDER's capacity-building activities for sustainable development. From this region, countries such as Fiji, Myanmar, the Solomon Islands, Tonga and Vietnam have participated in UN-SPIDER programmes.





UN-SPIDER: Myanmar in 2012



- A 2008 cyclone destroyed much of coastal Myanmar, and the country is also susceptible to tropical storms, floods and earthquakes.
- In 2012, UN-SPIDER conducted two TAMs in Myanmar with organizations, including the University of South Wales, the National Disaster Reduction Centre of China and the US Geological Survey.

In 2008, Cyclone Nargis destroyed much agricultural land



UN-SPIDER: Myanmar in 2016

- In 2016, UN-SPIDER followed up with an ISM to increase the state's institutional disaster management. The impact:
 - Emergency Operation Centre (EOC) established with "Remote Sensing Unit"
 - Trained personnel in Remote Sensing and Geographic Information System are available at EOC
 - Disaster Management Training Centre conducts courses in remote sensing/GIS
 - NSDI and one map policy under consideration.



UN-SPIDER mission team in Myanmar



UN-SPIDER: Solomon Islands in 2012



UN-SPIDER mission team in Solomon Islands in 2012

- The Solomon Islands are susceptible to tsunamis and earthquakes.
- The TAM team met with several of the country's offices, including the National Geographic Center and the Marine Department, and the parties discussed the state's current capacities and recommendations to increase its ability to manage disasters.



UN-SPIDER: Solomon Islands in 2017



- With several governments and NGOs, UN-SPIDER had another follow-up mission in February this year to facilitate partnerships between the state and IGOs to share space-based data and information.
- The country's National Disaster Management Office has increased significantly its capacity.
- A workshop led by UN-SPIDER showed how to acquire, process, and use satellite images to gather information on the impact of an event and better manage a disaster cycle.
- UN-SPIDER will continue its relationship with the state and work to increase its capacity.



Sustainable Development Goals (SDGs)



All countries and stakeholders are acting in **collaborative partnership** to **implement the 2030 Agenda for Sustainable Development**.



Space and the SDGs

- **Cutting-edge technologies**, such as satellite technology and space applications, are indispensable as we strive to achieve our common goals under the **2030 Agenda for Sustainable Development**.
- **UNOOSA** is currently developing new, more holistic and tangible, approaches to capacity-building, in particular, to address the targets enshrined in the SDGs.
- There is no better example of UNOOSA's vision '**to bring the benefits of space to humankind**' by showing space's importance in the realization and implementation of the Sustainable Development Goals.





Earth Applications of space technology

- Tracking air composition and quality, monitoring greenhouse gases
- Mapping public health emergencies and environmental influences
- Observing sea level, surface winds, sea ice and ocean colour
- Assessing extent of desertification, droughts and floods
- Monitoring water quality and of wastewater salinity
- Predicting crop yield, land cover and soil moisture
- Deploying tele-medicine in remote areas
- Enabling smart cities and transportation
- Disaster preparedness and mitigation
- Monitoring climate change
- And more!





UNOOSA & the SDGs

**Space Development
Profile and Space
Solutions Compendium**

Space and Water Portal

**Human Space
Technology
Initiative**



And much more...

Space for Women

**Space science and
technology education**

Partnerships

Access to Space





UNOOSA & the SDGs: Human Space Technology Initiative



Dream Chaser

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KiboCUBE

China's Space Station

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UNOOSA & the SDGs: Profile and Compendium



Space for Development Profile:

- The Space for Development Profile will consist of a set of generic indicators, which can be expanded on a country basis, taking into account the priorities of a country and tailored to each country's development strategy, in collaboration with the country.
- Monitoring and evaluation processes will lead to greater learning, adjustment and decision-making.

Space Solutions Compendium:

- The Space Solutions Compendium will be a dedicated catalogue of solutions applicable at the national level that can be applied by the country in question.
- List of providers that could contribute to the improvement of a given indicator.
- Solutions could include guidelines, training courses or other forms of assistance, bringing value to the countries that apply them.



UNOOSA & the SDGs:

Space for Women



“Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.”

UNOOSA is working on a dedicated Space for Women Project. Its objectives are to strengthen and deliver targeted capacity-building and technical advisory activities, and promote efforts to encourage women and girls' involvement in science, technology, engineering and mathematics (STEM) education.

United Nations Expert Meeting on Space for Women

Organized jointly by UNOOSA and UN Women, 4 – 6 October 2017, New York



UNOOSA & the SDGs: Partnerships

17 PARTNERSHIPS
FOR THE GOALS



“Partnerships with the private sector will facilitate global engagement ...bringing together Governments, the private sector, civil society, and the United Nations system.”

UNOOSA intends to capitalize on technological and innovative skills of the private sector to benefit developing countries and to deliver the Access to Space initiative to address all 17 of the Sustainable Development Goals.



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The Future of Global Space Cooperation:

UNISPACE +50



UNISPACE+50 in 2018

- **2018** marks the 50th anniversary of the first UN Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE), held in Vienna in 1968.
- **COPUOS** decided in June 2015 to use this milestone anniversary to renew and strengthen its mandate as **a unique platform for the interrelationship between major space faring nations and emerging space nations.**
- **UNISPACE+50** will articulate a **long-term vision for space:** from a domain of States towards a domain of a commonly shared human experience.
- This vision will be called **Space2030.**



1968 Conference on the Exploration and Peaceful Uses of Outer Space



Space2030: A Joint Vision

- **UNISPACE+50** will consider the future course of global space cooperation for the benefit of humankind.
- It will be the best opportunity for joint work among Member States on **Space2030**, in order to address global space governance and the future of space.
- This is an opportunity for **new and creative ideas to strengthen global partnerships**, including in the areas of space exploration and innovation.
- **Space is a limited resource** that has to be protected through **one joint vision**, to be enshrined in Space2030.





Opportunities for Young People

- UNOOSA offers **internships** on many different aspects of our work. We value the work of interns and look for the highest calibre of applicant whilst also providing space for their own personal growth. Our offices in Vienna, Bonn, and Beijing regularly post job openings for internship opportunities.
- The **Space Generation Advisory Council (SGAC)** is an NGO and professional network that came out of UNISPACE III. It aims to bring the views of students and young space professionals to the UN, space industry and other organisations. It is a COPUOS permanent observer.
- The **Young Professionals Programme (YPP)** is a recruitment initiative for talented, highly qualified professionals to start a career as an international civil servant with the United Nations Secretariat. United Nations Human Resources: inspira.un.org



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“From space we can’t see barriers between people. Space reminds us of our common bonds – let’s never forget that”

*Scott Kelly
UN Champion for Space*





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Final words...



THANK YOU



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