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AAIL FOUNDATION



中国国际法学会
Chinese Society of International Law

2026 COLLOQUIUM ON INTERNATIONAL LAW

*CREATING
NEW FRONTIERS:*

**Law, Commerce and
ORDER IN
OUTER SPACE**

3 July



United Nations
Office for Outer Space Affairs

COPUOS/UNOOSA: Enabling Global Space Traffic Coordination

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United Nations Office for Outer Space Affairs

2026 Colloquium on International Law



- 1. UNOOSA: Secretariat to COPUOS,
convener and capacity-builder**
- 2. What is COPUOS**
- 3. LTS WG**
- 4. EG SSA**
- 5. Way forward**



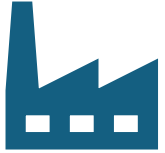
United Nations
Office for Outer Space Affairs

UNOOSA: Secretariat to COPUOS



United Nations
Office for Outer Space Affairs

History and Mandates



Established in NY in 1957
Moved to Vienna in 1992



**Secretariat to UN Committee on the
Peaceful Uses of Outer Space (COPUOS)**
& its subcommittees



**International cooperation & capacity
development on **technical**, **legal**, **policy**,
& **scientific** aspects of space**



**Private sector activities - massive
driver of increasing work of COPUOS**





Overview of UNOOSA



GATEWAY

**The sole UN agency dedicated
entirely to Space**



CONVENER

**Facilitates global cooperation
among UN Member States**



**ACTION
OFFICE**

**Access to space-data
& information & training**



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Governance of Outer Space Activities

What is COPUOS?





COPUOS: Committee on the Peaceful Uses of Outer Space

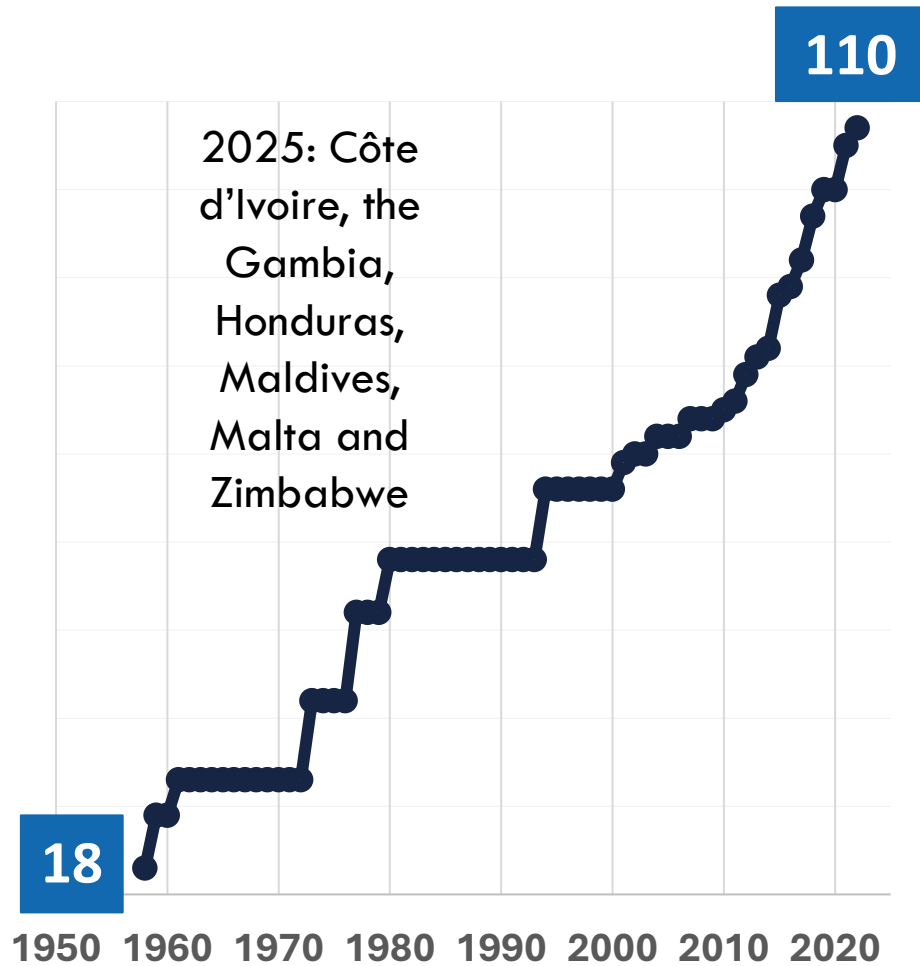


Photo credit: UNIS Vienna

- Established in **1958**
- Growth from **18** MSs to **110** in 2025
- COPUOS meets 3 times Q1-2 per year
- **Two sub-committees:**
 1. Scientific & Technical (STSC)
 2. Legal (LSC)
- **Multiple new topics** (technical & legal) are being discussed, incl. STC and STM
- More intersessional meetings requested
- Greater capacity-building required to support MS' decision-making



COPUOS: Home of Space



- **Consensus-based decisions:** All Member States treated alike
- **Reports to 4th Committee of the UNGA:** Resolution on the peaceful uses of outer space



GATEWAY



CONVENER



**CAPACITY
BUILDER**



TREATIES

- Outer Space Treaty (1967)
- Rescue Agreement (1968)

- Liability Convention (1972)
- Registration Convention (1975)
- Moon Agreement (1979)

PRINCIPLES

- Declaration of Legal Principles on Outer Space Activities (1963)
- Broadcasting Principles (1982)
- Remote Sensing Principles (1986)
- Nuclear Power Sources Principles (1992)
- Declaration on International Cooperation for the Benefits and in the Interest of All States (1996)

RESOLUTIONS

- Launching State (2004)
- Registration Practice (2007)
- National Space Legislation (2013)

NON-LEGALLY BINDING DOCUMENTS

- Space Debris Mitigation Guidelines (2007)
- Safety Framework for Nuclear Power Sources (2009)
- Guidelines for the Long-term Sustainability of Outer Space Activities (2019)



The History: A Timeline

COPUOS & UNOOSA
established

Treaty
development

Principles on
outer space

Development of
soft law

UNISPACE+50
and Space2030

Pact for the
Future

1950s-60s

1960s-70s

1980s-90s

2000s-10s

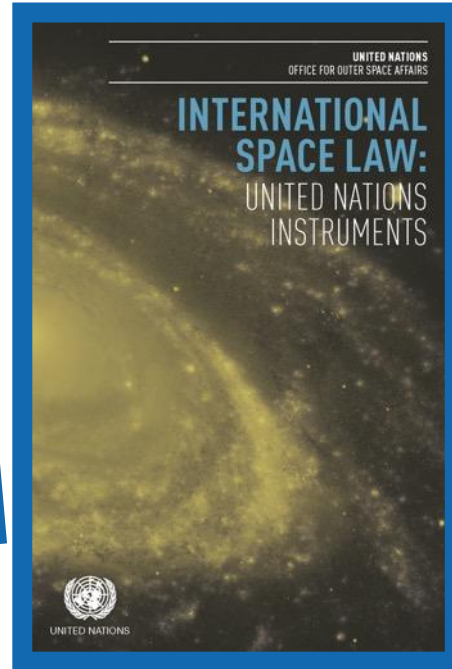
2010s

2024

1. Establishes an *ad hoc* Committee on the Peaceful Uses of Outer Space composed of the representatives of Argentina, Australia, Belgium, Brazil, Canada, Czechoslovakia, France, India, Iran, Italy, Japan, Mexico, Poland, Sweden, the Union of Soviet Socialist Republics, the United Arab Republic, the United Kingdom of Great Britain and Northern Ireland and the United States of America, and requests it to report to the General Assembly at its fourteenth session on the following:

(a) The activities and resources of the United Nations, of its specialized agencies and of other international bodies relating to the peaceful uses of outer space;

(b) The area of international co-operation and programmes in the peaceful uses of outer space which could appropriately be undertaken under United Nations auspices to the benefit of States irrespective of the state of their economic or scientific development, taking into account the following proposals. *inter alia*:





A Call to Action by Heads of State to COPUOS

Safe and sustainable use of space plays a critical role in the achievement of the 2030 Agenda:



Action 56. We will Strengthen international cooperation for the exploration and use of Outer Space for Peaceful Purposes and for the benefit of all Humanity

We decide to:

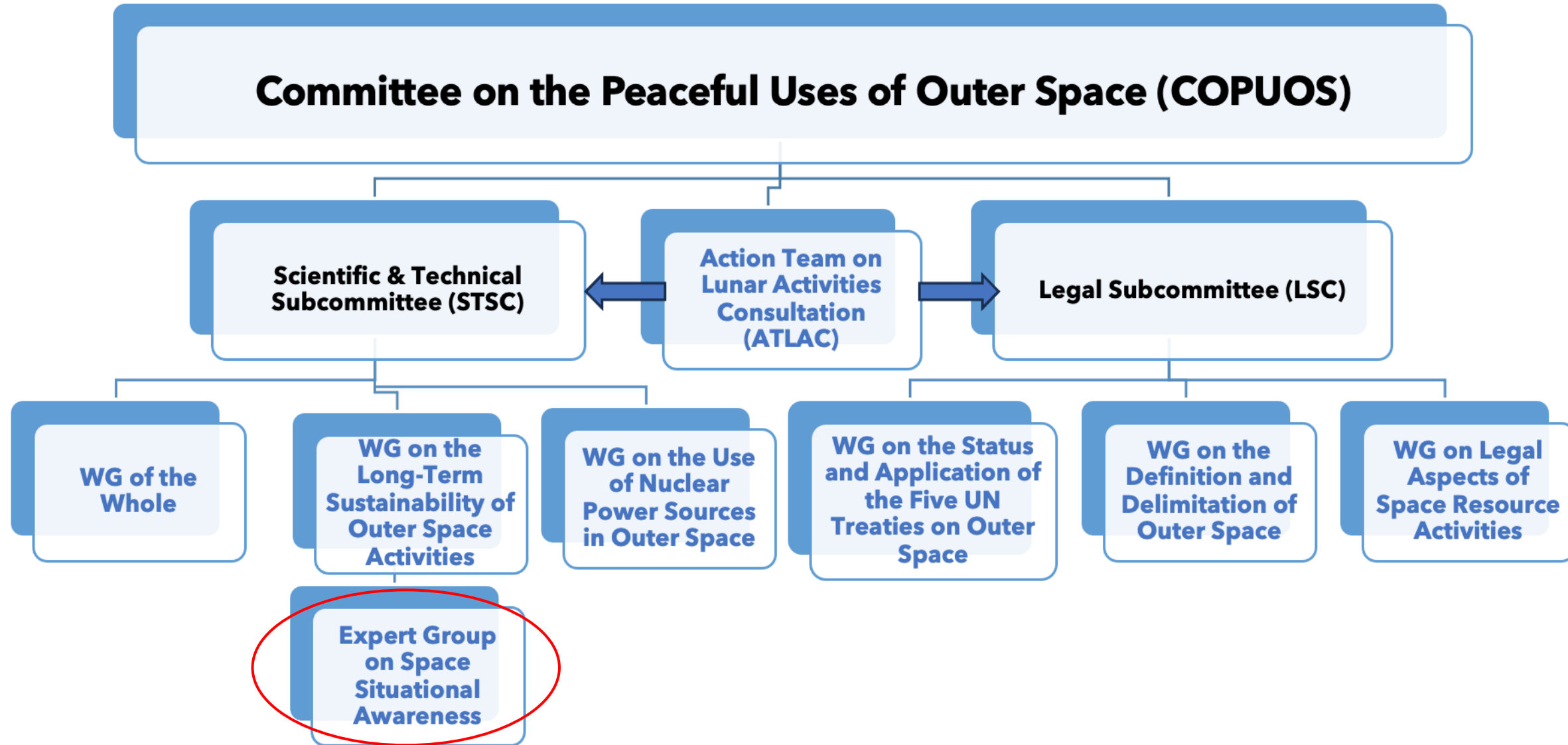
a) Reaffirm the importance of the widest possible adherence to and full compliance with the 1967 Outer Space Treaty and discuss the establishment of new frameworks for space traffic, space debris, and space resources through COPUOS

b) Invite the engagement of relevant private sector, civil society, and other relevant stakeholders, where appropriate and applicable, to contribute to intergovernmental processes related to the increased safety and sustainability of outer space.



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COPUOS: Subcommittees Working Groups, Other Mechanisms





2010-2018: *consensus-building*

- Identified systemic risks to the long-term sustainability of outer space activities
- Achieved multilateral consensus on **21 Guidelines**, establishing the first comprehensive, internationally agreed framework for sustainable space operations

2021: *implementation and evolution*

- Translating the 21 agreed LTS Guidelines into **national legal, regulatory and licensing practice** across diverse space actors = operationalization!
- Future LTS WG topics spanning **SSA and data-sharing, debris mitigation, complex on-orbit operations, new mission domains beyond Earth orbit, human spaceflight safety and the sustainability impacts of large constellations**, to inform possible future guidance and capacity-building efforts.





Long-Term Sustainability Guidelines (2019)

- First internationally agreed instrument for sustainable space operations.

Key relevance for SSA/STC:

- ✓ Encourage **information sharing on space objects and operations**
- ✓ Promote **improved accuracy of orbital data**
- ✓ Encourage **updated contact information for operators**
- ✓ Strengthen **conjunction assessment and coordination practices**

--- are there to provide the **foundation for operational coordination in space.**

However, **effective implementation requires global coordination mechanisms.**



Why SSA and Coordination Matter Now

- Growing number of satellites and constellations
 - Increasing congestion in LEO
 - More actors with different levels of capability
 - Multiple SSA systems producing different risk assessments
- create **coordination challenges between operators**
(both governmental and non-governmental).

Key operational questions:

- Who shares data?
 - What information is needed to assess collision risk?
 - Who contacts whom when risks arise?
 - How can operators coordinate quickly?
- these questions are being discussed at the newly establish
Expert Group on Space Situational Awareness.



Expert Group on Space Situational Awareness

Established under the Working Group on the Long-term Sustainability of Outer Space Activities (LTS WG)



Mandate:

- Improve global coordination on conjunction risks
- Identify minimum information needed for Coordination
- Enhance contact mechanisms between Operators
- Examine compatibility of SSA data systems and formats
- Support capacity-building for emerging space actors

Goal:

- Enable a **global space traffic coordination (STC)** mechanism.



What is happening now (2025-2026)

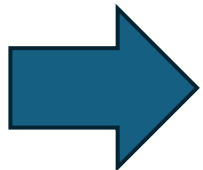
**The Expert Group
has begun work with:**

Member State presentations on national SSA capabilities, realities and needs

Industry engagement (as part of national delegations) on operational coordination practices

Initial discussions on:

- **Minimum data needed for conjunction coordination**
- **Points of contact** between operators
- **Information-sharing practices**
- Interaction between **public and commercial SSA systems**



A survey of nominated experts (governmental and industry representatives) is currently underway to gather information on what is needed



Next steps (2026-2027)



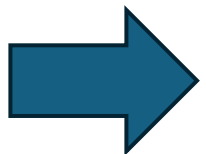
The Expert Group has:

- Continue consultations with Member States and industry
- Identify minimum information needed for space traffic coordination
- Develop recommendations for COPUOS 2026 to find agreement in 2027.
- Which has led to the launch of **UN SOCH** in July **2026!**



- ✓ Informed participation in the **Expert Group on SSA**
- ✓ Sharing national practices and operational experiences on a regional and international level
- ✓ Strengthening regional communication mechanisms
- ✓ Supporting **capacity-building initiatives (eg. today's workshop)**

National, regional and international engagement helps ensure that all perspectives are reflected in a future global coordination mechanism.



This is why UNOOSA is supporting capacity-building on SSA!



UN Satellite Operator Contact Hub

The UN Satellite Operator Contact Hub (UNSOCH) is a restricted coordination directory maintained by the United Nations Office for Outer Space Affairs. It provides a secure environment for trusted contact sharing and coordination across all mission lifecycle phases, including pre-deployment planning, in-orbit operations, and 24/7 emergency escalation, enabling timely and reliable communication between operators, Member States, and UN partners.

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UNSOCH is not a real-time tracking system. Access is restricted to verified satellite operators, Member States, UN partners, and authorized administrators. All access is subject to verification and applicable governance rules.



Restricted Access

Available exclusively to



Full Lifecycle Support

Pre-deployment, in-orbit,



Trusted Contact Sharing



Sign In

Access UNSOCH

Operator

Admin

Email

operator@company.com

Password

Enter password

Sign In as Operator

DEMO CREDENTIALS



Admin

admin@unoosa.org

Full directory + registration management



Verified operator

elena@starlinksys.com

Complete profile (StarLink Systems)



New operator (incomplete)

lena@novasat.io

Approved, profile not yet filled in

UN Satellite Operator Contact Hub (UNSOCH)

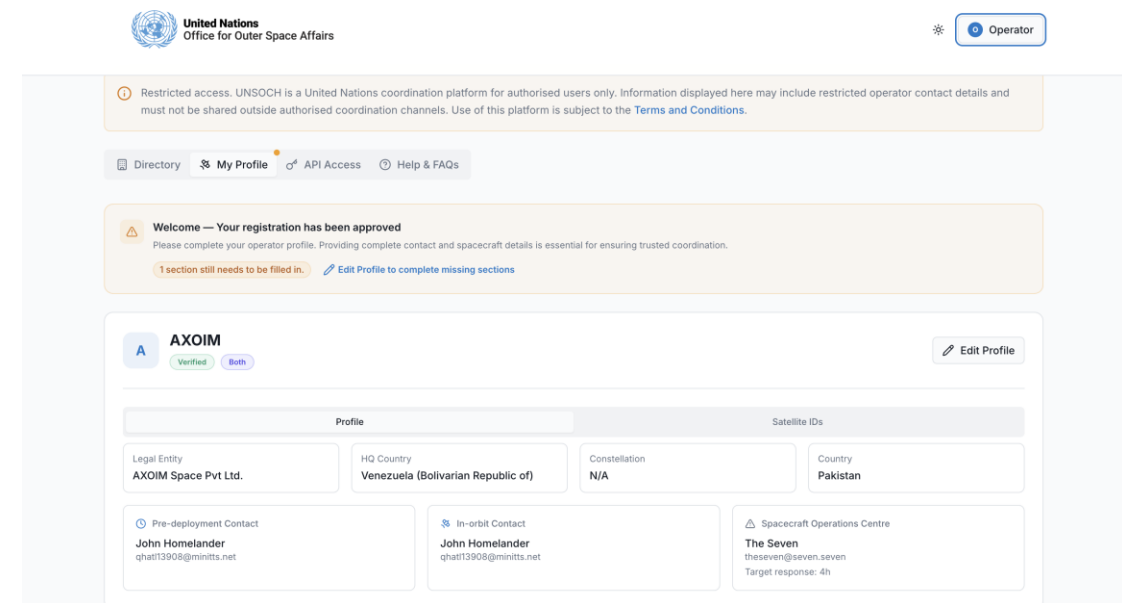
A UNOOSA-maintained tool providing verified, up-to-date contact details for satellite operators worldwide — **putting LTS Guideline B.1 into practice.**

What it is

- One trusted place to find who to contact about any satellite
- Operators register and maintain their own contact and fleet data
- UNOOSA vets every operator and satellite (UN, national and basic checks)

What it can do

- Connects operators fast when a conjunction or collision risk arises
- Matches COSPAR / NORAD IDs to a verified operator contact
- Backbone for a future global space traffic coordination mechanism



The UNSOCH Platform



The missing contact layer that turns SSA data into operator-to-operator coordination.



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Thank you!

<https://www.unoosa.org/oosa/en/ourwork/spacelaw/capacitybuilding/advisory-services/index.html>

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