



11 September 2025

UNOOSA

Toolkit on Good Registration Practices for Objects Launched into Outer Space





The Registration Project

***Supporting Implementation of Treaty Obligations
related to the Registration of Objects Launched into Outer Space***

Phase One of the Registration Project

- January to October 2023
- Interviews with Member States of the United Nations/States Parties to the Registration Convention
- Expert Event on the Registration of Objects Launched into Outer Space
- Publication of an anonymized Stakeholder Study

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

Phase Two of the Registration Project

- February to September 2025
- Second Meeting of National Focal Points on Registration, to take place in Vienna on the margins of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space
- UNOOSA/ITU Workshop on the lifecycle of a satellite
- Toolkit on Good Registration Practices

- *Background information on the Project*
- *Today's slides*
- *Toolkit on Good Registration Practices*

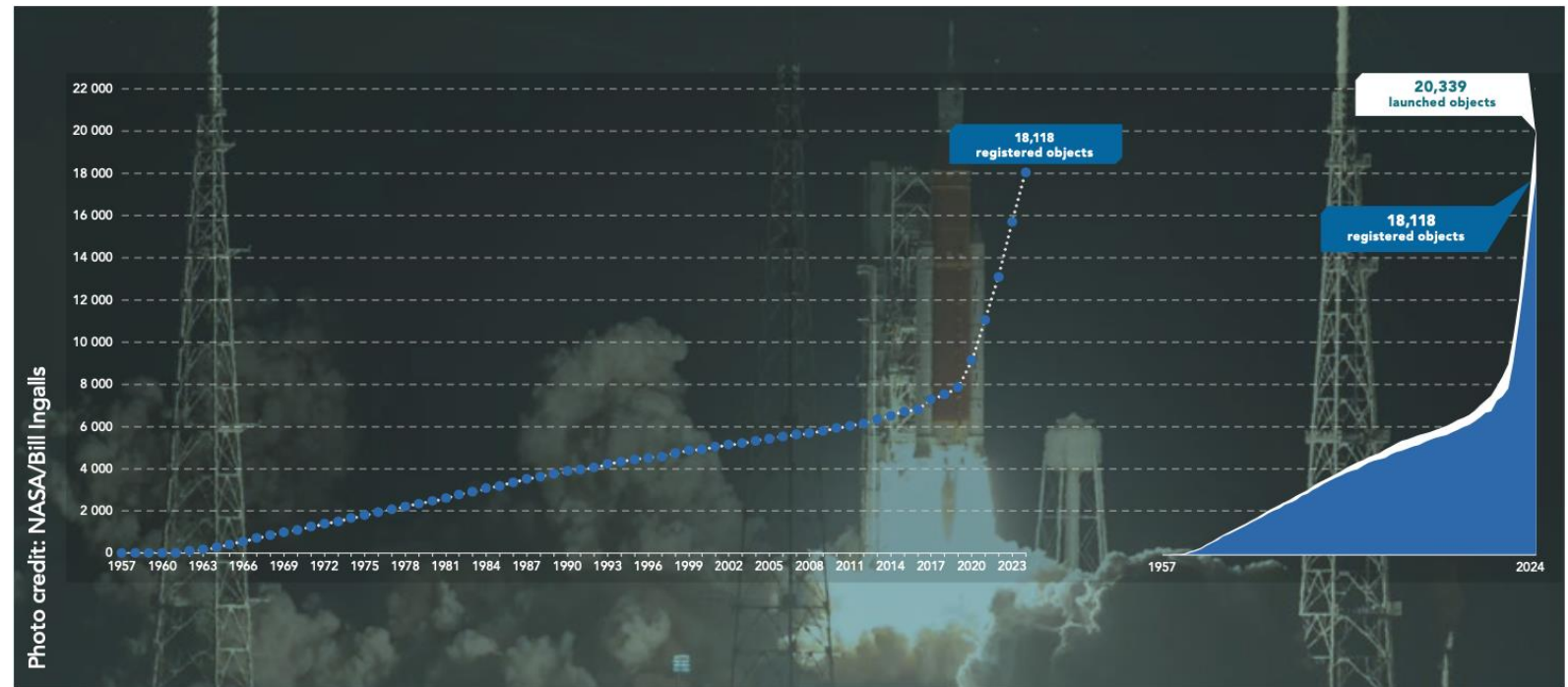


Why registration matters

Practical examples of using space applications include:


- Rapid growth of launches and actors
- Approximately 21,750 functional space objects since dawn of the space age
- Approximately 19,928 functional space objects registered (approx. 91.5%)
- Orbital crowding and collision risks

Overview of space objects launched and registered – per annum






Objectives of registration

 Transparency


Objective: To ensure that information on space objects is made publicly available in a timely and accessible manner, fostering trust and predictability in space activities.

 Accountability


Objective: To clearly identify the State carrying a space object on its registry, thereby facilitating the attribution of liability for any damage caused, as per the 1972 Liability Convention.

 Safety and sustainability

Objective: To contribute to the safety of space operations and the long-term sustainability of the space environment by providing essential data for Space Situational Awareness (SSA), collision avoidance, and debris mitigation efforts.

 Comprehensiveness and
Accuracy

Objective: To ensure that registration data is complete, accurate and regularly updated throughout a space object's lifecycle, from launch to de-orbit.

 Adaptability

Objective: To develop national registration mechanisms that can adapt to rapid technological advancements and evolving operational paradigms in the space sector.



Contents of the Toolkit

Chapter 1:

1. International space law and registration



International legal framework on registration

- Outer Space Treaty, art. VIII
- UNGA resolution 1721 B (1961)
- Registration Convention (1974)
- Other UNGA and COPUOS resolutions and guidelines

International instruments. LTS Guidelines: Guideline A.5

"[...] Inadequate registration practices may have negative implications for ensuring the safety of space operations. [...] To that end, States and international intergovernmental organizations should adopt appropriate national or other relevant policies and regulations to harmonize and sustain over the long term such registration practices on the widest possible international basis."

Guidelines for the Long-term Sustainability of Outer Space Activities (2019):

Guideline A.5 – Enhance the practice of registering space objects, paragraphs 1 and 2 (excerpt)



B

The General Assembly,

Believing that the United Nations should provide a focal point for international co-operation in the peaceful exploration and use of outer space,

1. *Calls upon* States launching objects into orbit or beyond to furnish information promptly to the Committee on the Peaceful Uses of Outer Space, through the Secretary-General, for the registration of launches;

2. *Requests* the Secretary-General to maintain a public registry of the information furnished in accordance with paragraph 1 above;

3. *Requests* the Committee on the Peaceful Uses of Outer Space, in co-operation with the Secretary-General and making full use of the functions and resources of the Secretariat:

(a) To maintain close contact with governmental and non-governmental organizations concerned with outer space matters;

(b) To provide for the exchange of such information relating to outer space activities as Governments may supply on a voluntary basis, supplementing but not duplicating existing technical and scientific exchanges;

(c) To assist in the study of measures for the promotion of international co-operation in outer space activities;

4. *Further requests* the Committee on the Peaceful Uses of Outer Space to report to the General Assembly on the arrangements undertaken for the performance of those functions and on such developments relating to the peaceful uses of outer space as it considers significant.

*1085th plenary meeting,
20 December 1961.*

Key operative paragraphs of GA resolution 1721 B

- OP 1: request to Member States to submit information to the SG for the registration of launches
- OP 2: establishment of the UN Register of Objects Launched into Outer Space for objects submitted via resolution 1721 B

*Submission of registration information to the United Nations: **two** independent vehicles – UNGA res 1721 B and Registration Convention*



Key articles of the Registration Convention

- Article I: definitions
- Article II: establishment of the (national) registry
- Article III: maintenance of the UN Register
- Article IV: submission of registration information to the UN
- Article V: designator/registration number

Submission of registration information to the United Nations: two independent vehicles – UNGA res 1721 B and Registration Convention

ARTICLE I

For the purposes of this Convention:

- (a) The term "launching State" means:
 - (i) A State which launches or procures the launching of a space object;
 - (ii) A State from whose territory or facility a space object is launched;
- (b) The term "space object" includes component parts of a space object as well as its launch vehicle and parts thereof;
- (c) The term "State of registry" means a launching State on whose registry a space object is carried in accordance with article II.

ARTICLE II

1. When a space object is launched into earth orbit or beyond, the launching State shall register the space object by means of an entry in an appropriate registry which it shall maintain. Each launching State shall inform the Secretary-General of the United Nations of the establishment of such a registry.

ARTICLE III

1. The Secretary-General of the United Nations shall maintain a Register in which the information furnished in accordance with article IV shall be recorded.
2. There shall be full and open access to the information in this Register.

ARTICLE IV

1. Each State of registry shall furnish to the Secretary-General of the United Nations, as soon as practicable, the following information concerning each space object carried on its registry:

- (a) Name of launching State or States;
- (b) An appropriate designator of the space object or its registration number;
- (c) Date and territory or location of launch;
- (d) Basic orbital parameters, including:
 - (i) Nodal period,
 - (ii) Inclination,
 - (iii) Apogee,
 - (iv) Perigee;
- (e) General function of the space object.

2. Each State of registry may, from time to time, provide the Secretary-General of the United Nations with additional information concerning a space object carried on its registry.

3. Each State of registry shall notify the Secretary-General of the United Nations, to the greatest extent feasible and as soon as practicable, of space objects concerning which it has previously transmitted information, and which have been but no longer are in earth orbit.

ARTICLE V

Whenever a space object launched into earth orbit or beyond is marked with the designator or registration number referred to in article IV, paragraph 1 (b), or both, the State of registry shall notify the Secretary-General of this fact when submitting the information regarding the space object in accordance with article IV. In such case, the Secretary-General of the United Nations shall record this notification in the Register.



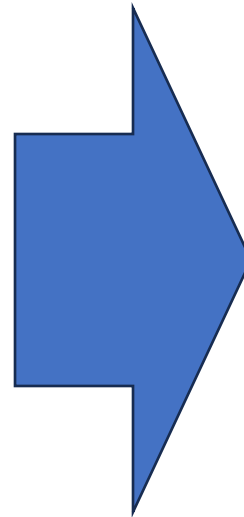
Registration Convention: from national to international

National registry

- State establishes and maintains registry
- State records space object domestically
- State submits registration information to UNOOSA



National registration first!



UN Register of Objects Launched into Outer Space

- UNOOSA discharges obligations of the UN Secretary-General
- Transparency & int'l co-operation
- Capacity-building for States





Contents of the Toolkit



Chapter 2:

2. Implementing good registration practices: pillars of action

ESTABLISH

MAINTAIN

REPORT

EVOLVE



Contents of the Toolkit

Pillars

ESTABLISH

MAINTAIN

REPORT

EVOLVE



Good practice:

SPOTLIGHT

CASE STUDY

Figure



Good practices



Checklist



Action list



Contents of the Toolkit

ESTABLISH

Importance of establishing a registry at the national level	
Establishment of a national registry as a State Party and non-State Party to the Registration Convention	
Formal establishment of a registry on objects launched into outer space	
National space legislation and the establishment of a registry	
Reporting the establishment of a registry to the United Nations	
Criteria for a national registry	
Information to be included in the national registry	
Supplementary and complementary registries	
The national registry in the domestic context	
From plan to action: good practices, checklist and action list	



ESTABLISH: highlights

International instruments. Registration Convention: article II (1)

Article II

1. When a space object is launched into earth orbit or beyond, the launching State shall register the space object by means of an entry in an appropriate registry which it shall maintain. [...]

Registration Convention: Article II, paragraph 1 (excerpt)

- Legal basis: formal (law, decree...)
- Transparency via public access
- Contents and core components of registration: Article IV of the Registration Convention
- Definition of “space object”

International instruments. Registration Convention: article II (3)

Article II

3. The contents of each registry and the conditions under which it is maintained shall be determined by the State of registry concerned.

Registration Convention: Article II, paragraph 3

Core components of registration (article IV Registration Convention):

- Name of launching State/ States
- Appropriate designator of space object/registration number
- Date and territory or location of launch
- Basic orbital parameters, including
 - Nodal period
 - Inclination
 - Apogee
 - Perigee
- General function of space object

Additional registration information – *uniformity of information* (resolution 62/101):

- Committee on Space Research international designator
- Coordinated Universal Time for date of launch
- Kilometres, minutes and degrees as standard units for basic orbital parameters
- Any useful information relating to the function of the space object in addition to the general function requested by the Registration Convention

Additional registration information – *appropriate information* (resolution 62/101):

- Geostationary orbit location
- Any change of status in operations
- Approximate date of decay or re-entry
- Date and physical conditions of moving space object to disposal orbit
- Web links to official information on space objects



Contents of the Toolkit

MAINTAIN

Assigning a national entity to maintain the registry
Non-governmental space activities
Establishing an understanding of launching States
Determining the State of registry
Licensing and authorization
State-on-State coordination ahead of launch
End of life and re-entry of space objects
Dynamic character of the registry
Regulatory training and information exchange with the industry and national stakeholders
From plan to action: good practices, checklist and action list



MAINTAIN: highlights

- Assign competent authority
- Engage private sector and academia
- Keep registry dynamic (updates, transfers, re-entries)
- "Launching State" and "State of registry" (cf: ownership, jurisdiction & control)
- Pre-launch coordination
- Operator point of contact

International instruments. Registration Convention: article I (a)

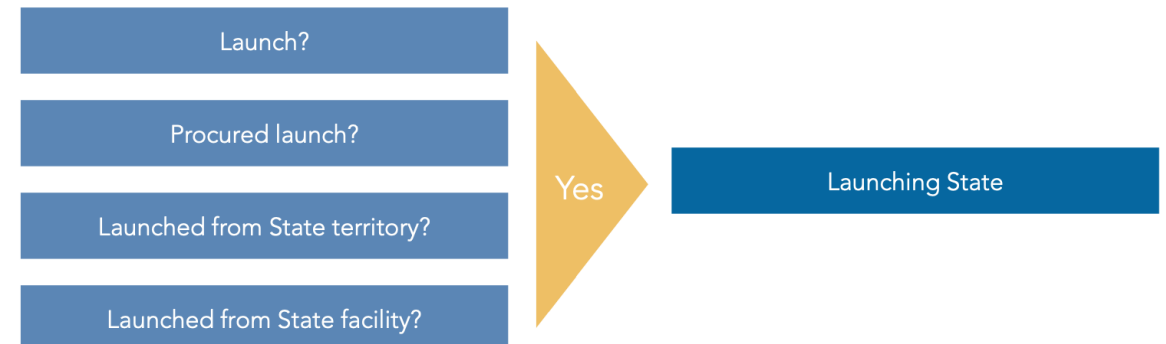
For the purposes of this Convention:

(a) The term "launching State" means:

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Registration Convention: Article I (a)





Contents of the Toolkit

REPORT

The United Nations Register of Objects Launched into Outer Space
Channels for submission of registration information to the United Nations
The model registration form
Timeliness of submissions to the United Nations
Processing by UNOOSA following submission of registration information
The Online Index of Objects Launched into Outer Space
Focal points on the registration of space objects
From plan to action: good practices, checklist and action list



REPORT: highlights (1)

- Submit core elements of registration to UNOOSA
- Provide additional voluntary information
- Notify re-entries, disposal orbits
- Use of Model Registration Form
- Official channels
- Appoint focal point on registration

International instruments. Registration Convention: article III

Article III

1. The Secretary-General of the United Nations shall maintain a Register in which the information furnished in accordance with Article IV shall be recorded.
2. There shall be full and open access to the information in this Register.

Registration Convention: Article III

ESTABLISHMENT OF A REGISTER UNDER THE CONVENTION ON REGISTRATION OF OBJECTS LAUNCHED INTO OUTER SPACE

Note by the Secretary-General

1. Having received the necessary ratifications the Convention on Registration of Objects Launched into Outer Space came into force on 15 September 1976. 1/
2. In accordance with article III of the Convention, the Secretary-General has established a register in which information furnished under the Convention shall be recorded. The register will be maintained by the Outer Space Affairs Division of the Department of Political and Security Council Affairs. The information submitted for registration under the Convention will be published in each case as a document in a new series of United Nations documents under the symbol ST/SG/SER.E/____. 2/



REPORT: highlights (2)

- Submit core elements of registration to UNOOSA
- Provide additional voluntary information
- Notify re-entries, disposal orbits
- Use of Model Registration Form
- Official channels
- Appoint focal point on registration

UNITED NATIONS REGISTER OF OBJECTS LAUNCHED INTO OUTER SPACE

Registration Information Submission Form (as at 1 January 2010)

Note: This form is available from <http://www.unoosa.org/osae/SOR/register/resources.html>. Please see annex for instructions and definitions. Completed forms should be sent by hardcopy through Permanent Missions to UNOOSA and electronically to register@unoosa.org.

Part A: Information provided in conformity with the Registration Convention or General Assembly resolution 1721 B (XVI)

New registration of space object	Yes <input type="checkbox"/> No <input type="checkbox"/>	Check box
Additional information for previously registered space object (see below for reference sources)	Submitted under the Convention: ST/SO/SER/E/ <input type="checkbox"/> UN document number in which previous registration data was distributed to Member States	
Submitted under resolution 1721B: A/C.105/INF. <input type="checkbox"/>		

Launching State/States/International intergovernmental organization

State of registry or international intergovernmental organization	Under the Registration Convention, only one State of registry can exist for a space object. Please see annex.
Other launching States (where applicable. Please see attached notes.)	

Designator

Name	
COSPAR international designator (see below for reference sources)	
National designator/registration number as used by State of registry	

Date and territory or location of launch

Date of launch (hours, minutes, seconds optional)	dd/mm/yyyy	hrs	min	sec	Coordinated Universal Time (UTC)
Territory or location of launch (see below for reference sources)					

Basic orbital parameters

Nodal period		minutes
Inclination		degrees
Apogee		kilometres
Perigee		kilometres

General function

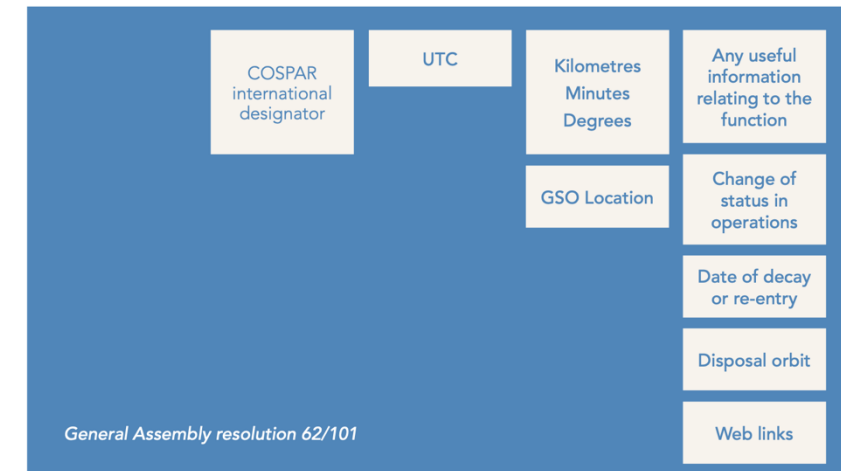
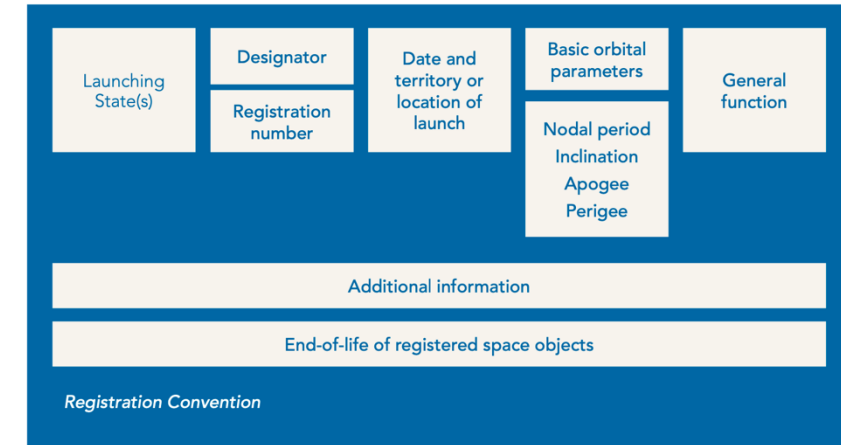
General function of space object (if more space is required, please include text in a separate Microsoft document)	
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Change of status

Date of decay/reentry/deorbit (hours, minutes, seconds optional)	dd/mm/yyyy	hrs	min	sec	Coordinated Universal Time (UTC)
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Sources of information

UN registration documents	http://www.unoosa.org/osae/SOR/register/docstates.html
COSPAR international designators	http://nssdc.gsfc.nasa.gov/spacename/
Global launch locations	http://www.unoosa.org/osae/SOR/register/resources.html
Online Index of Objects Launched into Outer Space	http://www.unoosa.org/osae/oiindex.html





Contents of the Toolkit

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Multinational entities
Large constellations and mega-constellations
Transfer of ownership and international cooperation
Deployment of space objects from space stations in orbit
International cooperation and other forms of information-sharing with the United Nations
From plan to action: checklists and action lists



EVOLVE: highlights

- Multinational entities
- Adapt to novel activities (cf. mega-constellations, debris removal, resource extraction)
- Transfer of ownership in orbit
- Support emerging spacefaring nations



Looking ahead

- 50th anniversary of the entry into force of the Registration Convention in 2026
- Modernization of the UN Register
- Strengthening cooperation



Closing message

- Registration supports transparency, accountability, sustainability
- Toolkit on Good Registration Practices meant as a practical guide showcasing State practices and legal developments
- UNOOSA supports all States



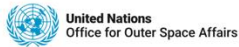
Acknowledgement & Thank you

- Experts from national institutions, international and regional organizations
- Government of the United Kingdom of Great Britain and Northern Ireland for funding the Registration Project, including this Toolkit



Q&A

Thank you for your attention.



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