

TUESDAY, 23 JUNE 2026

# SPACE LAW BOOTCAMP AND PREPARATORY WORKSHOP ON THE OEWG ON PAROS IN ALL ITS ASPECTS

# SPACE SECURITY LAW

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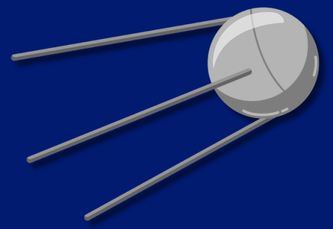
# BUILDING A LEGAL FRAMEWORK:
FIRST LAUNCHES AND COPUOS



## 1348 (XIII). Question of the peaceful use of outer space

*The General Assembly,*

*Recognizing* the common interest of mankind in outer space and recognizing that it is the common aim that outer space should be used for peaceful purposes only,

*Bearing in mind* the provision of Article 2, paragraph 1, of the Charter of the United Nations, which states that the Organization is based on the principle of the sovereign equality of all its Members,

*Wishing to* avoid the extension of present national rivalries into this new field,

*Desiring* to promote energetically the fullest exploration and exploitation of outer space for the benefit of mankind,

*Conscious* that recent developments in respect of outer space have added a new dimension to man's existence and opened new possibilities for the increase of his knowledge and the improvement of his life,

*Noting* the success of the scientific co-operative programme of the International Geophysical Year in the exploration of outer space and the decision to continue and expand this type of co-operation,

*Recognizing* the great importance of international co-operation in the study and utilization of outer space for peaceful purposes,

*Considering* that such co-operation will promote mutual understanding and the strengthening of friendly relations among peoples,

*Believing* that the development of programmes of international and scientific co-operation in the peaceful uses of outer space should be vigorously pursued,

*Believing* that progress in this field will materially help to achieve the aim that outer space should be used for peaceful purposes only,

*Considering* that an important contribution can be made by the establishment within the framework of the United Nations of an appropriate international body for co-operation in the study of outer space for peaceful purposes,

*Desiring* to obtain the fullest information on the many problems relating to the peaceful uses of outer space before recommending specific programmes of international co-operation in this field,

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:*

(i) Continuation on a permanent basis of the outer space research now being carried on within the framework of the International Geophysical Year;

(ii) Organization of the mutual exchange and dissemination of information on outer space research;

(iii) Co-ordination of national research programmes for the study of outer space, and the rendering of all possible assistance and help towards their realization;

(*c*) The future organizational arrangements to facilitate international co-operation in this field within the framework of the United Nations;

(*d*) The nature of legal problems which may arise in the carrying out of programmes to explore outer space;

2. *Requests* the Secretary-General to render appropriate assistance to the above-named Committee and to recommend any other steps that might be taken within the existing United Nations framework to encourage the fullest international co-operation for the peaceful uses of outer space.

*792nd plenary meeting,*
*13 December 1958.*

## 1721 (XVI). International co-operation in the peaceful uses of outer space

### A

*The General Assembly,*

*Recognizing* the common interest of mankind in furthering the peaceful uses of outer space and the urgent need to strengthen international co-operation in this important field,

*Believing* that the exploration and use of outer space should be only for the betterment of mankind and to the benefit of States irrespective of the stage of their economic or scientific development,

1. *Commends* to States for their guidance in the exploration and use of outer space the following principles:

(*a*) International law, including the Charter of the United Nations, applies to outer space and celestial bodies;

(*b*) Outer space and celestial bodies are free for exploration and use by all States in conformity with international law and are not subject to national appropriation;

2. *Invites* the Committee on the Peaceful Uses of Outer Space to study and report on the legal problems which may arise from the exploration and use of outer space.

*1085th plenary meeting,*
*20 December 1961.*



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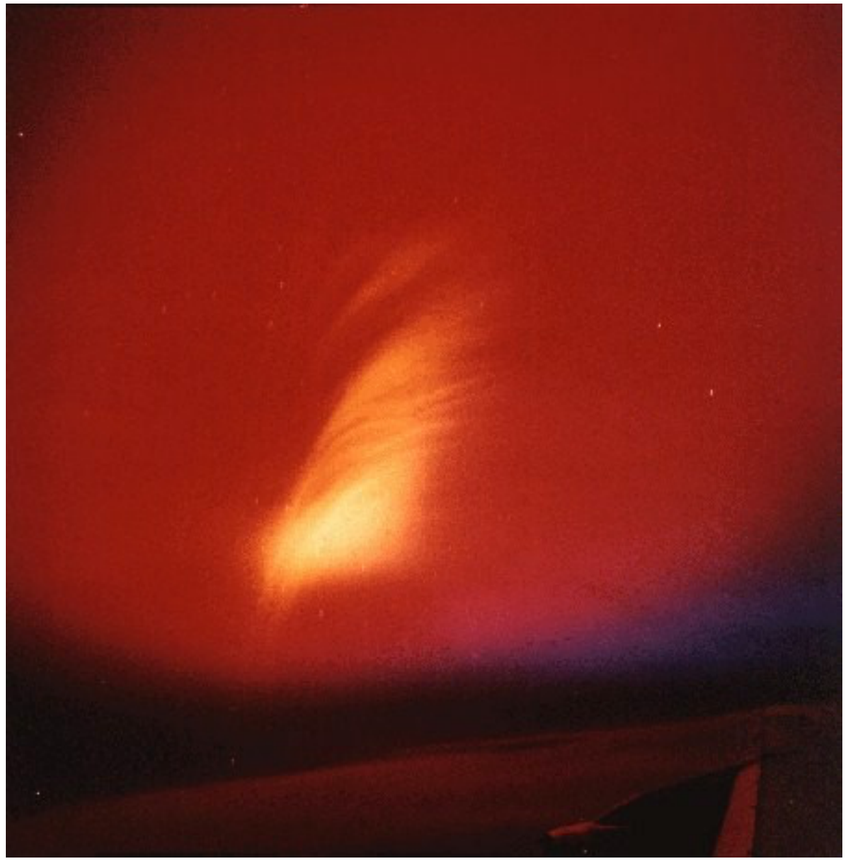
# BUILDING A LEGAL FRAMEWORK:

## 1962-1963

CONSIDERING WEAPONISATION / COUNTERSPACE CAPABILITIES



**Starfish Prime:** nuclear test (H-bomb) prepared by the Atomic Energy Commission and the Defense Atomic Support Agency, carried out on **9 July 1962** at an altitude of **400 km**.

**Treaty banning nuclear weapon tests in the atmosphere, in outer space and under water. Signed at Moscow, on 5 August 1963**

*Article 1*

1. Each of the Parties to this Treaty undertakes to prohibit, to prevent, and not to carry out any nuclear weapon test explosion, or any other nuclear explosion, at any place under its jurisdiction or control :

(*a*) in the atmosphere; beyond its limits, including outer space; or under water, including territorial waters or high seas; or

(*b*) in any other environment if such explosion causes radioactive debris to be present outside the territorial limits of the State under whose jurisdiction or control such explosion is conducted. It is understood in this connection that the provisions of this subparagraph are without prejudice to the conclusion of a treaty resulting in the permanent banning of all nuclear test explosions,

**1962 (XVIII). Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space**

*The General Assembly,*

*Inspired* by the great prospects opening up before mankind as a result of man's entry into outer space,

*Recognizing* the common interest of all mankind in the progress of the exploration and use of outer space for peaceful purposes,

4. The activities of States in the exploration and use of outer space shall be carried on in accordance with international law, including the Charter of the United Nations, in the interest of maintaining international peace and security and promoting international co-operation and understanding.

*1280th plenary meeting,*
*13 December 1963.*

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# What is a space weapon?

# THE LAW OF OUTER SPACE:
FIVE SPACE TREATIES

## OUTER SPACE TREATY (1967)

- Establishes that outer space is **free for exploration and use by all states**.
- **Bans national appropriation** (no country can claim sovereignty over space or celestial bodies).
- Prohibits the placement of nuclear weapons in space.
- Holds states responsible for national space activities, whether by governmental or non-governmental entities.
- Establishes international liability for damage caused by space objects.
- States must avoid harmful interference with others' space activities.
- If a State believes an activity (like a launch or experiment) could cause harmful interference, it must consult with the affected State(s).

## RESCUE AGREEMENT (1968)

- Requires states to assist astronauts in distress and return them safely to their country of origin.
- Also covers the return of space objects that land outside their country of origin.

## LIABILITY CONVENTION (1972)

- Establishes liability rules for damage caused by space objects on Earth or in space.
- Launching states are absolutely liable for damage on Earth and liable for fault in space.

## REGISTRATION CONVENTION (1974)

- Requires states to register their space objects with the UN.
- Aims to ensure transparency and tracking of objects launched into space.

## MOON AGREEMENT (1979)

- Extends the Outer Space Treaty's provisions specifically to the Moon and other celestial bodies.
- Declares the Moon the "common heritage of mankind."
- Has limited support; major spacefaring nations did not ratified it.

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# BUILDING A LEGAL FRAMEWORK: THE CONCEPTS OF '**PEACEFUL PURPOSES**' AND '**INTERNATIONAL PEACE AND SECURITY**'

**Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies**

*Done in triplicate, at the cities of London, Moscow and Washington le 27 janvier 1967*

## Preamble

*The States Parties to this Treaty,*

*Inspired* by the great prospects opening up before mankind as a result of man's entry into outer space,

*Recognizing* the common interest of all mankind in the progress of the exploration and use of outer space for peaceful purposes,

*Believing* that the exploration and use of outer space should be carried on for the benefit of all peoples irrespective of the degree of their economic or scientific development,

## Article III

States Parties to the Treaty shall carry on activities in the exploration and use of outer space, including the Moon and other celestial bodies, in accordance with international law, including the Charter of the United Nations, in the interest of maintaining international peace and security and promoting international co-operation and understanding.

## Article IV

States Parties to the Treaty undertake not to place in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station weapons in outer space in any other manner.

The Moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manœuvres on celestial bodies shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration of the Moon and other celestial bodies shall also not be prohibited.

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**THE LAW OF OUTER SPACE:** BEYOND THE SPACE TREATIES

## Charter of the United Nations, 1945

*Article 1*

The Purposes of the United Nations are:

1. To maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace;

*Article 2*

The Organization and its Members, in pursuit of the Purposes stated in Article 1, shall act in accordance with the following Principles.

4. All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations.

*Article 51*

Nothing in the present Charter shall impair the inherent right of individual or collective self-defense if an armed attack occurs against a Member of the United Nations, until the Security Council has taken the measures necessary to maintain international peace and security. Measures taken by Members in the exercise of this right of self-defense shall be immediately reported to the Security Council and shall not in any way affect the authority and responsibility of the Security Council under the present Charter to take at any time such action as it deems necessary in order to maintain or restore international peace and security.

## UNGA Resolution 3314 (XXIX), 14 December 1974

*Article 1*

Aggression is the use of armed force by a State against the sovereignty, territorial integrity or political independence of another State, or in any other manner inconsistent with the Charter of the United Nations, as set out in this Definition.

*Explanatory note*: In this Definition the term "State":

(*a*) Is used without prejudice to questions of recognition or to whether a State is a member of the United Nations;

(*b*) Includes the concept of a "group of States" where appropriate.

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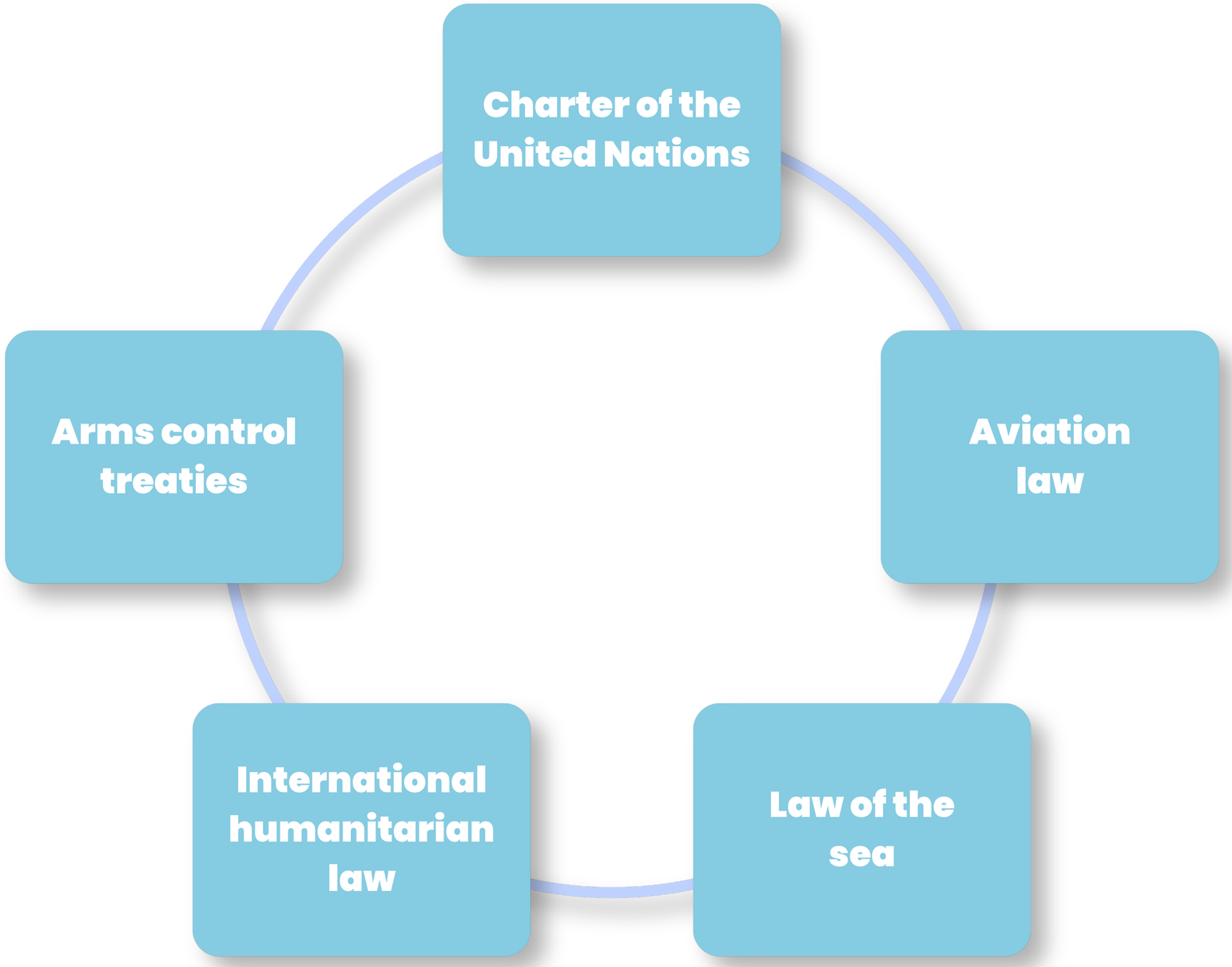
# GENERAL INTERNATIONAL LAW



# THE LAW OF OUTER SPACE: BEYOND THE SPACE TREATIES

## Arms control agreements that mention outer space




### Limited/Partial Test Ban Treaty, 1963

Outer space is explicitly named as one of the prohibited testing environments. Article I bars parties from carrying out any nuclear weapon test explosion (or other nuclear explosion) in the atmosphere, under water, or in outer space, specifically "beyond its limits, including outer space." This was the first treaty to extend a nuclear-testing prohibition into space.

### Comprehensive Nuclear-Test-Ban Treaty, 1996

Outer space is not enumerated as a separate environment the way it is in the LTBT. Instead, Article I imposes a blanket prohibition on any nuclear weapon test explosion or any other nuclear explosion anywhere. Because the ban is environment-agnostic and total, it covers outer space by implication rather than by explicit mention. (The treaty's verification regime, seismic, hydroacoustic, infrasound, and radionuclide monitoring, is Earth-focused, but the legal prohibition itself is universal).

### Environmental Modification Convention, 1977

Outer space appears in the definition of what's being regulated, not as a testing restriction. Article II defines "environmental modification techniques" as techniques for changing, through deliberate manipulation of natural processes, the dynamics, composition, or structure of the Earth (including its biota, lithosphere, hydrosphere, and atmosphere) or of outer space. So ENMOD explicitly extends its prohibition on hostile environmental-modification techniques to outer space as a potential domain of manipulation.

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**OTHER AREA OF THE LAW**
COMPARISON WITH THE LAW OF THE SEA

| ART. 87 UNCLOS: Freedom of the high seas | Outer Space Treaty | |
|---|---|---|
| The **high seas are open to all States**, whether coastal or land-locked. It comprises:<br>(a) freedom of navigation;<br>(b) freedom of overflight;<br>(c) freedom to lay submarine cables and pipelines;<br>(d) freedom to construct artificial islands and other installations permitted under international law;<br>(e) freedom of fishing;<br>(f) freedom of scientific research.<br>These freedoms shall be **exercised by all States with due regard for the interests of other States** in their exercise of the freedom of the high seas, and also with due regard for the rights under this Convention with respect to activities in the Area. | **Article I** | Outer space, including the Moon and other celestial bodies, shall be **free for exploration and use by all States** without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies. |
| | **Article IX** | In the exploration and use of outer space, including the Moon and other celestial bodies, States Parties to the Treaty shall be guided by the principle of cooperation and mutual assistance and shall conduct all their activities in outer space, including the Moon and other celestial bodies, **with due regard to the corresponding interests of all other States Parties to the Treaty**. |

**OTHER AREA OF THE LAW**
COMPARISON WITH THE LAW OF THE SEA

| **ART. 88 UNCLOS – Reservation of the high seas for peaceful purposes** | **Outer Space Treaty** | |
|---|---|---|
| The high seas shall be **reserved for peaceful purposes**. | Preamble | Common interest of all mankind in the progress of the exploration and use of outer space for **peaceful purposes**. |
| | Article I | The exploration and use of outer space, including the Moon and other celestial bodies, shall be carried out for the **benefit and in the interests of all countries**. |
| | Article IV | The Moon and other celestial bodies shall be used by all States Parties to the Treaty **exclusively for peaceful purposes**. |
| **ART. 89 UNCLOS: Invalidity of claims of sovereignty over the high seas** | **Outer Space Treaty** | |
| No State may validly purport to subject any part of the high seas to its **sovereignty**. | Article II | Outer space, including the Moon and other celestial bodies, is not subject to **national appropriation** by claim of sovereignty, by means of use or occupation, or by any other means. |

# THE CONCEPT OF DUE REGARD

The concept of **due regard** is not defined in the Outer Space Treaty or in international law, but it does appear in other sources of international law. UNCLOS mentions this concept in several instances.

"the ordinary meaning of "due regard" calls for [State A] to have such regard for the rights of [State B] as is called for by the circumstances and by the nature of those rights,"

*Chagos Marine Protected Area Arbitration, Mauritius v United Kingdom, Final Award ¶519, ICGJ 486 (PCA 2015), 18 March 2015, Permanent Court of Arbitration*

"the former *laissez-faire* treatment of the living resources of the sea in the high seas has been replaced by a recognition of a duty to have due regard to the rights of other States and the needs of conservation for the benefit of all. "

*Fisheries Jurisdiction, United Kingdom v Iceland, Merits, Judgment, ICJ Rep 3, ICGJ 142 (ICJ 1974), 25 July 1974, United Nations; International Court of Justice*

# THE CONCEPT OF DUE REGARD

| ART. 98 UNCLOS - Duty to render assistance | Outer Space Treaty (See also Rescue & Return Agreement) | |
|---|---|---|
| 1. Every State shall require the master of a ship flying its flag, in so far as he can do so without serious danger to the ship, the crew or the passengers:<br>**(a) to render assistance to any person found at sea in danger of being lost;**<br>**(b) to proceed with all possible speed to the rescue of persons in distress, if informed of their need of assistance, in so far as such action may reasonably be expected of him;**<br>**(c) after a collision, to render assistance to the other ship, its crew and its passengers and, where possible, to inform the other ship of the name of his own ship, its port of registry and the nearest port at which it will call.**<br><br>2. Every coastal State shall promote the establishment, operation and maintenance of an **adequate and effective search and rescue service regarding safety on and over the sea** and, where circumstances so require, by way of mutual regional arrangements cooperate with neighbouring States for this purpose | Article V | States Parties to the Treaty shall regard astronauts as envoys of mankind in outer space and shall **render to them all possible assistance in the event of accident, distress, or emergency landing** on the territory of another State Party or on the high seas. When astronauts make such a landing, they shall be **safely and promptly returned to the State of registry of their space vehicle**.<br><br>In carrying on activities in outer space and on celestial bodies, the astronauts of one State Party **shall render all possible assistance to the astronauts of other States Parties**. |

# THE STATUS OF VESSELS AND SPACE OBJECTS

| | |
|---|---|
| Warships | • Art. 29 UNCLOS: ship belonging to the armed forces of a State bearing the external marks distinguishing such ships of its nationality, under the command of an officer duly commissioned by the government of the State and whose name appears in the appropriate service list or its equivalent, and manned by a crew which is under regular armed forces discipline |
| Auxiliary vessels | • 13.h San Remo Manual: service list or its equivalent, and manned by a crew which is under regular armed forces discipline |
| Merchant vessels | • 13.i San Remo Manual: vessel, other than a warship, an auxiliary vessel, or a State vessel such as a customs or police vessel, that is engaged in commercial or private service |

# THE DUALITY DILEMMA

## DUAL-USE

(i) military and security, as well as (ii) civilian and commercial functions (i.e. GNSS).

VS

## DUAL-PURPOSE

Designed to fulfil a benign objective (such as debris removal or on orbit servicing), but they can be repurposed to harm other space objects.

# WHY IS PROGRESS SLOW?

## A KEY DISAGREEMENT

**WHAT**

- Capabilities
- Behaviours

**HOW**

- Legally binding instruments
- Non-legally binding instruments

Non-legally binding instruments

- UNGA Resolution 1962 (XVIII)
- UNGA Resolution 1884 (XVIII)

Legally binding instruments

- 1967 Outer Space Treaty
- Other space treaties
- 1945 Charter of the United Nations

Non-legally binding instruments

- Space debris mitigation guidelines
- Long Term Sustainability guidelines

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# LEGAL INSTRUMENTS: NON-LBIS

**Space Debris Mitigation Guidelines**

**No first placement**

**Wassenaar Arrangement & MTCR**

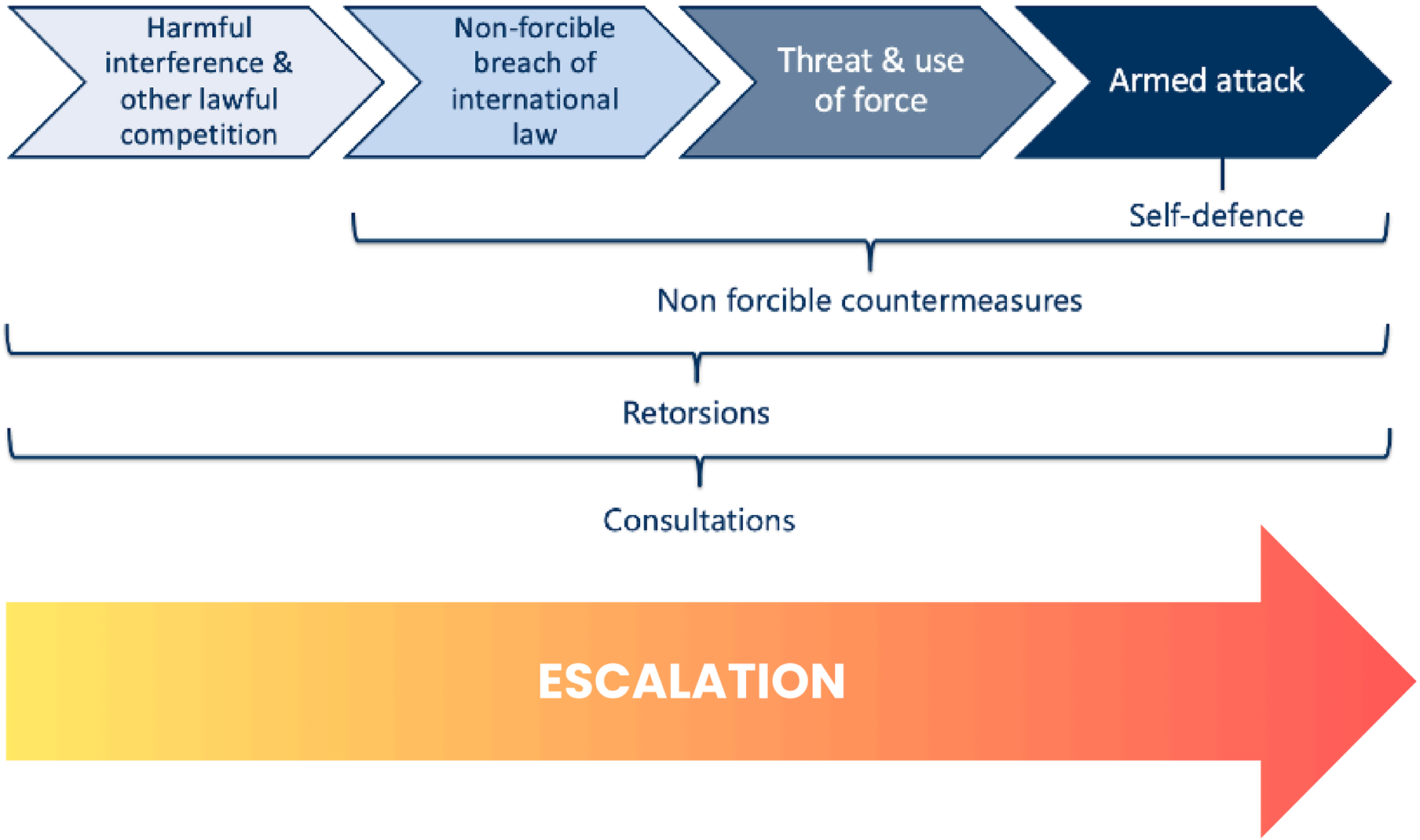
**Guidelines for the Long-term Sustainability of Outer Space Activities**

**No testing of destructive DA ASATS**

**Hague Code of Conduct against Ballistic Missile Proliferation**

| Principle | Norm | Rule |
|---|---|---|
| States bear international responsibility for national activities in outer space.<br>States exercise jurisdiction and control over their space objects. | Registration of space objects.<br>Notification of launches. | Specific details to be shared when registering space objects or when providing notification of launches.<br>Exchanges of information on orbital parameters of space objects |
| • Resolution 1962 (XVIII)<br>• Codified in art. VI OST | • Resolution 1721 B (XVI)<br>• Resolution 1962 (XVIII)<br>• Codified in art. VIII OST<br>• Specified in the Registration Convention of 1975<br>• HCoC | • Resolution 62/101<br>• 2013 GGE Report on TCBMs |

# OTHER AREAS OF THE LAW



**BASELINE OF STATE INTERACTION**

LAWFUL COMPETITION

Adversarial but legally permitted conduct: rivalry that breaches no obligation. The default state of relations in orbit.

## LEGAL FOOTING

- Freedom of exploration and use by all States (OST Art. I)
- No remedy for lawfully-caused harm; only TCBMs & diplomacy apply
- Reconnaissance / ISR not unlawful per se under international law
- Mere possession of counter-space capability is lawful

## COMPETITION IN ORBIT

- Commercial & technological rivalry (launch, constellations, spectrum)
- Military and dual activities, surveillance & space-domain awareness
- Rendezvous & proximity operations within lawful limits
- Competition for orbital slots and spectrum / radio-frequency assignments

# INTERNATIONALLY WRONGFUL ACT BELOW FORCE

NON-FORCIBLE BREACH OF INTERNATIONAL LAW

Conduct that breaches an international obligation but stays below the force threshold: an internationally wrongful act engaging State responsibility (ARSIWA).

## EXAMPLES IN OUTER SPACE

- Harmful interference without 'due regard' / failure to consult (OST Art. IX)
- Harmful radio-frequency interference contrary to ITU Radio Regulations
- Failure to authorise & continuously supervise (OST Art. VI)
- Registration failures; negligent debris creation

## LAWFUL RESPONSES

**Retorsion**
Unfriendly but lawful acts (e.g. withdrawing cooperation).

**Countermeasures**
Otherwise-unlawful acts justified as a response, must be proportionate, reversible where possible, and non-forcible.

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# What are the most concerning space threats?

- Malicious cyber operations against satellites
- Jamming / Spoofing radio frequencies
- Direct-Ascent Anti-satellite Technologies
- Malicious cyber operations against ground stations
- Nuclear weapons in outer space
- Intentional in-space collision
- Other

Strongly disagree

Strongly agree

# THRESHOLDS OF HARMFUL AND HOSTILE ACTION

THREAT AND USE OF FORCE

## 1 "REFRAINING FROM"

Art. 2(4): States shall refrain from the threat or use of force against territorial integrity or political independence.

## 2 WHAT COUNTS AS 'FORCE'

Armed / military force: not economic or political pressure. Effects, not the instrument, decide.

## 3 SCALE & EFFECTS

The Nicaragua case distinguishes the gravest uses of force (armed attack) from 'less grave' uses below it.

## 4 THREAT OF FORCE

An expressed readiness to use force; unlawful where the force threatened would itself be unlawful.

## GREY ZONE OPERATIONS

Coercive activity deliberately kept below the threshold of armed conflict, ambiguous, incremental and deniable. Outer space is an almost ideal environment for it.

**No agreed thresholds**
Few shared definitions / interpretations of what counts as 'hostile' in space.

**Reversible effects**
Jamming, dazzling and cyber leave no wreckage: intent is easy to deny.

**No borders**
No territory is crossed; 'trespass' has no clear orbital meaning.

**Dual-use 'by default'**
Almost every system has a civil and a military reading.

**Low visibility**
No casualties and little public sight keep political costs low.

**Hard attribution**
Distance, no witnesses and weak forensics make it hard to prove who acted.

Exit fullscreen

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# Rate how close each act comes to a use of force under Art. 2(4).

Commercial / technological rivalry

Close approach and shadowing

Reversible uplink jamming

GNSS spoofing

Laser dazzling of a sensor

Kinetic Direct AscendAnti Satellite strike

Strongly disagree

Strongly agree

# OPERATING IN THE GREY ZONE

THE TACIT ACCEPTANCE OF CERTAIN DISRUPTIVE ACTS (HARMFUL INTERFERENCE, CYBER, ETC.)

## TACITLY TOLERATED ACTS

States routinely conduct, and absorb, certain hostile acts without treating them as force. Repetition normalises them into a *de facto* permissive expectation:

- Harmful RF interference & uplink/downlink jamming
- GNSS spoofing
- Cyber intrusion & espionage against ground/space segments
- Close approaches, shadowing & inspection




## CONCERNS WITH DUALITY

The same capability serves benign and hostile ends, so capability alone never reveals intent:

**ISOS / RPO / robotic arms:** satellite servicing & debris removal vs. co-orbital attack

**Space situational awareness (SSA):** collision avoidance vs. targeting

**Consequence:** intent is unobservable, so an act cannot be reliably classified as hostile, frustrating attribution, threshold-setting and any lawful response.

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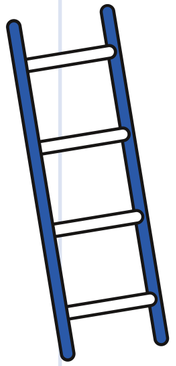
# ARMED ATTACK

The gravest form of the use of force: the only threshold that triggers the inherent right of self-defence. A higher bar than Art. 2(4).

## DEFINING THE THRESHOLD



- “If an armed attack occurs”, UN Charter Art. 51
- The ‘most grave form’ of the use of force (Nicaragua case)
- Judged by scale and effects: death, injury, significant destruction
- The ‘gap’: not every use of force is an armed attack

## COULD IT HAPPEN IN SPACE?

- Kinetic ASAT destroying a satellite --> clearest case
- Debris field endangering crewed assets
- Cyber / EW with effects equivalent to a kinetic strike (effects-based view)
- Strikes on assets serving critical infrastructure --> contested

# THE RIGHT TO SELF-DEFENCE

The Caroline test (1837): necessity must be “instant, overwhelming, leaving no choice of means and no moment for deliberation.”
Self-defence is then bounded by three cumulative conditions.

1

## IMMEDIACY AND IMMINENCE

Response must be timely; anticipatory defence is debated. In space, long lead-times yet instant effects strain 'imminence.'

2

## NECESSITY

Force must be the only effective means. No reasonable peaceful or non-forcible alternative remains. A last resort.

3

## PROPORTIONALITY

Limited to halting or repelling the attack. not retribution.
The response may be cross-domain, not necessarily in orbit.

Mentimeter

# Now rate whether each act amounts to an armed attack justifying self-defence under Art. 51.

Reversible uplink jamming

Kinetic ASAT strike (uncrewed satellite, no casualties)

Kinetic ASAT strike on a crewed station

Cyber takedown of a missile-warning satellite

Persistent shadowing of a satellite

Strongly disagree

Strongly agree

# IDENTIFYING WHERE THE LINES FALL

The legally decisive lines are force (Art. 2, para. 4) and, higher still, armed attack (Art. 51).

Most space 'hostility' lives in the grey zone, merely competitive or non-forcibly wrongful, not 'force.'

Dual-use and weak attribution let adversaries operate deliberately just below the threshold.

Lawful responses scale with the rung: diplomacy → countermeasures → self-defence.



**Open question:** do reversible cyber / electromagnetic weapons effects ever cross into force, or armed attack? Effects, not labels, decide.

# IUS AD BELLUM

The law on the lawfulness of resorting to armed force. It addresses states, and sits largely in the UN Charter and customary law.

## THE GENERAL PROHIBITION

- UN Charter Art. 2(4): states must refrain from the threat or use of force against another state.
- The cornerstone rule of the post-1945 order.
- Breach engages the responsibility of the state; the gravest breach is an act of aggression.
- Concerned with the conflict between states, not with the conduct of the individual soldier.

## RECOGNISED EXCEPTIONS

- Self-defence, individual or collective, against an armed attack (Art. 51).
- Authorisation by the UN Security Council under Chapter VII to maintain or restore peace.
- Everything turns on these gateways; debate over their scope is the heart of ad bellum law.
- Note: it asks who was entitled to fight, not how anyone fought.

# IUS IN BELLO

# INTERNATIONAL HUMANITARIAN LAW

# LAW OF ARMED CONFLICTS

The law that regulates how hostilities are conducted once an armed conflict exists. It applies on the facts of fighting, regardless of any declaration of war.

## TWO KINDS OF CONFLICT

- International armed conflict (IAC): between states.
- Non-international armed conflict (NIAC): state vs organised armed group / such groups *inter se*.
- The category determines which rules apply.

## LEGAL SOURCES

- The four Geneva Conventions (1949).
- Additional Protocols I & II (1977).
- “Hague law” on means and methods.
- A large body of customary IHL binding all parties.

## THE ROLE OF IHL

- Protect those who do not, or no longer, fight (civilians, the wounded, prisoners).
- Limit the means and methods of warfare.
- Strike a balance between military need and humanity.

# IUS IN BELLO
## FIVE PRINCIPLES AT A GLANCE

### DISTINCTION

Always separate fighters from civilians, and military objectives from civilian objects. Attack only the former. In doubt, a person or object is presumed civilian (AP I Arts 50, 52).

### MILITARY NECESSITY

Only the force genuinely needed for a legitimate military purpose, and only force the law does not already forbid. Needs to achieve the legitimate purpose of the conflict: the submission of the enemy.

### PROPORTIONALITY

Expected incidental civilian harm must not be excessive relative to the military advantage anticipated.

### PRECAUTIONS

- Take all feasible steps, in attack and in defence, to spare civilians and civilian objects. (Art. 57)
  - Verify the target really is a military objective.
  - Choose means and methods to minimise incidental civilian harm.
  - Cancel or suspend if it becomes clear the target is civilian or the attack would be disproportionate.
  - Give advance warning where circumstances permit.
- The defender has duties too and must, so far as feasible, remove civilians from the vicinity of military objectives (Art. 58).
  - Avoid locating military objectives within or near densely populated areas.
  - The governing standard throughout: what is “feasible”, practicable in the circumstances.

### CONSTANT CARE

An overarching, continuous duty to spare the civilian population throughout operations.

Constant care (AP I Art 57(1)): in the conduct of military operations, constant care shall be taken to spare the civilian population, civilians and civilian objects, a continuous, overarching duty, not a one-off check.

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# IUS IN BELLO
## PROPORTIONALITY: THE BALANCING TEST

- **The rule (AP I Arts 51(5)(b), 57)**: an attack is prohibited if the expected incidental civilian harm would be excessive in relation to the concrete and direct military advantage anticipated.



- "Excessive," not "extensive" / there is no fixed numerical ceiling.
- It only governs incidental harm; deliberately attacking civilians is never a proportionality question, it is simply banned.



- Judged ex ante, on the information reasonably available at the time.
- From the standpoint of a reasonable commander, not with perfect hindsight.



- Dual-use objects serving both civilians and the military.
- "Reverberating" / indirect effects, e.g. knock-on harm from striking power or water systems.

## LAWFUL TARGETS

- Combatants, members of the armed forces (except medical and religious personnel).
- In NIAC: fighters / members of an organised armed group with a continuous combat function.
- Civilians directly participating in hostilities, for such time as they do.
- Military objective, see the two-part test opposite.

### MILITARY OBJECTIVE, AP I ART 52(2)

An object must satisfy BOTH limbs:
1. by its nature, location, purpose or use it makes an effective contribution to military action; AND
2. its destruction, capture or neutralisation offers a definite military advantage in the circumstances.

### PROTECTED: MAY NOT BE ATTACKED

- Civilians and civilian objects.
- The wounded, sick, shipwrecked, prisoners, anyone hors de combat.
- Special protection: medical & religious units, cultural property, objects indispensable to survival.

## LAWFUL ATTACKS



### IDENTIFY

Is the target a lawful military objective or combatant? If doubt remains, presume civilian.



### DISTINGUISH

Direct the attack only at that objective; never at civilians or civilian objects.



### WEIGH

Proportionality: expected incidental civilian harm must not be excessive vs the advantage.



### TAKE PRECAUTIONS

Pick timing, weapon and approach to minimise harm; warn if feasible; abort if the picture changes.

# THE HAGUE CONVENTIONS

The Hague Peace Conferences of 1899 and 1907 produced the first great codification of the laws of war, the rules on the means and methods of warfare, and on neutrality.

***The Hague law regulates the means and methods of warfare:*** *how hostilities may be conducted.*
***Geneva law protects the victims of war:*** *the wounded, prisoners and civilians in enemy hands.*

*The 1977 Additional Protocols and the ICJ (Nuclear Weapons, 1996) treat them as one body of IHL.*



## HAGUE CONVENTION IV (1907) + REGULATIONS

The laws and customs of war on land, the core of “Hague law”; now binding on all states as custom.



## THE MARTENS CLAUSE

From the 1899 / 1907 preambles: where treaties fall silent, humanity and the public conscience still govern.



## HAGUE CONVENTION V (1907)

Rights and duties of neutral powers and persons in case of war on land.



## HAGUE CONVENTION XIII (1907)

Rights and duties of neutral powers in naval war.

# NEUTRALITY UNDER HAGUE V AND XIII

Neutrality is the legal status of a state that is not a party to an international armed conflict, a bundle of reciprocal rights and duties set out in the 1907 Hague Conventions and customary law.

## BELLIGERENTS MUST RESPECT THE NEUTRAL

- Treat neutral territory as inviolable: no troops, convoys or war material may cross it (Hague V).
- Conduct no hostilities on neutral land, in its airspace, or in its waters (Hague XIII).
- Establish no bases, recruiting or communications facilities on neutral soil.

## THE NEUTRAL MUST ABSTAIN AND PREVENT

- **Abstention:** furnish no troops or military support to any party to the conflict.
- **Impartiality:** apply any restriction it imposes equally to all belligerents.
- **Due diligence:** prevent its territory being used for hostile acts; intern belligerent forces that enter.

The two **sets of duties are reciprocal**: the neutral's protection is the price of its abstention: a serious breach by one side may release the other from its obligations.




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# RESPONSIBILITY

## Article VI OST

States Parties to the Treaty shall bear **international responsibility for national activities in outer space**, including the moon and other celestial bodies, whether such activities are carried on by **governmental agencies or by non-governmental entities**, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty. The activities of non-governmental entities in outer space, including the moon and other celestial bodies, shall require **authorization and continuing supervision** by the appropriate State Party to the Treaty. When activities are carried on in outer space, including the moon and other celestial bodies, by an international organization, responsibility for compliance with this Treaty shall be borne both by the international organization and by the States Parties to the Treaty participating in such organization.

# LIABILITY

Legal obligation to compensate another for injury following an event that causes damage.

**Article VII OST + Liability Convention**

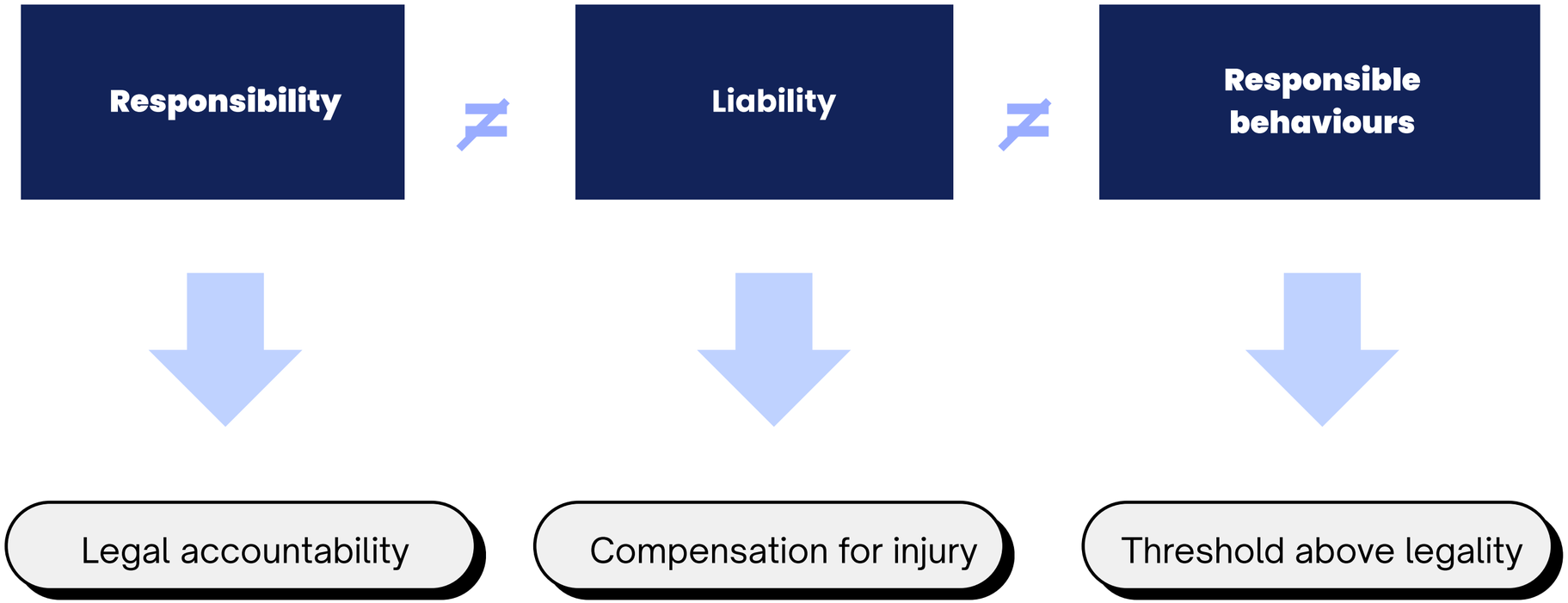
## ABSOLUTE LIABILITY

- Article II LIAB
- If a space object causes damage to an object “on the surface of the Earth or to aircraft in flight”, the launching State of that space object shall be absolutely liable
- Under this absolute standard, a State must compensate a victim State for damages, whether or not the launching State was at fault

## FAULT-BASED LIABILITY

- Article III LIAB
- When there is a “damage being caused elsewhere than on the surface of the Earth to a space object of one launching State or to persons or property on board such a space object by a space object of another launching State”, the standard is fault-based liability
- To determine the existence of fault, a tribunal (or commission) applying the Convention would assess the specific facts of the case, as well as the conduct of the launching State.

# RESPONSIBILITY, LIABILITY, AND RESPONSIBLE BEHAVIOURS



The **activities of non-governmental entities** in outer space, including the moon and other celestial bodies, **shall require authorization and continuing supervision** by the appropriate State Party to the Treaty

## AUTHORIZATION

- Non-governmental entities must obtain explicit permission from their governments to conduct space activities
- Role of domestic agencies & regulations
- Goal: ensuring compliance with international law

## CONTINUING SUPERVISION

- Continuing ≠ continuous
- Must cover the full cycle of the space activity, from pre-launch to decommission
- Goal: ensuring compliance with international law
- In case of liability, can serve as evidence of diligence / lack of fault

# JURISDICTION AND CONTROL

**Article VIII OST**: “A State Party to the Treaty on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof, while in outer space or on a celestial body.”

! Jurisdiction and control ≠ sovereignty

1
- Jurisdiction, registration, and launching States (art. I LIAB & art. I REG)
- Jurisdiction is understood to be held by the State of registration
- Exclusive jurisdiction?

2
- Control = right of a State to adopt rules and mechanisms that enable the space object to achieve its objective or mission
- Different but tied to jurisdiction
- Not necessarily operational control, which can be delegated

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