

Current status of international space law and its applicability to future arms control agreements

Future Arms Control in an Era of Strategic Competition

Workshop 4 – Structural Models and Approaches: Scope, Participation and Structure in Competitive Arms Control

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Slides at:

<http://bit.ly/SpaceLawDec2020>

Existing Normative Framework

Partial Test Ban Treaty (1963) (especially Article 1 - 'Application' mentions outer space)

Outer Space Treaty (1967) (especially Arts. III, IV, and VII) & subsequent UN space treaties

Recent Initiatives

DRAFT Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force in Outer Space Against Outer Space Objects (PPWT) & the yearly UNGA No First Placement resolution

DRAFT International Code of Conduct for Outer Space Activities

UN Group of Governmental Experts (GGE) on Transparency and Confidence-Building Measures (TCBMs) in Outer Space (2013)

UN Group of Governmental Experts (GGE) Prevention of an Arms Race in Outer Space (PAROS) (2019)

UN COPUOS Guidelines on the Long-term Sustainability of Space Activities ("LTS Guidelines")

UNGA Resolution 75/36, *Reducing space threats through norms, rules and principles of responsible behaviours*, (7 Dec. 2020)

Various FORA:

- **UN COPUOS:** Committee on the Peaceful Uses of Outer Space. 95 Member States. Operates by Consensus. Focused almost solely on 'peaceful' uses / no security discussions.
 - Recent success: LTS Guidelines
- **Conference on Disarmament, Disarmament Commission, UNGA First Committee**
 - Space is a minor issue, lumped in with the others
 - Interesting recent development: UK's proposal 75/36
- 2 recent UN **GGEs** have focused on space
- Non-UN initiatives: **EU Code of Conduct** (procedural hurdles as much as substantive)

Division of focus between Vienna and Geneva (Peaceful uses v. Disarmament)
Disagreement on whether to focus on technology, or behavior

A Useful Logical Framework for Analysis:

An activity, behaviour, action is not simply either “legal” or “illegal”

In fact, action may be regulated in the following manners:

- **Obligatory** (legally required / mandated / compulsory)
- **Permisory** (permitted...with or without conditions..., aka “freedom”)
- **Legally Neutral** (gaps/*lacunae* in the law, where law is unintentionally or intentionally lacking in specificity or unclear (*non liquet*); as well as other “no law” areas)
- **Licensory** (generally prohibited, but permitted when specifically licensed)
- **Prohibited** (legally proscribed / outlawed)

For more see Illmar Tammelo, *On the Logical Openness of Legal Orders, A Modal Analysis of Law with Special Reference to the Logical Status on Non Lique in International Law*, 8 American Journal of International Law 187 (1959) <https://doi.org/10.2307/837458> and Helen Quane, Silence in International Law, *British Yearbook of International Law*, Volume 84, Issue 1, 2014, Pages 240–270, <https://doi.org/10.1093/bybil/bru021>

1963 Test Ban Treaty, Article I

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...

Negative Treaty Obligation (“prohibition”)

1967 Outer Space Treaty, Article IV, para. 1

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 such weapons in outer space** in any other manner.

Negative Treaty Obligations (“prohibitions”)

Positive Obligation: “shall be used for...”

1967 Outer Space Treaty, Article IV, para. 2

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 manoeuvres 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**.

Negative Treaty Obligations (“prohibitions”)

DRAFT Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force in Outer Space Against Outer Space Objects (PPWT) (2014)

Legally Binding Definitions: “This term means...”

Article I

For the purpose of this Treaty:

- (a) **the term "outer space object" means** any device placed in outer space and designed for operating therein.
- (b) **the term "weapon in outer space" means** any outer space object or its component produced or converted to eliminate, damage or disrupt normal functioning of objects in outer space, on the Earth's surface or in the air, as well as to eliminate population, components of biosphere important to human existence, or to inflict damage to them by using any principles of physics.
- (c) **a device is considered as "placed in outer space"** when it orbits the Earth at least once, or follows a section of such an orbit before leaving this orbit, or is placed at any location in outer space or on any celestial bodies other than the Earth.
- (d) **the terms "use of force" or "threat of force" mean,** respectively, any intended action to inflict damage to outer space object under the jurisdiction and/or control of other States, or clearly expressed in written, oral or any other form intention of such action. Actions subject to special agreements with those States providing for actions, upon request, to discontinue uncontrolled flight of outer space objects under the jurisdiction and/or control of the requesting States shall not be regarded as use of force or threat of force.

DRAFT Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force in Outer Space Against Outer Space Objects (PPWT) (2014)

Negative Treaty Obligations (“prohibitions”)

Article II

States Parties to this Treaty shall:

- **not place** any weapons in outer space;
- **not resort** to the threat or use of force against outer space objects of States Parties;
- **not engage** in outer space activities, as part of international cooperation, inconsistent with the subject matter and the purpose of this Treaty;
- **not assist or incite** other States, groups of States, international, intergovernmental and any non-governmental organizations, including non-governmental legal entities established, registered or located in the territory under their jurisdiction and/or control to participate in activities inconsistent with the subject matter and the purpose of this Treaty.

DRAFT Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force in Outer Space Against Outer Space Objects (PPWT) (2014)

Positive (Mandatory) Obligations

Article VII

A State Party which has reasons to believe that another State Party fails to fulfill the obligations imposed by this Treaty may request this State Party to clarify the related situation. **The requested State Party shall provide the clarification as soon as possible.**

If the requesting State Party deems the clarification unable to solve its concerns, it may request consultations with the requested State Party. **The requested State Party shall immediately enter into such consultations.**

No First Placement of Weapons in Outer Space (yearly UNGA Res.)

(2019 Res. is 74/33, 2020 Res. is 75/37)

Negative Obligation
“Negative assurance”

5. Encourages all States, especially spacefaring nations, to consider the possibility of upholding, as appropriate, a political commitment not to be the first to place weapons in outer space;

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Article 1.4 - “Not Legally Binding”

Article 4.2

The Subscribing States resolve, in conducting outer space activities, to:

**Interesting Mix of
Negative Obligations
and
Positive Obligations**

- **refrain from any action** which brings about, directly or indirectly, damage, or destruction, of space objects unless such action is justified:
 - by imperative safety considerations, in particular if human life or health is at risk; or
 - in order to reduce the creation of space debris; or
 - by the Charter of the United Nations, including the inherent right of individual or collective self-defence.and where such exceptional action is necessary, **that it be undertaken** in a manner so as to minimise, to the greatest extent practicable, the creation of space debris;
- **take appropriate measures to** minimize the risk of collision; and
- **improve adherence to, and implementation of,** International Telecommunication Union regulations on allocation of radio spectra and space services, and on addressing harmful radio-frequency interference.

DRAFT International Code of Conduct for Outer Space Activities

Positive Obligations

Article 4.3

- In order to minimise the creation of space debris and to mitigate its impact in outer space, **the Subscribing States resolve to limit**, to the greatest extent practicable, any activities in the conduct of routine space operations, including during the launch and the entire orbital lifetime of a space object, which may generate long-lived space debris.

Article 4.4

- To that purpose, **they resolve to adopt and implement**, in accordance with their own internal processes, the appropriate policies and procedures or other effective measures in order to implement the Space Debris Mitigation Guidelines of the United Nations Committee for the Peaceful Uses of Outer Space as endorsed by United Nations General Assembly Resolution 62/217 (2007).

DRAFT International Code of Conduct for Outer Space Activities

Positive Obligations

Article 5.1

- **The Subscribing States**, guided by the principle of cooperation and mutual assistance, **resolve to notify**, in a timely manner, to the greatest extent practicable, all potentially affected States of any event related to the outer space activities they are conducting which are relevant for the purposes of this Code, including:[...]

Article 5.2

- **The Subscribing States resolve to provide** the notifications on any event related to the outer space activities described above to all potentially affected States:

Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee on the Peaceful Uses of Outer Space (“LTS Guidelines”)

Not Legally Binding 🧑🏻🔫

15 **The guidelines are voluntary and not legally binding under international law**, but any action taken towards their implementation should be consistent with the applicable principles and norms of international law. The guidelines are formulated in the spirit of enhancing the practice of States and international organizations in applying the relevant principles and norms of international law. Nothing in the guidelines should constitute a revision, qualification or reinterpretation of those principles and norms. **Nothing in the guidelines should be interpreted as giving rise to any new legal obligation for States.** Any international treaties referred to in the guidelines apply only to the States parties to those treaties.

Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee on the Peaceful Uses of Outer Space (“LTS Guidelines”)

Guideline B.2 - Improve accuracy of orbital data on space objects and enhance the practice and utility of sharing orbital information on space objects

1. **States and international intergovernmental organizations should** promote the development and use of techniques and methods to improve the accuracy of orbital data for spaceflight safety and the use of common, internationally recognized standards when sharing orbital information on space objects.

*Positive Obligations,
but not legally binding* 🙋

Guideline B.9 - Take measures to address risks associated with the uncontrolled re-entry of space objects

1. **States and international intergovernmental organizations should** have in place procedures for furnishing to other States and/or the Secretary-General of the United Nations, via designated entities, as soon as practicable and with updates if necessary, information on the forecasted uncontrolled re-entry of potentially hazardous space objects that are under their jurisdiction and control, and communicating and coordinating the mitigation of risks associated with such events.

Only found 3 instances of “should not” in the LTS Guidelines.

2020: UNGA Res. 75/36 Reducing space threats through norms, rules and principles of responsible behaviours

Sponsored by: Australia, Chile, Czechia, France, Georgia, Germany, Hungary, Japan, Latvia, Lithuania, Malawi, Montenegro, Poland, Portugal, Romania, Sierra Leone, Slovakia, Spain, Switzerland, Ukraine, **United Kingdom of Great Britain and Northern Ireland** and United States of America (22 States!)

Vote: 7 December 2020.


164 for, 12 against,
and 6 Abstentions

(Armenia, Belarus, India, Israel, Madagascar, Palau)

Press Release:

<https://www.un.org/press/en/2020/ga12296.doc.htm>

United Nations

 **General Assembly**

A/C.1/75/L.45/Rev.1

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Seventy-fifth session
First Committee
Agenda item 101 (a)
Prevention of an arms race in outer space: prevention of an arms race in outer space

Australia, Chile, Czechia, France, Georgia, Germany, Hungary, Japan, Latvia, Lithuania, Malawi, Montenegro, Poland, Portugal, Romania, Sierra Leone, Slovakia, Spain, Switzerland, Ukraine, United Kingdom of Great Britain and Northern Ireland and United States of America: draft resolution

Reducing space threats through norms, rules and principles of responsible behaviours

The General Assembly,

Reaffirming the applicability of international law, including the Charter of the United Nations, to activities in outer space and the right of all States to explore and use outer space without discrimination of any kind, on a basis of equality and in accordance with such law,

Recalling its resolutions 68/50 of 5 December 2013 and 74/32 of 12 December 2019,

Emphasizing the importance of maintaining outer space as a peaceful, safe, stable, secure and sustainable environment for the benefit of all and the significant contribution of outer space activities to social, economic, scientific and technological

2020: UNGA Res. 75/36 Reducing space threats through norms, rules and principles of responsible behaviours

Draft Resolution:

https://www.un.org/ga/search/view_doc.asp?symbol=A/C.1/75/L.45/Rev.1

Noting the need for all States to work together to reduce threats to space systems through **the further development and implementation of norms, rules and principles of responsible behaviours** with the aim of maintaining a peaceful, safe, stable, secure and sustainable outer space environment, **which might**, as appropriate and without prejudice, **contribute to further consideration of legally binding instruments in this area.**

2020: UNGA Res. 75/36 Reducing space threats through norms, rules and principles of responsible behaviours

3. Expresses the desire that all Member States **reach a common understanding of how best to act to reduce threats to space systems** in order to maintain outer space as a peaceful, safe, stable and sustainable environment, free from an arms race and conflict, for the benefit of all, **and consider establishing channels of direct communication** for the management of perceptions of threat;

2020: UNGA Res. 75/36 Reducing space threats through norms, rules and principles of responsible behaviours

5. **Encourages Member States to study existing and potential threats and security risks** to space systems, including those arising from actions, activities or systems in outer space or on Earth, **characterize actions and activities** that could be considered **responsible, irresponsible or threatening** and their potential impact on international security, **and share their ideas** on the further development and implementation of norms, rules and principles of responsible behaviours and on the reduction of the risks of misunderstanding and miscalculations with respect to outer space;

2020: UNGA Res. 75/36 Reducing space threats through norms, rules and principles of responsible behaviours

6. **Requests the Secretary-General**, within existing resources, **to seek the views of Member States** on the issues referred to in the foregoing paragraph **and to submit a substantive report, with an annex containing these views**, to the General Assembly at its seventy-sixth session, for further discussion by Member States;
7. **Decides to include** in the provisional agenda of its seventy-sixth session, under the item entitled “Prevention of an arms race in outer space”, a sub-item entitled, “Reducing space threats through norms, rules and principles of responsible behaviours”.

Some tentative insights:

Internationally legally binding instruments are a mix of **obligatory, permissive, licensory, and prohibited** obligations. As well as definitions.

Definitions are crucial. Perhaps work on those first.

If draft instruments contain too many prohibitions, they will face resistance.

- Vagueness, lack of verifiability are also fatal to viability.

A good “recipe” for an instrument would balance these elements, and re-balance them (along with definitions) to increase chances of viability.

Where is the American initiative?



Thank you!

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References

International Instruments

1. Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water (“Partial Test Ban Treaty”), <https://treaties.un.org/pages/showDetails.aspx?objid=08000002801313d9>
2. United Nations, International Space Law: United Nations Instruments (2017), http://www.unoosa.org/oosa/oosadoc/data/documents/2017/stspace/stspace61rev.2_0.html
3. DRAFT Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force in Outer Space Against Outer Space Objects (PPWT), <https://undocs.org/en/CD/1985>
 - a. No First Placement of Weapons in Outer Space A/RES/75/37 or <https://www.un.org/en/ga/75/resolutions.shtml>
4. DRAFT International Code of Conduct for Outer Space Activities (ICoC) https://eeas.europa.eu/archives/docs/non-proliferation-and-disarmament/pdf/space_code_conduct_draft_vers_31-march-2014_en.pdf
5. UN Group of Governmental Experts (GGE)
 - a. On Transparency and Confidence-Building Measures (TCBMs) in Outer Space
 - b. On Prevention of an Arms Race in Outer Space (PAROS)
6. UN COPUOS Guidelines on the Long-term Sustainability of Outer Space Activities (LTS Guidelines) (Annex II, pg. 50-69) <https://undocs.org/en/A/74/20>
7. 2020 UN General Assembly Resolution “Reducing space threats through norms, rules and principles of responsible behaviours”, Res. 75/36 <https://www.un.org/en/ga/75/resolutions.shtml>

Manuals

- (Forthcoming) Manual on International Law Applicable to Military Activities in Outer Space (MILAMOS), <https://www.mcgill.ca/iasl/milamos>
- (Forthcoming) The Woomera Manual on International Law of Military Space Operations, <https://law.adelaide.edu.au/woomera/>
- Oslo Manual on Select Topics in Armed Conflict, <https://www.springer.com/gp/book/9783030391683>

Further Reading

- Rajeswari Pillai Rajagopalan, *Assessing The British Proposal On Space Security – Analysis*, Eurasia Review, 12 Dec. 2020, <https://www.eurasiareview.com/12122020-assessing-the-british-proposal-on-space-security-analysis/>
- Victoria Samson and Brian Weeden, *Enhancing Space Security: Time for Legally Binding Measures*, Arms Control Association, 1 Dec. 2020, <https://www.armscontrol.org/act/2020-12/features/enhancing-space-security-time-legally-binding-measures>
- Secure World Foundation, Global Counterspace Report, <https://swfound.org/counterspace/>