

# **Application of International Humanitarian Law/ Laws of Armed Conflict in Space: Civilians and Neutral States**

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## **Preliminary remarks:**

Conflict in space is not inevitable, however we cannot deny that space has become a contested strategic domain, and that geopolitical tensions are playing out in space today as they have since we have been launching things into space.

There remains a risk that terrestrial conflict could extend into space, bringing harm to civilian life because of how dependent we are on space technologies.

For this reason, the US moratorium on direct-ascent ASATs is an important step forward, and I hope to see many more nations joining Canada in committing to this behavioural norm throughout and following these OEWG discussions. This is not about limiting a capability, nor is it about who is first to make such a commitment. It is about expressing a baseline of entirely unacceptable behaviour: any deliberate creation of debris by means of a weapons test is irresponsible because of how long that debris remains in orbit. Debris that is travelling at 7km/sec, 10 x faster than a bullet, in orbits which are already dangerously crowded with space traffic and existing debris. Something the size of a pea at that speed can cause lethal damage to a satellite upon which you and I depend for navigation, communication, aviation, shipping, disaster response, search and rescue, banking and finance, tracking climate change, deforestation, identifying sites of mass atrocity.

This is precisely why the focus on reducing space threats through norms, rules and principles can be helpful. These issues are real, urgent, global and intergenerational. It would be great to see an ASAT test ban treaty emerge. But whether or not it does, articulating any number of “norms, rules and principles” by consensus can get us a long way. There is not a great deal of transparency regarding military activities in space, and the development of counter-space technologies. There is a great risk that misunderstandings or miscalculations could lead to conflict. Clear norms, rules and principles are effective TCBMs.

These norms rules and principles need not be new. A restatement, or clarification of existing norms, rules and principles can also have a positive effect on reducing tensions and threats.

The Woomera Manual on International Law Applicable to Military Space Activities = restatement of IHL/LOAC. (Woomera is a traditional spear thrower in Dharug language, of the Eora people, traditional custodians of the Sydney area. Also the name of the site from which Australia became the third nation to launch a satellite, which encompasses the lands of 6 Indigenous nations.) International group, independent experts, to echo the Tallinn Manual on Cyber Warfare, the Harvard Manual on Air and Missile Warfare. Not a handbook on space warfare, but rather, as I have recently written in a contribution to a book on Military Space Ethics, a tool to provide internationally agreed clarity. Wommera will be published in 2023. Could be a TCBM.

From the perspective of international law, “norms, rules and principles” can also be binding. Under art 38(1)(c) of the Statue of the ICJ, general principles are a source of law. The OST is a treaty of principles. International Humanitarian Law (IHL) otherwise known as the Laws of Armed Conflict (LOAC), to which I have been asked to speak, is replete with binding norms, rules and principles.

I will discuss:

**1) Applicability**

**2) Application :**

- a) Principle of distinction**
- b) Proportionality**
- c) Neutrality**

① Applicability:

Space is “beyond national jurisdiction” but hopefully already clear by now that space is NOT a “Wild West” or lawless vacuum.

- Art III OST: All activities in space must be in accordance with international law
- ICJ Advisory Opinion Nuclear Weapons "all forms of warfare and all kinds of weapons, those of the past, those of the present, and those of the future"
- Manfred Lachs 1972: "Space has never been lawless, but rather has always been subject to int. law, it was just never tested before"

- Now with new technologies, it is being tested. But IHL is made up of a set of rules and principles, to be applied to situations of armed conflict regardless of where they take place. It is about applying the principles to new fact scenarios each time, including to new technologies. This is the task of the military lawyer advising a commander.
- Moreover, IHL/LOAC consists of codified law through treaties, but a large part of it is customary international law
- Space is not so different legally to most other domains, most of the time. But is physically unique (can't control impact or direction of debris, and need to take into account all users of space globally), which is why any debris-creating activities must be avoided as truly irresponsible. And why certain rules of IHL must be interpreted according to the specific space environment.

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## ② Application

### A) Principle of Distinction

\* Cardinal principle according to ICRC \*

Additional Protocol I to Geneva Conventions - customary law so applicable even to States which are not party

art 48 API: at all times, distinguish between civilian population and combatants, and between civilian objects and military objectives.

Art 51: Civilians shall not be the object of attack. Protected. Indiscriminate attacks prohibited.

Art 52(1): Civilian objects shall not be the object of attacks

Art 52(2): Military objects = "those objects which by their nature, location, purpose, use make an effective contribution to mil action AND whose total or partial destruction, capture or neutralisation, in the circumstances ruling at the time, offers a definite mil advantage"

Art 52(3): In the case of doubt, whether an obj is normally dedicated to civilian purposes use (such as place of worship, house, dwelling; school) is mil, it shall be presumed not to be so used

DUAL USE SAT's. Prof Koplow gave useful examples of dual uses: A single launch vehicle may launch multiple satellites for mil and civ purposes; a single satellite may be providing services for military and civilian purposes.

This is an unavoidable reality. Space is now highly commercialised, with well over half of all operational satellites belonging to commercial entities, and this figure will grow exponentially in the next 5 -10 years. Space services are all highly commercialised. Militaries outsource, and work in partnership with the commercial space sector because commercial entities develop and deliver faster and often better technologies (not afraid to have lots of failures as they develop new tech).

In the next 5 years the race to the Moon will become apparent: to find and be the first to land on resource rich sites, to extract those resources to support human habitats, and to dominate strategically important orbital real estate surrounding the Moon. This race is as much commercial as it is international.

I respectfully disagree with Prof Koplow that the proliferation of dual use space assets leads to a breach of the obligation of passive precautions in attack, precisely because it is not feasible to separate them. It would only be unlawful if there were an intention to hide a military objective behind a civilian object (Art 37 API: perfidy/ruses of war).

Art 57 API: “Constant care shall be taken to spare the civilian population, civilians and civilian objects”.

Art 58 API: “to maximum extent feasible” remove civilian objects from vicinity of mil objectives; avoid locating military objectives near densely populated areas; take other necessary precautions to protect civilians and civilian objects from the dangers resulting from military operations”

The garsh fact is that dual use satellites are likely to be targetable objects IF the conditions of Art 52(2) are met. Assets of non-State actors as lawful targets. HOWEVER the decision to target is limited by principles of necessity and proportionality.

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#### B) Proportionality:

EVEN IF a dual use sat is targetable under Art 52 API, the binding principle of proportionality must be applied. Customary international law.

Article 51(5)(b) prohibits indiscriminate attacks, defined as: “An attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof which would be excessive in relation to the concrete and direct military advantage anticipated »

Principle also listed in Art 57(2)(a)(iii) and (b).

In my book “War and Peace in Outer Space”, I co-authored a chapter with Dale Stephens on “IHL and its Application to Outer Space”. Our key conclusion is that proportionality should weigh more heavily in space than it perhaps does in other domains or factual situations. In many ways space is no different legally from other domains, but is physically very different, which means the facts to which the legal principles are applied are unique.

Targeting a space asset can have disproportionate effects on the space environment if it is an irreversible kinetic attack, e.g. direct-ascent ASATS.

Other kinetic attacks such as capturing or physically interfering with a space asset may also lead to that asset becoming debris.

Non-kinetic, or “soft kill” attacks includes those designed to interrupt or disable the functionality of a satellite rather than destroy it. May include cyber attacks on a space system, jamming or altering a signal from a satellite, or dazzling an observation satellite. These interferences and attacks can have disproportionate effects on the civilian population when a dual use satellite is the target.

These kinds of technologies are also more likely to be within grasp for non-State actors.

### C)Neutrality

- How does the principle of neutrality apply with respect to status of space systems that may be impacted by armed conflict?

The object and purpose of the law of neutrality is to prevent escalation of an international armed conflict. Parties to a conflict are obliged to refrain from any activity that would breach the sovereignty and jurisdiction of neutral States. The correlative obligation of neutral States is to remain neutral vis-à-vis *all* parties to a conflict.

Emerged from maritime law in 18<sup>th</sup> and 19<sup>th</sup> centuries, when marine States wanted to ensure conflicting States did not interfere with neutral trade ships. Applies to land and sea, and there are some analogues with space, due to the highly commercialised nature of the space sector.

1907 Hague Conventions V Respecting the Rights and Duties of Neutral Powers and Persons in Case of War on Land/ and XIII in Naval Warfare.

Article 1 belligerents are obliged to respect the inviolability of the “territory of neutral Powers” and of “neutral waters.”

Since space is beyond national jurisdiction, Art II OST, territorial principles of neutrality don't apply.

However, under Art VIII OST, space objects remain under the jurisdiction and control of the launching State, and thus if a space object that belongs to, or falls under the jurisdiction of a neutral State were to be targeted, this would be in breach of the principle of neutrality.

Most importantly, if a space system were to be a lawful target, because it can be identified as a military objective under all the conditions of art 52 API, a decision to attack must also take into account how the civilians of neutral States would be affected. If the targeted satellite or service were providing communications, navigation, critical infrastructure such as agricultural or water management, or any other application to neutral States as well as belligerent States, it would no longer be targetable. This applies whether it is a kinetic attack, or a non-kinetic interference, however temporary.

This also includes principles of neutrality reflected in API e.g. prohibitions on perfidy and ruses of war (pretending to belong to a neutral State), indiscriminate weapons which would affect neutral States and their citizens. Is an extension of "protection".

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Space is unique, but not lawless. The existing norms, rules and principles of IHL apply. But there are complexities which require attention, due to the physical uniqueness of space and the specifics of space technologies.