

The Use of Force, Self Defence and Space

Ben Baseley-Walker,
Legal and Policy Advisor, Secure World Foundation

bbw@swfound.org

+1-202-255-2153

- International Law 101
- Foundations
- Use of Force and Self Defence
- Weapons – Identification and Attribution of Attack
- Conclusions

- Treaties
 - Legally binding
 - Consent to be bound
- Customary International Law
 - 2 conditions :Opinio Juris (belief that something is a law);Widespread State Practice
- Soft Law
 - Guidelines etc.
 - Evidence for Custom
- Concept of Enforcement in International law
 - Enforcement is not a central part of the international legal regime
 - Not because the law is weak but because the concept doesn't really work given the nature of the field
 - Less conventional 'sticks'

- No concept of war in space
 - no treaties establishing specific jus in bello principles for space combat

- No specific ‘territorial’ limitation to the application of the jus in bello principles.
 - The laws and customs of war apply both to the area where the hostilities actually take place, as well as the broader areas that are in some way affected by the hostilities

- Space is militarized, is it weaponised?

- Key tenet on the use of force:
- 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 2(4) UN Charter

- Nothing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations...

Article 51, UN Charter

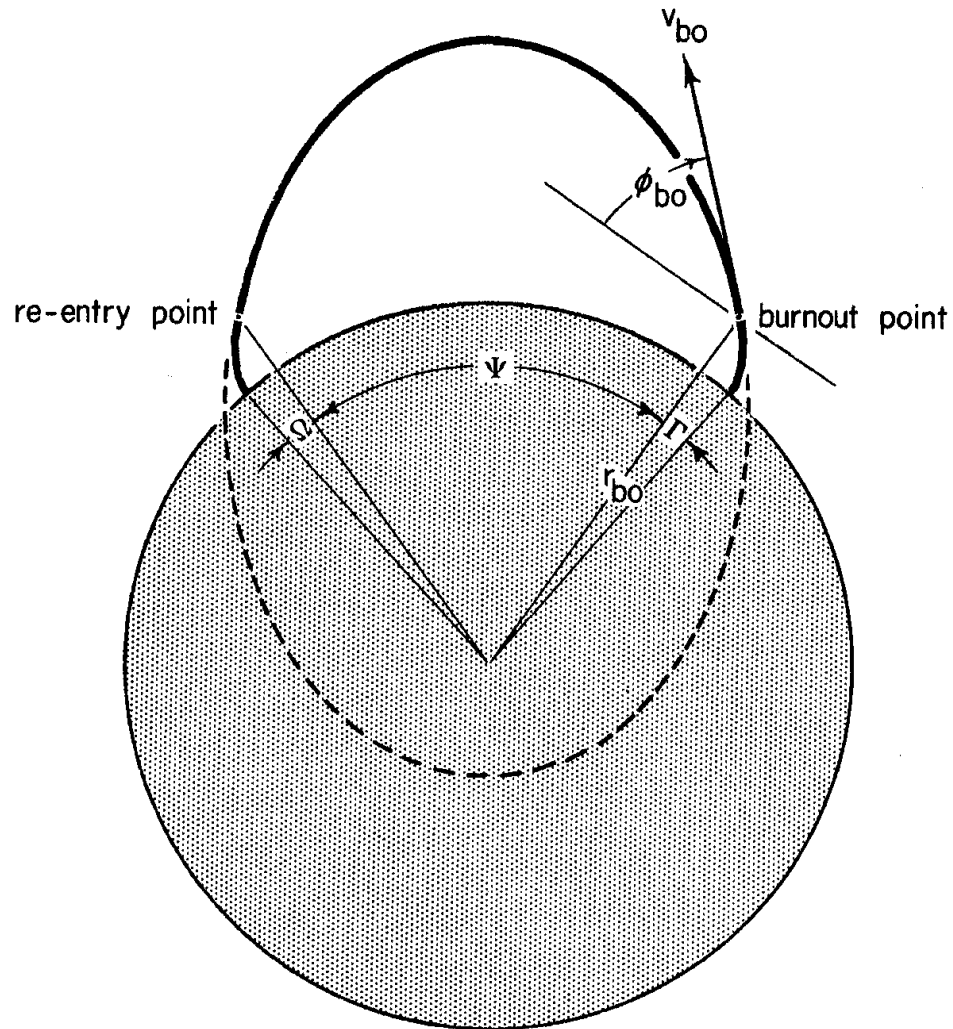
- Jus in bello
 - Law of armed conflict, international humanitarian law
 - Human rights tied to jus in bello through ICJ cases
 - 1996 advisory opinion on use of nuclear weapons
 - Noting that the threat or use of a nuclear weapon should comply with the requirements of international law relating to armed conflict, particularly the principles of international humanitarian law

- Three key elements:
 - Proportionality
 - Definite establishment of attribution
 - “Scale and effects” – *Nicaragua* case
 - Customary International Law – invocation of self-defence warrants only measures that are proportional to the armed attack and necessary to respond to it
 - Necessity
 - Necessity to rely on force because no realistic alternative means of redress is available
 - Immediacy
 - On the spot reaction vs. armed reprisals

- ICJ has not ruled out the use of nuclear weapons in self defence but has set the bar very high.
 - *Legality of the use of nuclear weapons* Advisory Opinion
- In space, the same could arguably be said for debris causing weapons
 - Armed reprisals do not necessarily have to take place in space
 - Space is not an arena apart but an integrated element of global international relations
- How much can the loss of space capabilities affect a populace?

- What amounts to an armed attack in space?
 - Article 3(d) of the Definition of Aggression
 - Marine and Air fleets of another State
 - Fleets expressly included in maritime context to exclude the use of force against a single or a few commercial vessels
 - How does such a concept apply to commercial space assets?
- What is territorial integrity?
 - Oil Platforms Case – is court interpreting armed attack as having to be against the territory?
 - » If so, problem in space as space objects are technically outside the territory of any State – does the flag State concept carry over?

- The PPWT's focus primarily on those systems that are in space
- Other systems, such as ground based lasers and direct ascent kinetic ASATs are dealt with under the catch-all of the international prohibition on the threat or the use of force.
- Direct ascent ASATs, from the physical point of view, do not meet the requirements of the PPWT as they are at no point in orbit.



- **Direct Ascent ASAT (missile launched from the ground to a satellite)**

Identification - can fairly easily detect the launch using IR satellites and other satellite technologies and successful attack (satellite stops transmitting, debris cloud)

Attribution - as the interceptor flies on a short (~15 min) ballistic arc from the launch point to the target – location of launch can be determined

- **Co-orbital ASAT (something on orbit rendezvous with another satellite and destroys or disables it)**

Identification – Utilising existing updated catalogues of space objects such as that maintained by the US military, maneuvers by an object to a new trajectory and then a conjunction assessment with the target can be detected

- Attribution - can be difficult, as the co-orbital interceptor can be dormant for a long time before intercept, especially if it is mislabeled as a piece of debris after launch or was not catalogued. Another unclear scenario is if it was attached to a larger satellite or rocket body and after a period of time separated and maneuvered away.

- **Jamming**

Identification - fairly easy, as it results in an inability to communicate with the satellite. Can sometimes also detect the jamming signal being reflected off the satellite or overlapping onto nearby satellites

Attribution - fairly easy to narrow down to a region of the Earth as small as part of a country or a few hundred km, but hard to tell the exact source as it could be a mobile jammer or not under the country's control.

- **Lasing**

Identification - Can be difficult, especially if it takes out the satellite quickly. If the satellite stops responding immediately after flying over a fixed laser site then you can infer an attack, but cannot verify. Could also have come from a mobile laser (which don't exist yet). Most likely a ground sensor detected the laser energy reflecting off the target satellite.

Attribution – Lasing source will have to be in the footprint of the satellite to damage it's optics. Attribution is easier if the source is a fixed laser site, more difficult if it was from a mobile one. Currently lasers that can destroy satellites do not exist however, were they to, lasers would need only a line of sight to target.

- PPWT showcases key elements of international law on the use of force
- Focus is limited to weapons on orbit
 - Many other systems remain a threat
- Given the rapid acceleration of technology and the desire to create a long-lasting instrument, an approach could be to elucidate key principles on the use of force as they apply to space then focusing on the testing and use of specific systems in the space environment
- Question of prohibiting the testing and use of specific systems in the space environment in any circumstances negating the right to use them under a Security Council mandate or in self defence.

Many Thanks
bbw@swfound.org