

**SECURITY,
DEFENCE
AND
OUTER SPACE**
INTERNATIONAL CONFERENCE
BUDAPEST

Legal Aspects of Earth Observation
for Security and Military Reasons

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Intro

- Lyndon B. Johnson: "*Control of space means control of the world*" (1958).
- Technical developments for overseeing lands from high altitudes:
 - ancient Greece and Rome: hilltops and watchtowers;
 - 1794, battle of Fleurus, French army used hot air balloons;
 - airplanes in the First and Second World Wars;
 - satellites
- **Now** satellites are used: (i) for intelligence gathering; (ii) as "gunshots", in order to guide weapon attacks against objectives on Earth.
- **1)** Space has a legal framework inspired by principles of cooperation and "benefit-sharing" between States. How **intelligence gathering**, in time of peace, "get along" these principles?
- **2)** What are the legal implication of the **use of satellites as "gunshots"** in a warfare scenario?

Intelligence gathering

- Common practice (all States spy).
- Two opposing theories - illegal vs. legal

Illegal	Legal
It is military activity , hence not "peaceful"	It is a non-aggressive activity , hence "peaceful"
It violates the sovereignty of the sensed State, therefore it is illegal, regardless of the location of the observer.	Satellites are located outside the boundaries of national sovereignty , therefore the activity is legal.
-	It is legal because it is necessary for proper self-defence.

- The second theory has prevailed.

Intelligence gathering

- **The issue is not the activity in itself.** The question is: does the legal framework include a technical obligation to **share data and information** gathered through satellites?
- Clauses from which such an obligation may rise:
 - The exploration and use of outer space shall be carried out "*for the benefit and in the interests of all countries ...*" (Art. I);
 - "*States Parties ... shall be guided by the principle of cooperation and mutual assistance ...*" (Art. IX);
 - "*the nature, conduct, locations and results of such activities*" must be **shared** with the Secretary-General of the United Nations, the scientific community and the public (Art. XI).
 - 1986 Principles Relating to Remote Sensing of the Earth from Outer Space (the sensed State has the right to access the data).

Intelligence gathering

- There is **no technical obligation** to share data and information gathered through satellites.
- The principles of cooperation, mutual assistance, benefit and interest of all countries, etc. (Articles I and IX) are more guiding principles than obligations under a technical standpoint.
- The language used in Article XI (the sensing State should share "*the nature, conduct, locations and results of such activities*" with the Secretary-General of the United Nations, the scientific community and the public). It says that "***State parties ... agree to inform***", it **does not say "shall"**.
- 1986 Principles Relating to Remote Sensing of the Earth from Outer Space have a limited extent: they govern remote sensing activities only "*for the purpose of improving natural resources management, land use and the protection of the environment*" (Principle I).
- A last non-contested use: satellites are also used in order to **verify compliance with Arms Control Treaties**. In such treaties are often included clauses prohibiting to interfere with "National Technical Means", *i.e.* with the remote sensing activity that is carried out through satellites.

Guidance for weapon attacks

- Satellites can also guide attacks against targets on Earth.
- Accurate technology can improve compliance with International Humanitarian Law.
- A "double-edged sword:" on the one hand satellites can help to comply with International Humanitarian Law / on the other hand there are "no excuses" in case of lack of compliance.
- IHL: an attempt to make more "human" the **principle of military necessity**.
- In a nutshell, force can be used as long as it is strictly necessary for the purpose of submitting the adversary, but **no unnecessary suffering** shall be caused.

Guidance for weapon attacks

- Principle of distinction: Art. 48 Additional Protocol I to the Geneva Convention: the Parties to the conflict shall distinguish between the civilian population and combatants and between civilian objects and military objectives and *"accordingly shall direct their operations only against military objectives"*.
- Never use **weapons** that are **incapable of distinguish between civilian and military targets**.
- Even if a State is targeting a military object, the so called *"collateral damages"* may arise.
- Principle of proportionality (art. 51(5)(b) Additional Protocol I to the Geneva Convention): is prohibited *"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 of precautions in attacks (art. 57(2)ii) Additional Protocol I to the Geneva Convention): *"**take all feasible precautions in the choice of means and methods of attack with a view to avoiding, and in any event to minimizing, incidental loss of civilian life, injury to civilians, damage to civilian objects"***.

Consequences

- Satellites play a key role in modern warfare, so they may be a target for belligerent parties.
- Principle of distinction: only military object can be targeted. But, even a “**dual-use**” satellite can be included in the definition of military object **for the use** that it is made of it.
- Military objectives “*are limited to those objects which by their nature, location, purpose or use make an **effective contribution to military action** and whose total or partial **destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage**” (Art. 52 Additional Protocol I to the Geneva Convention).*
- Principle of proportionality: “*It is prohibited to attack, destroy, remove or render useless **objects indispensable to the survival of the civilian population**” (art. 54(2) Additional Protocol I to the Geneva Convention) (in relation to satellites, reference can be made to disaster management applications, remote monitoring of dams and drinking water installations, etc.) .*
- Principle of precautions in attack: (constant care to avoid collateral damages) when planning means and methods of attack, it is recommended avoiding kinetic attacks - they destroy the satellites into pieces, thus creating a huge amount of debris.

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Who am I?



- **Mr. Gregorio Salatino**, admitted to practice law in Italy
- Owner of the law firm "**Salatino Studio Legale**".
- Legal assistance to companies, mainly in corporate law, contracts, litigation, international law. Particular focus on space law.
- Mentor at ESA BIC Turin (accelerator of the European Space Agency incorporated in Italy).
- Researcher at the Institute of Space Law and Policy of the University of Public Service (Budapest, Hungary).
- Visiting researcher at the Max Planck Institute for Comparative Public Law and International Law, Heidelberg (Germany), research project on the "Observation of Earth from outer space".
- Member of the Board of editors of the legal journals "*Giurisprudenza Commerciale*" and "*Diritto del Commercio Internazionale*".
- Author of many publications in the fields of economy law and international law.