



Rogue Space Actors: Is there a Problem in our Current Domestic Regimes that might allow for an Unauthorised Planetary Defence Mission?

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Introduction

In January 2018, Swarm Technologies launched its first four SpaceBEEs. A month earlier (December 2017), the Federal Communications Commission had rejected their communications licence because the satellites were considered too small to be trackable. This sparked a legal debate on the effectiveness of international governance regimes.

WHAT HAPPENS WHEN A PRIVATE PLAYER LAUNCHES AN UNAUTHORISED SPACE OBJECT?

Example of a Domestic Regime: The US

You need a licence for

- **Telecommunications**, provided by the Federal Communications Commission;
 - **Exporting**, if not launching in the US, provided by the Department of Commerce or Department of Defence;
 - **Launching**, provided by the Federal Aviation Administration.
- However, the launch licence is only required for “a vehicle built to operate in, or place a payload or human beings in, outer space.” - 51 US Code §50902(11).
A mere payload does thus not require a licence to launch outside the US.

Liability ≠ Responsibility

What is liability?

It's always related to damage (“loss of life, personal injury or other impairment of health; or loss of or damage to property”).

“A launching State shall be **absolutely liable** to pay compensation for **damage** caused by its space object on the surface of the earth or to aircraft flight” - Liability Convention Article II.

What is responsibility?

Requires two elements that are not necessarily linked to damage but instead to a violation of an international obligation.

“Every internationally **wrongful act** of a State entails the **international responsibility** of that State.”

“There is an internationally **wrongful act** of a State when conduct consisting of an action or omission:
(a) is **attributable** to the State under international law; and
(b) constitutes a **breach of an international obligation** of the State.”

-Articles 1 & 2, Articles on Responsibility of States for Internationally Wrongful Acts

What Happened in the SpaceBEEs case?

For the State?

Nothing changes.

States have a due diligence obligation to prevent private actors under their jurisdiction from causing harm to other States and violating international law.

For the private Actor?

- Domestic Legislation breached
- SpaceBEEs
 - ↳ \$900 000 Fine
 - ↳ Admittance of Guilt

Is there a Problem in our Current Regimes?

NO

There will always be a responsible State at the international level.

Having a responsible State means no problem at the international level.

YES

Some national legislations are not entirely effective when it comes to regulating private actors. As the SpaceBEE case shows, the United States is an example of this. In this case, the launch itself was not illegal. Rather, the use of the frequencies was a breach of US regulations. If a mission were to be launched as a payload on a foreign rocket, the regimes could have a problem.

Responsibility over Private Activities

Generally, the State with jurisdiction over the private actor is also responsible for its space activities.

“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...” -Article VI Outer Space Treaty

WHAT IS JURISDICTIONS? - “[T]he power of a state to affect persons, property, and circumstances within its territory”

- **Territorial** (judicial power over the activities of a sovereign territory of the State);
- **Quasi-territorial** (judicial power over objects located outside the sovereign territory of the State, such as a ship registered in the State); and
- **Personal** (judicial power over the nationals of a State).

But Why Should the Planetary Defence Community Case About and Telecommunications Case?

1. A private space actor can launch a planetary defence mission.
2. A state might not launch a mission, so the private actor could seize the opportunity.
3. The State could deny a licence for a planetary defence mission to protect itself against potential liability claims.

But before we get to such a situation, the States can control the private actors through export licences, for example.

Private Actors Beyond Responsibility

What other obligations does a State have in relation to responsibility?

“...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...” - Article VI Outer Space Treaty

↳ Domestic Licencing Regimes

Selected References:

Treaty on the Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, 27 January 1967, 610 UNTS 205.

Convention on International Liability for Damage Caused by Space Objects, 29 March 1971, 961 UNTS 187.

International Law Commission, “Responsibility of States for Internationally Wrongful Acts” (2001), online(pdf): <legal.un.org/ilc/texts/instruments/english/draft_articles/9_6_2001.pdf>.

Federal Communications Commission, “ORDER” (20 December 2018), online(pdf): <docs.fcc.gov/public/attachments/FCC-18-184A1.pdf>.

51 US Code § 50902(11).

Malcolm Shaw “Jurisdiction” (27 February 2025), online: <www.britannica.com/topic/international-law/Jurisdiction>.

Yun Zhao, “Law related to intellectual property and transfer of technology” in Ram Jakhu & Paul Dempsey, eds, *Routledge Handbook on Space Law* (Abingdon; New York; Routledge 2017) 321.