

UN Treaties and Civil Liability Rules facing New Space Technologies

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Air Law

Damage → civil (contract / tort) liability

- Damage to passengers → Warsaw Convention 1929 → Montreal Convention 1999 → liability of the carrier (limits) [national law]
- Damage to third parties → Rome Convention 1952 → liability of the operator (limits) / national law

Aircraft



- Chicago Convention on International Civil Aviation, 7 December 1944, Annex 7
- **Aircraft is any machine that can derive support from the reactions of the air other than the reactions of the air against the earth's surface**



Liability in Space Law



Space Law

Damage → inter-State liability

- **Responsibility** = duty to control the activities of private entities → bearing of the legal consequences when private entities violate international space law
- **Liability** = obligation to pay compensation when a **space object** causes damage

Responsibility in Space Law



- Art. VI, Outer Space Treaty (OST, 1967)
- States Parties to the Treaty shall bear **international responsibility for national activities in outer space**, including the Moon and other celestial bodies, whether carried on by governmental agencies or by **non-governmental entities**, and for assuring that national activities are carried out in conformity with the provisions of the present Treaty

Responsibility in Space Law



- Art. VI, OST
- **The activities of non-governmental entities in outer space shall require authorization and continuing supervision by the appropriate State Party to the Treaty**
- → **relevance of national space legislations**

Liability in Space Law



- Article VII, OST
- Each **State Party** to the Treaty that **launches** or **procures the launching** of an object into outer space and each State Party **from whose territory or facility** an object is launched is internationally liable for **damage** to another State Party or to its natural or juridical persons by such object **on the Earth, in air space or in outer space**

The Liability Convention



- Convention on International Liability for Damage Caused by Space Objects (Liability Convention or LC), 29 March 1972



Absolute liability



- Art. II, LC
- 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 in flight**
- **No exoneration** is admitted, unless the launching State proves fault of the victim (Article VI.1)
- No exoneration whatever for activities in violation of international law (Article VI.2)

Fault liability



- Art. III, LC
- In the event of **damage** being caused elsewhere than on the surface of the earth to a **space object** of one launching State or to persons on board by a space object of another launching State, the latter shall be liable only if the damage is due to its **fault** or to the fault of persons for whom it is responsible

Launching State



- Article I (c), LC
- The term “**launching State**” means:
 - A **State** which **launches** (1) or **procures the launching** (2) of a space object
 - A State from whose **territory** (3) or **facility** (4) a space object is launched



Space object



- Article I (d), LC
- The term “space object” includes **component parts** of a space object as well as its **launch vehicle** and **parts thereof**
- Article I (b): the term “launching” includes **attempted launching**



Civil liability?



- Art. XI.2, LC
- Nothing in this Convention shall prevent a State, or natural or juridical persons it might represent, from pursuing a claim in the courts ... of a launching State. A State shall not, however, be entitled to present a claim under this Convention in respect of the same damage for which a claim is being pursued in the courts ... of a launching State or under another international agreement binding on the States concerned
- → **role of national space legislations**

New technologies



- small satellites → space law liability regime(s) --- problems
- sub-orbital flights?



Sub-orbital flights



- ICAO: «A sub-orbital flight is a flight up to a very high altitude which does not involve sending the vehicle into orbit»
- Different kinds of vehicles being experimented
- 2 main models: VTVL (e.g. New Shepard) and HTHL (e.g. Virgin Galactic's Spaceships)



Sub-orbital flights



- Applicability of air law?
- In some models (e.g. Spaceship) the first stage may be considered an **aircraft**, but not the second one
- Applicability of space law?
- It depends on the definition of **space object**, which is in fact not fully defined



Sub-orbital flights



- 1975 Registration Convention
- Art. II
- When a **space object** is **launched into Earth orbit or beyond**, the launching State shall register the object
- What does «beyond» mean?
- Does the limit apply to the Liability Convention?

Sub-orbital flights



- Anyway, a space object is an object «launched into outer space»
- The boundary between airspace and **outer space** is however not defined, although «Earth orbit» and «beyond» are clearly outer space



Sub-orbital flights



- **National legislations** do not solve the problem
- Some of them (e.g. US) tend to regulate sub-orbital flights as space activities, others (European laws) tend to equate them to aeronautical activities (or do not provide for any specific regulation)
- Some national space acts (e.g. Australia, Kazakhstan, Denmark) point to a boundary at 100 km above sea level, but most of them do not define any boundary

Sub-orbital flights

- Which way forward?

