



NewSpace – Legal Issues

United Nations / Germany High Level Forum
Session 3: Legal Regime of Outer Space and Global
Space Governance

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Introduction

- The trend to **global digitalization** is changing the traditional face of space activities
- Space industry is subject to a **commercialization wave**
- Space is conceived as an instrument for **implementing new business models**
- New business models call for **new technologies and implementation practices**
- Technology becomes more **accessible, less expensive, more versatile and more dynamic**
- **Software based payloads** allow more versatile missions
- **New players** enter the field



German Ministry of Economic Affairs - NewSpace Study



- New business models – (new?) challenges
- Ministry of Economic Affairs (BMWi): NewSpace Study
- **Legal framework conditions are key** for developing a sound NewSpace ecosystem for new applications and services
- The **existing legal framework** has to cope with the changes, possibly adapt
- **New legal frameworks** may be required

New and old legal challenges

- **NewSpace but Old Challenges** in an already **highly regulated environment**
 - some things don't change (easily)
- Space activities require **access to traditionally restricted technology**
(→ Export control, arms regulations etc.)
- Space activities are **traditionally hazardous** – for the environment, property and for other human beings
(→ Environmental regulations, including space, safety requirements, mandatory insurances)
- Space activities are **traditionally expensive** – even with low cost launchers
(→ Economic capacity requirements)
- **But also New Challenges!**
 - IT security, data protection requirements
 - New use cases, IoT, like in-orbit servicing, space tourism
asteroid mining



Issues related to (national) space law

- International space law: **States' obligation to authorise and supervise space activities within its jurisdiction.**
- **Adaptation of existing national space laws:**
 - **UK:** Space industry bill to **boost small satellite launches** from the UK territory.
 - **Belgium and the Netherlands:** **Small satellite** operations.
 - **Australia:** Support innovation and promote entrepreneurship.
- **Nations adopted national space legislation:**
 - **Austria and Denmark:** Response to **small satellite projects.**
 - **Finland:** Support Finnish space start-ups such as ICEYE.
- Adjustments to support **new services** such as asteroid mining, in-orbit servicing, and space tourism.
 - The **US** and **Luxembourg** have adopted pro-active legislation on asteroid mining.
 - The **US** is currently developing licensing procedures for “non-traditional“ space activities such as in-orbit servicing.
 - The **US** has developed a special licensing regime for sub-orbital flights.



Issues related to telecommunications law

- ITU legal framework: National administrations assign frequencies for satellite systems.
- Increased number of satellites typical for NewSpace projects challenge the assignment practice
- In particular small satellite LEO constellations raise several legal challenges:
 - assignment of appropriate frequency bands
 - publication of information on orbital slots for small satellites launched as secondary payloads
 - bringing into use (BIU) of satellite constellations (a single demonstrator will no longer be sufficient)
- Shopping for less cost-intensive and complex national procedures
- Countries react with relaxed requirements, more streamlined licensing procedure for small satellites



NewSpace and forum shopping?

Countries “dress-up” their regulations - **light-weight legal regimes are more appealing:**

- **Proactive national space legislation** allowing new types of commercial space activities such as space mining.
- **Lower levels for liability and insurance obligations**
- **Reduced license fees, e.g. for (mega-)constellations.**
- **Readiness to submit ITU filings also for foreign operators**
- **Public subsidies (grants and other forms)**
- **National prizes**
- **Favourable tax regimes** (Isle of Man, Luxembourg, UK has lifted taxes on space insurances).
- **Public participation in venture capital funds** dedicated to space industry.

Is this a risk?

NewSpace – Regulated commercialisation or Wild West?

Risks are currently mostly in non-compliance with rules – but when rules become too relaxed?



Industry worried about regulatory backlash after unauthorized cubesat launch

by Jeff Foust — March 13, 2018

WASHINGTON — The launch of several cubesats by an American company without authorization from a federal agency has the rest of the industry worried of a potential regulatory and public relations backlash.

DA 18-368

April 12, 2018

Enforcement Advisory No. 2018-01

FCC ENFORCEMENT ADVISORY

COMPLIANCE WITH SATELLITE COMMUNICATIONS LICENSING REQUIREMENTS IS MANDATORY AND FAILURE TO COMPLY CAN RESULT IN ENFORCEMENT ACTION

The Enforcement Bureau, International Bureau, Office of Engineering and Technology, and Wireless Telecommunications Bureau of the Federal Communications Commission (FCC or Commission) issue this Advisory to remind satellite system operators of the requirement to obtain FCC authorization for space station and earth station operations, and to caution satellite operators and their launch service providers concerning proceeding with launch arrangements either following a license denial or prior to FCC authorization of radio operations.

Some concluding considerations

- NewSpace enters an **already highly regulated environment...**
- ...however, with **new approaches and goals.**
- Space activities are performed in a **virtually borderless environment....**
- ...so, **rules are all the more important** for protecting everybody's interests and allow an equal playing field.
- In this respect: It is necessary to **identify, which rules are mandatory** and which may be **adjusted or relaxed**
- **A race** for more attractive regulations may be beneficial....
- ...but not at the costs of the **global community.**
- **Only through international cooperation also on regulations will the fantastic opportunities of space be preserved for the benefit for all human-kind.**



Contact

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