

Some Legal and Regulatory Challenges to the Conduct of ADR and OOS Activities

Yaw Nyampong

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Article VI of Outer Space Treaty

- States bear **international responsibility** for **national activities** in outer space 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 of the Outer Space Treaty
- Activities of non-governmental entities in outer space, ... shall require **authorization and continuing supervision** by the appropriate State Party to the Treaty

Article VII of Outer Space Treaty

Each State Party to the Treaty that:

- launches an object into outer space
- procures the launching of an object into outer space,
- from whose territory or
- facility an object is launched,

is internationally liable for damage to another State Party to the Treaty or to its natural or juridical persons by such object or its component parts on the Earth, in air space or in outer space.

Article VIII of Outer Space Treaty

- The State of Registry of a space object **shall retain jurisdiction and control** over such object, and over any personnel thereof, while in outer space or on a celestial body.
- **Ownership of objects launched into outer space**, including objects landed or constructed on a celestial body, and of their component parts, **is not affected by their presence in outer space or on a celestial body or by their return to the Earth.**
- Such objects or component parts found beyond the limits of the State Party to the Treaty on whose registry they are carried shall be returned to that State Party, which shall, upon request, furnish identifying data prior to their return.

How have States implemented these obligations in practice?

- Enactment of legislation and regulations that govern space activities.
- Licensing of space activities, particularly those conducted by non-governmental entities.
- Some countries have broad overarching space legislation that applies to all kind and manner of space activities.
- In other countries, domestic space law tends to be heavily fragmented and inadequate.

The UK Example: Broad Comprehensive Space Legislation

- The ***Outer Space Act of 1986*** governs **ALL** space activities carried out by organizations established in the UK and by UK nationals wherever they may be.
- A licensee under the UK Outer Space Act is obliged to comply with certain terms imposed by the license. These include requirements that the licensee:

The UK Example continued

- Prevent contamination of the space environment and changes to that of the Earth;
- Avoid interference with the space activities of others;
- Dispose of the licensed space object appropriately at the end of the licensed activity and inform the Agency of the disposal and termination of the activity;
- Avoid any breach of the UK's international obligations;
- Inform the Agency of any change in the licensed activity and seek approval prior to that change being made;
- Obtain insurance against third party liabilities arising from the licensed activity (both the launch and on-orbit phases), naming the UK government as an additional insured;
- Preserve the national security of the UK; and
- Permit reasonable access to documents and inspection and testing of equipment and facilities by the Agency

The Canadian Example: Fragmented and Inadequate Legislation

- Launch activities in Canada are regulated under the ***Canadian Aeronautics Act, 1985*** and the ***Canadian Aviation Regulations***. An authorization (license) issued by the Minister of Transport is required for the launch of a rocket, other than a model rocket or a rocket of a type used in a fireworks display.
- Satellite Communications are regulated under 3 principal statutes: ***Radiocommunication Act, 1985***, ***Telecommunications Act, 1993*** and the ***Broadcasting Act, 1991***.

The Canadian Example continued

- The Radiocommunication Act is implemented by the Department of Industry (i.e. Industry Canada) which implements licensing requirements for the use of radio frequencies for all wireless communications, including satellite communications.
- The Telecommunications Act and Broadcasting Act are implemented by a single independent regulatory authority known as the Canadian Radio-television and Telecommunications Commission (CRTC), established under the ***Canadian Radio-television and Telecommunications Commission Act, 1985.***

The Canadian Example continued

- Remote Sensing is regulated by DFAIT under the ***Remote Sensing Space Systems Act (RSSSA) 2005*** that came into force in 2007.
- No mandatory insurance requirements for licensees.
- No provisions establishing or re-affirming the right of the Canadian government to recover damages from licensees.

The Canadian Example continued

- Apart from the foregoing, there are no enactments that govern the conduct of other space activities and applications such as ADR and/or OOS activities in Canada or by Canadians.
- As such, the question is: in Canada, where does one go to get a license for space activities involving ADR or OOS?

The US Situation: Fragmented and Inadequate Legislation

- Launch and re-entry licensing – CSLAA 2004 implemented by FAA Office of Commercial Space Transportation (AST)
- Radio frequency licensing: Communications Act implemented by FCC
- Licensing and continuing supervision of on-orbit operations: ?
- Remote sensing: Land Remote Sensing Policy Act 1992 implemented by Department of Commerce
- ITARs and exemptions: Department of State

Challenges for ADR/OOS Activities

- Lack of clarity in the law about ownership, jurisdiction and control of non-functional space objects adds a layer of complication to ADR and OOS activities
- Gaps in domestic legislative regimes governing space activities do not encourage financial investment in the development of technologies necessary for ADR and OOS activities
- Domestic export controls (particularly ITARs in the US) will have a significant impact on the conduct of ADR/OOS activities

Thank you for your attention

yaw.nyampong@mcgill.ca