



Liability in Outer Space

A Cross-cutting Problem

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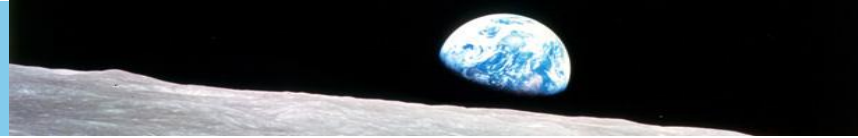
Space Policy Institute, George Washington University

Washington, D.C.

UNCOPUOS, Legal Subcommittee

April 2024

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Introduction

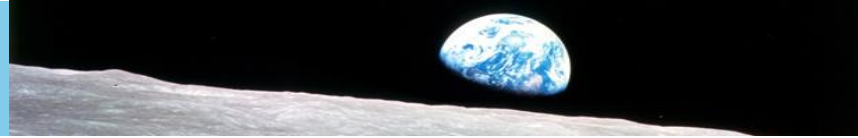
- **All transport modes on Earth are relatively safe today because of the lessons learned and the responses to previous accidents**
 - Many lives lost and damage incurred over many years
- **On Earth we clean up, make repairs and technical adjustments**
- **Space is different**
 - There is no effective clean-up available or on the technology horizon
 - Future sustainability of space will be compromised
 - Costs to remedy damages could be prohibitive



National and international liability regimes to deal with accidents or damage in-orbit or on celestial bodies *should be strengthened.*

and

There is a need for clear legal measures to discourage bad behavior in space from either governments or non-governmental entities.



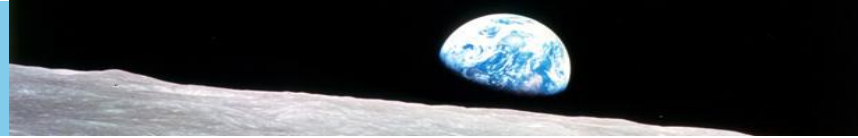
Liability is Focused on Launches

- **Primary concern of provisions of the 1972 Liability Convention are focused on the innocent victim (3rd party liability)**
- **The Liability Convention is focused on terrestrial damage from launches**
 - **Nations have responded with laws and rules for**
 - **Safety reviews of the vehicle and payloads onboard**
 - **Financial responsibility**
- **Damages are limited to those caused by space objects or to space objects**
 - **This can result in limited coverage due to a lack of clarity on the definition of a space object and other definitions such as that of space debris.**
- **Damage in outer space is based on fault which is also undefined**
 - **Reflecting the small number of space assets 50 years ago and the low probability of a conjunction**
- **These issues can be addressed without a new treaty**



LSC Agenda Items

- **Liability issues straddle all items in the LSC agenda**
 - **Debris, STM, Resources, Small satellites**
- **States should consider future approaches to liability that are consistent across all space activities and domains**
 - **Recognizing that different types of operational rules and issues will clearly be encountered from different space activities (debris, servicing, mining, etc.)**
- **Nations have the keys to meet liability obligations.**
- **For new activities in space coordination among nations is essential.**



Specifically

- **Are all activities in outer space ultrahazardous in the same way as launches are;**
 - *Is there a *res ipsa loquitur* legal approach?*
- **It is relatively easy to argue for a nation to meet an Art. VI test of authorization and continuing supervision (both are not well defined in a legal context).**
 - **Does that absolve a nation of negligence, or bad conduct if an accident occurs in space?**
 - **Similar arguments can be made for undefined terms in Articles VII, VIII, and IX of the OST such as control, due regard, due diligence.**
- **The relationship between registration and liability needs to be clarified**
- **We do not need new treaties or amendments to the Liability Convention to manage the risk of accidents occurring in outer space**
 - **Recognizing that mechanisms will vary among different types of space activities**



Starting Points

- **Article XXIII (2) of the Liability Convention allows agreements among nations to supplement or expand on any provision in the Convention.**
 - Nations to develop multilateral agreements among like-minded nations on potential liability issues. One precedent is the ISS Partnership Agreement.
- **Seriously negotiate specific rules and/or mutually agreed mechanisms and paths of implementation for:**
 - Space Traffic Management in orbit
 - In orbit incidents resulting from manufacturing, servicing, other RPO-type operations
 - Space missions deployed to remove debris
 - Exploration and resource recovery on the lunar surface and any other celestial body



Continued

- **Nations should consider the benefits of adapting comprehensive financial responsibility laws**
 - **Consider developing uniform international standards**
 - **Consider liability limits similar to those in other domains such as maritime or aviation.**
- **Establish dispute resolution system(s) that are binding and go beyond existing treaty-based diplomatic negotiations**
- **In parallel with national attention to liability, establish a coordination group within COPUOS to work with the nations to develop further suggestions.**



Summary

- **There is no effective legal regime focused on liability for outer space activities.**
- **The overall approach to liability in outer space should be uniform and consistent among the wide range of types of activities that will occur in outer space.**
- **Similarly, national implementation of future liability measures should also be coordinated across nations and focused on discouraging “bad behavior”**
 - **States are ultimately liable but need to recognize multi-stakeholder inputs**
- **There is no need for a new treaty or for amendments to the current treaties to accomplish this.**