

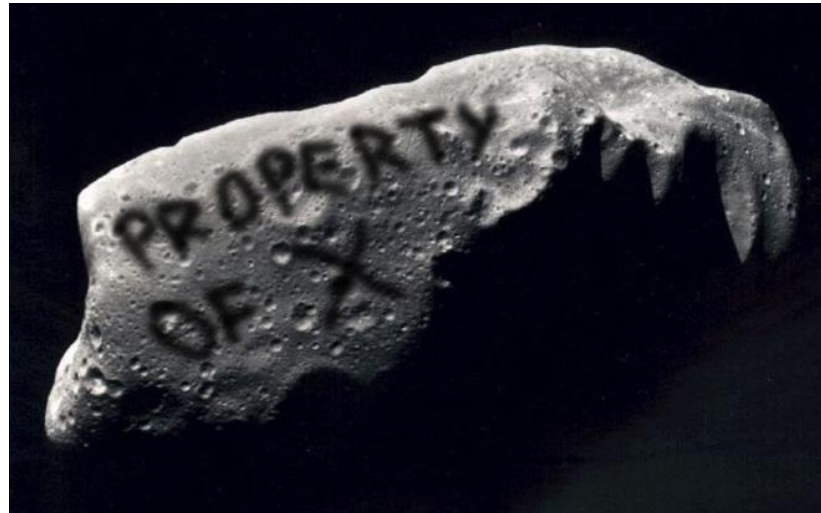
Commercial Exploration of Space

Is There a Need for a New
Governance Regime?

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The Issue

- As new public-private partnerships, new commercial interests, and new countries engage in space exploration that was once the provenance of a small number of countries, it is necessary to consider whether existing treaties, laws, and policies will ensure access and planetary protection and encourage environmental stewardship.
- Currently, the legal principles that guide space exploration are unclear in some emerging and proposed areas of activity—such as the means by which these principles will be applied to commercial entities moving forward.



Space Interests Are Shifting

- At the time international space law and policy were defined there were two principle actors, the United States and the Soviet Union
 - Today the number of actors has increased to over 60
- These new players are emerging when there are calls for NASA to become more cost-effective by utilizing the existing U.S. private space industry and by encouraging new commercial players to support the launching of satellites, transporting of cargo to the International Space Station (ISS) and taxiing of astronauts to the ISS

Investment in Space Exploration

- In addition to having the ability to carry out operations for government agencies, new commercial interests are creating novel opportunities for ownership and profit.
- As Space exploration becomes an increasingly common investment for private capital, individuals are investing in space exploration for adventure as well as for profit.
- In the past several years, space entrepreneurs Richard Branson (Virgin Galactic), Elon Musk (SpaceX), Jeff Bezos (Blue Origin), and Peter Diamandis (Google Lunar X-Prize) have entered into arrangements to expand opportunities for commercial space exploration.

The Study

- An ad hoc committee under the auspices of the National Academy of Sciences' Committee on Science, Technology, and Law; the Aeronautics and Space Engineering Board; and the Space Studies Board; will undertake a joint study of the legal, policy, and regulatory regimes governing space exploration.
- The study will be conducted in two phases.

Study Phases

- Phase one
 - Structured around a 2-day workshop that will consider:
 - Key U.S. and international laws, regulations, and treaties
 - Potential future commercial space activities
 - The legal and regulatory challenges that will result from these activities
- Phase two
 - The committee will conduct an in-depth study of the key issues identified during the workshop and develop principles to guide the development of a new governance regime for future commercial space exploration

Legal Intern

- Our legal intern, Jesse Lively, has been working with us for the last ten weeks.
- During his time he has been identifying future commercial space activities, as well as researching the potential legal and policy issues surrounding them.
 - International and Domestic Space Laws, Space Debris Mitigation and Remediation, Law of Salvage, Property Rights in Space, Non-Earth Imaging, Space Traffic Management and Space Situational Awareness, Remote Sensing.