

**Opening Statement of
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Before the

**Subcommittee on Space of the Committee on Science, Space and
Technology United States House of Representatives**

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Chairman Palazzo, Ranking Member Edwards, Members of the Committee: Thank you for giving me the opportunity to address the ASTEROIDS Act. You have provided four questions and I am delighted to respond. The entire text of my testimony has been submitted for the record.

I. Feedback

The first item of feedback is the need to clearly identify which Federal agencies will be relevant to an asteroid industry and the specific responsibility of each agency.

A private sector asteroid industry is an unprecedented enterprise. It raises novel issues requiring a wide range of expertise. An *interagency structure analogous to the ones that formally govern GPS and commercial remote sensing* ought to be considered. These feature a formal agreement among a lead agency and other agencies to work in coordination. Each agency houses a particular expertise relevant to some specific aspect of the industry.

II. Current law

Current law is an amalgam of laws that address existing commercial activities. United States law regulates launches and reentry; the technology, financing, and behavior of various payloads; as well as related activities, intellectual property, for example. Laws were passed for specific space-related applications as their technologies matured and were available for commercialization: communications satellites; launch vehicles; remote sensing; and, GPS. To the extent that a private asteroid mission uses any of these applications, the law that governs the application will also govern the part of an asteroid mission that uses them.

There is one Federal Court case regarding an asteroid claim. The plaintiff alleged “ownership” of an asteroid based on a “registration” claim made by him at an online “registry”. He asserted that the U.S. infringed his “property rights” and sought compensation for “parking” and “storage” fees as well as special damages.

The case was dismissed by the District Court and lost on appeal. The Court held that the plaintiff/appellant did not present a claim for which the District Court may provide relief.

III. Greatest challenges

One of the greatest challenges is establishing uniform licensing and regulations of activities on-orbit and at the asteroid. At this time, no agency has a specific Congressional grant of on-orbit authority.

Contemporary space issues such as orbital debris, space traffic management, planetary contamination, and satellite servicing have already caused some agencies to take regulatory action or make internal procedural requirements that go beyond licensing and operating satellites. These administrative actions demonstrate attempts at a nascent on-orbit authority. There needs to be a specific coordinated grant of on-orbit authority to the agencies best suited to regulate an industry of this nature.

IV. Potential impacts of legislation on treaties

The potential *legal* impact of this kind of legislation is likely to be modest. The potential *political* impact is likely to be sizable. *Opinio juris*, legal opinion, is crucial to developing the meaning of treaties. There will be disagreement regarding the meaning of this kind of legislation and some of its terms will be challenged at law and in politics. This is because there is no legal clarity regarding some of the issues the bill addresses. They include the status of extracted resources and the status of a first in time claim.

The treaty regime seems to allow private sector entities to extract resources if those activities are consistent with international law and United States' obligations. However, the ownership status of extracted resources is unclear. Space is a global commons. Unlike other global commons, there is no agreement as to whether title to extracted resources passes to the extracting entity. In the absence of an agreement legal opinion is divided.

No claims have ever been made in space. Therefore the status of an intentionally asserted superior right based on a first claim is a question of first impression.

The use of "first in time" claims were raised early as they applied to geosynchronous orbital slots. Some Nations championed a slot allocation system based on "first-come, first-served". Others advocated using equity principles. These two positions continue to compete in a complicated and highly politicized legal regime. The competition has produced results such as distinguishing between access and appropriation as well as creating different categories of orbital allotments and assignments. Attempts may be made to apply these kinds of distinctions to asteroids.

Conclusion

H.R. 5063 addresses some unprecedented issues. If made into law, it should be expected that there will be both legal and political challenges to some of its terms. International space law contains many gaps and ambiguities. It is

logical and appropriate to attempt to resolve those ambiguities in favor of U.S. national interest. At the same time, the final results must be consistent with international law and the obligations of the United States.

I thank the committee for giving me this opportunity and thank you for your work to develop the law of space.