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“PROGRESS THROUGH COLLABORATION”

MONETIZING SPACE DEBRIS: GETTING TAX CREDITS
ON BOARD

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“Money, It’s a Hit, Don’t Give Me That Do Goody Good...”

(Pink Floyd, *Money*, The Dark Side of the Moon, 1973)

- Private sector actors are investing heavily in commercial outer space activities principally in the areas of resource extraction and space tourism as such activities offer a return on investment
- Private sector actors are not investing heavily in orbital debris removal because there is “no profit in it.”
- Hence, orbital debris continues to cause Earth orbits to be a “tragedy of the commons”
- Generally, a “tragedy of the commons” is an economic concept that occurs when many actors use and benefit from a collective resource but no one actor has an incentive to bear the cost of maintaining the collective resource thereby resulting in the deterioration, depletion or destruction of the collective resource

MONETIZING ORBITAL DEBRIS

- Financial incentives are needed to induce the private sector to pursue and engage in the harvesting or extraction of orbital debris
- Tax credits present an avenue to attract capital investment in orbital debris removal which should then unleash private sector enthusiasm and ingenuity to focus on the “tragedy of the commons”
- Tax credits are the essence of public/private collaboration. They constitute the public financing of private commercial activity for purposes of achieving a governmental policy objective.

TAX CREDITS NOT TAX DEDUCTIONS

- Article I, Section 8, Clause 1 provides that “**Congress shall have Power to lay and collect Taxes**, Duties, Imposts and Excises, to pay the Debts and provide for the common Defence and general Welfare of the United States...”
- Pursuant to this constitutional power, Congress enacted the Internal Revenue Code (“IRC”) which controls income taxation for persons and entities subject to United States jurisdiction.
- Tax credits are one method implemented by Congress to reduce income tax liability.
- Tax credits are a dollar for dollar reduction of tax liability; deductions are not.

There Is Nothing New Under the Sun

- During the 1st decade of this century, several bills were introduced in Congress proposing tax credits for space based activities.
 - The proposed legislative enactments included:
 - Invest In Space Now Acts of 2001 and 2003 (Investment in companies manufacturing space transportation vehicles)
 - Zero Gravity, Zero Tax Acts of 2001, 2003, and 2005 (Stock purchase in companies engaging in certain space activities)
 - Commercial Space Jobs and Investment Act of 2010 (Investment in companies engaging in certain space activities)
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 - None of the bills became law.
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POLICY PERSPECTIVE IS CHANGING

- It is said that “Nothing is harder to stop than an idea whose time has come.”
- It appears that the United States may be starting to seriously recognize that unfettered access to and from outer space as well as the ability to use Earth orbits without concern for the hazards of orbital debris is more than an abstract ideal.
- This is becoming evident by:
 - The U.S. Space Competitiveness Launch Act of 2015 which allows for the commercial extraction of space resources; and
 - Space Policy Directive-4 issued on February 19, 2019 which creates a military Space Force.
- The governmental space policy reflected by the legislative and executive branches each is dependent upon the unfettered access to and from outer space as well as the use of Earth orbits without exposure to the hazards of debris.
- This dependency can perhaps provide the necessary stimulation for serious governmental consideration of tax credits to spur private sector investment in orbital debris extraction.



You Cannot Touch Someone's Junk Without Consent

- Although tax credits can provide financial incentive for private sector involvement in debris extraction, there is a fundamental legal problem associated with debris ownership which needs to be addressed
- Pursuant to Outer Space Treaty Article VIII the owner of a space object does not lose title to the object or any component part of the object even if the object or component part has become junk or debris
- This precludes orbital debris from being abandoned property subject to legal salvage by a third party
- Accordingly, consent of the debris owner is necessary for a third party to lawfully touch the owner's space junk
- This obviously complicates extracting, harvesting or otherwise removing debris given the plethora of debris ownership
- The United States possesses the legal authority to address this problem with respect to debris that is subject to its jurisdiction

GOVERNMENTAL TAKING OF PRIVATE PROPERTY

- Article VIII of the Outer Space Treaty also provides that the Registry State retains jurisdiction and control over an object registered to it.
- The U.S. Constitution does not prohibit the government from taking title to private property from its owners.
 - The Constitution does not require the payment of “just compensation” or any compensation when private property is taken pursuant to federal police power.
- Federal police power connotes the broad authority of the United States to protect the general health, safety and welfare of its citizens.
- A reasonable rational exists for the United States to use its police power to take title to orbital debris subject to its jurisdiction.

Police Power Taking

- Using police power would be more expedient than eminent domain
 - avoids potential disputes over what constitutes “just compensation.”
- The 2015 Commercial Space Launch Competitiveness Act provides a basis for exercising police taking power.
- The legislation vests the Secretary of Transportation with authority to **“protect public health and safety, safety of property, national security interests, and foreign policy interests of the United States”** in connection with commercial launch and reentry operations .
 - The safety of accessing, using and returning from space conceivably justifies the use of the police power.
 - A national security interests also exists given the increasing reliance on satellite surveillance.
 - Space Policy Directive – 4 issued on Feb. 20, 2019 creates a Space Force and also provides a national security interests for taking of non functional private property situated in Earth orbit which is subject to U.S. jurisdiction

CONCLUSION

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 - The current legacy of orbital debris removal strongly supports the need for public/private collaboration to devise financial incentives in the form of tax credits to assist in remedying the “tragedy of the commons” associated with Earth orbits.
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THANK YOU

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