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THE IAF SEIC WORKING GROUP ON SPACE RESOURCES UTILIZATION: EXAMINATION OF INTERNATIONAL MODELS AS TEMPLATE FOR FUTURE SPACE RESOURCE POLICY AND OPERATIONAL PRACTICE

Abstract

The expansion, utilization, and extraction of space resources represents one of the most significant opportunities for humanity in the coming years. Space resources refer to natural physical materials found in space and on celestial bodies such as asteroids, comets, the Moon, and other planets and the light and energy flowing from the sun. This paper discusses The International Astronautical Federation (IAF) Entrepreneurship and Investment Committee (SEIC) Working Group on Space Resources Utilization, formed in 2023. This group aims to work on this problem's various facets, from material scouting to resources sales. We have identified eight overall focus areas that we intend to tie together with shared language, ideology, and cross-talk to create a more robust understanding and policy thought leadership. The following areas are high-level descriptions of those areas of interest: 1. Exploring current and historical international models, like the UN-International Telecommunications Union (ITU), as a potential template for future space resource policy and operational frameworks. 2. Expanding on the opportunity of leveraging space debris as a resource and organizing that effort through a process similar to the Montreal protocol. 3. Investigating the opportunity for public and private investment into space resources and how public-private partnerships can be leveraged. 4. Focus on the early extraction opportunities and faster return on investment "footholds" 5. Exploring how resources might be taxed and how those taxes are distributed and reinvested to promote expansion into space. 6. Researching the opportunities on asteroids and planetary bodies to establish more defined resource reserves as a foundation for proposals to extract and utilize those resources. 7. Analyzing current policy tools and future options around the cost vs. price of launch (i.e., price gouging vs competitive edge), as a critical leading factor in all space development is the effective price of launch, with particular consideration for launching states and geopolitical forces. 8. Exploring the area of jurisdiction, ownership, capital assets, and infrastructure as precedent for asserting control over a region economically or in terms of access. Inclusive of both space and surface assets and soft infrastructure systems. For the purpose of this paper, our main objective is to examine international practices like the Montreal Protocol and the UN-International Telecommunications Union (ITU) as a potential template for implementing future space resource policy and operational practice. This paper will examine the nuance of competing business interests, the issues around risk, and the utilization of the common areas in Earth's orbit