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LEGAL AND REGULATORY IMPLICATIONS OF EMERGING ACTIVITIES IN SPACE

Abstract

Private companies have played an increasingly large role in space in recent years, especially through their activities in remote sensing, space-based communication, and space transportation. In these areas, private sector involvement in space has for the most part been well-understood and covered by the existing regulatory framework, especially in the United States; for example, the National Oceanic and Atmospheric Administration handles licensing for remote sensing, the Federal Communications Commission regulates spectrum, and the Federal Aviation Administration licenses spacecraft launch and reentry. In the coming decades, however, several companies have plans to begin "new" activities in space that do not have obvious precedents—these vary widely in location-in-space and complexity, from performing on-orbit servicing for satellites, to in-space manufacturing, to mining asteroids for resources, to large-scale in situ resource utilization on the Moon. STPI identified eleven categories of new activities on the horizon, ranging in time-to-readiness from the present to twenty years out. Given the nature of some of these emerging activities, serious questions and concerns have been raised over whether or how they can fit into the existing domestic and international regulatory framework, with many stakeholders (private companies, legal experts, and governments) weighing in on what work still needs to be done to accommodate these activities. Through our research, we have also identified nine legal and regulatory areas in the national or international regime pertinent to these new activities in space. In this paper, we will present the legal and regulatory challenges likely to emerge as these new space activities develop in the coming years.