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# SUBORBITAL FLIGHTS IN JAPAN: FILLING THE GAP OF THE JAPANESE SPACE ACTIVITIES ACT (2016)

#### Abstract

In 2016, the Japanese Space Activities Act (hereinafter, "the Act") established a permission-andsupervision framework regarding launches of spacecraft held in Japanese territory. The Act, however, does not cover all of "space activities." The most prominent exemption is suborbital flights. Since the launch of suborbital rockets (other than JAXA's sounding rockets) was an emerging activity at the time of the Act's enactment, it seemed premature to provide regulation for it. Currently, however, some Japanese private companies are now developing suborbital rockets, and looking either to launch small satellites into the orbit or carry passengers. As of February 2020, some flights had been successfully undertaken (i.e., test flights with expendable suborbital rockets), or are scheduled to be undertaken within a few years. Accordingly, the industry requires a permission system, safety regulations, range control regulations, and other related rules tailored for suborbital flights, all of which would help make such activities safer and more reliable for the public and investors. In 2019, the Japanese government decided to address the issue of suborbital flights and, to that end, held some meetings to hear the needs of the industry. Further, discussions regarding amendments to existing rules or new legislation will be opened soon. This presentation addresses recent developments concerning suborbital flights in Japan, and it focuses mainly on legal issues. Upon surveying the current regulatory status of suborbital flights in Japan, the authors will discuss how to classify "suborbital flights." Difficulties in regulating suborbital flights lie in deciding whether (and to what extent) several types of suborbital vehicles can be covered by the same regulatory regime. Some vehicles are expendable and vertically launched, making them similar to orbital rockets; others have wings like those on aircraft, fly in the air and, in part, rely on lift. Still others are used for satellite launches, or for human spaceflights. Before regulations can be considered, these activities needed to be properly organized and categorized. The authors then suggest a possible regime by which to regulate this activity. Analysis is carried out by surveying the corresponding legislation in other countries (e.g., the United States, the United Kingdom, and New Zealand), competent authorities able to govern such activities, and spaceport (airport) regulations. The authors also consider the scenario wherein a foreign citizen operates a suborbital flight in Japanese territory—in which case, the laws of two countries may need to be cumulatively applied to a single activity, thus requiring harmonization.