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COMMERCIAL SUBORBITAL STATUS BOTH VEHICLES AND SPACEPORTS IN JAPAN

Abstract

New Space evolution and revolution have been changing the landscape in the global space industry as parallel space commercialization drivers. This phenomenon is also happening in Japan. There are now more than fifty space venture companies in Japan and many of them have gotten VC funding, including three ventures companies with more than $100M fund raisings. In addition to space venture companies, non-space companies, SMEs, experts, investors have gotten into space business. Furthermore, traditional space companies and local aerospace clusters have been active. All have created and broadened a borderless industry blast off for space commerce.

Two new space laws had been passed in 2016 and have been implemented in 2018. The Space Industry Vision 2030 was issued in 2017 to expand space the industry from the current $12B to $25B by 2030. To realize the space economy expansion, the government has promoted such programs of S-Net, Space Business Court, S-Booster, S-Matching, J-SPARC. The operating plan for Basic Plan for Space Policy issued with the word "Suborbital" for the first time in Dec. 2019, for which will be prepared law frameworks for permission process and safety evaluation. The amendment of Basic Plan for Space Policy for the next 5 years targeting the next 10 years will be issued the first half of 2020.

There are six rocket venture companies including two manned suborbital spaceplane in Japan. And there are several spaceport activities. Spaceport Kii, in Wakayama prefecture, has been the first commercial spaceport since 2019 as a private spaceport for Space One which will launch the Canon rockets starting in 2021. Spaceport Japan trade association was established in 2018. The commercial human suborbital space transportation committee was the first opportunity to discuss the law and policy for suborbital human space flight. It had been done in 2019 and has started the government committee to make a proposal to begin the law making process.

Suborbital space flight is the brand-new platform and will be game changing which has a huge growth potential for economic development in Japan, too. Japan is aiming for the future with domestic suborbital space flight to become the center of gravity in Asia and ultimately in the emerging global P2P market both unmanned and human space flights. This paper will review current space launch systems in development in Japan as well as spaceport planning activities.