

COMMERCIAL SUBORBITAL STATUS – BOTH VEHICLES AND SPACEPORTS IN JAPAN

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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, which has adopted policies encouraging commercial space business development. 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 risings. 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 on space activities and satellite remote sensing had been passed in 2016 and have been enacted in 2018, which are now driving space commercialization in Japan. The Space Industry Vision 2030 was issued in 2017, which will expand the space industry from the current \$12B to \$25B by 2030. To realize the space economy expansion, the government established S-Net as a networking platform in 2016, Space Business Court as business support platform in 2016, S-Booster as a space business idea contest in 2017, S-Matching as a space business fund matching platform in 2018, and J-SPARC as space innovation partnership with JAXA to promote commercial space. The operating plan for the Basic Plan on Space Policy was issued with the word “Suborbital” for the first time in Dec. 2019, for which will be prepared law frameworks for permission processes and safety evaluation. The amendment of the Basic Plan on Space Policy for the next 5 years targeting the next 10 years will be issued the first half of 2020.

In these circumstances, efforts toward enabling suborbital space flight have been performed. There are two manned suborbital spaceplane companies, PD Aerospace and Space Walker are among about fifty space venture companies in Japan. Both of them are developing winged type of vehicles. There are several spaceport activities, for example Hokkaido, Wakayama, Okinawa and so on. Hokkaido, which has been active to realize the spaceport since 1986, has had a spaceport enterprise company since this spring. Spaceport Japan was also established as a Trade Association last November to encourage space industry based on commercial spaceports, including becoming a spaceport hub in Asia for human space flight. The commercial human suborbital space transportation committee was the first opportunity to discuss the law and policy for suborbital human space flight. It began in March 2019 and started the next committee discussion to make a proposal to begin the law making process.

Suborbital space flight is the brand-new platform and will be game changing in Japan, too. Especially space tourism has a huge growth potential furthermore. Japan is aiming for the future with domestic human space flight to become the center of gravity in Asia and ultimately in the emerging global P2P market.