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AN INDICATION OF COMMERCIAL HUMAN SPACE FLIGHT IN JAPAN

**Abstract**

Commercial human space flight including space tourism has been accelerating for the last few years. The US space policy has been drastically changed to depend on commercial companies to develop human space vehicles after the Space Shuttle retires to develop a domestic commercial human space flight market where Russia has dominated for many years. While suborbital space vehicle development is turning a corner. Virgin Galactic has conducted test flights and other companies are also on the race aiming to reach market within a few years. Also, commercial space facilities including space hotels are being developed toward commercial operation in 2015. Commercial spaceports development has been active all over the world. According to the space tourism market research, about *1000Minsalesperyearareexpectedaftersteadilyoperation.Includingotherutilizationsuchasmicrogravityexperiments, re*

In Japan, there are now activities for commercial human space flight even though developing human space flight vehicles has not been authorized under the Japanese space plan. There are a pretty good number of applicants for space tourism flights from every age group. As for suborbital vehicles, a few companies now have their original horizontal suborbital vehicle concepts. Commercial spaceport development is active including two commercial spaceport concepts which are officially announced.

However, there are several issues to realize commercial human space flight in Japan. The first issue is that there is not any FAA/AST function. Also, it has not been discussed within the government the creation of manned commercial space flight safety standards. Public private partnerships are also necessary to build special tax treatment to encourage commercial space such as zero G/zero Tax and tax credit systems. The Japanese government approved a New Space Basic Law in 2008 and New Space Basic Plan in 2009. According to this, space activities should be shifted from development to utilization and more commercial space activities are encouraged. In this circumstance, commercial human space flight activities are a good match for these new government policies.

The new trend towards commercial utilization of space in general and in human spaceflight in particular presents a great opportunity for Japan to establish this role as the Asian center of gravity for the NewSpace economy. This paper will consider roadmap toward human spaceflight in Japan including Space Tourism Promotion Association.