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SPACEPORTS FOR SPACE TOURISM IN JAPAN –THE NEAREST PLACE FROM SPACE WHICH
CONTRIBUTES TO ECONOMIC ACTIVITIES

Abstract

Spaceports - dramatic gateways where space transportation vehicles take off toward space just like airports have been dramatic gateways since the early days of aviation. In the U.S., FAA/AST issues certifications for spaceports as well as certifications for commercial space vehicles. There are seven commercial licensed spaceports in the U.S. now, and there will be more than 10 spaceports in the U.S. in the near future all competing for market share in the coming space tourism age. In most cases these new spaceports are using existing military or civilian airport infrastructure to reduce development costs and bring new economic activity and jobs to their communities.

There are several spaceport concepts for space tourism all over the world such as Singapore, Dubai, Spain, Sweden, Hawaii, and so on. There is also strong interest in the development of commercial spaceports for space tourism in Japan including Hokkaido. These are matching demand to see familiar places during spaceflight such as countries, birth place, and national landmarks because the views of the Earth from each spaceport location will all be very unique and appealing to different market segments. New suborbital space vehicles are the key for space tourism, with a two order of magnitude cost difference from orbital space tourism.

As for FAA/AST certification approval, commercial spaceports need not only enough length of runway and safety zone but also to prepare or develop facilities such as control center, hangar, assembly, payload processing, training for operation of space tourism, no big population nearby, enough energy supply and so on. Especially, environmental assessment is important which protects local people, animals and nature from pollution and noise problems. In addition, more commercial essences are necessary to become an attractive space resort destination including hotels and amusement space theme park development.

There is currently no Japanese regulatory function like FAA/AST. However, it seems potential demand is growing for both space tourism passengers and building spaceports in Japan. It seems to be the best match for regional re-development by using existing airports, also encouraging general commercial activities and economic growth.

This paper will consider the process of spaceport development in Japan, and a few examples such as Hokkaido will be introduced. It will take time because of issues to get a license approved. However, it is worth to consider having a spaceport in Japan as the eastern Asian spaceport hub.