

## SYMPOSIUM ON COMMERCIAL SPACEFLIGHT SAFETY ISSUES (D6)

## Enabling safe commercial spaceflight: vehicles and spaceports (3)

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## THE RECENT STATUS OF SPACEPORTS AS THE ANCHOR FOR SPACE ACTIVITIES IN JAPAN

**Abstract**

The important roles of spaceports as the anchor for space activities have been rapidly increasing in recent years, driven by developing reusable vehicles and advancing space utilization and expanding space industry; including areas such as responsive smallsats launch, microgravity experiments, and up-coming suborbital space tourism, as well as launching of satellites, cargo, and crews. It is expected that more new commercial spaceports in the US will be approved in addition to the existing ten licensed facilities. Also, there are several spaceport plans and concepts all over the world. Particularly, the UK has announced eight candidate spaceports in 2014 with an initial down-select to 6 last year and a final decision on a UK Spaceport site in 2018 or 2019.

Japan has been very active to have spaceports with the first activities started in Hokkaido, the Northern island, in 1986. Now the re-organized organization HASTIC, Hokkaido Aerospace Science and Technology Incubation Center, has conducted planning aiming for Spaceport Hokkaido since 2002. Hokkaido Spaceport Committee was established in 2014 which members include the Hokkaido local governmental organizations and companies for advanced activities. Both vertical and horizontal launch services are planned in Hokkaido. SpaceLand, which has a spaceport concept at the middle of the main island Honshu, has been a space business platform such as space technology spin off, airship, and so on to more space and related business happening. Okinawa had an opportunity to adopt a space application at the end of 2014 to use the closed airport which had been used as test place by commercial airlines. Okinawa didn't select the spaceport project but instead a luxurious resort project in the beginning of 2015. However, private jet, pilot training, and drones have been also selected as uses so that a spaceport possibility still seems to be left in the future. A few other places such as Kobe and Shizuoka also have spaceport concepts based on existing airports.

The 3rd Basic Plan on Space Policy was approved in January, 2015, and spaceport research has started to consider advanced space activities under the new policy. Prime Minister Abe declared that space development is one of the growth industries in December, 2015. Spaceports are a gateway to space, anchor space activities to broaden the market, and ultimately nodes for future point to point transportation via space.