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STUDY OF THE SELECTION OF LOCATION FOR COMMERCIAL SPACEPORTS IN JAPAN

Abstract

Currently, spaceports are being built and planned in many countries around the world, including Spaceport America in the United States. These plans include the construction of new spaceports, the improvement and use of existing civilian and military airports, and the use of mobile sea ports such as aircraft carriers. However, the geographic locations of these spaceports are not necessarily designed for the convenience of general users, but more for regional development, and many of the early spaceports are planned to be built in rather unexplored areas. The planned locations are not necessarily convenient for general users such as space tourists, who are treated as ASTRAX, when considering the use of space as a new means of transportation that will be an easy access to space and bilateral flights. ASTRAX has been studying the plan for a spaceport in Japan since 2005, and we have been considering the selection of locations for spacecraft departure and arrival points from the user's point of view for many years, including the possibility of application. Currently, we are studying the idea of using a mobile offshore port as a spacecraft departure/arrival site, placing it in an urban area where there are both international and domestic airports nearby, and forming a triangle with a hyper-loop through the ocean floor. In this proposal, the redundant functions of the airports can be secured, and the effects of weather changes such as hurricanes and typhoons can be minimized by making the ports mobile offshore. This paper presents the results of ASTRAX's study on the location of a spaceport for manned spaceflight (space travel).