

HUMAN SPACEFLIGHT SYMPOSIUM (B3)
Commercial Human Spaceflight Programs (2)

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UTILIZATION OF PRIVATE SPACEPORTS FOR SPACE TOURISM AND SPACE TRAVEL: CASE
STUDIES OF VARIOUS GLOBAL LOCATIONS

Abstract

Space Technology and Space Travel has been driving mankind for many years since the beginning of 20th century. In fact since Tsiolkovsky or even since Jules Verne, mankind has been looking for various means to go into space. Currently this has been achieved through the works of several space agencies and many nations have been able to send an astronaut into space in collaboration with various space programs. However, most of these have been done through the act of governments and thus such endeavors are limited by fiscal spending. We know from the history of aviation that the major reason for the boom of the aviation industry was actually the advancements of airports and through the spending of private investors. When airports became widespread and when private investors invested in airports and airlines, this caused a certain boom which continues even today. For spaceflight a similar situation is required as it is important to have private investors invest in spaceflight like Virgin Galactic so that the cost of space travel can go down and that it can become widespread among the public. However, the greatest challenge lies in the availability of spaceports to make spaceflight available to companies as well as the public. While several spaceports across the globe exist, they belong to governments and thus there are severe restrictions in their usage. This paper talks about the importance of spaceports and talks about the logistical requirements such as geography, power infrastructure, local infrastructure and environmental feasibility. Several trajectory calculations related to spaceports which can be placed at various locations across the globe such as South Africa, Venezuela, South Pacific are also given to help reinforce the concept. This way, the economic feasibility of each spaceflight can be determined with further research. This paper is intended to shed light on this concept and pave the way for further research into spaceports.