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Author: Dr. Ammarin Pimnoo
Thaicom Public Company Limited, Thailand

Dr. Piyawat Jriyasetapong
Thaicom Public Company Limited, Thailand
Dr. Boonsit Yimwadsana
Mahidol University, Thailand

THAICOM'S PERSPECTIVES: THAILAND SPACEPORT BUSINESS MODEL ANALYSIS AND IMPACT ON SPACE INDUSTRY IN THE COUNTRY

Abstract

Governments around the world are weighing whether to build their own spaceports which require significant investment of funds and have substantial risks. Many countries have already made plans to build spaceports not only to advance their own space technology but also to conduct commercial services. Thailand situates in a favorable position for space launch since it is close to the Equator, has large area of land with direct access to the ocean, and have low occurrence of major natural disasters. Currently, there are not many spaceports in the Southeast Asia. Thus, building a spaceport in Thailand would be a reasonable opportunity for the country to grow and establish innovative hi-tech industries with commercial opportunity and become a space-technology and space-business hub of Asia-Pacific region. However, establishing a spaceport may come with many risks such as the technology risk and economic risk. In this work, we studied the possibility of Thailand having a spaceport in the aspect of technical, financial and social benefits. We mainly reviewed spaceport projects of the United States, Europe, China, and Japan in order to understand how spaceports are funded, operated, and conducted space business in order to achieve sustainable technological as well as economic prospects. We also analyzed related literatures and proposed a recommendation for Thailand to establish a spaceport in the aspects of planning, funding, operating, advertising, and maintaining the spaceport. The impact of technical, social, economic, and national security status of the country was discussed. Although Thailand is relatively new in the spaceport industry, our business model shows that the government investing in the spaceport of Thailand is a long-term commitment that could generate direct financial returns on the investment in about 10-15 years. The growth of space technology in Thailand will create a new market for Thailand and Southeast Asia generating a large number of high-tech workforces in different areas including but not limited to engineering and science. The spaceport in Thailand will create a space ecosystem which jumpstarts the Thailand Space Market valued around 30 billion baht and becomes a platform for new space-technology start-ups of around 100 companies by 2030. This industry could eventually be worth around 5-10 percent of GDP after breakeven year. While the space industry in the country is growing steadily at the moment, it remains to be seen if the spaceport in Thailand could generate significant demand and growth for launch-services and space-related manufacturing and services.