

30th IAA SYMPOSIUM ON SMALL SATELLITE MISSIONS (B4)
Access to Space for Small Satellite Missions (5)

Author: Mr. KangSan Kim

Space Generation Advisory Council (SGAC), Korea, Republic of, antonio.stark@spacegeneration.org

Ms. Dasuni Hewawasam

Space Generation Advisory Council (SGAC), Sri Lanka, duzhewawasam@gmail.com

Ms. Sindhu Belki

The University of Alabama, United States, snbelki@crimson.ua.edu

Mr. Madin Maseeh

Maldives Space Research Organisation (MSRO), Maldives, madin.maseeh@msro.mv

Ms. ISHITA SHARMA

University of Swansea, United Kingdom, 2250484@swansea.ac.uk

SMALLSAT LAUNCH SERVICES IN THE ASIA PACIFIC: TRENDS, CHALLENGES, AND FUTURE
OPPORTUNITIES

Abstract

The Asia-Pacific region's space sector has grown exponentially in the past decade, with its high population density, frequency of natural disasters, and reliance on maritime economies providing a fertile market for satellite services. Multiple smallsat operators have developed in the region, as well as dedicated launch services to satisfy the market demand. Asia-Pacific launch service providers (LSPs) have also proven their competitiveness overseas, with multiple foreign contracts favoring Asia-Pacific LSPs over Western ones for their low cost and short launch preparedness time periods.

This study compiled the latest publicly available information on current launch services operating out of the Asia-Pacific region, and identified their key factors categorized into technical or the business domain. Technical factors include items such as propulsion systems, fuel, avionics, and guidance and control. Business factors include funding sources, government privileges, business models, and cost-reduction methods employed. The study also identified key market trends such as the improved regularization of the space sector by Asia-Pacific countries, and increased government funding available for LSPs.

The study found that the Asia-Pacific region has one of the highest growth potentials for smallsat markets, and a critical need for region-based LSPs to satisfy local demands that can better adapt to local regulations and security requirements. In the technical domain, the study found an increased appetite for integrating innovative technologies such as 3D printing, robotically assisted assembly, and hybrid propulsion systems. In the business domain, ride-sharing and hosted payload services, as well as funding utilization of government funds and facilities have been key strategies for Asia-Pacific LSPs. Lastly, key market trends identified show the growth of dedicated government agencies for space development, and eagerness by policymakers to capitalize on emerging technologies, coupled with the sustained gap of technical expertise by many decision-makers.