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OPENING NEW FRONTIERS: SMALLSAT LAUNCHES IN ASIA-PACIFIC

Abstract

The Asia-Pacific region has seen a significant increase in demand for small satellite (Smallsat) launch services in recent years. With the rise of satellite-based services in various industries, including telecommunications, Earth observation, and remote sensing, the need for more affordable and flexible launch options has grown. This paper will explore the current state of Smallsat launch services in the Asia-Pacific region and the challenges and opportunities associated with this industry. The Asia-Pacific region has seen significant growth in Smallsat launch services in recent years, with several countries investing in infrastructure and technology to support the industry. China has been particularly aggressive in developing its Smallsat launch capabilities, with several private companies entering the market. One such company is LandSpace, which launched its first Smallsat rocket in 2018. India has also made strides in this field, with the Indian Space Research Organization (ISRO) offering dedicated launch services for Smallsats since 2018. Japan, on the other hand, has focused on rideshare launches, with its H-IIA rocket offering a rideshare service for Smallsats since 2017. This service has been popular with small satellite companies, as it offers a more affordable option for launching their payloads. Despite the growth of Smallsat launch services in the Asia-Pacific region, there are still several challenges that need to be addressed. One major issue is the lack of standardization in the industry, which can lead to compatibility issues between satellites and launch vehicles. This issue is particularly acute in the rideshare market, where multiple satellites are launched on a single rocket. However, there are also several opportunities in this industry, particularly in the development of reusable launch vehicles. Reusable launch vehicles have the potential to significantly reduce the cost of launch services and make them more accessible to smaller organizations. Several companies in the Asia-Pacific region, including China's iSpace and Japan's JAXA, are currently working on reusable launch vehicle technology. The Asia-Pacific region has seen significant growth in Smallsat launch services in recent years, with several countries investing in infrastructure and technology to support the industry. While there are still several challenges to be addressed, such as the lack of standardization and limited launch capacity, the development of reusable launch vehicles offers significant opportunities for the industry. With the continued growth of the satellite-based services industry, the demand for Smallsat launch services is likely to increase, making this a promising field for the Asia-Pacific region.