IAF SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)
Emerging Global Space Ventures (9-D6.2)

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# ALCANTARA SPACEPORT COMMERCIAL POTENTIAL

**Abstract**

Historically, rocket launch facilities have been operated by government and military institutions. With the New Space revolution, commercial space transportation services and use of launch centers are becoming common practices. An example is found in Rocketlab, a rocket developer and satellite launcher company, and its agreement with the government of New Zealand to operate a launch facility. In the USA, for instance, SpaceX operates a spaceport in Texas while younger companies are building their own launch pads in remote locations; as is the case for Astra and its Kodiak Spaceport in Alaska. Brazil's Alcântara Launch Center (CLA) has the potential to, at least in part, offer space for the launching of private rocket companies vehicles. Emerging countries like India, Singapore, Thailand and South Korea are developing satellites that will operate on an equatorial or low inclination orbits. These countries can make use of an equatorial orbit to access better coverage of their territory with a much reduced revisit time. To bridge the gap between commercial rocket launches and low inclination orbits, such companies will have to access space through better located spaceports. The farther away from the equator, the more costly will be a launch to low inclination orbits. From most of the launch centers in the world, an equatorial launch is simply impossible due to high energy demands. Fortunately, CLA has the best position worldwide to launch satellites into equatorial orbits, since it is only 270 kilometers from the equator at 218 south. This paper aims to analyse the small satellite market, the small launch vehicles market and the technical specifications and advantages of CLA; in order to answer the question: could Alcântara become a preeminent commercial launch facility in the next years?