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# THE CASE FOR AN INDIGENOUS AUSTRALIAN SPACEPORT

**Abstract**

On 29 November 1967, Australia became the third country in the world to build and launch a satellite from its own territory, with the launch of the WRESAT from the Woomera Rocket Range. Just five years later, in 1972, Woomera would also host the last orbital launch from Australia, of the British satellite Prospero. With the recent announcement of an Australian Space Agency, and with new commercial ventures into the development of launch systems, such as Gilmour Space Technologies, there is a renewed interest in exploring the role Australia should play in providing infrastructure for launch. In a review of Australian space capabilities, the development of such infrastructure has been identified as having the potential to be competitive internationally, due to the technological advantages and geographical advantages inherent to Australia. Equatorial Launch Australia plans to develop a commercial spaceport in North East Arnhem in Northern Australia, and as of 3 November 2017, the company has received a sub-lease for the land. It is important now to consider the nature of government's involvement in the development of space launch infrastructure.

This paper will explore two main topics. Firstly, there will be an investigation into the rationale for launching in Australia and the design considerations for a successful spaceport. The argument for launching in Australia is dependent on the socioeconomic benefits this would provide the country. It is therefore important to consider international market demand for launch and how this compares with the capacity of current spaceports. There is also the need to investigate inherent geographic and technological advantages that may be offered by launching in Australia. The design of the spaceport is important, as the site location and infrastructure will affect the sustainability of providing launch services into the future.

The next consideration will be the role of government in supporting a launch site. This will include both how government agencies develop and maintain launch sites, and how government supports commercial endeavours with capital and infrastructure allocation, insurance, and regulatory support. By comparing both commercial and government owned spaceports, the advantages and disadvantages of each can be evaluated in the context of Australia. Additionally, this paper will investigate how changing socioeconomic and geopolitical factors have changed the operation of spaceports. The report will include a review of the Australian government's support of the Cape York International Spaceport which was proposed in 1989 but never opened.