IAF SYMPOSIUM ON COMMERCIAL SPACEFLIGHT SAFETY ISSUES (D6)
Enabling safe commercial spaceflight: vehicles and spaceports (3)

Author: Mr. Andrew Curran
Australia, andrew.curran@southernlaunch.space

Mr. Lloyd Damp
Australia, lloyd.damp@southernlaunch.space
Mr. Peter Williams
Australia, peter.williams@southernlaunch.space
Mr. Brad Flaherty
Australia, brad.flaherty@southernlaunch.space

DEVELOPING THE WHALERS WAY ORBITAL LAUNCH COMPLEX, A LAUNCH SITE DEDICATED TO HIGH CADENCE OPERATIONS TO HIGH INCLINATION ORBITS

Abstract

In 2021 Southern Launch is looking to commission the Whalers Way Orbital Launch Complex located at -34.9 degrees south of the Equator at the very tip of the Eyre Peninsula in South Australia. The site was selected as it offers

1) High launch frequency - low air and maritime traffic downrange and good year-round weather supports frequent operations 2) High schedule flexibility - onsite technical delays can be accommodated given the launch date flexibility afforded by the low air and maritime traffic in the area 3) Simple site accessibility - located near the regional city of Port Lincoln, the site is supported by a vibrant existing heavy industry base and logistics network.

Coupled with supporting unhindered southward direct ascent trajectories the Whalers Way site will translate into more launches and profit for the rocket manufacturers, and a quicker time to orbit for satellite manufacturers and satellite operators.

Ultimately Southern Launch's plan is to build and supply the launch infrastructure to enable rocket and satellite manufacturers to come on site and launch their rockets with as little as 48 hours' notice.

By 2025 Southern Launch will have built two permanent launch pads enabling the support of multiple users and concurrent operations.

Using new modular construction technologies, and adopting modern construction methods, Southern Launch will be developing launch infrastructure at a fraction of the cost of established sites worldwide.

Given the size of the small rockets and advances in radar technologies, our overall physical and environmental footprint will be negligible.

This paper will provide an overview of the complexities of developing a new rocket launch site within a country under a new space act, successes realised to date, and progress towards an enduring Australian space launch capability.