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EQUATORIAL LAUNCH AUSTRALIA - A COMMERCIAL SPACE CENTRE

Abstract

A revolution in the Space Industry, Space 2.0, is disrupting traditional satellite business models. CubeSats/Satlets disaggregation will see thousands of satellites launched in the next 5 years. Globally there are only a few launch sites in the equatorial zone (+/- 15 degrees) these are focused on large vehicles. Launch constrains regional space industries. Demand for launch is increasing rapidly in the Asia-Pacific Region. The region needs a space launch facility.

Equatorial Launch Australia is using a phased approach to establish a launch facility. Phases include:

- Phase 0 - Research sites regulatory requirements
- Phase 1 - 2017 launch sub-orbital rockets
- Phase 2 - 2018 launch to LEO
- Phase 3 - 2020-2022 launch to GEO
- Phase 4 - 2020-2030 launches for deep space support

The following factors were considered for sites:

- Latitude within +/-15 degrees for Equatorial LEO reduced delta V
- Site allows sun synchronous launch
- Favourable weather
- Clear launch corridors (no issues with fishing fleets, air routes, sea lanes, marine parks, oil/gas rigs)
- Low population density
- Ability to control access to surrounding areas
- Supporting infrastructure (port, airfield, meteorological station, hospital)
- Capable workforce able to build and operate multiple launch facilities
- High bandwidth telecommunications (fibre for global connectivity)
- Stable government, strong economy

Different sites that could meet the above requirements were identified in various regions of Australia. A primary site that meets these requirements has been identified along with a secondary site that meets most requirements. Currently, Phase 0 has strong Government support and negotiations are ongoing with owners and joint venture partners. Detailed planning for Phase 1 launches are proceeding. In addition, discussions with possible Phase 2 joint venture partners are in progress.