



PERMITTING DECISION SUMMARY

Guardian Alpha

Orbital Astronautics Limited

1. Orbital Astronautics Limited are a wholly owned subsidiary of Orbital Astronautics (Orb Astro), which is a space technology company based in the United Kingdom. Orb Astro develops satellites for commercial and government customers and their intent is to develop a subscription based space traffic management system (STMS). Orb Astro were granted an overseas payload permit.
2. Guardian Alpha is a 3U CubeSat with an optical transmitter, an experimental electric propulsion system, a magnetometer to measure magnetic fields around the Earth and three low-resolution cameras to correctly point itself by taking photos of the stars or the Earth.
3. The primary mission and purpose of the Guardian Alpha payload is to demonstrate the on-orbit technology for the STMS. Guardian Alpha is also hosting a 1U scientific payload.
4. Payloads are permitted in line with the [Outer Space and High-altitude Activities Act 2017](#) and the [Outer Space and High-altitude Activities \(Licences and Permits\) Regulations 2017](#).
5. Each payload has been approved by the Minister for Economic Development, on advice from officials across agencies. When approving payloads, the Minister needs to be satisfied that:
 - a. The applicant has taken and will continue to take all reasonable steps to safely manage the operation of the payload;
 - b. The proposed operation of the payload is consistent with New Zealand's international obligations; and
 - c. The applicant has an orbital debris mitigation plan that meets prescribed requirements.
 - d. Despite being satisfied of these matters, the Minister may nevertheless decline a permit if he is not satisfied that the proposed operation of the payload is in New Zealand's national interest.

Date Granted	Authorisation Number	Payload Name	Owner or Operator	Country of Origin
16 April 2021	200131-PPT	Guardian Alpha	Orbital Astronautics New Zealand	New Zealand