



PERMITTING DECISION SUMMARY

Falcon ODE

United States Air Force Academy

- 1. Falcon ODE is owned and operated by the United States Air Force Academy from their base in Colorado. There is an on-site Space Physics and Atmospheric Research Centre that assists with developing satellite technology.
- 2. Falcon ODE is a single 1U CubeSat designed to provide calibration points for ground-based radar to assist with the tracking of orbital debris.
- 3. The ground-based radar calibrates itself by tracking ejected physical objects. The optical sensor calibrates itself by tracking light emitting diodes. The tests and calibrations are being used for the Air Force Space Fence to improve the way debris in low Earth orbit can be measured and tracked.
- 4. Payloads are permitted in line with the <u>Outer Space and High-altitude Activities Act 2017</u> (OSHAA) and the <u>Outer Space and High-altitude Activities (Licences and Permits) Regulations 2017.</u>
- 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.
- 6. Prior to the OSHAA, the contract with Rocket Lab allowed the Government to veto the launch of any payload that it determined was contrary to New Zealand law, regulations or policy, was contrary to New Zealand's international obligations or would prejudice New Zealand's national security or other national interests. Every payload launched by Rocket Lab under the contract was assessed against these interests.

Date Granted	Authorisation Number	Payload Name	Owner or Operator	Country of Origin
4 April 2019	180062-PPT	Falcon ODE	United States Air Force Academy	United States









PAYLOAD PERMIT

180062-PPT

I, Hon David Parker, as Minister for Economic Development, acting pursuant to section 17 of the Outer Space and High-altitude Activities Act 2017 grant a Payload Permit to:

United States Air Force Academy

The United States Air Force Academy is authorised to launch and operate Falcon ODE, for the purpose of technology demonstration.

This permit will take effect upon signature, and will expire
(i) if there ceases to be a United States authorisation, or
(ii) if the payload is launched, when the payload is no
longer in the Earth's orbit.

This permit is granted subject to the Outer Space and High-altitude Activities Act 2017 and all regulations under the Act, and the conditions of the permit.

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Hon David Parker Minister for Economic Development

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT

NewZealand Government