



PERMITTING DECISION SUMMARY

Shields-1

NASA Langley Research Center

1. The NASA Langley Research Center is located in Hampton, Virginia and is one of NASA's oldest field centres, having been established in 1917.
2. Shields-1 is a 3U CubeSat with solar cells and batteries.
3. While in orbit, Shields-1 will do a technology demonstration of its hardware with the aim of using this data to increase the technology readiness level of new commercial hardware in space.
4. Payloads are permitted in line with the [Outer Space and High-altitude Activities Act 2017](#) (OSHAA) 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.
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
20 March 2018	180018-CPY	Shields-1	NASA Langley Research Center	United States