



PERMITTING DECISION SUMMARY

PREFIRE-1 and PREFIRE-2

California Institute of Technology, Jet Propulsion Laboratory

1. The Polar Radiant Energy in the Far Infrared Experiment (PREFIRE) mission is a scientific research mission, focused on measuring the full spectrum of heat lost from Earth's polar regions.
2. The PREFIRE mission is comprised of two identical 6U CubeSats (PREFIRE 1 and PREFIRE 2), each of which will carry one Thermal InfraRed Spectrometer for measuring heat energy.
3. 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](#).
4. 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
6 April 2024	240442-PPT	PREFIRE-1 and PREFIRE-2	California Institute of Technology, Jet Propulsion Laboratory	United States