



PERMITTING DECISION SUMMARY

Advanced Composite Solar Sail System (ACS3)

National Aeronautics and Space Administration

1. ACS3 is a technology demonstrator for NASA's solar sail technology. The payload's primary mission is to demonstrate and characterise the solar sail system in low Earth orbit.
2. Solar sails are a fuelless method of spacecraft propulsion consisting of large reflective sails that capture and use the momentum of light particles emitted from the Sun to move the spacecraft.
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 Space, 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
24 March 2024	230429-PPT	ACS3	NASA	United States