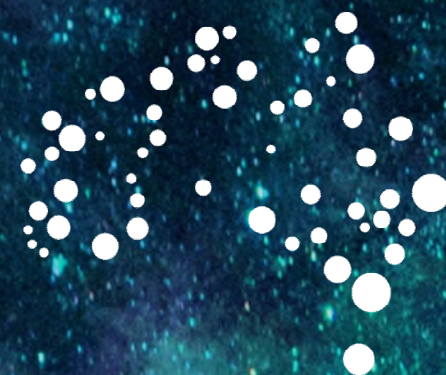




**Australian
Space Agency**



Australian Government



Australian
Space Agency

Space Infrastructure Fund: Mission Control

Aude Vignelles and Anntonette Dailey
Australian Space Agency

Stakeholder consultations
20 September 2019



House Keeping



EVACUATION

Lot Fourteen is unique and fire alarms trigger an immediate evacuation. If you hear an alarm please follow the fire wardens to the nearest fire exit and make your way to the evacuation assembly point in Frome Park.

ACCESS

All buildings at Lot Fourteen are access controlled, to re-enter the Eleanor Harrald Building please contact security.

TOILETS

Turn right out of the door and then left.

NO SMOKING

Lot Fourteen is a non-smoking neighbourhood so for the health and wellbeing of everyone please don't smoke at Lot Fourteen.

WI-FI

Complimentary Wi-Fi is available—connect to Lot Fourteen Guest.

Purpose of today

- Seeking feedback on the design of the Mission Control Centre program
- We would like your feedback through discussion today. Suggestions and feedback should be submitted via consult.industry.gov.au by COB 24 September 2019. Questions and enquiries can be directed to: consultation@space.gov.au.
- These consultation sessions are intended for the broader space industry and those who intend to apply under the SIF initiative.
- Should media be interested in a briefing, contact: media@space.gov.au

About the Space Infrastructure Fund



Background

The Space Infrastructure Fund is a \$19.5 million investment in seven infrastructure projects to drive the growth of Australia's space sector.

Filling gaps in Australia's space infrastructure allows businesses and researchers to focus on providing space-related solutions to drive economic benefit across the whole economy.

Alignment with Strategy and Values

The projects form an important element of the Australian Civil Space Strategy. It will deliver staged investment across the nation, spanning a range of national civil space priorities and strengths



Promotion and Communications



Primary source of information about the SIF will be www.space.gov.au.

Grant opportunities and successful projects will be promoted through:

- **Agency's website**
- **Agency's social media channels**
- **Agency's newsletter**
- **www.business.gov.au**
- **Grant Connect**
- **Minister's media releases**

Australian Civil Space Strategy 2019-2028

Strategic Space Pillars



Civil Space Priorities



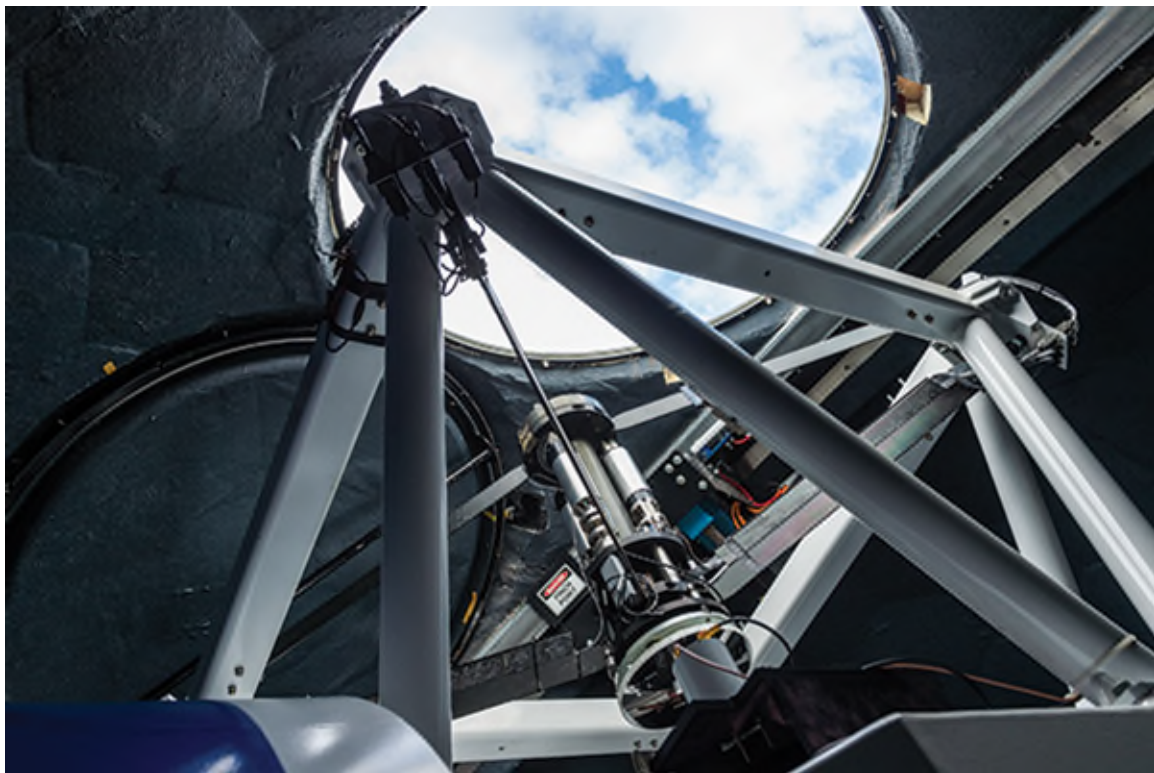
Positioning, navigation and timing



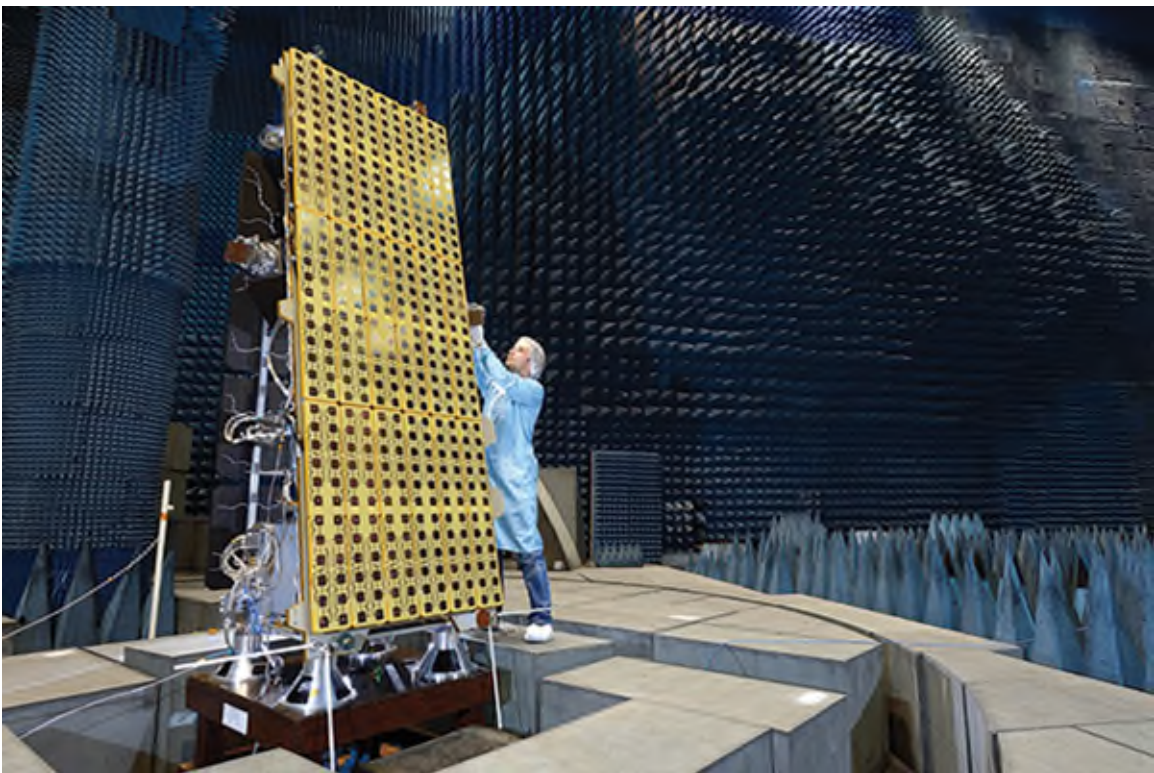
Earth observation



Communications technologies and services



Space situational awareness and debris monitoring



Leapfrog R&D



Robotics and automation



Access to space



Implementation timeline

Proposed Mission Control



Budget & Context



Profile of Mission Control Centre funding

Entity	2019-20	2020-21	2021-22	Total
Australian Government	\$3.0 million	\$2.0 million	\$1.0 million	\$6.0 million
SA Government	TBC	TBC	TBC	\$2.5 million
TOTAL				\$8.5 million

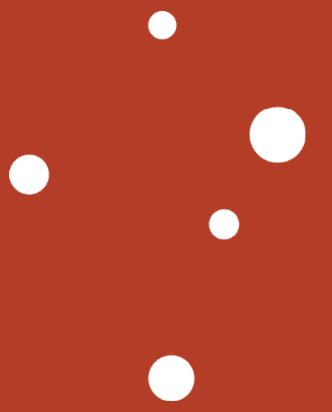
Proposed Mission Control Objectives

1. Establish a platform for SMEs (including start-ups) and researchers to control small satellite missions, national or international joint missions, provide access to space-enabled data and participate in training, research and development.
2. Support the Australian Space Agency national and international joint missions.
3. Provide an enduring, accessible operating model for industry and other organisations to access the capability of the Mission Control Centre, including beyond the last instalment of Australian Government funding in 2021-22.
4. Inspire and educate the public through engagement and coordination with the Australian Space Discovery Centre and other complementary facilities on the ground floor of the McEwin Building. The Mission Control Centre needs to have the capacity for public viewing.

Proposed Mission Control Objectives

5. Provide a model for users of the Mission Control Centre to access (buy, build, lease or other) dish capability. The Mission Control Centre grantee may wish to procure their own dishes or use existing and planned dishes around Australia through appropriate connectivity. Users must be able to communicate to (control and command) and from (downloading data) satellites and other space craft through the dishes.
6. Provide connectivity between Mission Control Centre and dishes in a way that is flexible to the needs of missions in terms of bandwidth, resiliency, duration and the number of dishes that can simultaneously connect to the Mission Control Centre.
7. Ensure activities performed in the Mission Control Centre are lawful and do not breach the international obligations of Australia.
8. Offer the required security and data integrity environment to conduct space operations.

Proposed Mission Control Capabilities

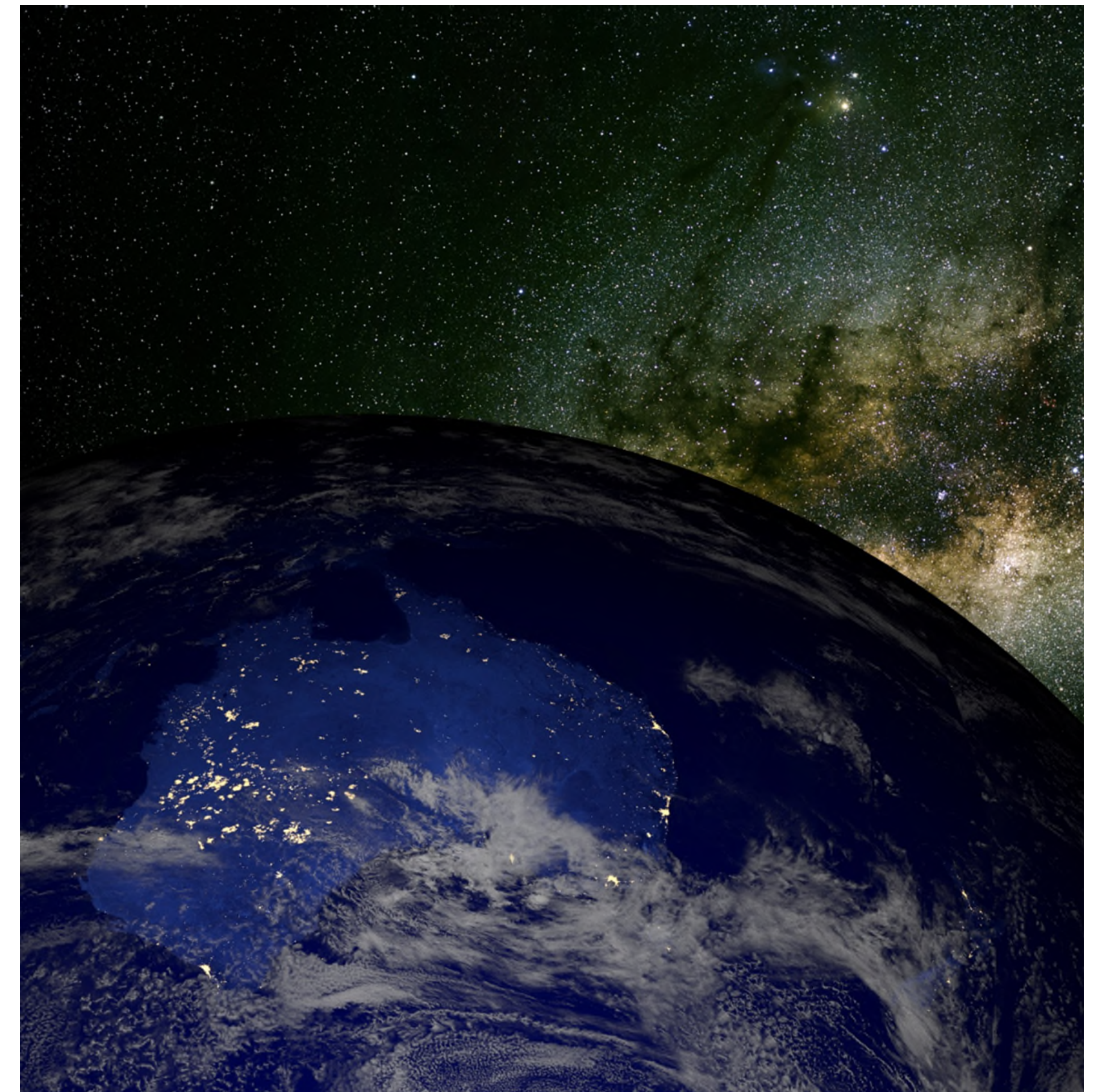


Mission Control may provide the following capabilities:

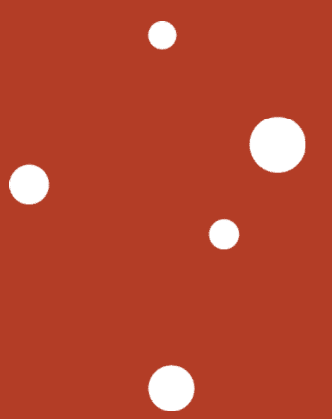
1. Acquire and track satellites
2. Track vehicles and payloads launched from Australia
3. Support Australian missions for flexible durations, including once only, regular intervals or ongoing
4. Ability to connect to international space agencies for joint missions
5. Support missions in all orbits: low, middle and geostationary Earth orbits as well as Deep Space
6. Perform downlink and uplink communications for data exchange and satellite control
7. Display data through a public interface available to visitors of the Australian Space Discovery Centre
8. Ability to acquire and display live video feed from space (e.g. the International Space Station and the Lunar Gateway).

Grant Opportunities and Assessment Criteria

- Single stage, online application process
- Successful projects will need to demonstrate:
 - How well the proposal meets Mission Control Centre objectives
 - Capacity and capability to deliver
 - The impact of grant funding and alignment with the Strategy's investment principles, including leveraged funding or co-investment (excluding other Commonwealth funding)
- Expert Panel to make recommendations to the Program Delegate (decision-maker)
- Successful applicants enter into a funding agreement with the Australian Government.



Timeline



Proposed delivery timeline for the Mission Control (indicative only)

Milestone	Proposed Timeline
Stakeholder Consultations – Website	September 2019
Face-to-face briefing consultation in Adelaide	20 September 2019
Program design and Mission Control Grant Opportunity Guidelines finalise	October 2019
Mission Control Centre grant open for application	November - December 2019
Applications submitted and assessed	January - February 2020
Applicants notified; Successful applicant(s) announced; successful applicant(s) enter into funding agreements with the Australian Government	March - April 2020
Projects undertaken, with regular reporting	April 2020 - February 2022

Questions for your consideration

1. Are there objectives of the Mission Control Centre that should be amended, removed or added to ensure the Centre enables the growth of Australia's space industry?
2. What mission types would potential users like the Mission Control Centre to be able to support (for example launches to different orbits, size of satellites and missions in deep space)?
3. Would different levels of resilience and secure communications be required depending of the type of mission (national versus international, crewed versus uncrewed, etc.)?
4. Are there program design features of the Mission Control Centre that are considered overly restrictive, or, are there design features that are too ambiguous that would prevent the program objectives being met?
5. Are there other concerns or suggestions not identified?





Australian Government



**Australian
Space Agency**

Questions?

enquiries@space.gov.au

space.gov.au

 **[@AusSpaceAgency](https://twitter.com/AusSpaceAgency)**

 **[Australian-Space-Agency](https://www.linkedin.com/company/Australian-Space-Agency)**

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