

WARATAH SEED

Space Qualification Mission (WS-1)

Commercial Clients Program: Guidelines

The Waratah Seed invites Commercial Clients to apply to fly their payloads sized from 1/4U up to 1U on the Waratah Seed Space Qualification Mission WS-1 CubeSat.

The selection of Commercial Clients is one of the core objectives of the Waratah Seed Space Qualification Project and is intended to run in parallel with the WS-1 Payload Competition. The Commercial Client selection process will continue until the available 3U volume on the 6U platform allocated for commercial clients is filled or time expires, whichever comes first. The process will involve a written application followed by an interview.

Commercial client payload teams can be led by and involve one or more academic, government, and industry partners as desired. NSW and Australian payloads are preferred, but we will accept applications to fly payloads from customers worldwide.

A. PURPOSES

To:

- a) Attract commercial client payloads, whether led by NSW teams or not, to the Waratah Seed satellite WS-1,
- b) Assess and select commercial client payloads for the satellite WS-1,
- c) Boost the profiles of the NSW and Australian space sectors, both nationally and internationally.

B. COMMERCIAL CLIENT SELECTION PROCESS

Applicants are invited to submit applications to the Waratah Seed WS-1 Commercial Clients Selection Process that outline their payload project and address specific selection criteria.

3U of satellite volume is nominally reserved for Commercial Client payloads on the Waratah Seed WS-1 6U CubeSat, and we will be accepting payloads from 1/4U up to 3U in size.

The Selection Process will consist of three stages. The first stage will involve a written application. The second stage will involve an interview. The third stage is payment of the deposit to secure placement aboard the spacecraft.

Stage 1: Written Application

Applicants will submit a detailed written application that addresses the selection criteria below. This application is expected to be less than 10 pages in length and to include appropriate details (e.g., for the payload's current TRL level, plans to evolve the TRL level before payload delivery, the certainty of payment to the Waratah Seed project for accepting the payload, and relevant risks.)

Stage 2: Interview

Following receipt of feedback on the written application, an interview will take place to discuss the application, receive any revisions to the original application, resolve issues, and allow the Committee to make a decision on whether to accept the application.

Stage 3: Payment of the Deposit

The application is considered to be accepted only when the deposit has been paid.

Applicants can also enter the separate Payload Competition selection process, for which 1.5U of satellite volume is nominally reserved. Commercial Client payload volume is available on a faster timescale and with greater certainty, however. One or more "reserve" Commercial Client payloads may be selected so as to manage the risk for Waratah Seed of one or more primary Commercial Client payloads encountering financial or technical difficulties, enabling payload substitution.

Selection Panel Members

- Chair: Dr Tim Parsons - Founder, Delta-V Newspace Alliance

- Prof Maryanne Large - CUAVA Advisory Board at University of Sydney
- Dr Xueliang Bai - CUAVA Engineer
- Mr Andreas Antoniadis - Saber Astronautics
- Dr Roger Kermode - UTS
- Prof Iver Cairns - Director of Waratah Seed and of CUAVA.

SELECTION CRITERIA

Applicants will need to address the following criteria in each stage of their application, referring to the Waratah Seed WS-1 Commercial Clients Information Pack for specific technical guides.

1. Technical Readiness and Feasibility
2. Certainty of Payment
3. Risks for the Waratah Seed Project
4. Timing

Applications with higher Technical Readiness and Feasibility, higher Certainty of Payment, and smaller Risks for the Waratah Seed Project will be assessed more highly. Applications that satisfy criteria 1-3 and pay the required acceptance deposit earlier (criterion 4) will be selected on a first come - first served basis until there are no more satellite volume and other resources available. A small number of "reserve" payloads may be chosen as well.

The Waratah Seed Project reserves the right to decline to consider or accept a payload without giving a justification.

1. TECHNICAL READINESS & FEASIBILITY

Applicants will need to demonstrate that they have the necessary technology readiness level (TRL – please refer to the WS-1 Commercial Clients Information Pack for details) to participate in the ride-share, with the minimum requirement being TRL 4 (breadboard demonstration of the system in the laboratory) when the Stage 1 application is submitted. They will also need to address the feasibility of the payload reaching TRL 6 by the payload delivery deadline.

Applications will need to:

1. Describe the payload and its TRL.
2. Demonstrate that they have a technology readiness level that is at least TRL 4 as of the date of the application.
3. Describe a plausible development plan that will result in a working payload at TRL 6 by the payload delivery deadline (currently 30 June 2022 but subject to change), that is ready to be tested in space.
4. Describe the payload's requirements (e.g., apertures, volume, mass, power, data and software connections) and demonstrate that the payload satisfies the payload restrictions described in the Interface Control Document (please refer to the WS1 Information Pack for details).
5. Demonstrate the viability of the payload to be added to the Waratah Seed CubeSat.

2. CERTAINTY OF PAYMENT

Applicants will need to:

1. Describe the applicant team and their financial and legal relationships.
2. Demonstrate the capacity of the applicant team to pay the ride-share fee assessed by the Waratah Seed project for the proposed payload on the required time schedule. This must include submission of at least two (2) supporting documents that directly address the source and existence of the required funds. It must also include a well thought-out and budgeted business plan and budget.
3. Describe how the payload fits into their plan and improves its sustainability.

3. RISKS FOR THE WARATAH SEED & APPLICANT TEAM

Applications will need to:

1. Present a clear and considered risk-management plan.

2. Address the domestic / international nature of the applicant team and any factors likely to affect the development and delivery of the payload to the Waratah Seed Project.
3. Address any issues likely to cause delays or risks due to regulatory or legal matters for the Waratah Seed Project, whether due to the applicant team or the payload, in connection with the Australian Communication and Media Authority (ACMA), Australian Space Agency, Department of Defence, Department of Foreign Affairs, or similar Australian governmental entities.
4. Address any issues likely to cause delays or risks due to regulatory or legal matters for the Waratah Seed Project, whether due to the applicant team or the payload, in connection with international launch companies, space agencies, or regulatory authorities.

4. TIMING

1. It is to the benefit of both the Waratah Seed Project and each application team that the application is submitted as early and complete as possible. Earlier selection reduces the financial risk for Waratah Seed, increases the time available to develop the payload, and increases the likelihood that the application will be chosen.
2. State when the deposit can be paid if the payload is selected.

C. TECHNICAL GUIDES:

Before starting on your application, please download the Commercial Client Selection Guidelines and WS1 Commercial Clients Information Pack from our website. This contains critical design and technical information, including the current version of the Satellite Interface Control Document and the Technology Readiness Level Definitions that will inform your application. Additional detail will be provided to successfully shortlisted applicants prior to their final written application.

D. PRICING

The fee for a Commercial Client payload on the Waratah Seed WS-1 ride-share CubeSat will be nominally at the rate of AU\$65,000 plus GST per 1/4U.

A small volume discount will be possible for a payload of 1 U or larger. If the payload requirements for apertures, power, and data are beyond nominal and would require

significant adjustments in the satellite design then additional costs will be discussed with the applicant.

The inclusions provided by the Waratah Seed Project to each payload team will be detailed elsewhere.

TIMELINE:

Payload Competition Joint Press Release/Guidelines	- 24 Aug 2021
Payload Competition Launch/ Applications Open	- 31 Aug 2021
Commercial Clients Press Release/Guidelines	- 7 Sep 2021
Commercial Client Applications Open	- 7 Sep 2021
Payload Competition Decisions	- 7 Dec 2021
Commercial Client Selection Close	- 7 Dec 2021 or earlier, depending on demand.
Flight Model payload delivery deadline	- 30 June 2022, currently.

CONTACT:

Waratah Seed WS-1 Commercial Clients Guidelines and Info Packs can be downloaded at the website: waratahseed.space

E: info@waratahseed.space | Ph: 02 9036 7960

W: waratahseed.space LinkedIn: [waratah-seed-space](https://www.linkedin.com/company/waratah-seed-space) Twitter ([@waratahseed](https://twitter.com/waratahseed))

WARATAH SEED PARTNERS

