## **Frequently Asked Questions**

- Q. Are you currently accepting applications for the NASA CSLI? If not, when will your next application period be?
- A. Each year NASA releases a CubeSat Launch Initiative Announcement of Partnership Opportunity (AoPO) typically in early August with proposals due in mid-November. Selection notifications are anticipated in mid to late March.
- Q. Is there a distribution list I can register at to make sure I am alerted when the next announcement comes out?
- A. CubeSat Launch Initiative (CSLI) Announcement of Partnership Opportunity are released each August. Visit <u>sam.gov</u> for more information regarding searching for Contract Opportunities.
- Q. We were hoping you would be able to provide us with some information on the launch opportunity (some of our attitude control sensor housings require knowledge of our orbit altitude) and also information on what CubeSat deployer might be used (this will strongly affect our placement of inhibit switches and our margin for deployables).
- A. The launch opportunity is based on the orbital requirements, any unique constraints the CubeSat's mission may have, and readiness. All CubeSat dispenser models on the market will accommodate a CubeSat designed to the requirements in the <u>CubeSat Design Specification</u>. If you are already familiar with the CubeSat Design Specification, you will be better positioned to adjust your design when your CubeSat is manifested, and the specifics of the dispenser are known.
- Q. I was wondering when we might get a better idea of the launch timeframe and/or what the launch vehicle will be?
- A. Typically, the launch opportunities start two years after the announcement is released and has a 3year span. For example: The Announcement of Partnership Opportunity released in 2022 will provide launch opportunities for 2024-2027. CSLI selects the launch vehicle and launch timeframe based on a mission's orbital parameters, readiness and priority as established by the CubeSat Launch Initiative Recommendation Selection Committee.
- Q. Is the cost of the deployer covered under the launch agreement? If we're deployed from a Poly-Picosatellite Orbital Deployer (P-POD) on an Expendable Launch Vehicle (ELV), do I need to include a cost for a P-POD in my budget?
- A. NASA covers integration cost up to \$300,000 per mission, this includes the deployer.

## Q. What's the distinction between CubeSat Launch Initiative and ELaNa?

A. The CubeSat Launch Initiative provides or facilitates flight opportunities to low Earth orbit (LEO). After selection CubeSats are placed on a prioritized manifest list. Once a launch is identified, CubeSats are assigned to the launch as an Educational Launch of a Nanosatellite (ELaNa) mission. ELaNa XX is the name of a NASA mission that launches CSLI CubeSats.

## Q. Will a 6U Form-Factor spacecraft conform to deployer capabilities?

A. CubeSats supported by the launch initiative for 2022 include volumes of only 1U, 2U, 3U, 6U and 12U or volumes that add up to these specified dimensions. A 6U CubeSat typically has a mass under 12 kg, and a 12U CubeSat typically has a mass under 24kg. The final allowable mass is dependent upon the selected dispenser and the launch vehicle environment. CSLI will not select any CubeSat

missions proposing to deploy or release parts that are smaller than 1U in size due to trackability, space situational awareness or orbital debris concerns.

- Q. I know it takes a while for a waiver to go through, so should we be submitting a mass waiver now for our spacecraft or should we wait until we have all hardware in-hand to weigh?
- A. We recommend you wait until your CubeSat has been manifested and determine if a waiver is necessary. Based on the environments of the mission, the dispenser we are flying, and the mission requirement documents (LSP-REQ-317 doesn't always apply), a waiver may not be required and even if it is, it may not look like an LSP waiver to REQ-317.
- Q. Will our launch services provider be able to accept a 3U CubeSat that is < 4.5 kg instead of < 4.0 kg?
- A. To maximize launch opportunities, please ensure that your CubeSat is compatible with the latest CubeSat Design Specification, found on <u>www.cubesat.org</u>.

# Q. What is the deployer being used on our ride?

A. CSLI recommends designing to either a tab or rail-based dispenser/deployer. CSLI does not recommend designing to a specific brand of dispenser as a launch opportunity may come 'bundled' with a preselected dispenser. Staying flexible in this regard maximizes your launch opportunities.

# Q. When must we deliver the spacecraft for integration?

- A. Integration can occur between Launch minus 2 months (L-2) and L-3 months depending on the launch vehicle and/or International Space Station (ISS) deployment opportunity your CubeSat has been assigned.
- Q. When does the process to get the Cooperative Research and Development Agreement (CRADA) in place begin?
- A. The CRADA process will begin shortly after the selection process and NASA will send a draft CRADA specific to your launch opportunity. The standard CRADA template is posted on the CSLI Website.

# Q. Can you please send us a list of what tests and documentation are required when we deliver to NASA and our launch provider?

A. This depends on the launch provider, orbital parameters and whether you are ISS deployed. ISS missions feature more rigorous testing requirements, specifically in the case of the battery testing and material selection. At a minimum, plan for a system level random vibration test and thermal testing, and you will of course need all of your licensing (possibly IARU, NOAA, FCC/NTIA) in place prior to handoff to NASA and your launch provider.

# Q. The educational CubeSat projects are student led, what is the level of involvement for the advisor/mentor (technical point of contact/educator/professor)?

A. The experience and technical abilities of each team differs, however the advisor/mentor should provide the proper guidance and technical knowledge as needed. The most successful teams have an advisor/mentor that is not only involved, but is pro-active in identifying upcoming problems, providing technical assistance, guidance and managing the health of the team. It is important to ensure that everything is documented to ensure a smooth transition to new team members as students graduate. As the project proceeds and integration approaches there will be a one-hour meeting monthly with the cadence increasing to bi-weekly in the months prior to spacecraft handover.