

SpaceTech-REDDI-2023 Appendix S1: University Smallsat Technology Partnerships Now Open

The National Aeronautics and Space Administration (NASA) Headquarters has released a solicitation, entitled "University Smallsat Technology Partnerships (USTP)," as an appendix to the Space Technology Mission Directorate umbrella NASA Research Announcement (NRA) titled "Space Technology Research, Development, Demonstration, and Infusion 2023 (SpaceTech-REDDI-2023)." The solicitation is available by opening the NSPIRES homepage at <http://nspires.nasaprs.com/> by selecting "Solicitations," then selecting "Open Solicitations," and, finally, selecting "University Smallsat Technology Partnerships." To go directly to the solicitation page, visit <https://tinyurl.com/NASA-23USTP>.

The Small Spacecraft Technology (SST) program within the NASA Space Technology Mission Directorate (STMD) is chartered to expand the ability to execute unique missions through rapid development and demonstration of capabilities for small spacecraft applicable to exploration, science, and the commercial space sector. To that end, the SST program seeks to:

- Enable the execution of missions at much lower cost than previously possible.
- Substantially reduce the time required for development of spacecraft, from authority to proceed until initial launch capability.
- Enable and demonstrate new mission architectures that small spacecraft are uniquely suited for.
- Expand the capability of small spacecraft to execute missions at new destinations and in challenging new environments.
- Enable the augmentation of existing assets and future missions with supporting small spacecraft.

The goals of this appendix include collaboration with university teams that have experience in small spacecraft development and the extension of support to colleges and universities that have little or no previous involvement in this field. Colleges and universities with experience in small spacecraft development are encouraged to team with other college and universities to address these dual goals.

Only accredited U.S. universities with a campus located in the U.S. are eligible to submit proposals. Partnering with a NASA Center is required (see solicitation for complete eligibility and teaming requirements).

An individual may be the Principal Investigator on only one proposal in response to this solicitation but may participate as a Co-Investigator or other role on multiple proposals (see solicitation for restrictions).

The solicitation exclusively seeks proposals that are responsive to one of three topics:

- Earth- and Global Navigation Satellite System-Independent Position Navigation and Timing for Small Spacecraft

- Edge Computing and Machine-Learning Architectures, Software, Platforms, and Devices for Small Spacecraft
- High Specific Power Systems and Thermal Control for Small Spacecraft

NASA anticipates addressing other topics in future solicitation releases.

The financial and programmatic support for University Smallsat Technology Partnerships comes from the Small Spacecraft Technology (SST) program, in cooperation with the Flight Opportunities (FO) program, both within STMD. Awards are planned to start in September 2023. NASA plans to make approximately 8 awards as a result of this solicitation, subject to the receipt of meritorious proposals. The actual number of awards will depend on the quality of the proposals received; NASA reserves the right to make no awards under this solicitation.

This solicitation uses a two-step selection process. Mandatory Preliminary Proposals (MPP) are due by Tuesday, May 16 2023 and must be submitted electronically via NSPIRES. Following a review process of the MPP, selected proposers will receive an invitation to submit a Full Proposal. Full Proposals must be submitted electronically through NSPIRES by an authorized organizational representative and are due on or before Tuesday, July 18 2023. Detailed submission instructions and due dates are provided in the solicitation. Potential proposers and their proposing organizations are urged to familiarize themselves with the submission system(s), ensure they are registered in NSPIRES, and submit the required proposal materials well in advance of the deadline.

Comments and questions may be addressed by e-mail to the Small Spacecraft Technology Program Executive, Christopher Baker, at HQ-STMD-SST-Partnerships@nasaprs.com. Responses to inquiries may be included in the Frequently Asked Questions (FAQ) documents located on the NSPIRES page associated with the solicitation; anonymity of persons/institutions who submit questions will be preserved.