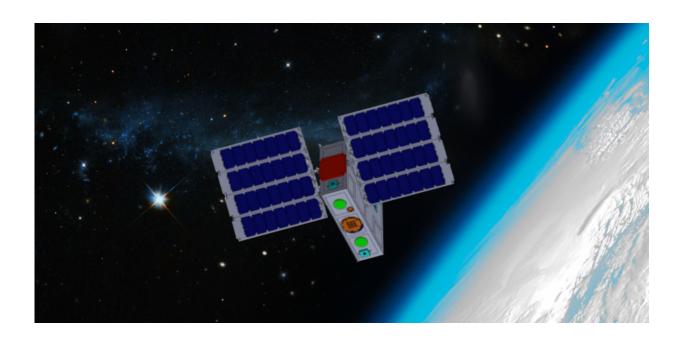


## NASA seeks satellite maker for series of CubeSat technology missions

February 15 2016



In a unique invitation to develop a new satellite platform, NASA's Small Spacecraft Technology Program (SSTP) is requesting proposals from industry to provide small spacecraft for its Pathfinder Technology Demonstrator (PTD) missions that will include government-furnished technology payloads for a series of flight demonstrations.

NASA plans to award a contract for a six-unit (6U) CubeSat, with



options for up to four additional CubeSats of the same basic design. The Pathfinder technology demonstration missions, enabled by this procurement, are expected to demonstrate several new propulsion systems, advanced control systems for precision pointing, and communications systems that will greatly increase data transmission for future missions.

"NASA wants to promote the development of the commercial small spacecraft industry," said Andrew Petro, program executive for SSTP at NASA Headquarters in Washington. "We are seeking a spacecraft bus that will meet our needs while avoiding over-specification so that the vendor can propose a spacecraft that might also meet the needs of a broader market."

A 6U CubeSat measures 4 inches by 8 inches by 12 inches and has a mass of approximately 25 pounds. This Pathfinder CubeSat bus is required to provide at least 45 watts of power and allocate at least one-third of its volume for the technology payload. The proposed satellite is expected to be based on mature subsystems and require little, or preferably no new development, allowing for low cost, rapid delivery, and reasonably low technical risk.

NASA's Ames Research Center in California's Silicon Valley will lead the project in collaboration with NASA's Glenn Research Center in Cleveland, Ohio. NASA expects the spacecraft and technology vendors to be partners in the mission operations.

"The team is excited to solicit proposals for a basic small satellite bus design that will be adaptable for use on a series of low-cost missions for NASA, and possibly for other customers," said John Marmie, project manager at Ames. "The satellites will be used to demonstrate and characterize novel small satellite payloads in low-Earth orbit."



This procurement is a departure from the approach in which NASA and others typically develop a new satellite platform for each technology demonstration or science mission. The procurement of multiple Pathfinder CubeSats will potentially enable a rapid cadence of technology demonstrations to advance the capabilities for CubeSats and other small <u>spacecraft</u> to support a wide variety of science, exploration and commercial space missions.

"This is a new opportunity for the private sector to participate with NASA in demonstrating some of the technologies recently selected in our Tipping Point solicitation as well as some technologies coming out of the Small Business Innovation Research program" said Steve Jurczyk, associate administrator for the Space Technology Mission Directorate at NASA Headquarters in Washington.

Ames issued the request for proposals and manages SSTP within NASA's Space Technology Mission Directorate. Proposals are due by March 30, 2016 and an award is anticipated by June 2016. The request for proposals can be found online at:

www.fbo.gov/spg/NASA/ARC/OPDC2 ... 574335R/listing.html

**More information:** For more information about the Small Spacecraft Technology Program, visit <a href="www.nasa.gov/smallsats">www.nasa.gov/smallsats</a>

## Provided by NASA

Citation: NASA seeks satellite maker for series of CubeSat technology missions (2016, February 15) retrieved 24 May 2024 from

https://phys.org/news/2016-02-nasa-satellite-maker-series-cubesat.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private



study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.