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NASA SEEKS BIG IDEAS FOR SMALL IN-SPACE PROPULSION SYSTEMS

WASHINGTON -- NASA's Space Technology Program is calling for proposals to develop miniaturized electro spray propulsion technologies that could revolutionize small satellite propulsion systems.

Electro spray thrusters use electricity to energize material and then disperse a resulting liquid or aerosol through an emitter to create thrust. The development of low-mass, lightweight micro thruster technologies has the potential to radically change propulsion capabilities of small satellites by allowing variable thrust propulsion, stabilization and precision pinpointing. Such micro thrusters also might be of use for very fine pointing aboard future large space-based observatories.

"Small spacecraft are a dominant trend in aerospace today," said NASA's Space Technology Program Director Michael Gazarik. "As NASA develops and improves the use of small satellites for science and exploration, we recognize propulsion as a critical need to open the door for small spacecraft applications. We need better miniaturized systems to propel and maneuver our small space adventurers."

U.S. organizations, including NASA centers and other government agencies; federally funded research and development centers; educational institutions; industry and nonprofit organizations can submit their ideas for miniaturized electro spray propulsion technologies that could help provide an efficient means of providing thrust for spacecraft.

This solicitation covers two acquisition phases and involves a competitive selection process. During Phase I, selected proposers will have 18 months to refine thruster designs, build prototype thruster systems and conduct testing in flight-like environments.

During Phase II, the thruster developed in Phase I will be integrated into a small spacecraft for an in-orbit demonstration. NASA expects to make as many as three awards for Phase I proposals, with a total combined cost of approximately \$5 million, based on availability of funds.

This solicitation is an appendix to NASA's Game Changing Opportunities in Technology Development research announcement and can be found through the NASA Solicitation and Proposal Integrated Review and Evaluation System website by going to "Solicitation" and then "Open Solicitations" at: <http://nspires.nasaprs.com>

Game Changing Development seeks to quickly mature innovative technologies that will have cross-cutting applications across agency missions and also may benefit to the American aerospace industry. NASA's Langley Research Center in Hampton, Va., will manage this solicitation and also oversee the technical aspects of this technology development under Phase I.

This solicitation is part of NASA's Space Technology Program, which is innovating, developing, testing and flying hardware for use in future science and exploration missions. NASA's technology investments provide cutting-edge solutions for our nation's future.

For more information about NASA's Game Changing Development, Small Satellite Technology and Space Technology Programs, visit: <http://www.nasa.gov/oct>