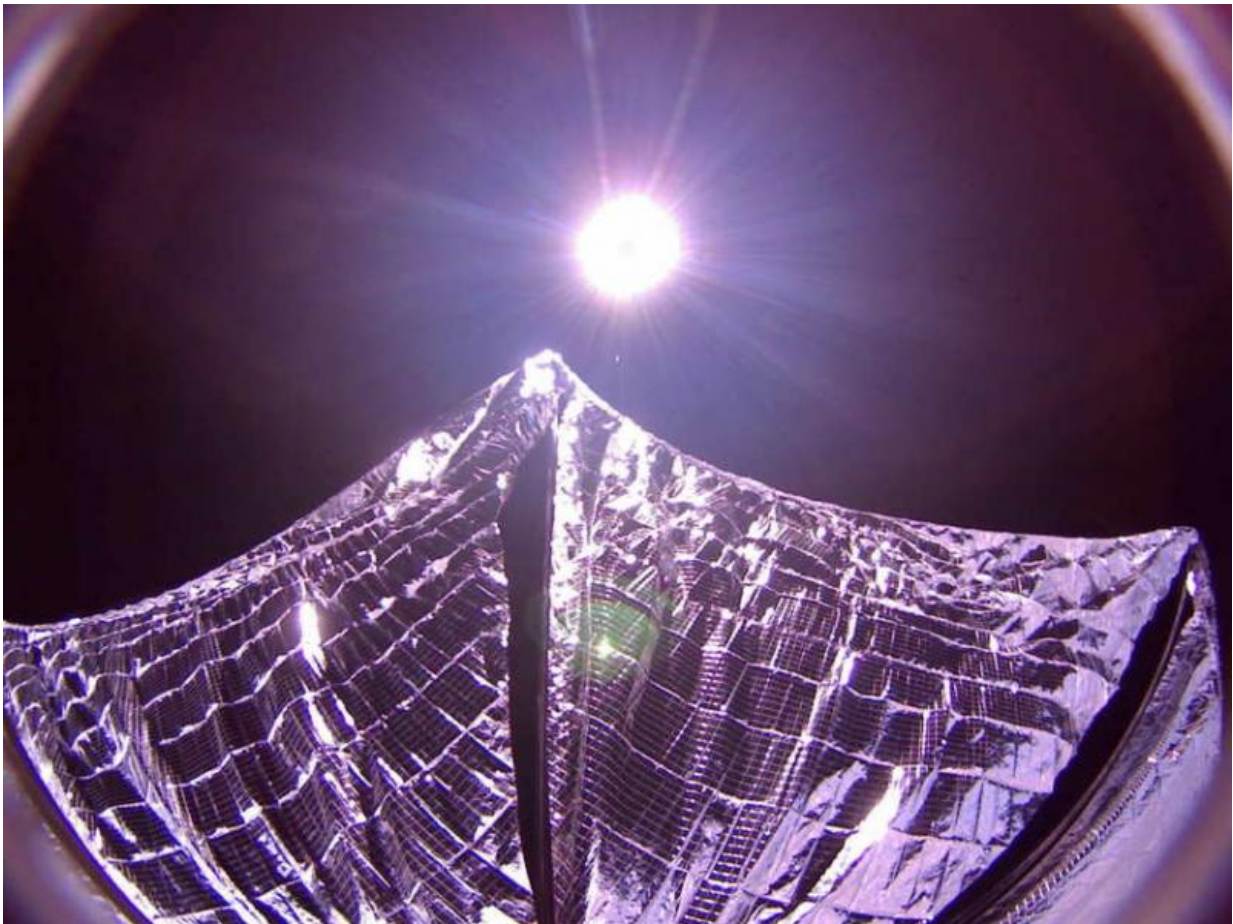


LightSail's solar sails look good in latest deployment

June 9 2015, by Nancy Owano



LightSail captured this image of its deployed solar sails in Earth orbit on June 8, 2015. Credit: The Planetary Society

The Planetary Society solar sail exploration called LightSail is looking good. The concept—a spacecraft designed to propel through space on beams of sunlight—pushed through by nothing but the pressure of sunlight—is making news this week with reports of a successful solar sail deployment. This is a test mission serving as a precursor to the 2016 mission. In measuring mission success, observers were looking to the deployment of LightSail's Mylar solar sails.

Jason Davis, Planetary Society, wrote on Monday: "It's official: The sails are out. This afternoon, LightSail [mission](#) controllers downlinked a partial image of the spacecraft's solar sails in space."

An [image](#) of LightSail's deployed solar sails was captured by one of the spacecraft's onboard cameras on Monday.

NASA has its eyes set on the deployment too. Davis said that NASA and The Planetary Society are sharing data on the LightSail mission through a Space Act Agreement. In 2018, the space agency is preparing to launch two [solar sail](#)-powered CubeSats: Lunar Flashlight and NEA Scout. A team at NASA's Marshall Space Flight Center in Huntsville, Alabama, captured a video of LightSail "soaring across the sky with its solar sails deployed."

Jacob Aron in *New Scientist* walked readers through the events: Over the weekend, he said, mission managers made contact with the craft and unfurled its 32-square-meter sail. "On Saturday the Planetary Society made contact with LightSail again, and issued the command to unfurl the sail. On Sunday the craft sent back data confirming the sail deployed successfully."

Aron described the craft as "designed to test technology that derives thrust from sunlight." He said solar sails offer "a potentially cheap way of exploring the solar system, but few have been tested in orbit. They

work by reflecting photons from the sun, providing a small thrust in the opposite direction. The force from each reflected photon is tiny, but a large enough sail can build up significant [momentum](#)."

What will the present deployment achieve? *New Scientist* said "This version of LightSail can't gain enough thrust from the sun to overcome the drag of the atmosphere at its current altitude, so it will fall back to Earth in the next few days. But the technical difficulties it encountered will inform the launch of a second version of the spacecraft, bound for a higher orbit next year."

© 2015 Phys.org

Citation: LightSail's solar sails look good in latest deployment (2015, June 9) retrieved 18 April 2024 from <https://phys.org/news/2015-06-lightsail-solar-good-latest-deployment.html>

<p>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.</p>
