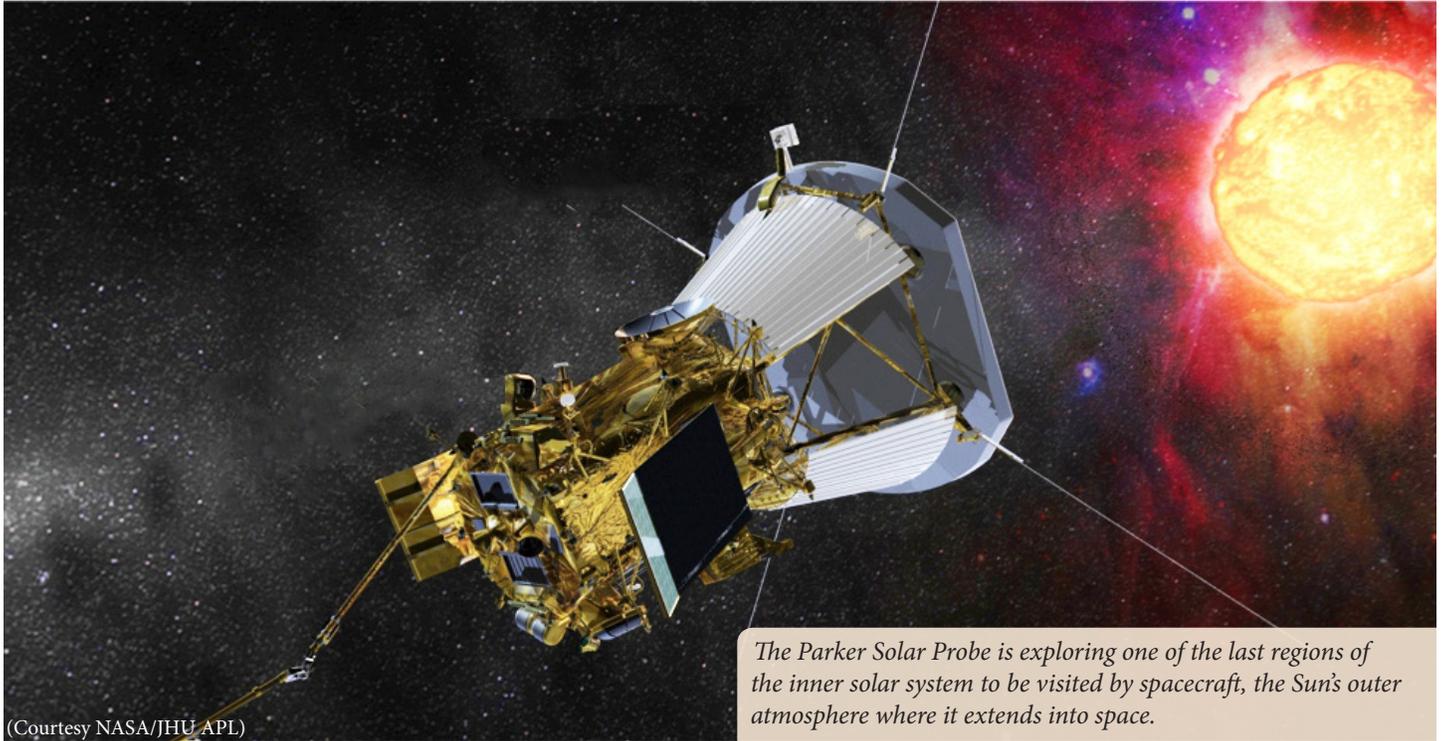


Parker Solar Probe



(Courtesy NASA/JHU/APL)

The Parker Solar Probe is exploring one of the last regions of the inner solar system to be visited by spacecraft, the Sun's outer atmosphere where it extends into space.

Frequently Asked Questions

What is the purpose of the Parker Solar Probe?

The Parker Solar Probe (PSP) is an exciting mission of exploration and discovery, a journey to the Sun itself. By flying into the Sun's outer atmosphere—called the corona—PSP is gathering data on the processes that heat the corona and accelerate the solar wind—solving two fundamental mysteries that have been top-priority science goals for many decades. PSP will transform our understanding of the Sun and Sun-like stars, enabling further exploration through our own solar system.

What does the PSP Fields experiment measure?

The PSP Fields experiment is making direct measurements of electric and magnetic fields, radio emissions, and shock waves that course through the Sun's atmospheric plasma. The experiment also serves as a giant dust detector, registering voltage signatures when specks of space dust hit anywhere on the exposed surface area of the spacecraft.

What are the expected outcomes from the mission?

From as close as 3.7 million miles above the Sun's surface, PSP will repeatedly sample the near-Sun environment, revolutionizing our knowledge and understanding of coronal heating and of the origin and evolution of the solar wind. The data will also help us answer critical heliophysics questions that have puzzled scientists for decades. By making direct, in-situ measurements of the region

Quick Facts

Launch date: August 12, 2018

Launch location: Cape Canaveral Air Force Station, Florida

Launch vehicle: Delta IV Heavy

Mission target: The solar corona

Primary duration: 7 years

Project description: The Parker Solar Probe studies the streams of charged particles that the Sun hurls into space from a vantage point where the processes that heat the corona and produce solar wind actually occur.

LASP provided:

- The Digital Fields Board for the PSP Fields experiment
- PSP Fields experiment co-principal investigators, Robert Ergun and David Malaspina

Other organizations involved:

- University of California, Berkeley
- Johns Hopkins University Applied Physics Laboratory
- NASA's Goddard Space Flight Center
- University of Minnesota

where some of the most hazardous solar energetic particles are energized, PSP is making a fundamental contribution to our ability to characterize and forecast the radiation environment in which future space explorers will work and live.

To read more about the Parker Solar Probe mission, visit:
<http://lasp.colorado.edu/home/missions-projects/quick-facts-ppsp>.

The Laboratory for Atmospheric and Space Physics (LASP) combines all aspects of space exploration through our expertise in science, engineering, mission operations, and data management. As an institute at the University of Colorado Boulder, LASP includes students throughout our activities. Learn more at <http://lasp.colorado.edu>.