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# NASA PROBE IN GOOD HEALTH AFTER CLOSEST-EVER APPROACH TO SUN

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This image made available by NASA shows an artist's rendering of the Parker Solar Probe approaching the Sun. | Photo Credit: AP

NASA's Parker Solar Probe – mankind's mission to touch the Sun – is alive and well after its first close encounter with our star's surface.

The probe skimmed by the Sun at just 15 million miles from its surface, breaking the previous record was set by Helios B in 1976.

The manoeuvre exposed the spacecraft to intense heat and solar radiation in a complex solar wind environment, NASA said in a statement.

"Parker Solar Probe was designed to take care of itself and its precious payload during this close approach, with no control from us on Earth — and now we know it succeeded," said Thomas Zurbuchen, associate administrator of NASA's Science Mission Directorate at the agency headquarters in Washington.

"Parker is the culmination of six decades of scientific progress. Now, we have realised humanity's first close visit to our star, which will have implications not just here on Earth, but for a deeper understanding of our universe," said Mr. Zurbuchen.

Mission controllers at the Johns Hopkins University Applied Physics Lab received the status beacon from the spacecraft on November 7, 2018.

The beacon indicates status "A" – the best of all four possible status signals, meaning that Parker Solar Probe is operating well with all instruments running and collecting science data and, if there were any minor issues, they were resolved autonomously by the spacecraft.

At its closest approach on November 5, called perihelion, Parker Solar Probe reached a top speed of 213,200 miles per hour, setting a new record for spacecraft speed.

Along with new records for the closest approach to the Sun, Parker Solar Probe will repeatedly break its own speed record as its orbit draws closer to the star and the spacecraft travels faster and faster at perihelion.

At this distance, the intense sunlight heated the Sun-facing side of Parker Solar Probe's heat shield, called the Thermal Protection System, to about 437 degrees Celsius.

This temperature will climb up to 1,371 degrees Celsius as the spacecraft makes closer approaches to the Sun.

Parker Solar Probe's first solar encounter phase began on October 31, and the spacecraft will continue collecting science data through the end of the solar encounter phase on November 11.

It will be several weeks after the end of the solar encounter phase before the science data begins downlinking to Earth.

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