Video: Proba-2 watches Mercury transit

November 13 2019

ESA's Proba-2 had a ring-side seat for the transit of Mercury on 11 November 2019. Proba-2 monitors the sun from Earth orbit and was able to spot Mercury's transit as a small black disc—seen here moving from left to right across the face of the sun.

The images in this movie were taken with the satellite's extreme ultraviolet telescope.

Solar transits—where a celestial body is seen to pass across the solar disc from the perspective of Earth—are relatively rare events. Mercury undergoes around 13 transits a century; the last occurred in 2016 but the next is not until 2032. Both Mercury and the sun are destinations for ESA missions: BepiColombo will arrive at Mercury in 2025, while Solar Orbiter is getting ready for a 2020 launch to study the sun up close. Transits are also important outside of our solar system, in the quest to find exoplanets. For example, a transiting planet causes a dip in brightness of its host star, revealing the presence of an exoplanet. Space missions like ESA's Cheops will study known transiting exoplanets to determine more about their characteristics.

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