



The Wide-Field Imager for the Parker Solar Probe Mission (WISPR)

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The Parker Solar Probe (PSP) mission will be humanity's first visit to the atmosphere of our nearest star, the Sun, when it is launched in July 2018. PSP will complete 24 orbits between the Sun and Venus with diminishing perihelia reaching as close as 7 million km (9.86 solar radii) from Sun center. In addition to a suite of in-situ probes for the magnetic field, plasma, and energetic particles, the payload includes the Wide Field Imager for Solar Probe (WISPR) that will record unprecedented visible light images of the solar corona and the inner heliosphere. WISPR is the smallest heliospheric imager to date, and comprises two nested wide-field telescopes with large-format (2K x 2K) APS CMOS detectors to optimize the performance over a combined 95° radial by 58° transverse field of view and to minimize the risk of dust damage, which may be considerable close to the Sun. WISPR will discover – in this never-before explored region of the heliosphere – the fundamental nature of coronal structures and the source regions of the solar wind as the PSP flies through them, and will determine whether a dust-free zone exists near the Sun. WISPR has completed its development effort and has been integrated onto the PSP spacecraft. In this paper, we will present our efforts to prepare for the mission including our observing plans and some results of the calibration activities.

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