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Imaging from the InSight Lander

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After landing in Elysium Planitia, Mars on November 26th, 2018, the InSight [1] mission began returning image data from two color cameras: the Instrument Context Camera (ICC), mounted on the lander body underneath the top deck, and the Instrument Deployment Camera (IDC) mounted on the robotic arm ([2] and [3]). Images from these color cameras have helped the mission meet several key objectives, including: 1) documentation of the state of the lander, robotic arm, and surrounding terrain, 2) terrain assessment for the selection of the SEIS [4] and HP3 [5] instrument deployment locations, 3) facilitation and documentation of deployment activities, 4) monitoring of the state of the instruments post-deployment, and 5) monitoring of atmospheric dust opacity. The cameras are also providing information about the geologic history and physical properties of the terrain around the lander [6]. Operation of the cameras has been ongoing since landing, with over 361 images returned as of Sol 42. The radiometric and geometric performance of the cameras have been nominal. While the dust covers from both cameras opened successfully, the ICC dust cover did not completely protect the camera from dust during/after the landing event. Thus ICC images show a noticeable mottled pattern caused by dust contamination on the lens (this impacts usability only slightly). The IDC front lens has remained dust-free by comparison.

References:

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