



Aeolian Features of Scandia Cavi

Winds likely blew from the northeast resulting in elongate dunes with an asymmetric downwind point. The transverse crests of the smaller ripples/mega-ripple bed-forms surrounding the dune, echo the dominant downwind direction towards the southwest.



The Ares 3 Landing Site: Where Science Fact Meets Fiction

Andy Weir, the author of the best-selling novel “The Martian,” previously contacted the HiRISE team requesting that we take a picture of the Ares 3 landing site from his novel. The Ares 3 landing site lies in the Acidalia Planitia and is within “driving distance” from the Pathfinder lander and Sojourner rover. This is the second image we’ve acquired of this fictional landing site and compare it to an earlier one for possible changes in the terrain.



From Ares 3 to Ares 4

The Ares 4 site is on the floor of a very shallow crater in the southwestern corner of Schiaparelli Crater. Our image shows a flat region that is entirely mantled by bright Martian dust. There are no color variations, just uniform reddish dust. At full resolution, we see a pervasive, pitted texture that is characteristic of many dust deposits on Mars. No boulders are visible, so the dust is probably at least a meter thick.



All Along the Fractures

Within the spaces between the dunes, a resistant and highly fractured surface is revealed. The fractured ground is resistant to erosion by the wind, and suggests the material is bedrock that is now shattered by a history of bending stresses or temperature changes, such as cooling, for example.



Western Edge of Marth Crater

In the book “The Martian” by Andy Weir, stranded astronaut Mark Watney is headed for the Ares 4 landing site but encounters the rim of Marth Crater just as a dust storm arrives. This HiRISE image shows the nature of this terrain.



Nested Channels near Hellas

We're not sure if this channel-inside-a-channel was carved by flowing water or lava. Flowing water erodes channels, and flowing lava both erodes and melts surrounding rock to form channels. It's not clear whether a huge surge of water or lava first formed the wide channel and then subsided into a trickle to form this narrow, inner channel, or if a trickle formed the inner channel and a subsequent surge formed the wider one.



Dynamic Mars

This picture managed to capture a small avalanche in progress, right in the color strip. The small white cloud in front of the brick red cliff is likely carbon dioxide frost dislodged from the layers above, caught in the act of cascading down the cliff. It is larger than it looks, more than 20 meters across, and (based on previous examples) it will likely kick up clouds of dust when it hits the ground.