



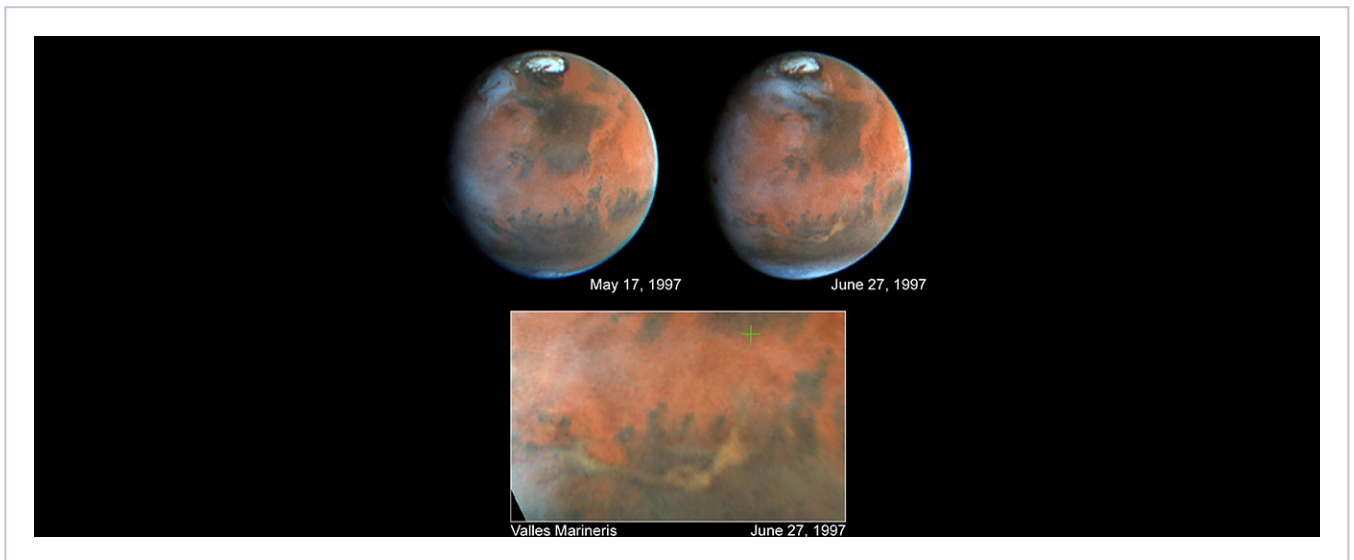
HUBBLE'S LOOK AT MARS SHOWS CANYON DUST STORM, CLOUDY CONDITIONS FOR PATHFINDER LANDING

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SUMMARY

Hubble telescope pictures of Mars, taken June 27, 1997 in preparation for the July 4 landing of the Pathfinder spacecraft, show a dust storm churning through the deep canyons of Valles Marineris, just 600 miles (1,000 kilometers) south of the Pathfinder spacecraft landing site.

Astronomers also report the presence of patchy cirrus clouds over the landing site and very thick clouds to the north. Because there are so many clouds (related to low temperatures in the atmosphere causing water vapor to freeze), the dust will probably stay confined to the canyons, they conclude. The green cross on the bottom picture identifies the Pathfinder landing site.



Canyon Dust Storm, Cloudy Conditions for Pathfinder Landing on Mars

Hubble Space Telescope pictures of Mars, taken on June 27 in preparation for the July 4 landing of the Pathfinder spacecraft, show a dust storm churning through the deep canyons of Valles Marineris, just 600 miles (1000 km) south of the Pathfinder spacecraft landing site.

"Unless the dust storm were to evolve into a massive, global event, its effects on the Pathfinder mission should be minimal, says Steve Lee of the University of Colorado in Boulder, Colorado. "This is something we did not expect to see."

The Hubble astronomers also report the presence of patchy cirrus clouds over the landing site and very thick clouds to the north. Because there are so many clouds (related to low temperatures in the atmosphere causing water vapor to freeze), the dust will probably stay confined to the canyons, they conclude.

If dust rises to the elevations where the water-ice clouds form, ice condenses on dust grains and the heavier ice/dust particles quickly fall back out of the atmosphere. Though the dust could extend at low altitudes over the landing site, researchers say current prevailing winds should not take the dust northward.

"If dust diffuses to the landing site, the sky could turn out to be pink like that seen by Viking," says Philip James of the University of Toledo. "Otherwise, Pathfinder will likely show blue sky with bright clouds."

The imaging team includes Steve Lee of the University of Colorado at Boulder's Laboratory for Atmospheric and Space Physics, Todd Clancy of Boulder's Space Science Institute, Phillip James of the University of Toledo, Mike Wolff of the Space Science Institute and Jim Bell of Cornell University.

ABOUT THIS RELEASE

Credits

Phil James (Univ. Toledo), Steve Lee (Univ. Colorado) and Mike Wolff (Univ. Toledo) and [NASA](#) bar

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