Mars: Location, location, location

NASA scientists are searching for safe landing sites for two new Mars rovers. The rovers must land near the equator, where there is enough sunlight to power solar arrays, and

in spots that are not too windy, rocky or steep. The landers will bounce down in ellipses that are 50 miles by 12 miles, slightly smaller than Cape Cod.



This flat map (above) of the middle latitudes of Mars was generated by the Mars Orbiter Laser Altimeter aboard NASA's Mars Global Surveyor. The colorized map represents 27 million elevation measurements gathered in 1998 and 1999. Closeup-images of the landing sites are available online at marsoweb.nas.nasa.gov/dataViz/index.html.

1 Meridiani	2 Isidis	Elysium	Gusev Crater
Pros: Major hematite deposits imply water was once present. Flat with low winds. Cons: None.	Pros: Flat plain may contain interesting rocks that tumbled down from the mountains. Cons: Volcanic plain of little geological interest and very windy.	Pros: Extremely flat, and so calm it has become known as the "wind-safe" site.Cons: With little variation, some call the area boring.	Pros: Layered rocks and possible stream channel indicate water may have been present. Cons: Winds and turbulence may make landing hazardous.

Bouncing onto Mars

Equator

After a seven-month, 286-million-mile trip from Earth, the landers will smack onto the Martian surface in a ballistic landing in January 2004.



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