

Iani Chaos, Margaritifer Terra, Mars

The source of the outflow channel Ares Vallis lies in an area of jumbled and broken slabs of rock. This area, called Iani Chaos, probably formed when the groundwater (or ice) aquifer failed and catastrophically released water onto the surface. The rock was undermined and collapsed into broken massifs. This image is 146 kilometers across.

Nearly all tributaries flowing into Ares Vallis, as well as other outflow channels emptying into the Chryse Basin, originate in areas of chaos located near the eastern and northern ends of Valles Marineris. Several flood events may have occurred in each channel. The trigger for these events is unknown.

Mars Pathfinder landed successfully at the mouth of Ares Vallis in July 1997.

Location: 2.0° N, 18.0° W
Quadrangle: MC-11
Mission: Viking 1
Image Numbers: 367S22, 689A03

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