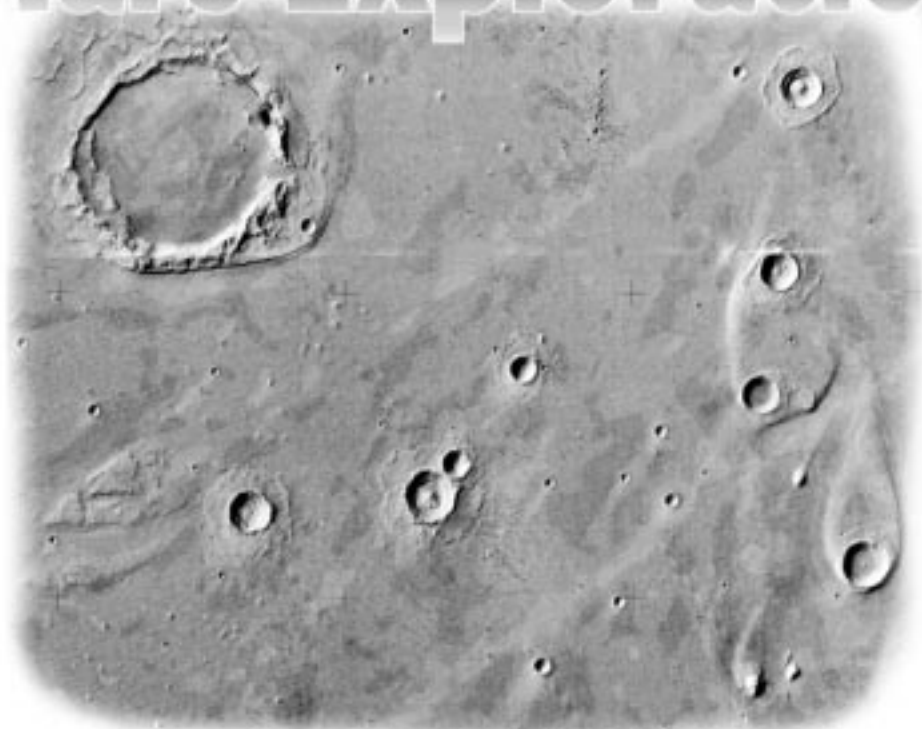




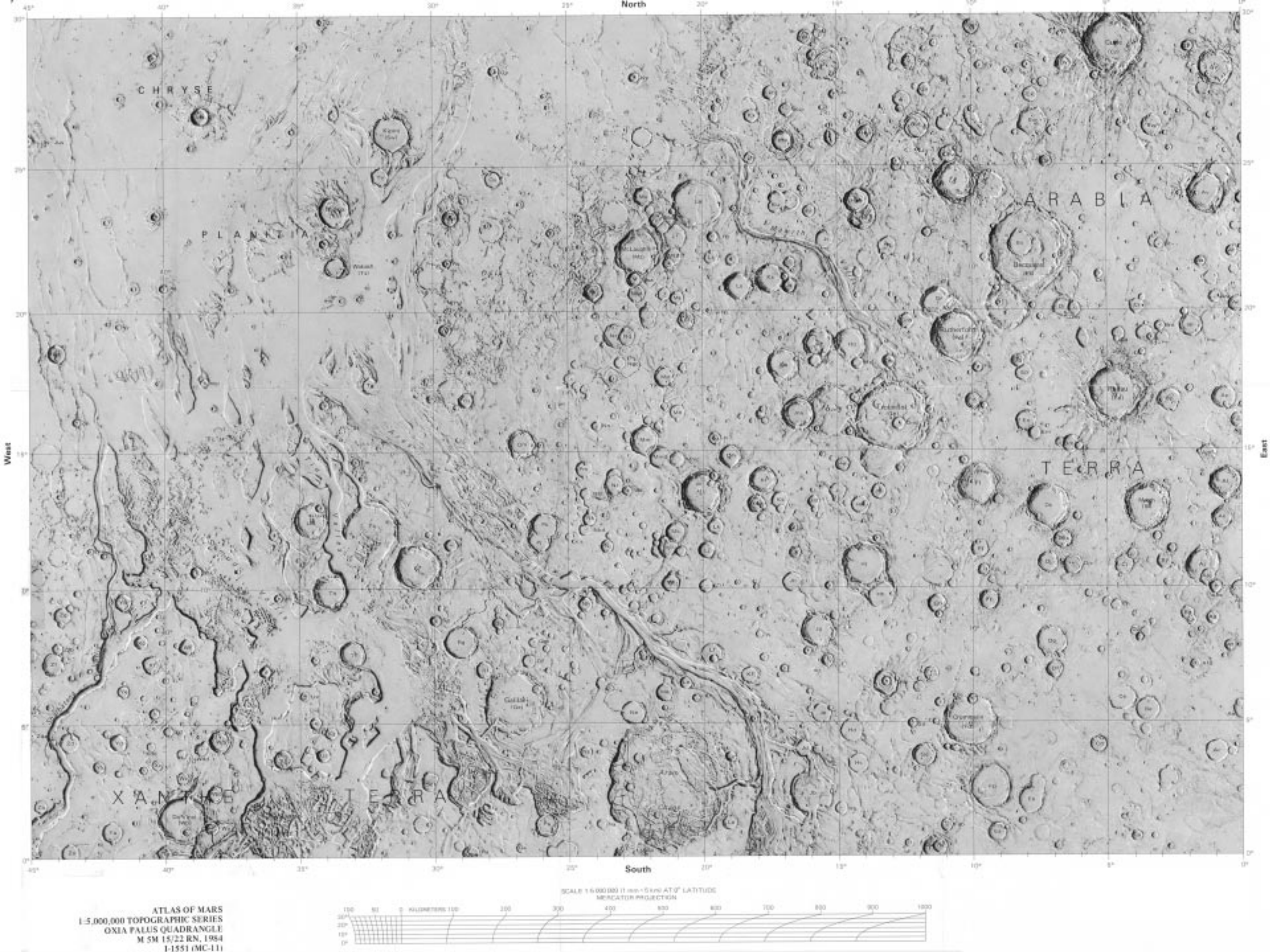
# Mars Exploration



**The Great Martian Floods  
and Pathfinder Landing Site**

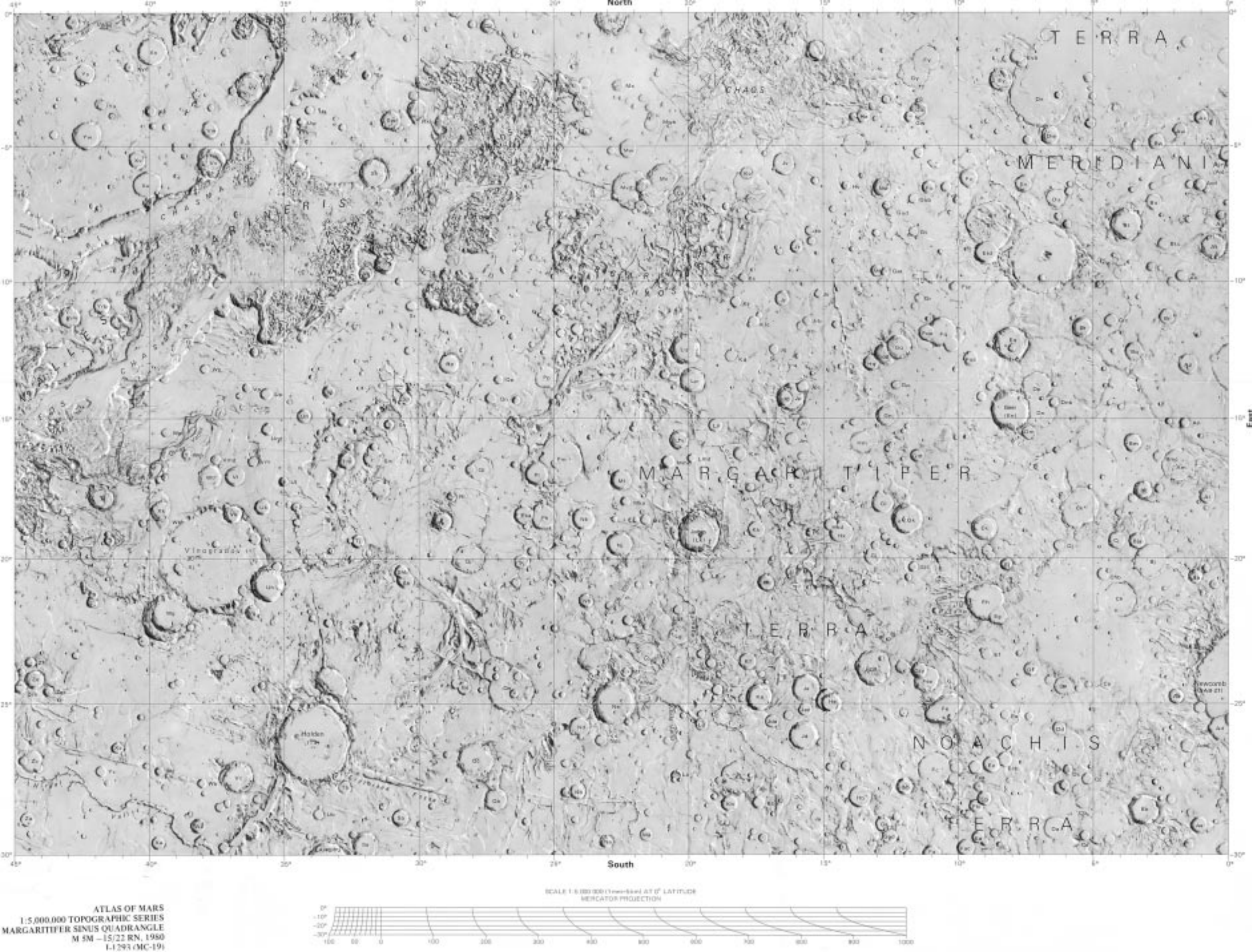
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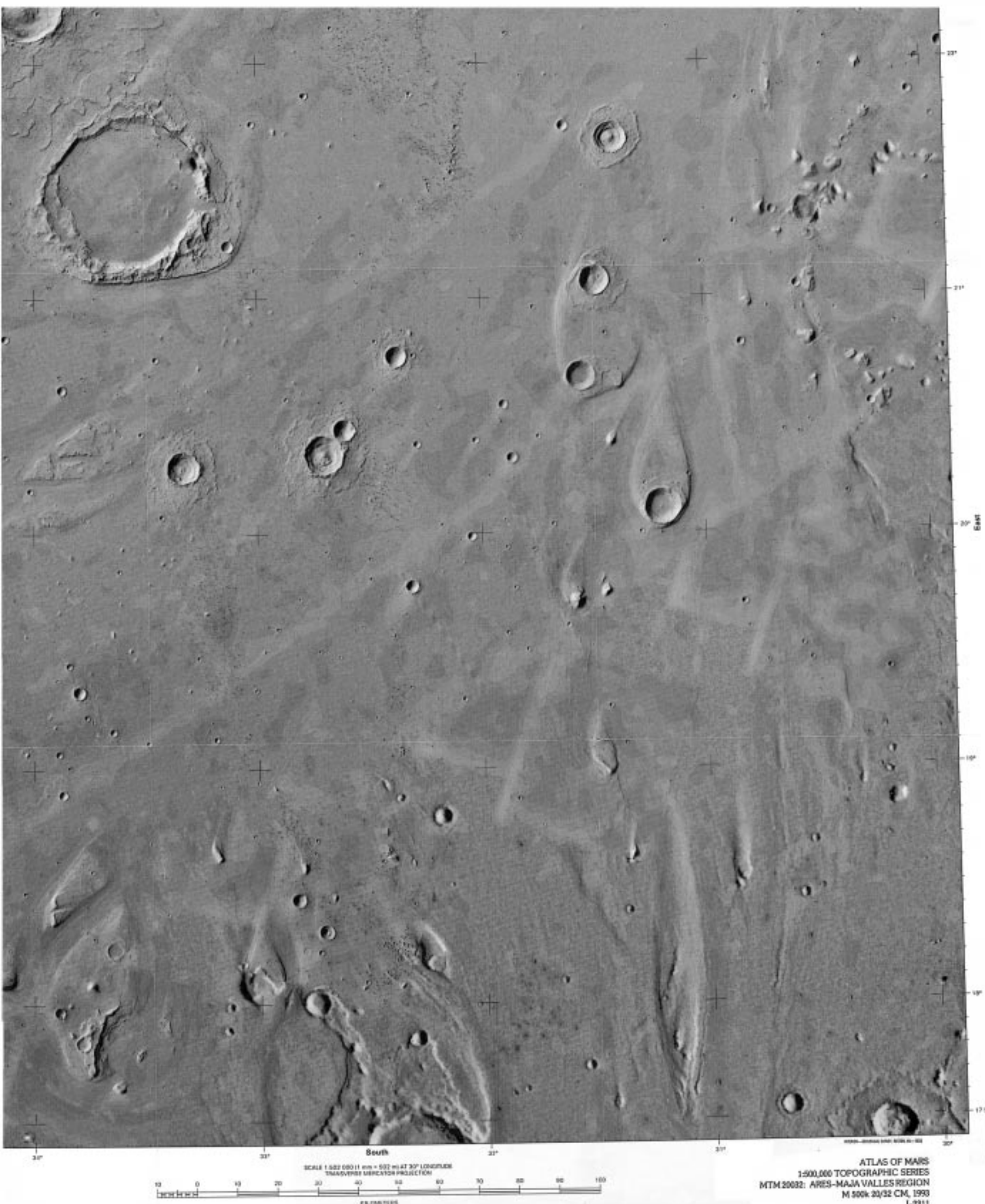


**Image 1** Regional map of the channels descending from the highland plateau to the low-lying Chryse Planitia (Chryse plain) 2-3 km (1.25 mi) below.  
**This map adjoins Image 2.**



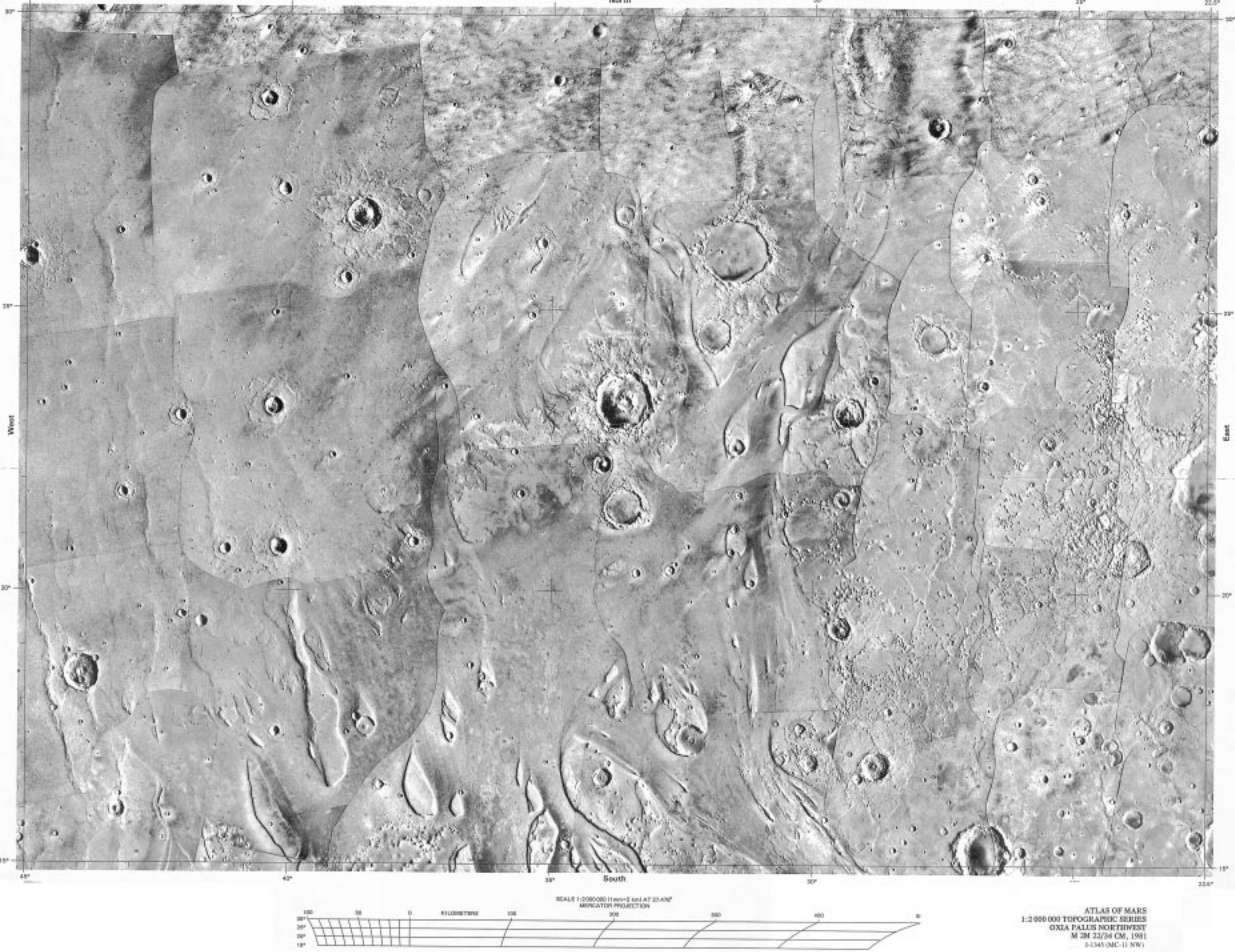


**Image 2** Regional map of the chaotic terrain at the eastern end of Valles Marineris (the Mariner Valleys). Note the Iani and Margaritifer Chaos in the highland plateau at the head of Ares Vallis (Ares Valley). This map adjoins Image 1.

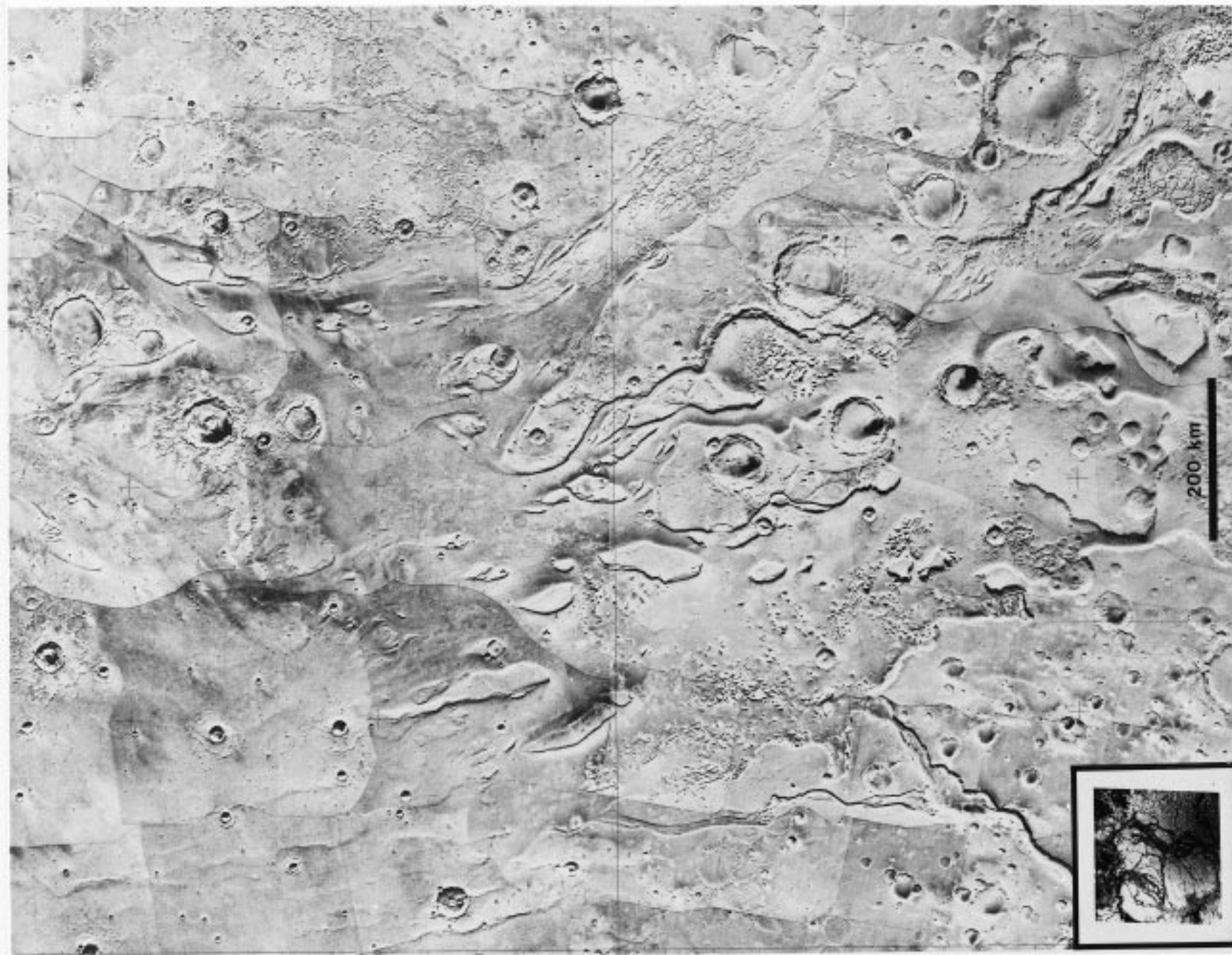


**Image 3** Photomosaic (i.e., using many small images to create one large image) of the terminus of Ares Vallis where it joins the Chryse Planitia, and a close-up of the Pathfinder landing site.





**Image 4** Photomosaic of the terminus of Ares Vallis where it joins the Chryse Planitia. This photomosaic adjoins Image 7.



**Image 5** Photomosaic showing where the Ares, Tiu, Simud and Shalbatana Valles join the Chryse Planitia. The inset shows the Scablands at the same scale. The scale is on the south edge of the image.



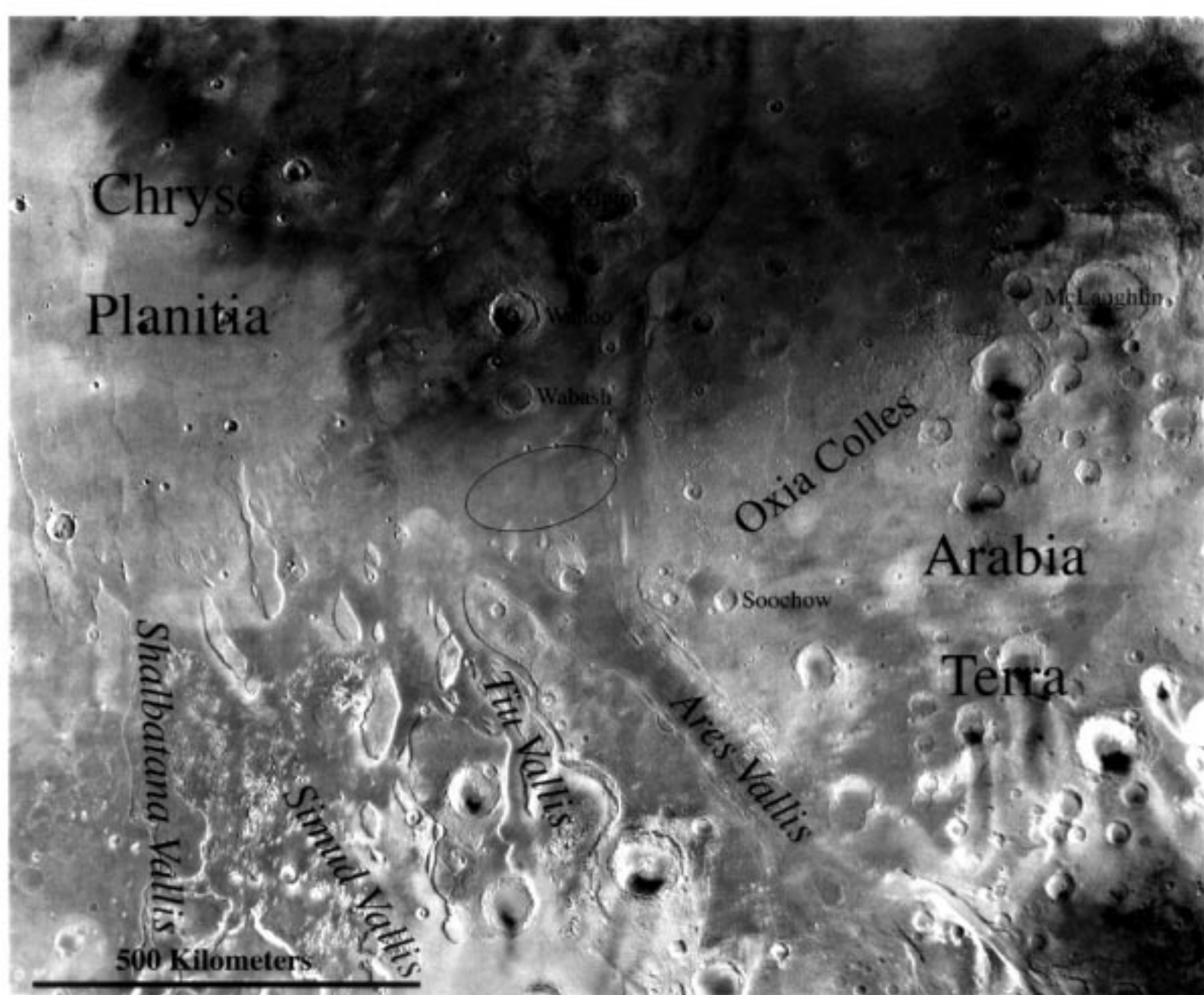
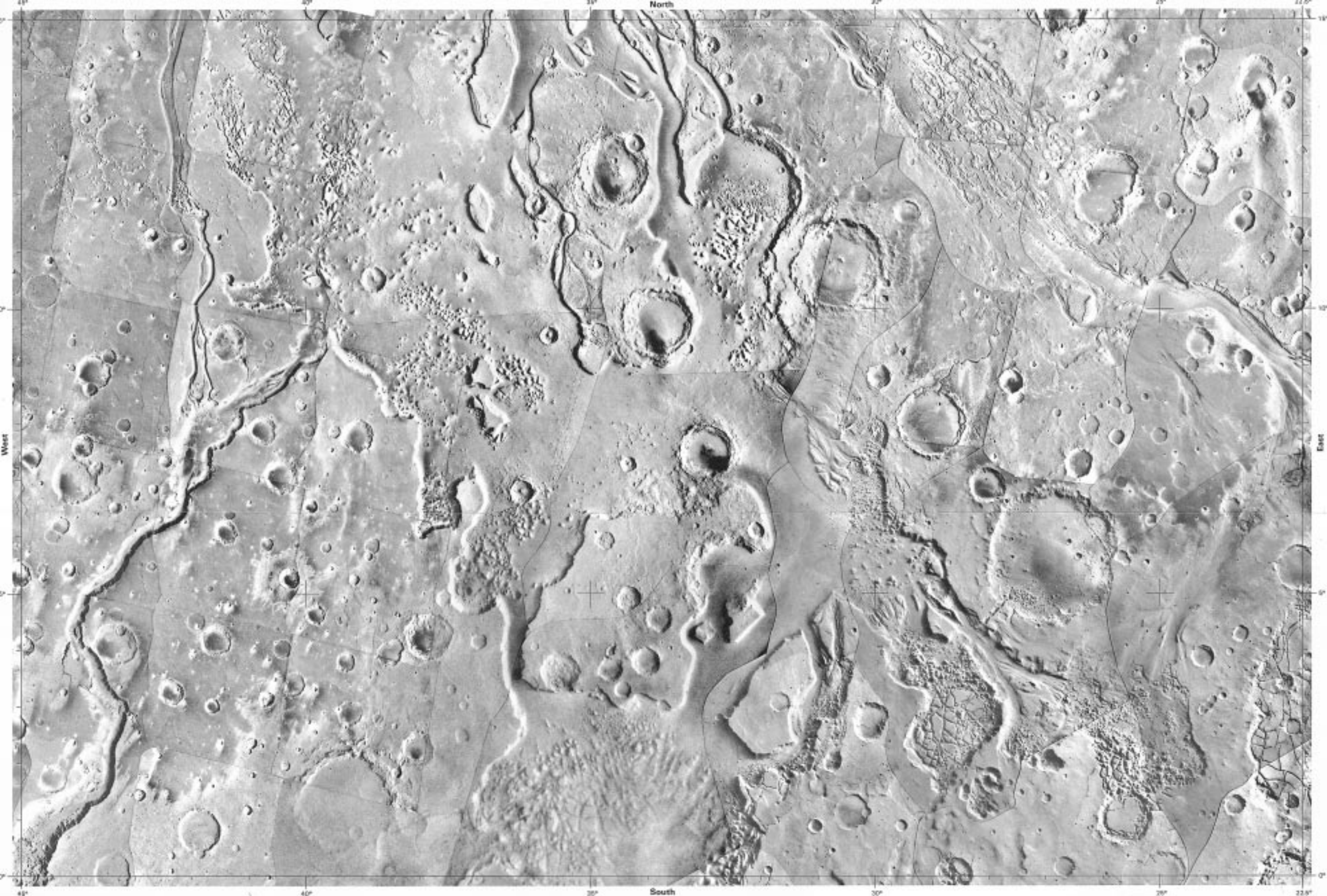
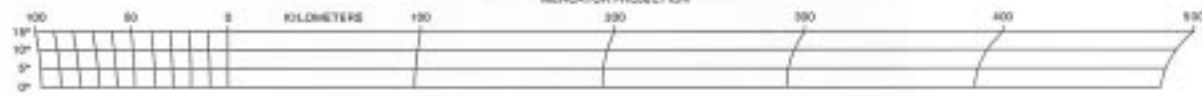


Image 6 Photomosaic showing the region surrounding the 100 km x 200 km ellipse (superimposed on the image) that marks where NASA intends to land Pathfinder. From which direction might the spacecraft approach the landing site? Why is the landing site an ellipse and not a circle?



SCALE 1:2000 000 (1 mm=2 km) AT 27.47°  
 MERCATOR PROJECTION



ATLAS OF MARS  
 1:2 000 000 TOPOGRAPHIC SERIES  
 OXIA PALUS SOUTHWEST  
 M 2M 7/34 CM, 1981  
 1-1343 (MC-11 SW)

**Image 7** Photomosaic centering on the Tiu Vallis. Note the Hydraspis Chaos ( $3^{\circ}\text{N}$ ,  $25\text{-}29^{\circ}\text{W}$ ) and the Hydraotes Chaos ( $2^{\circ}\text{N}$ ,  $35^{\circ}\text{W}$ ).  
 This photomosaic adjoins Images 4, 9 and 15.





Image 8a Giant pot holes, hundreds of feet deep, in the Columbia Plateau.



**Image 8b** Distinct boundary: Scablands stripped of soil on one side of the road and farm fields on the other side.





Image 8c Teardrop-shaped hill in the middle of a field.

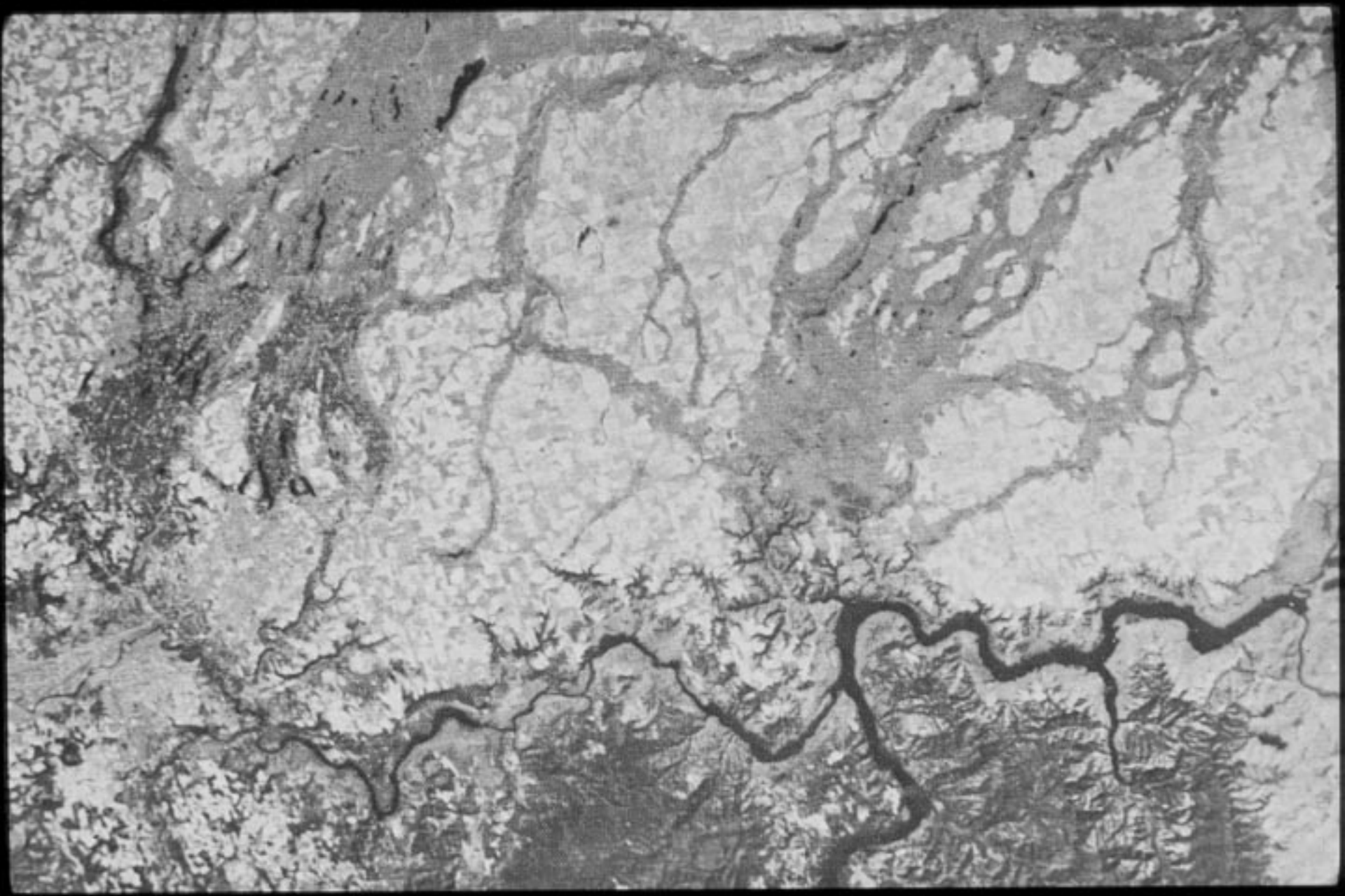


Image 8d Satellite view of the Scablands.





**Image 8e** 100 ft high hills of soil surrounded by seablands and dry channels.



Image 8f 300 ft tall cliffs, dry channels and scablands at Dry Falls, Washington.





**Image 8g** 300-400 ft deep chasms at Palouse Falls. The chasm and surrounding plateau are stripped of soil. Soil only exists on the highest mesas in the area.

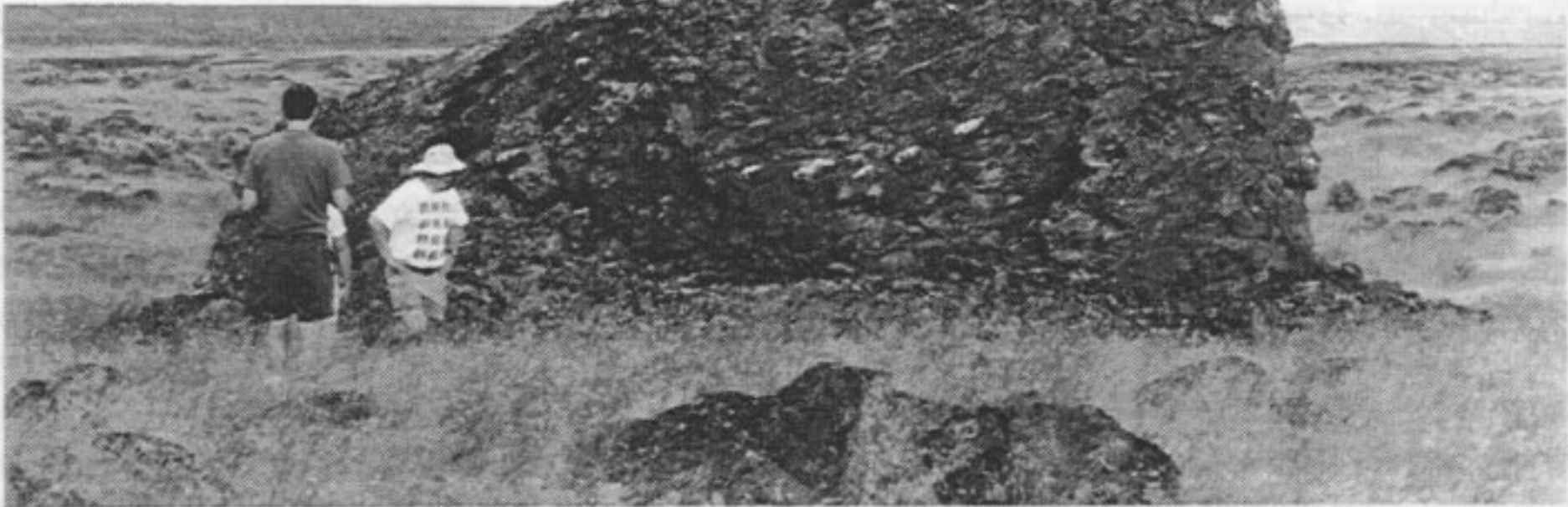


Image 8h A field filled with erratics, rocks far from their points of origin.

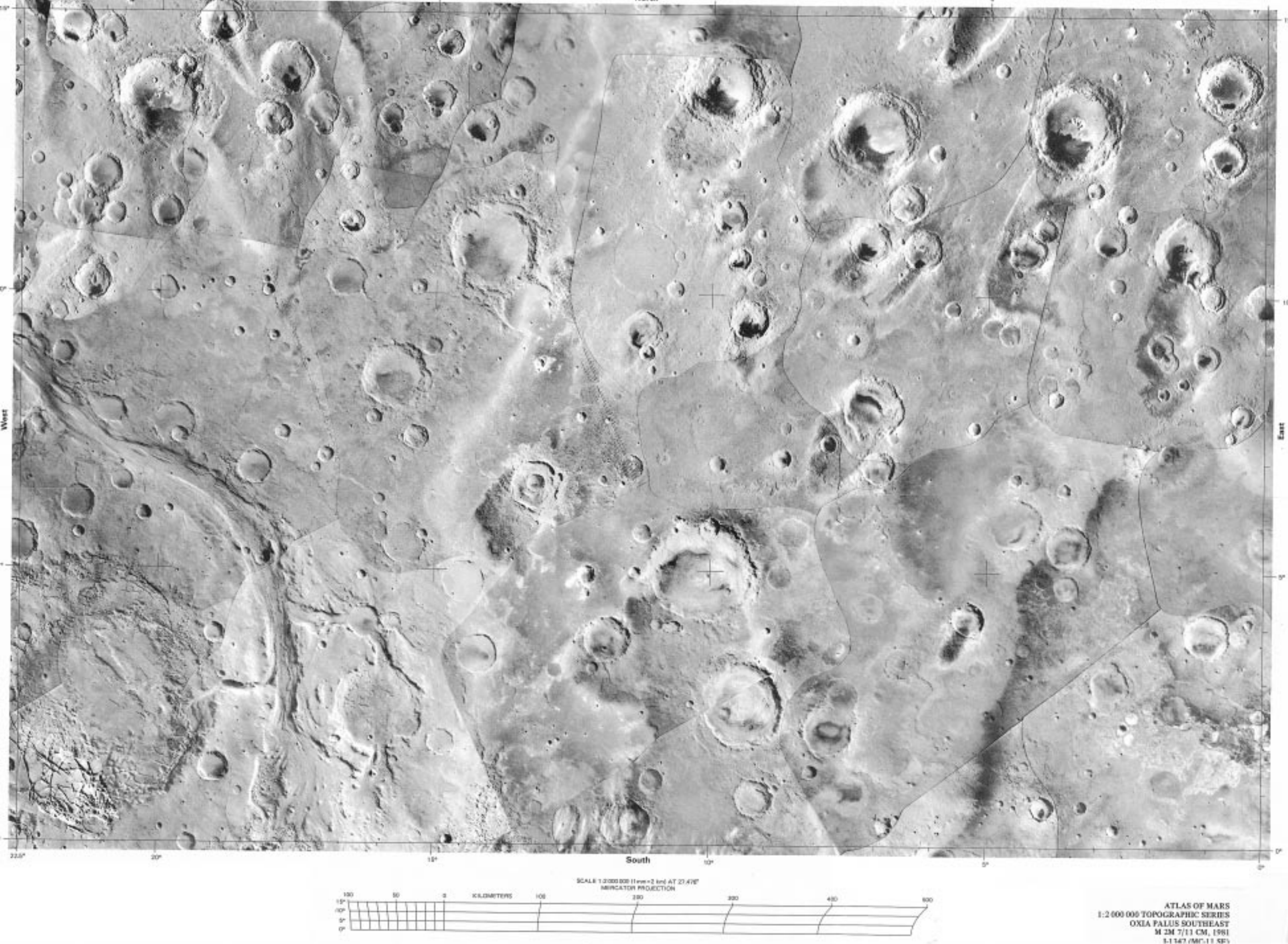


Image 8i Giant ripple marks 50 ft tall and a half-mile long near Markle Pass, Montana.





**Image 8j** Hanging Valley (arrow) in wall of Lower Grand Coulee. River cut V-shaped valley indicates conditions before the cliff face developed.



**Image 9** Photomosaic of the Arabia Terra (extensive land mass) cut by Ares Vallis. Note Aram Chaos. Also shown is a crater that has been breached by a flowing fluid. This photomosaic adjoins 7 and 12.