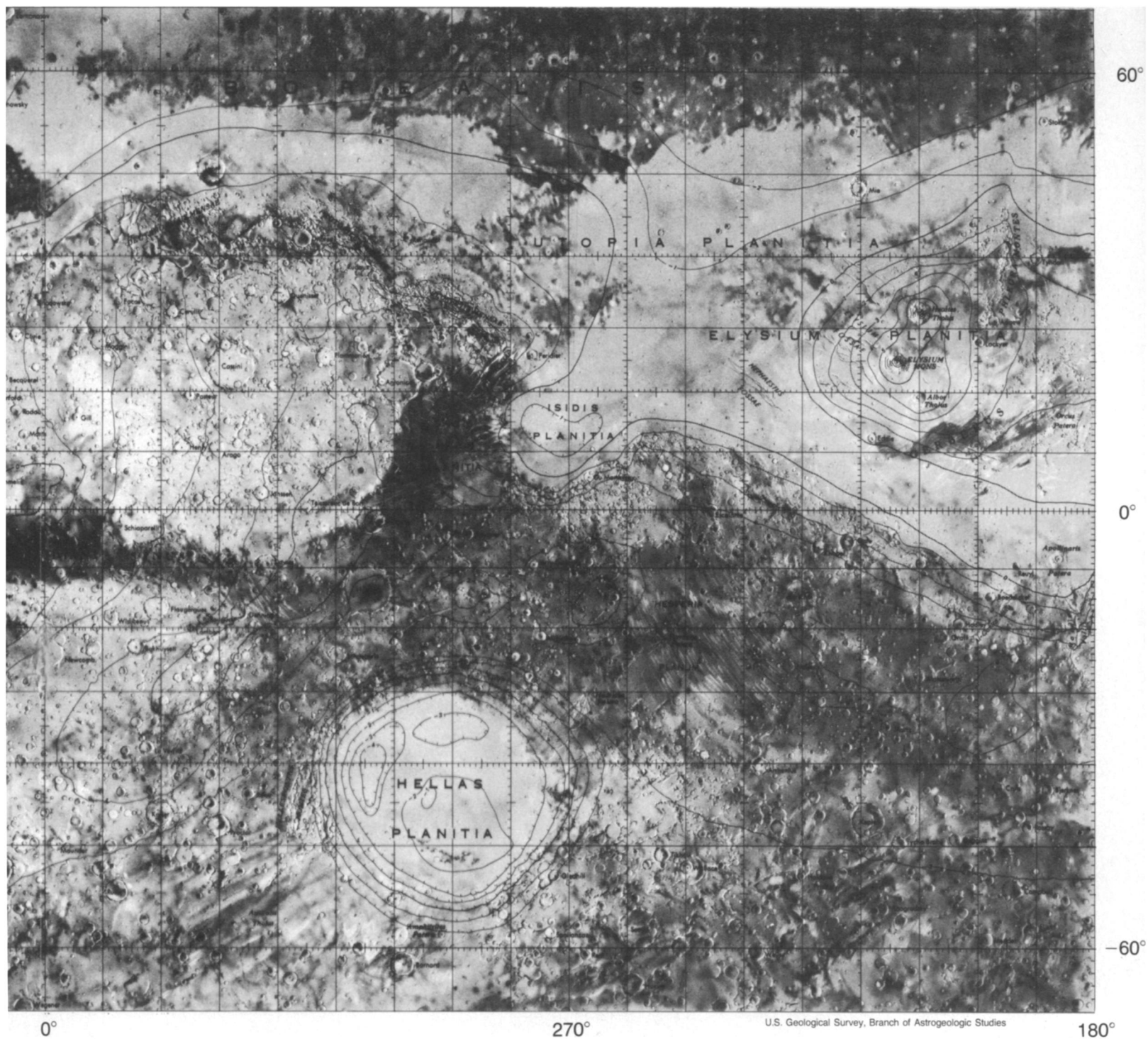


This map, the most refined in existence of the planet Mars, was prepared by the Photogrammetry Unit and the Planetary Cartography Unit of the U.S. Geological Survey's Branch of Astrogeologic Studies in Flagstaff, Ariz. The photograph, painstakingly enhanced by computer, is from the Mariner 9 spacecraft. Other Mariner 9 data used in the project included ultraviolet and infrared spectrometry, radio occultation measurements and gravitational analyses. A theoretical model was used to calculate oblateness effects. The elevation contour lines were drawn with the help of radar studies from facilities at Arecibo in Puerto Rico, Goldstone in California and Haystack in Massachusetts. Albedo information from Mariner 9 was correlated with earth-based telescopic observations. The place names include the latest nomenclature approved by the International Astronomical Union. Maps of the poles appear on p. 371.



# MARS

## Viking Landing Sites:

**Lander 1** primary site 19.5°N 34°W  
 backup site 20.0°N 252°W

**Lander 2** primary site 44.3°N 10°W  
 backup site 44.2°N 110°W  
 alternate site 4.25°S 43.75°W