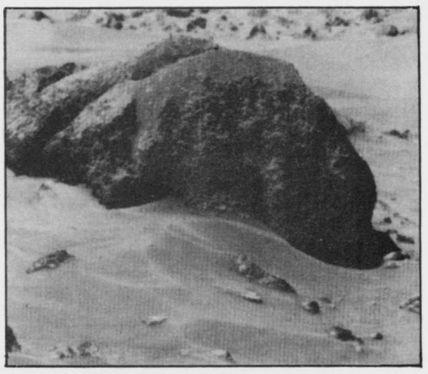
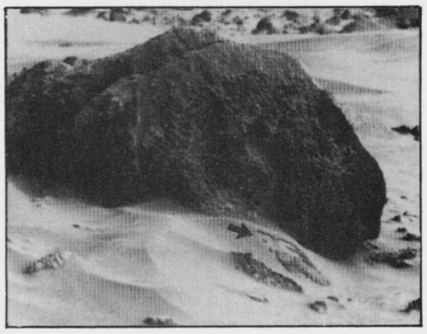
MARS ALBUM 7

Composites and comparisons

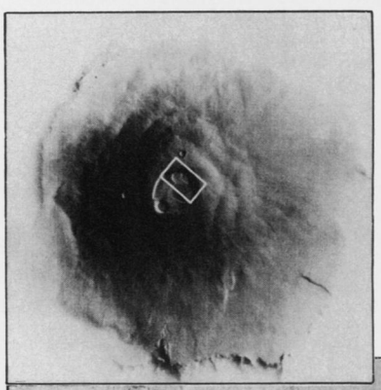
North polar mosaic, laboriously assembled from hundreds of photos taken last fall by Viking orbiter 2, shows near-concentric melt patterns in the water-ice cap, probably formed in part by circumpolar winds.

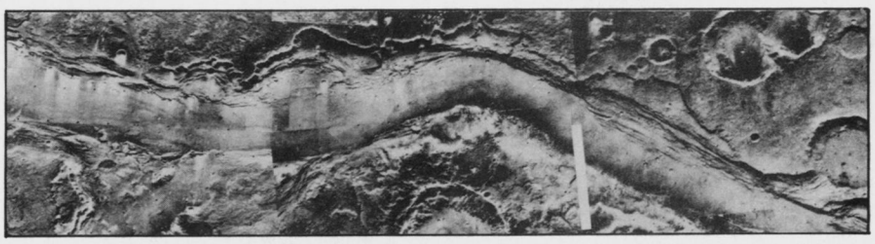




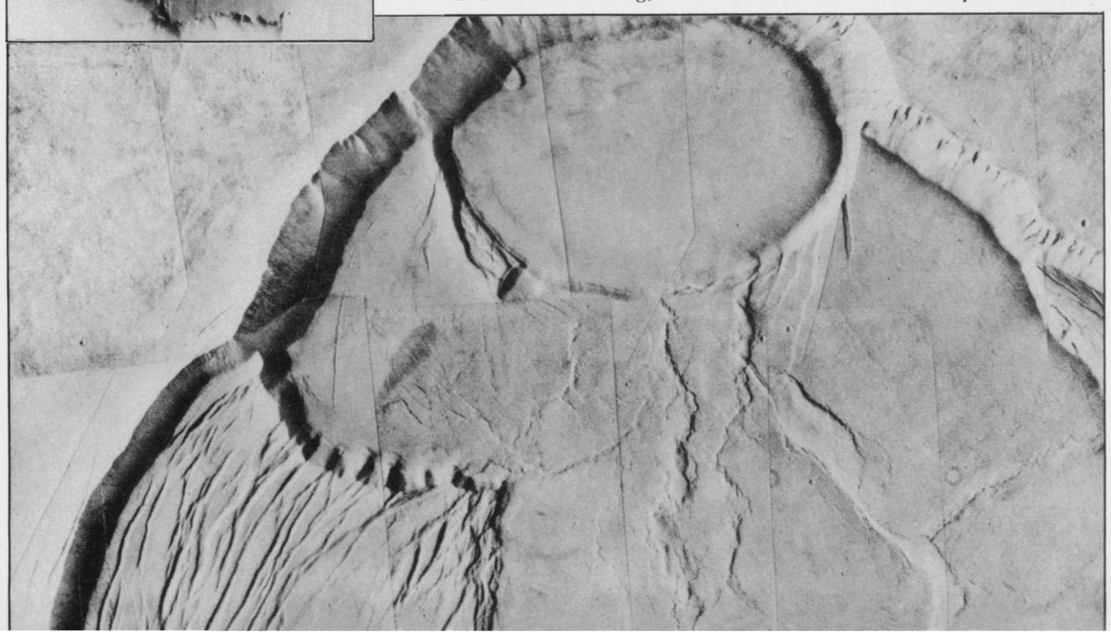
Photos-NASA

The only "unequivocal movement" ever observed on the Martian surface by the Viking landers in their more than 15 months of operation is this slight slumping of the crust (arrow) near the boulder known as "Big Joe," 8 to 10 meters from lander 1. It could have been triggered by wind, tremor, frost heave or other cause, and took place sometime between 10/4/76 and 1/24/77 (uncertain due to limited photo coverage).





Portion of Ares Vallis, one of several huge channels roughly radial to Chryse basin. One hypothesis is of an ancient tectonic crack, followed by subsurface heating that released water from permafrost to shape the channel, subsequently eroded by wind. Section shown is about 270 kilometers long, 20 km wide and 1 to 2 km deep.



Right "down the hole" of Olympus Mons (inset photo from Mariner 9), a Martian volcano as wide as New Mexico, as Viking orbiter 1 looks directly into the huge caldera itself. Deepest crater (top center) is about 25 km across; walls are 2.4 to 2.8 km high. The different floor levels show distinct flow and faulting patterns.