

Olympus Mons Tharsis Region, Mars

This Viking 3-D view features Olympus Mons, which is the largest of the more than 12 large volcanos in the Tharsis Montes volcanic province. Measuring 600 kilometers across and 21 kilometers high, Olympus Mons is also probably the largest volcano in the solar system. In contrast, the largest volcano on Earth, Mauna Loa, is 120 kilometers across and 9 kilometers high.

Olympus Mons is a classic broad shield volcano with slopes averaging 4° and ranging up to 10° . The large complex summit caldera is 65 – 85 kilometers wide. The general characteristics of Olympus Mons resemble those of the great Hawaiian volcanos, and suggest that its lava may be basaltic or basaltic andesite in composition. Some of the lava flows on Olympus Mons probably formed in the last 200 million years and are among the youngest features on Mars.

A nearly continuous scarp 2–10 kilometers high formed at the base of Olympus Mons. Beyond the scarp and surrounding the volcano on nearly all sides lie a series of quasicircular ridged deposits called aureoles. The scarp and the aureole may be related.

Location: 18.0° N, 133.0° W
Quadrangle: MC-9 (Tharsis)
Mission: Viking 1
Image Numbers: 646A28, 646A71

3-D Tour of the Solar System

©Lunar and Planetary Institute, 1997
<http://www.lpi.usra.edu>

use 3-D glasses to view image

