



Parts of the lander visible at the bottom of the picture are the cover of a Radioisotope Thermoelectric Generator (RTG) (line 300, sample 2800) and the mounting structure of leg 2 of the lander (line 850, sample 4200).

GLIOMETRY OF THE MOSAICS

The cameras on the Viking Lander acquire data by sampling in equal increments of elevation and azimuth angle. In the accompanying mosaic, 8 mm subtends a 1° horizontal and vertical angle, regardless of the place of measurement within the panorama. If the station surface were flat, one would see 0.04° on the surface would be 1 mm wide at 60° camera elevation and 2 m wide at the horizon 3 km away. Characteristically for this type of imaging system, most straight lines in the scene appear curved in the reconstruction. This representation of the picture data differs from that of a con-

Each complete mosaic extends 342.5° in azimuth, from approximately 5° above the horizon to 60° below. A complete mosaic incorporates approximately 15 million picture elements (pixels). In order to manage the processing of such large data bases, each mosaic was compiled from four individual azimuthal sectors.

The residual azimuth angle errors are less than 1 pixel along the horizon and become larger with steeper elevation angles and large lander tilts. For the worst case, Lander 2, camera 1, this error is a maximum of 5.7 ± 1 pixels at -60° elevation. The somewhat sinusoidal azimuth-dependent residual elevation error is a maximum of 3 ± 1 pixels for Lander 2, camera 1, and approximately 1 pixel for the other cameras.

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