

Fig. 4. Venera 9 panorama in Viking lander survey mode perspective. This is a cylindrical Mercator projection such that the horizon should appear flat if the spacecraft is not tilted. In such a projection, distortion is minimized at the horizon and increases as one approaches the spacecraft (e.g., note the appearance of the circular base of the spacecraft). See text for further details.

distribution. Some of the fines at the Venera 10 site may have been perturbed by the spacecraft landing and carried aloft in a dust cloud that later settled in the near field [Garvin, 1981]. This suggests that the soil materials are loose enough to be mobilized by a gas flow resulting from wake turbulence due to the spacecraft landing (spacecraft terminal velocity of 8–10 m/s).

Summarizing observations of the Venera 10 locality, the most characteristic features are that (1) significant bedrock exposures cover up to 60% of the visible surface area, (2) there is a paucity of discrete fragments (those fragments that are observed are at least partially embedded in the interbedrock soil patches), (3) fractures and linear features are visible on bedrock surfaces and often display orthogonal or parallel relationships with other fractures, and (4) fine materials occur in

bedrock surface depression forming regular and irregular dark spots and patches.

Venera 13

A factor of 2 improvement in resolution for Veneras 13 and 14 over that of Veneras 9 and 10 (4–5 mm versus 10 mm per line pair) allows small-scale features to be better characterized. At this higher resolution it is possible to characterize in greater detail the coarse fraction (5–10 mm) of the particles that make up the fine/soil component. In addition, small-scale features such as pits, undulations, and possible clasts can be recognized. Figures 6, 7, 10, and 11 show the Venera 13 scene in various perspectives.

As at the Venera 10 site, there is a significant bedrock component at Venera 13, with up to 50% of the visible surface

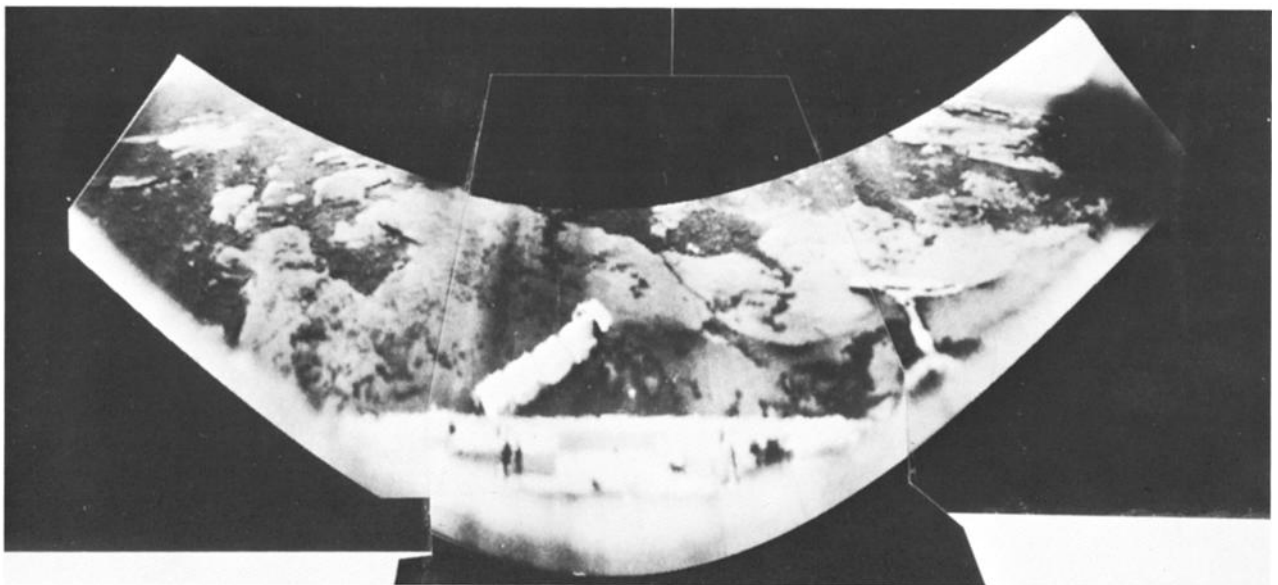


Fig. 5. Venera 10 panorama in Viking lander survey mode perspective.