Picture 10

This picture was taken with the Viking '75 Lander Camera during a period of science testing in June, 1974. Two Viking spacecraft will be launched from Earth in the summer of 1975 and will land on Mars in the summer of 1976. Each Lander will be equipped with two cameras, identical in design and performance to the one which took this picture.

This is a facsimile camera, different in design from the television and film cameras which have been used on many space missions. The field of view is not imaged simultaneously. Instead, adjacent vertical lines are successively scanned. Reflected light from each of the "picture elements" in the line is recorded on a very small photodiode located in the focal plane of the camera. Actually, 12 diodes are available for use, each optimized for a different distance and different part of the visible-near IR spectrum.

This picture was taken at the conclusion of testing at the Great Sand Dunes National Monument, Colorado. All of the persons participating in the test appear in this high resolution (0.04°) panorama. Because the camera scans slowly in azimuth (from left to right), it was possible for some of the participants to position themselves in the field of view several times. Artificially clipped bodies appear where people moved before the camera had completed scanning the sector in which they stood.


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