

**NOTES ON BASE**  
This is one photomosaic in a set of topographic map sheets covering areas of special interest on Mars at nominal scales of 1:1,000,000 and 1:250,000 (Barton 1973, 1976). The major source of map data was the *Milnes 3 stereographs*.

## ADOPTED

ADOPTED FIGURE

## PROJECTION

**PROJECTION**  
The transverse Mercator projection is used for this sheet, with a scale of 1:1,000,000 at the central meridian. Longitudes increase to the west in accordance with the usage of the International Astronomical Union (IAU, 1971). Latitudes are geographic (de Vaucouleurs and others, 1973). The first meridian passes through the crater Airy-0 (lat.  $5.19^{\circ}$  S) within the crater Airy.

### CONTROL

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Planimetric control was derived from the primary network (Davies, 1973). Two Mariner 9 frames (DAS 11976589 and DAS 11976729) were transformed and scaled to the transverse Mercator projection and fitted to the Mariner 9 control net. The placement of Viking 1 frames shown in the index was controlled by matching images on the Viking 1 and Mariner 9 frames.

### GE PROCESSING

### IMAGE PROCESSING

Two Mariner 9 frames and fifty-nine Viking 2 frames were specially processed in the computer. Processing included artifact and noise removal, contrast enhancement and spatial filtration to remove camera shading and to enhance fine details.

## NOMENCLATURE

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Names on this sheet are proposed, except for the following which have been approved by the International Astronomical Union (1974): M1e and Utopia. The names of the craters are also designated by letters in parentheses: the first three letters identify the 1:5,000,000 Cebrenia (CEB) and Causus (CAS) sheets which cover this area. The final two letters identify the same crater on either the Cebrenia or Causus sheet where the letters refer to position on the sheet. Positions are derived from a grid based on equidistant meridians and parallels, the alphabet (I and J omitted) runs in the direction of increasing longitude (W) and latitude (N).

M 1M 46/230 CM: Abbreviation for Mars, 1:1,000,000 series; center of sheet, 46° N latitude, 230° longitude; controlled mosaic, 1988.

### SPACECRAFT LOCATION

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The spacecraft location shown on the map (47.968 N, 225.71°W) was derived by Doppler tracking of spacecraft radio signals (Michael and others, 1976). The approximate precision of the location is  $\pm .08$  deg. latitude and  $\pm .22$  deg. longitude. The location has not yet been identified unambiguously by comparison of pictures taken from orbit with those taken by the lander.

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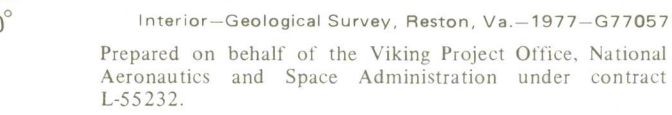
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CONTROLLED MOSAIC OF THE UTOPIA PLANITIA REGION OF MARS  
(VIKING 2 LANDING SITE)  
M 1M 46/230 CM  
1977

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Numbers shown in *italics* refer to Marriener 9 pictures used to provide the base count to which the Winking 2 pictures are measured. Marriener 9 groups were not used in the cross-hatched area.

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