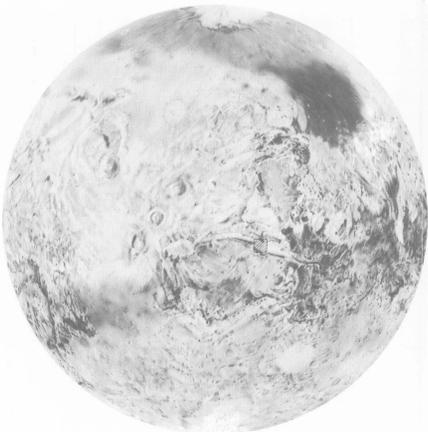


Interior-Geological Survey, Reston, Va.—1984—G84094
Prepared on behalf of the Planetary Geology Program,
Planetary Division, Office of Space Science, National Aeronautics and Space Administration under contract W-13,709.

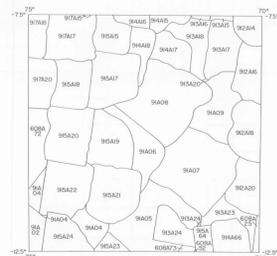


QUADRANGLE LOCATION
Photomosaic location is shown in the western hemisphere of Mars. Indexes of published 1:500,000-scale maps and other series are shown on the reverse side of this sheet.

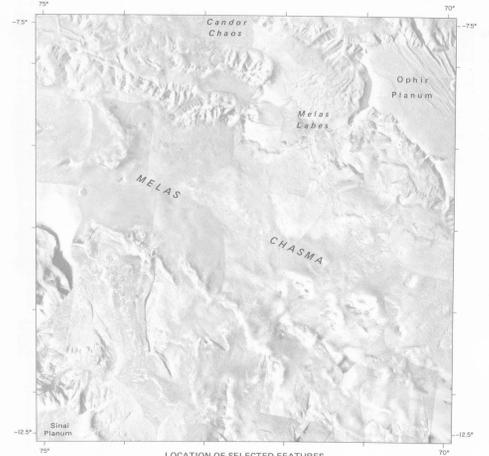
NOTES ON BASE
This photomosaic is part of a series of experimental quadrangles selected to show areas of special interest on Mars. High-resolution (less than 100 m per picture element) Viking Orbiter pictures were used to make the mosaic. The images have been digitally enhanced to accentuate high-frequency detail. Image placement is based on the 1978 control net (Davies and others, 1978) and on 1:2,000,000-scale controlled photomosaics digitally transformed to fit the transverse Mercator projection.
The projection is based on a Mars Transverse Mercator (MTM) system with 20° zones. The scale factor at the central meridian of the zone containing this quadrangle is 0.9966. The projection scale is based on an oblate spheroid (flattening of 1/192) with an equatorial radius of 3393.4 km and a polar radius of 3375.7 km.

NOMENCLATURE
All names shown on the reduced base mosaic are approved by the International Astronomical Union (IAU, 1974) except for the provisional names listed below:
Provisional names: Candor Chaos and Melas Labels.
MTM -10072 Abbreviation for Mars; Transverse Mercator projection; sheet 10072.
M 500K -10/72 CM Abbreviation for Mars; 1:500,000 series; center of sheet lat 10° S, long 72° controlled photomosaic (CM).

REFERENCES
Davies, M. E., Katayama, J. Y., and Roth, J. A., 1978, Control net of Mars: February 1975: The Rand Corporation, R-2309-NASA, 91 p.
International Astronomical Union, 1974, Commission 16: Physical study of planets and satellites, and Lunar and martian nomenclature, in 15th General Assembly, Sydney, 1973, Proceedings: International Astronomical Union Transactions, v. 15B, p. 105-106, 217-221.



INDEX TO VIKING PICTURES
The mosaic was made with the Viking pictures outlined above. Copies of various enhancements of these pictures are available from National Space Science Data Center, Code 601, Goddard Space Flight Center, Greenbelt, MD 20771.



LOCATION OF SELECTED FEATURES
Contrast in the reduced base mosaic was purposely suppressed to emphasize the names.

MTM -10072
CONTROLLED PHOTOMOSAIC OF PART OF THE VALLES MARINERIS REGION OF MARS
M 500K -10/72 CM
1984

NOTE TO USERS
Users noting errors or omissions are urged to indicate them on the map and to forward it to U.S. Geological Survey, Building 4, Room 454, 2255 North Gemini Drive, Flagstaff, Arizona 86001. A replacement copy will be returned.

For sale by Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202, and Branch of Distribution, U.S. Geological Survey, Box 26286, Federal Center, Denver, CO 80225