

**QUADRANGLE LOCATION**  
Photomosaic location is shown in the eastern hemisphere of Mars. The outline of 1:5,000,000-scale quadrangles is provided for reference.

**NOTES ON BASE**

This photomosaic is part of a series of quadrangles selected from shows areas of special interest on Mars. Visual observations show that there are many more features than can be represented by one element) 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 published by the U.S. Geological Survey (USGS), which was derived from the 1960 Mars control net (Ward and Schairer, 1984). These nets contain published standard coordinates of approximately 5 mrad, and agreement of points between the two control nets is better than 1 km. The 1978 control net covers about 2,000,000 square kilometers controlled by ground-based measurements. The 1960 Mars control net covers about 1,000,000 square kilometers; its photomosaics were transferred to the Transverse Mercator projection where control points were available. Accuracy, distribution, precision, and accuracy of additional control points used in this map series are extremely variable. A block of mosaics compiled in areas of optimum control point distribution is not likely to match adjacent blocks previously compiled. This is especially true in areas of low control point density. In areas of adjacent mosaics, the more recent compilation is probably more accurate. No attempt was made to resolve large degree discrepancies between the 1960 and 1978 control nets. The 1978 control net was projected to the Transverse Mercator (TM) system with 20 zones. The scale factor at the central meridian of the zone containing this quadrangle is 0.9960. The projection is based on an oblate spheroid (flattening of 1/392) with a

## NOMENCLATURE

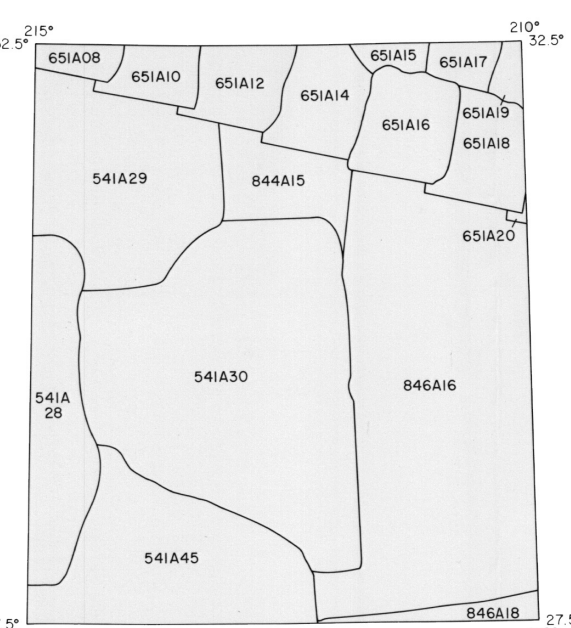
All names shown on the reduced base mosaic are approved by the International Astronomical Union (IAU, 1974, in press).

MTM 30212	Abbreviation for Mars; Transverse Mercator projection sheet 30212.
M 500K 30/212 CM	Abbreviation for Mars; 1:500,000 series; center of sheet la 30° N., long 212°; controlled photomosaic (CM).

## REFERENCES

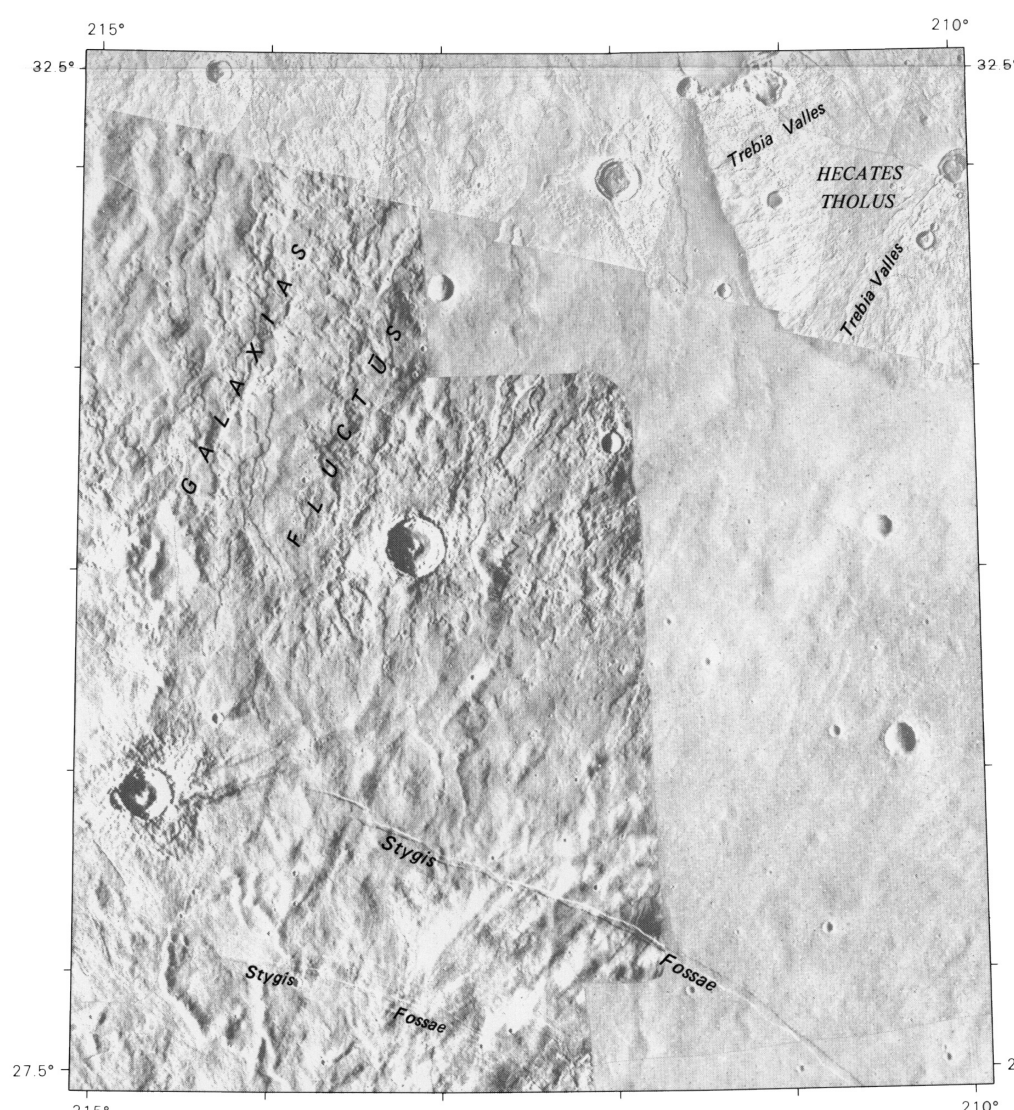
REFERENCES  
Davies, M.E., and Katayama, F.Y., 1983, The 1982 control network of Mars: *Journal of Geophysical Research*, v. 88, no. B9, p. 7503-7504.  
Davies, M.E., Katayama, F.Y., and Roth, J.A., 1978, Control net of Mars: February 1978: The Rand Corporation, R-2309-NASA, 91 p.  
International Astronomical 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. 105-108, 217-221.

Wu, S.S.C., and Schafer, F.J., 1984, Mars control network: American Society of Photogrammetry, in Technical papers of the 50th annual meeting of the American Society of Photogrammetry, v. 2, Washington, D. C., March 11-16, 1984, p. 456-463.



INDEX OF 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 FEATURES**  
Contrast in the reduced base mosaic was purposely suppressed to emphasize the names.

MTM 30212  
CONTROLLED PHOTOMOSAIC OF PART OF THE  
ELYSIUM MONS REGION OF MARS

1986

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  
Box 25286, Federal Center, Denver, CO 80225