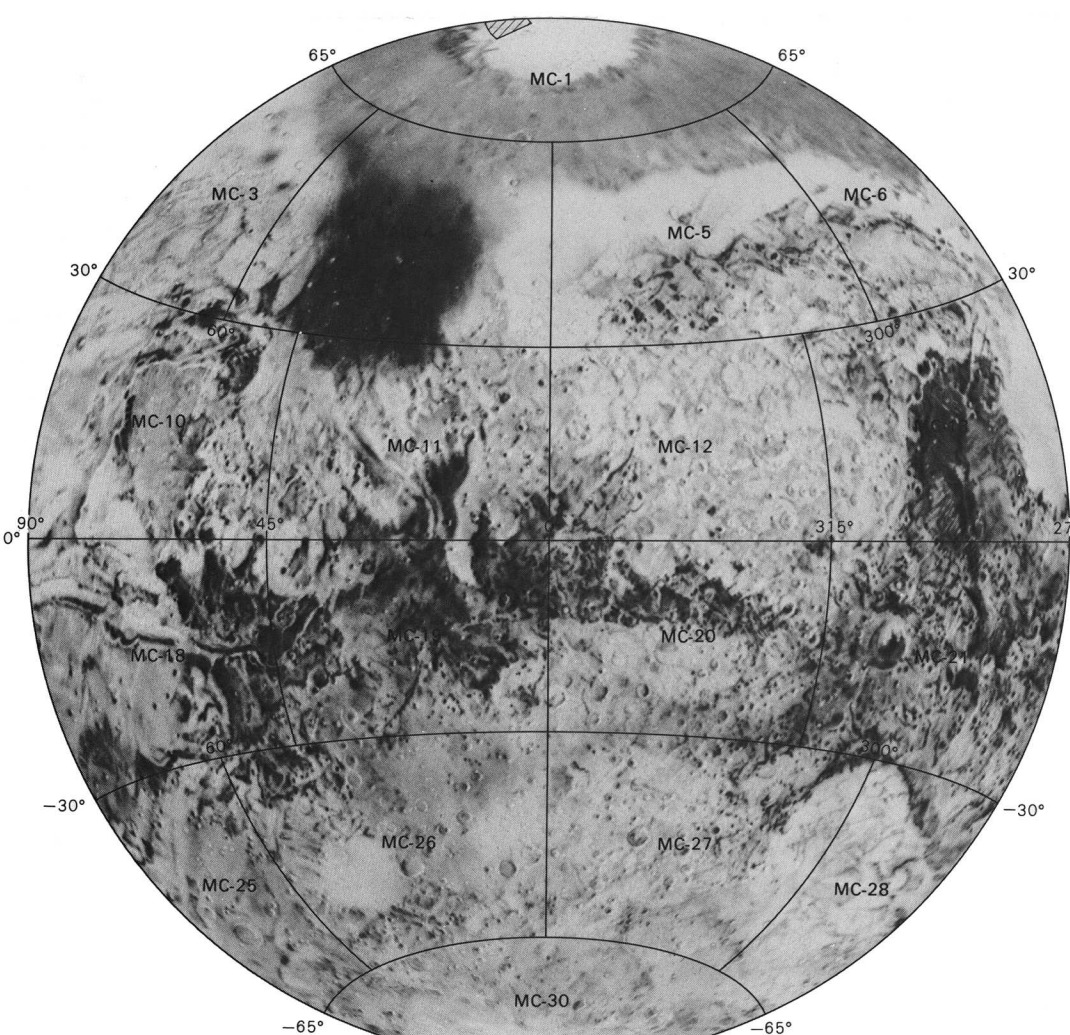
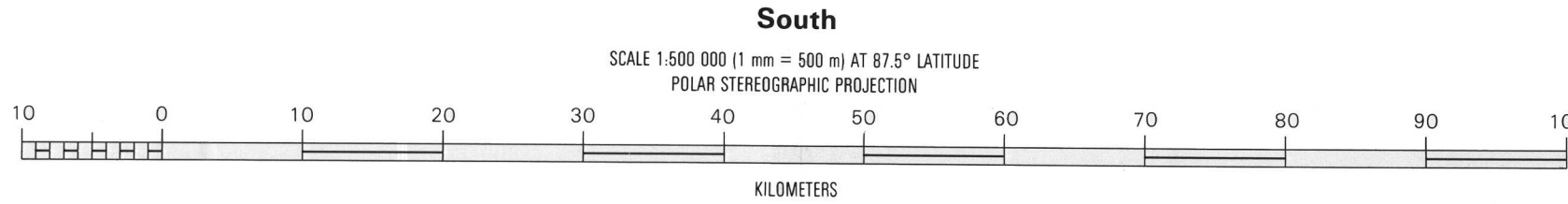
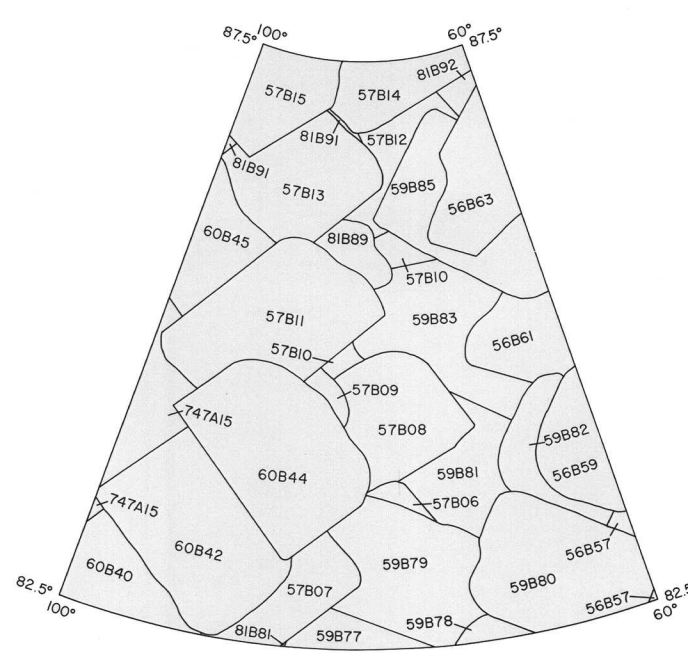


INTERIOR—GEOLOGICAL SURVEY, RESTON, VA—1588—G81105
Prepared on behalf of the Planetary Geology Program, Planetary Division, Office of
Space Science, National Aeronautics and Space Administration, under contract
W-13769.

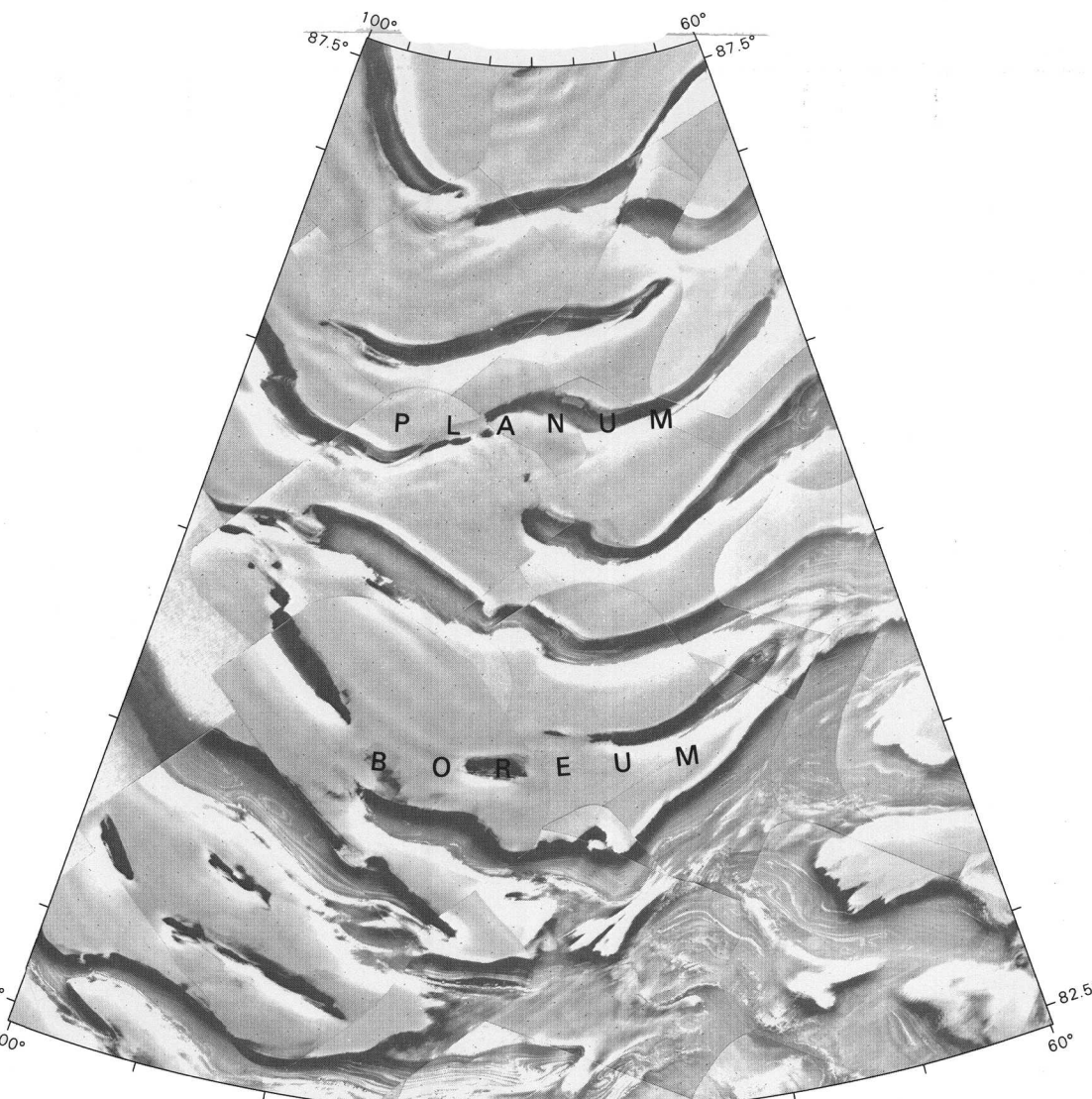


QUADRANGLE LOCATION
Photomosaic location is shown in the western hemisphere
of Mars. An outline of 1:5,000,000-scale quadrangles is
provided for reference.

NOTES ON BASE
This photomosaic is part of a series of quadrangles selected to show areas of special
interest on Mars. Viking Orbiter high-resolution pictures (less than 100 m per picture
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
(Davies and others, 1978), the 1982 control net (Davies and Katayama, 1983), and the
Mars control network (Wu and Schaller, 1984). These nets contain published standard
errors of approximately 5 km, and agreement of points common to the nets may differ
by as much as 1 cm at map scale. Image points from 1:2,000,000-scale controlled
photomosaics were transferred to the Polar Stereographic projection where control
points are sparse or not available.
The density, distribution, precision, and accuracy of available control points used for
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 in areas of sparse or imprecise control. Where discrepancies exist between
adjacent mosaics, the more recent compilation is probably more accurate. No
attempt was made to resolve large edge discrepancies with previous compilations.
The Transverse Mercator and Polar Stereographic projections are used for this
series. The Polar Stereographic projection has a scale of 1:500,000 at lat ±87.5° and
1:500,300 at the poles. The projection scales are based on an oblate spheroid (flattening
of 1/192) with an equatorial radius of 3393.4 km and a polar radius of 3372.7 km.
NOMENCLATURE
All names shown on the reduced base mosaic are approved by the International
Astronomical Union (IAU, 1977).
M 500K 85/80 CM Abbreviation for Mars; 1:500,000 series; center of sheet
lat 85° N, long 80° W; controlled photomosaic (CM).
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, 1977, Working Group for Planetary System
Nomenclature, in 16th General Assembly, Grenoble, 1976, Proceedings: Interna-
tional Astronomical Union Transactions, v. 168, p. 321-325, 331-336, 355-362.
Wu, S.S.C., and Schaller, 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.
466-463.



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 85080
CONTROLLED PHOTOMOSAIC OF PART OF THE CHASMA
BOREALE REGION OF MARS
M 500K 85/80 CM
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, 2285 North Gemini Drive, Flagstaff, Arizona 86001. A replace-
ment copy will be returned.