DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

Prepared for the
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

ATLAS OF MARS
1:2,000,000 TOPOGRAPHIC SERIES
MARE BOREUM J QUADRANGLE
M 2M 71/338 CM, 1985
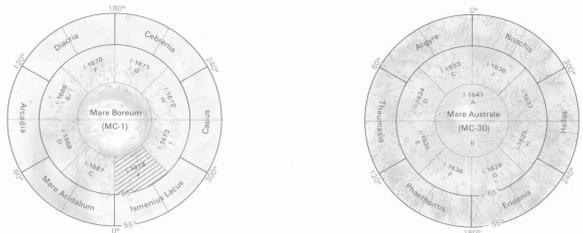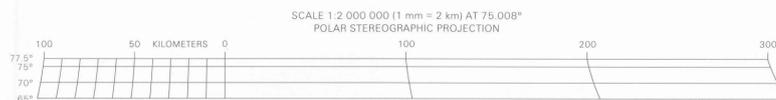I-1674 (MC-1 J)

North

West

East

South

Interior—Geological Survey, Reston, Va.—1985—G85047

This photomosaic is part of a series of quadrangles made from a special set of Viking Orbiter images acquired specifically for systematic global mapping. Image resolution is 130 to 300 m per picture element. The average sun elevation angle is 20° (solar zenith angle 70°). The images have been digitally enhanced by the Jet Propulsion Laboratory's Mission and Test Imaging System to accentuate high-frequency detail. Image placement was based on the 1978 control net (Davies, M. E., and others, 1978, Control net of Mars: February 1978: The Rand Corp. R-2309-NASA). At least 66 percent of the image control points lie within 0.5 mm (1 km) of their published locations. Precise geometric transformation of the highly oblique Viking Orbiter pictures taken in the polar regions is not possible. Discrepancies between adjacent frames are as large as 10 mm, primarily in the east-west direction.

Prepared on behalf of the Mars Data Analysis Program, Planetary Division, Office of Space Science, National Aeronautics and Space Administration, under contract W-14,575.

SCALE 1:2 000 000 (1 mm = 2 km) AT 75.008°
POLAR STEREOGRAPHIC PROJECTION

100   50   KILOMETERS   0   100   200   300

Diacria
(MC-2)

Cebrenia
(MC-7)

Mare Boreum
(MC-1)

Mare Australe
(MC-30)

Ismenius Lacus

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.

Diacria (MC-2)	Arcadia (MC-3)	Mare Acidalium (MC-4)	Ismenius Lacus (MC-5)	Casius (MC-6)	Cebrenia (MC-7)
Amazonis (MC-8)	Tharsis (MC-9)	Lunae Palus (MC-10)	Oxia Palus (MC-11)	Arabia (MC-12)	Syrtis Major (MC-13)	Amenthes (MC-14)	Elysium (MC-15)
Memnonia (MC-16)	Phoenicis Lacus (MC-17)	Coprates (MC-18)	Margaritifer Sinus (MC-19)	Sinus Sabaeus (MC-20)	Iapygia (MC-21)	Mare Tyrrhenum (MC-22)	Aeolis (MC-23)
Phaethontis (MC-24)	Thaumasia (MC-25)	Argyre (MC-26)	Noachis (MC-27)	Hellas (MC-28)	Eridania (MC-29)

INDEX OF PUBLISHED PHOTOMOSAICS
Quadrangle availability is indicated by an "I" series number.

VASTITAS   BOREALIS

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

CONTROLLED PHOTOMOSAIC OF THE MARE BOREUM J QUADRANGLE OF MARS

M 2M 71/338 CM

MC-1 J

1985