

NOTES ON BASE
This is one map in a series of topographic map sheets covering the entire surface of Mars at nominal scales of 1:25,000,000 and 1:5,000,000 (Datum, 1973). The major source of map data was the Mariner 9 television experiment (Mausursky and others, 1970).

ADOPTED FIGURE
The figure of Mars used for the computation of the map projection is an oblate spheroid (flattening of 1/953) with an equatorial radius of 3393.4 km and a polar radius of 3375.7 km.

PROJECTION
The Mercator projection is used for this sheet, with a scale of 1:5,000,000 at the equator and 1:4,336,000 at lat 30°. Longitudes increase to the west in accordance with usage of the International Astronomical Union (IAU, 1971). Latitudes are areographic (de Vaucouleurs and others, 1973).

CONTROL
Planimetric control is provided by photogrammetric triangulation using Mariner 9 pictures (Davies, 1973; Davies and Arthur, 1973) and the radio-tracked position of the spacecraft. The first meridian passes through the crater Airy-0 (lat 5.19° S) within the crater Airy. No simple statement is possible for the precision, but local consistency is 5-10 km.

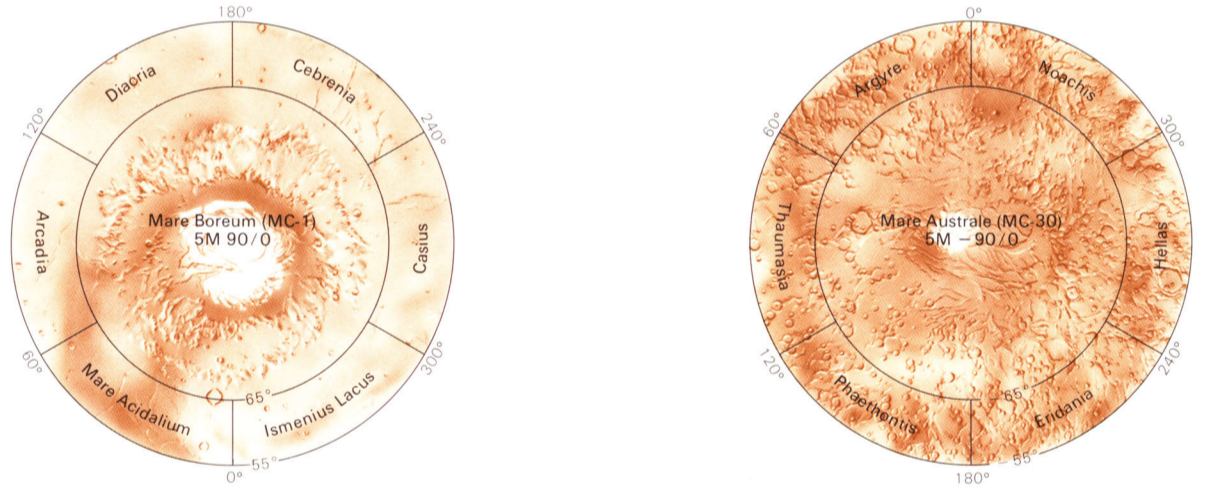
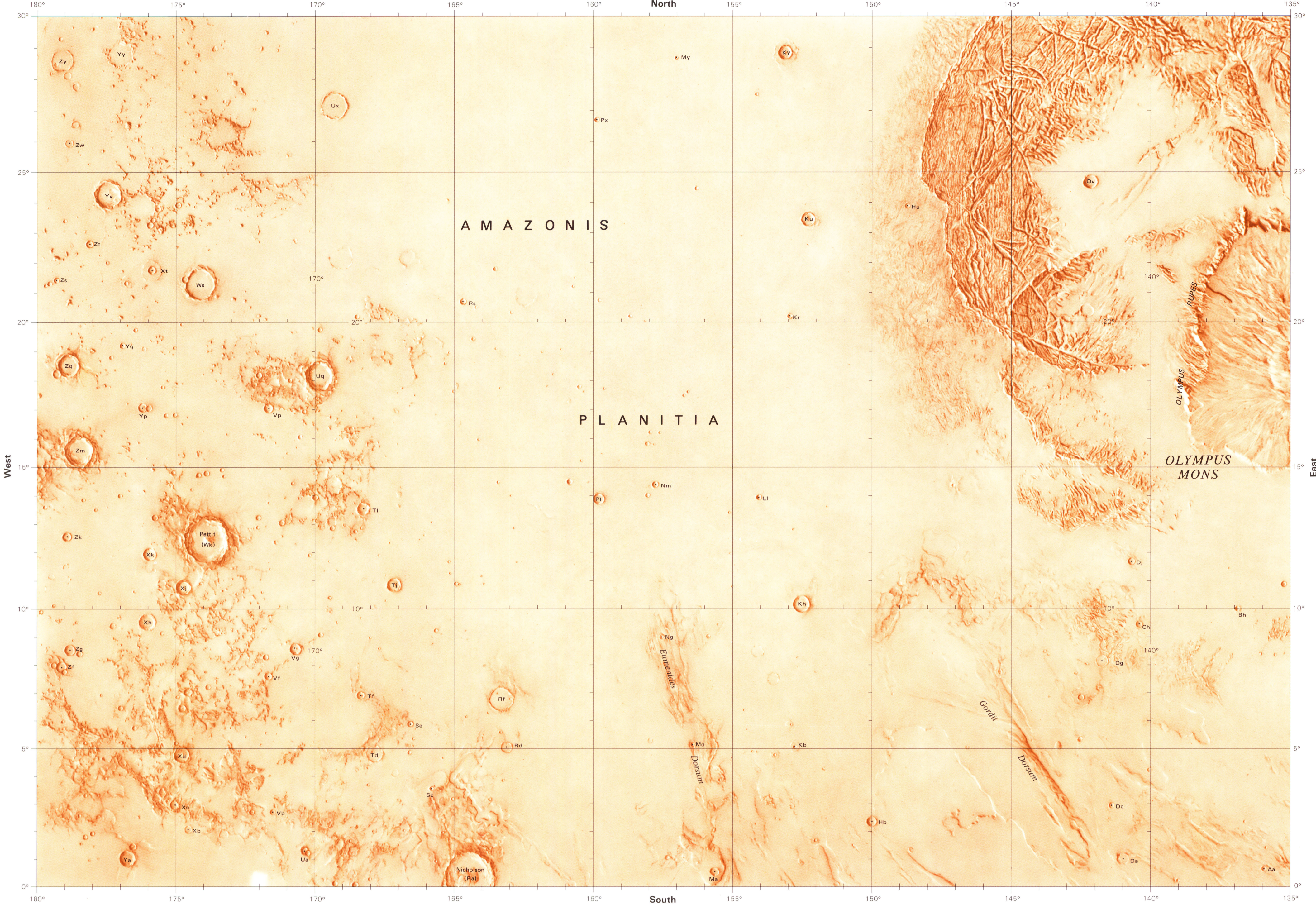
MAPPING TECHNIQUE
A series of mosaics of Mercator projections of Mariner 9 pictures was assembled at 1:5,000,000. Shaded relief was copied from the mosaics and portrayed with uniform illumination with the sun to the west. Many Mariner 9 pictures besides those in the base mosaic were examined to improve the portrayal (Levinthal and others, 1973). The shading is not generalized and may be interpreted with photographic reliability (Eng, 1972). Shaded relief analysis and representation were made by Susan L. Davies.

COLOR
No attempt was made on the map to precisely duplicate the color of the Martian surface, although the color used does approximate it.

NOMENCLATURE
All names on this sheet are approved by the International Astronomical Union (IAU, 1974; Millman, written communication, 1975). Double letter designation for craters refers to position on the map. Some craters have commemorative names; letter designations for these craters are shown in parentheses.

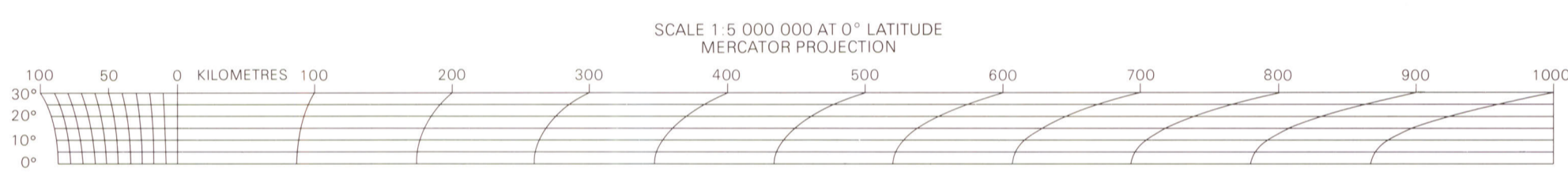
MC-8: Abbreviation for Mars Chart 8.
M 5M 15/158 R: Abbreviation for Mars 1:5,000,000 series; center of sheet, 15° latitude, 158° longitude; shaded relief map, R.

REFERENCES
Batson, R. M., 1973. Cartographic products from the Mariner 9 mission. Jour. Geophys. Research, v. 78, no. 20, p. 4424-4435.
Davies, M. E., 1973. Mariner 9: Primary control net. Photogramm. Eng., v. 39, no. 12, p. 1297-1302.
Davies, M. E., and Arthur, D. W. G., 1973. Martian surface coordinates. Jour. Geophys. Research, v. 78, no. 20, p. 4355-4394.
Hoge, J. L., 1972. Principles of lunar illustration. Aeronaut. Chart and Inf. Center Ref. Pub., RP-72-1, 60 p.
International Astronomical Union, Commission 16, 1971. Physical study of planets and satellites, in Proc. 14th General Assembly, 1970. Internat. Astron. Union Trans., v. XIVB, p. 128-137.
—, 1974. Physical study of planets and satellites, in Proc. 15th General Assembly, 1973. Internat. Astron. Union Trans., v. XV, p. 105-108.
Levinthal, E. C., Green, W. B., Cutts, J. A., Jabalka, E. D., Johnson, R. A., Sander, M. J., Seidman, J. B., Young, A. T., and Soderstrom, L. A., 1973. Mariner 9 - image processing and products. Icarus, v. 18, no. 1, p. 75-101.
Mausursky, Harold, Batson, R. M., Borgeson, W. T., Carr, M. H., McCauley, J. P., Milton, D. J., Willey, R. L., Wilhelms, D. E., Murray, B. C., Horowitz, N. H., Leighton, R. B., Sharp, R. V., Thompson, T. W., Briggs, G. A., Chandrosson, F., Shiple, E. N., Sagan, Carl, Pollack, J. B., Lederberg, Joshua, Levinthal, E. C., Hartmann, W. K., McCord, T. B., Smith, B. A., Davies, M. E., de Vaucouleurs, G. D., and Loomis, C. B., 1970. Television experiment for Mariner Mars 1971. Icarus, v. 12, no. 1, p. 10-45.
de Vaucouleurs, G. D., Davies, M. E., Sturms, F. M., Jr., 1973. The Mariner 9 areographic coordinate system. Jour. Geophys. Research, v. 78, no. 20, p. 4395-4404.



QUADRANGLE LOCATION
Number preceded by 1 refers to published shaded relief map

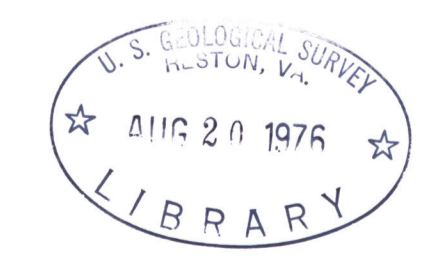
1 Diacis (MC-2) SM 48/150	2 Areada (MC-3) SM 48/30	3 Mars Accellon (MC-4) SM 48/30	4 Immenus Latus (MC-5) SM 48/330	5 Casus (MC-6) SM 48/270	6 Colima (MC-7) SM 48/210
7 Amansis (MC-8) SM 15/158	8 Venus (MC-9) SM 15/158	9 Lunas Pava (MC-10) SM 15/158	10 Araba (MC-11) SM 15/330	11 Sula Mena (MC-12) SM 15/270	12 Amethes (MC-13) SM 15/210
13 Memnonis (MC-14) SM 15/158	14 Phoenicis (MC-15) SM 15/112	15 Capas (MC-16) SM 15/270	16 Araba (MC-17) SM 15/330	17 Araba (MC-18) SM 15/270	18 Araba (MC-19) SM 15/210
19 Phoenicis (MC-20) SM 15/158	20 Thaumasia (MC-21) SM 15/330	21 Argus (MC-22) SM 15/270	22 Karkara (MC-23) SM 15/330	23 Helas (MC-24) SM 15/270	24 Encke (MC-25) SM 15/210



INDEX TO MARINER 9 PICTURES
The mosaic used to control the positioning of features on this map was made with the Mariner 9 camera pictures outlined above. Useful coverage is not available in cross-hatched area.

Index No.	DAS No.	Index No.	DAS No.
1	9342104	23	6751398
2	8011048	24	6823356
3	6085038	25	7938976
4	8154898	26	7938976
5	8238664	27	6607476
6	7939018	28	6607528
7	6607668	29	6607528
8	6607668	30	6751328
9	6751718	31	6823288
10	6823718	32	6823288
11	6893108	33	6607408
12	7939048	34	6607208
13	6607618	35	6607418
14	6607608	36	6751318
15	6607708	37	6751618
16	6751408	38	6823118
17	6751748	39	6823618
18	6823428	40	6893118
19	6823708	41	6607338
20	6893468	42	6607528
21	6607548	43	6751188
22	6607428	44	6823148

SHADED RELIEF MAP OF THE AMAZONIS QUADRANGLE OF MARS
MC-8
M 5M 15/158 R
1976



*Mars (Amazonis quad.) Relief 1:5,000,000, 1976.
Cap 1*

G3700
svat
G438
1-956
Cap 1

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