

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 (Barton, 1973). The major source of map data was the Mariner 9 television experiment (Marsden and others, 1970).

ADOPTED FIGURE
The figure of Mars used for the computation of the map projection is an oblate spheroid (flattening of 1/192) 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 1:3,340,000 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-O (latitude 5.18° S) within the crater Airy. No simple station is possible for the precision, but local consistency is 10-20 km.

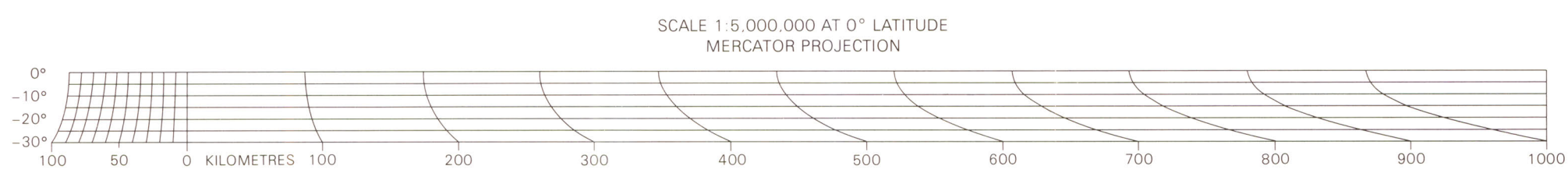
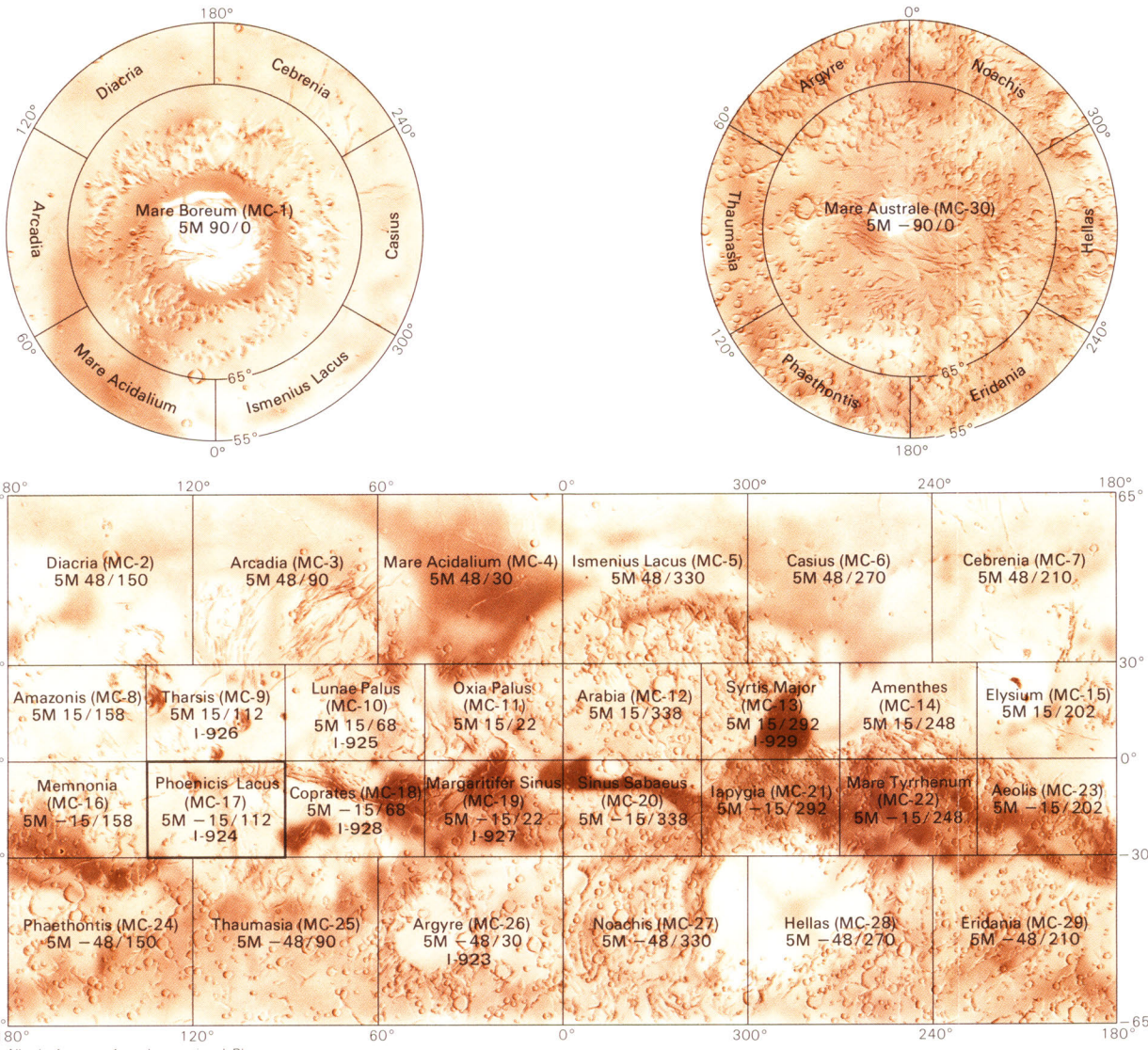
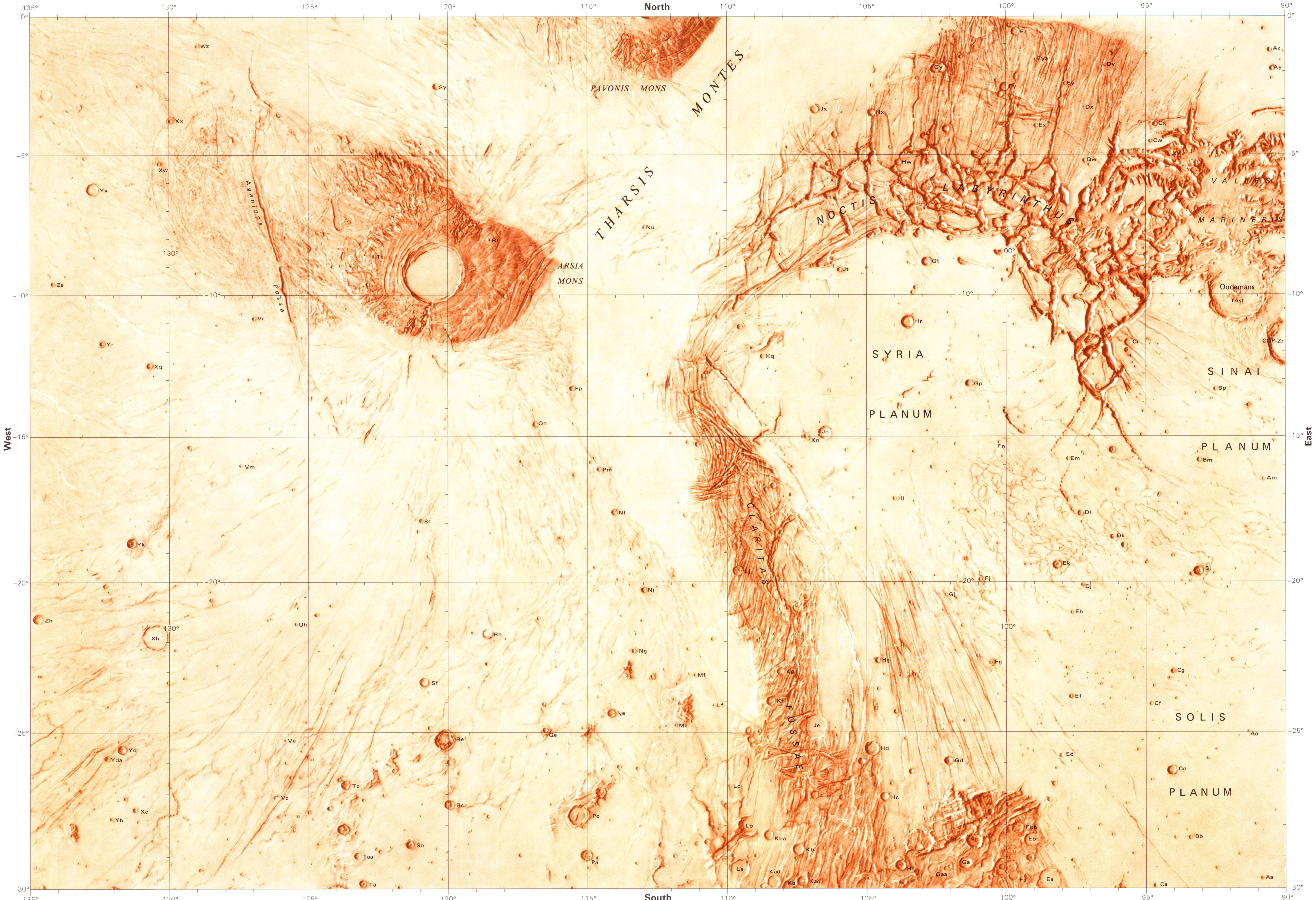
MAPPING TECHNIQUE
A series of mosaics of Mercator projections of Mariner 9 pictures was assembled at 1:5,000,000. Shaded relief was copied from the mosaics and portrayed with uniform illumination with the sun to the west. Many Mariner 9 pictures besides those in the base mosaic were examined to improve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

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), except the following name which is provisional: Aganippe Fossae. Double and triple letter designations for craters refer to position on the map. Some craters have commemorative names; letter designations for these craters are shown in parentheses. Where craters lie mostly on an adjoining map, their letters are derived from the other map; where craters lie exactly on the boundary of two maps, their letters are derived from the eastern or southern map.

MC-17: Abbreviation for Mars Chart 17, M 5M-15/112 R. Abbreviation for Mars 1:5,000,000 series; center of sheet, 15° S latitude, 112° longitude; shaded relief map, R.

REFERENCES
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Mausky, Harold, Barton, R. M., Borgeson, W. T., Carr, M. H., McCauley, J. F., Milton, D. J., Wilkey, R. L., Wilhelms, D. E., Murray, R. C., Horowitz, N. H., Leighton, R. B., Sharp, R. V., Thompson, J. W., Briggs, G. A., Chassigne, P., Shipley, E. N., Swan, 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 Leovy, C. B., 1970, Television experiment for Mariner Mars 1971: Icarus, v. 12, no. 1, p. 10-45.
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A-camera pictures									
Index No.	DAS No.	Index No.	DAS No.	Index No.	DAS No.	Index No.	DAS No.	Index No.	DAS No.
1	6966443	21	8513609	41	7182623	61	7295183		
2	6966713	22	8513629	42	7182683	62	7295183		
3	6966783	23	8513689	43	7182683	63	7295099		
4	6967133	24	8513299	44	7182733	64	7295099		
5	7039163	25	8513299	45	7182803	65	7295099		
6	8513809	26	8513299	46	7182803	66	7295099		
7	7039093	27	8513299	47	8513299	67	8513299		
8	8441619	28	7110653	48	8513299	68	8513299		
9	8441549	29	7110653	49	8513299	69	8513299		
10	8441549	30	7110653	50	8513299	70	8513299		
11	8441549	31	7110653	51	8513299	71	8513299		
12	8441549	32	7110653	52	8513299	72	8513299		
13	8441549	33	7110653	53	8513299	73	8513299		
14	8441549	34	7110653	54	8513299	74	8513299		
15	7038603	35	8513299	55	8513299	75	8513299		
16	7038603	36	8513299	56	8513299	76	8513299		
17	7038603	37	8513299	57	8513299	77	8513299		
18	7038603	38	8513299	58	8513299	78	8513299		
19	7038603	39	8513299	59	8513299	79	8513299		
20	8513299	40	8513299	60	8513299	80	8513299		

INDEX TO MARINER 9 PICTURES
The mosaic used to control the positioning of features on this map was made with the Mariner 9 A-camera pictures outlined above. Pictures other than those shown in the mosaic were used for portrayal in the cross-hatched areas.

SHADED RELIEF MAP OF THE PHOENICIS LACUS QUADRANGLE OF MARS

MC-17
M 5M -15/112 R
1975

For sale by U.S. Geological Survey,
Denver, Colo. 80225, and Reston, Va. 22092, price \$1.00



Mars (Phoenix Lacus quad.) Relief 1:5,000,000 1975.
G3700
Svar
6438
I-924
CO



M(200)
1-104