

NOTES ON BASE

This is one sheet in a shaded relief map series of the multi-ring basins on the terrestrial planets. The source of map data was primarily Lunar Orbiter photographs.

ADOPTED FIGURE

The map projection is based on a sphere with a radius of 1730 km.

PROJECTION

The stereographic projection is used for this map, with the projection center of lat 18.8° S, long 95° W. The scale of the projection is 1:5,170,000 at the center, 1:5,000,000 at 515 km from the center, and 1:4,575,000 at the edge of the map.

CONTROL

Planimetric control was provided by the Lunar Planning Chart (LPC-1), May 1971, and by the South Polar Region (LMP-3).

MAPPING TECHNIQUE

Mapping techniques are similar to those described by Batson (1973), except that digital images of existing maps were used as base mosaics instead of digital television images. A mosaic was made with copies of LPC-1 and LMP-3 that had been digitally transformed to the stereographic projection. Shaded relief was drawn with uniform illumination from the left. The pictures listed in the index below were examined in detail, and surface forms portrayed with the airbrush techniques described by Inge and Bridges (1976). The shading is not generalized, and may be interpreted with near photographic reliability. Shaded relief analysis and representation were made by P. M. Bridges.

COLOR

The color of the shaded relief was selected for optimum discrimination of detail and is not intended to represent the color of the moon.

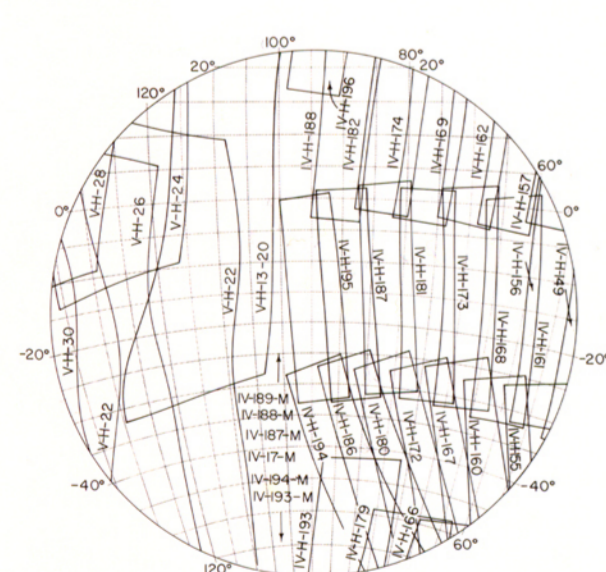
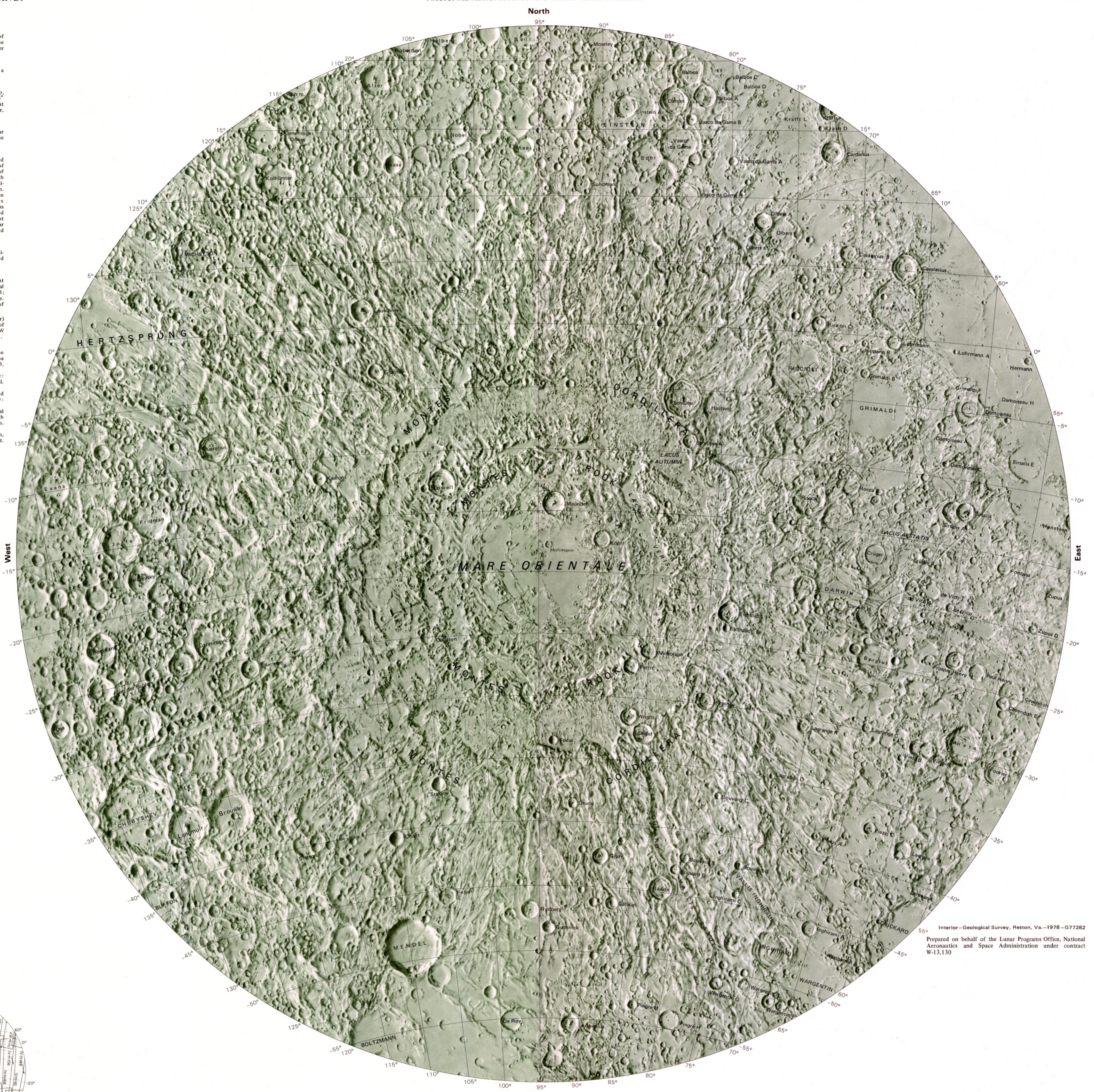
NOMENCLATURE

The nomenclature used on this map is consistent with that approved by the International Astronomical Union (Arthur and Pellicori, 1965; IAU, 1974; NASA, 1971) but is not comprehensive. Many designations are omitted for reasons of clarity or because the features are obscure.

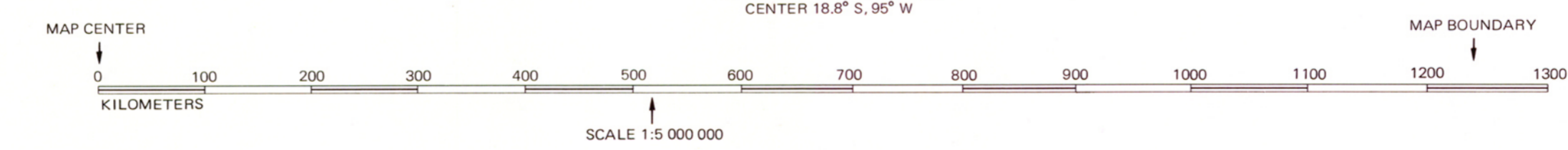
L 5M-20/95 R: Abbreviation for Moon (Lunar) 1:5,000,000 series; center of sheet 20° S latitude, 95° W longitude; shaded relief map, R.

REFERENCES

Arthur, S. W. G. and Pellicori, R. H., 1965, The system of lunar craters, quadrant III: Arizona Univ. Lunar and Planetary Lab. Commun., v. 3, no. 50, 146 p.
Batson, R. M., 1973, Television cartography: U.S. Geol. Survey Open-file Rept., Astrogeol. 58, 35 p.
Inge, Jay L. and Bridges, Patricia M., 1976, Applied photointerpretation for airbrush cartography: Photogram. Eng., v. 42, no. 6, p. 749-760.
International Astronomical Union, 1974, Physical study of planets and satellites, in Proc. 15th General Assembly, 1973: Internat. Astron. Union Trans., v. XVb, p. 207-217.
National Aeronautics and Space Administration, 1971, Index of lunar formations, 1st ed. Oct. 1971.



INDEX TO LUNAR ORBITER PHOTOGRAPHS
Feature interpretation is based on pictures outlined above



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SHADED RELIEF MAP OF THE MARE ORIENTALE AREA OF THE MOON
L 5M-20/95 R
1978

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