

U.S. DEPARTMENT OF THE INTERIOR
 U.S. GEOLOGICAL SURVEY

Prepared for the
 NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NOTES ON BASE

This map was compiled from Voyager 1 and 2 images of Iapetus. The Polar Stereographic and Mercator projections are based on a sphere with a diameter of 1,436 km. The projections have a common scale of 1:5,592,000 at lat ±56°. Longitude increases to the west in accordance with astronomical convention. Meridians are numbered so that the reference crater, Almeric, is centered on lat 52° N., long 276° (Davies and others, 1989). Other information regarding Saturnian satellite mapping was given by Batson and others (1984).

Digital mosaics were assembled at a digital scale of 1/2° (6.3 km) per pixel according to methods described by Batson (1987) and Edwards (1987), and they were transformed to the projections described above.

All landforms are shown as if illuminated from the west by using interpretation techniques described by Inge and Bridges (1976). Surface markings are also shown. Differences in image resolution precluded map portrayal at uniform levels of detail.

Airbrush representation was made by Jay L. Inge.

NOMENCLATURE

All names shown on this sheet are approved by the International Astronomical Union (IAU, 1983).

SI 10M 2AN: Abbreviation for Saturn, Iapetus (satellite); 1:10,000,000 series; second edition; shaded relief with albedo markings (A), nomenclature (N).

REFERENCES

Batson, R.M., 1987, Digital cartography of the planets: New methods, its status, and its future: Photogrammetric Engineering and Remote Sensing, v. 53, no. 9, p. 1211-1218.

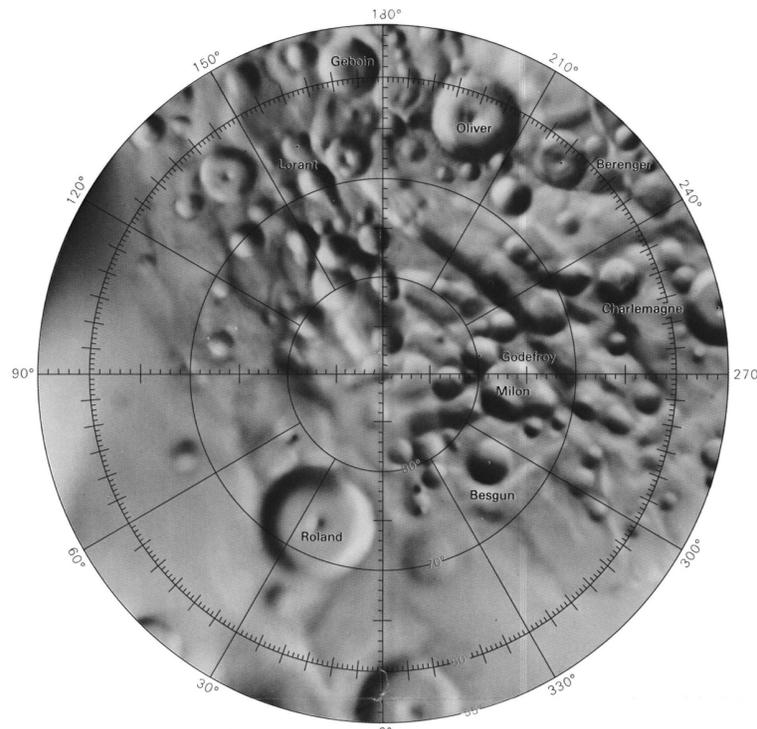
Batson, R.M., Bridges, P.M., Inge, J.L., Lee, E.M., Masursky, Harold, Mullins, K.F., Skiff, B.A., and Strobell, M.E., 1984, Voyager 1 and 2 atlas of six Saturnian satellites: National Aeronautics and Space Administration, Special Publication 474, 175 p.

Davies, M.E., Abalakin, V.K., Bursa, M., Hunt, G.E., Lieske, J.H., Morando, B., Rapp, R.H., Seidelman, P.K., Sinclair, A.T., and Tyulfin, Yu.S., 1989, Report of the IAU/IAG/COSPAR Working Group on Cartographic Coordinates and Rotational Elements of the Planets and Satellites, 1988: Celestial Mechanics and Dynamical Astronomy, v. 46, p. 187-204.

Edwards, Kathleen, 1987, Geometric processing of digital images of the planets: Photogrammetric Engineering and Remote Sensing, v. 53, no. 9, p. 1219-1222.

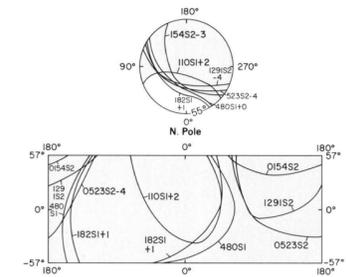
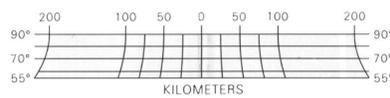
Inge, J.L., and Bridges, P.M., 1976, Applied photointerpretation for airbrush cartography: Photogrammetric Engineering and Remote Sensing, v. 42, no. 6, p. 749-760.

International Astronomical Union, 1983, Working Group for Planetary System Nomenclature, in Proceedings of the 18th General Assembly, Patras, 1982: Transactions of the International Astronomical Union, v. 18B, p. 344.



NORTH POLAR REGION

SCALE 1:6 114 700 (1 mm = 6 km) AT 90° LATITUDE
 POLAR STEREOGRAPHIC PROJECTION

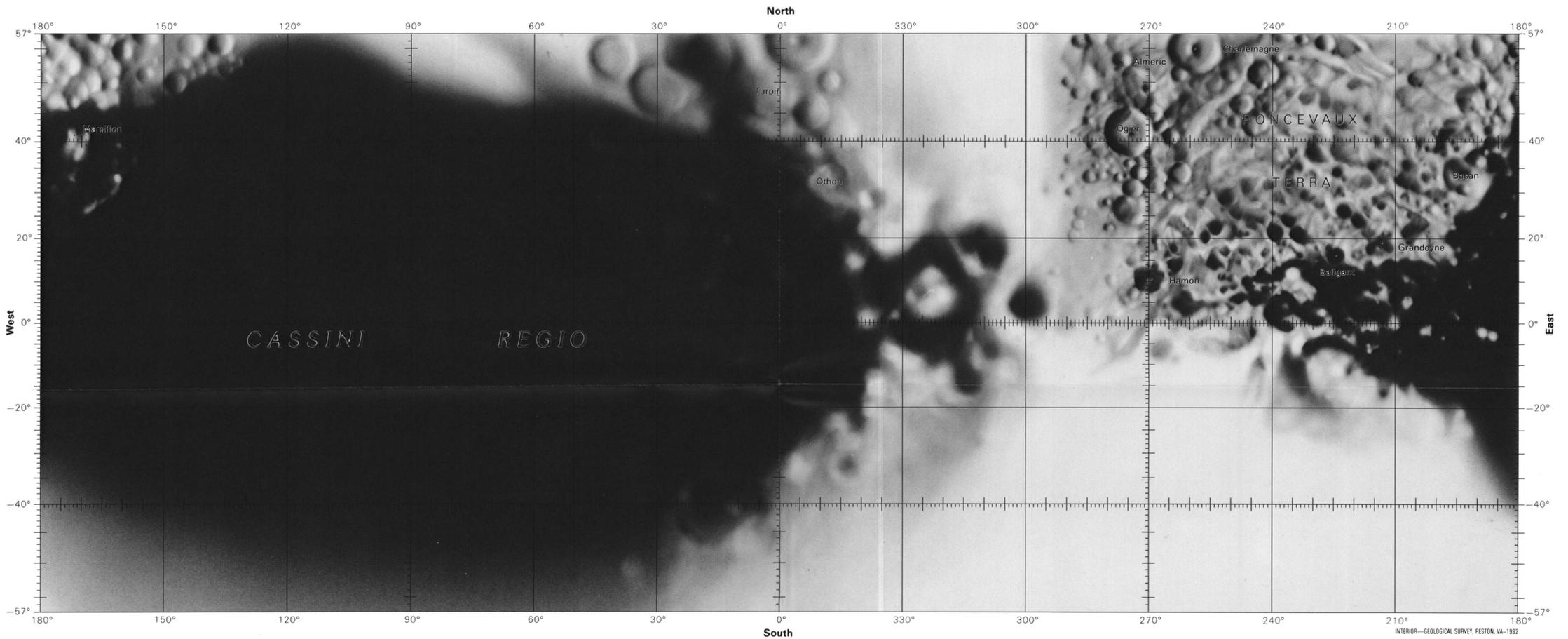


SUPPLEMENTAL SOURCE

| Voyager 2 | |
|------------|--|
| 120552-007 | |
| 154652-006 | |
| 156252-006 | |
| 00852-004 | |
| 04052-004 | |
| 117452-004 | |
| 167852-004 | |
| 169052-004 | |

INDEX OF MAPPING SOURCES

The map was made from the Voyager 1 and 2 images outlined above. Supplemental source images used during compilation are listed separately. Copies of various enhancements of these images are available from National Space Science Data Center, Code 601, Goddard Space Flight Center, Greenbelt, MD 20771.

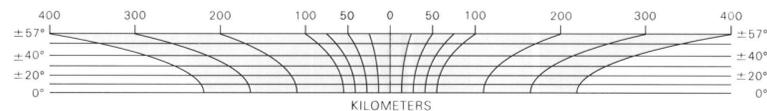


LEADING HEMISPHERE

SATURN-FACING HEMISPHERE

TRAILING HEMISPHERE

SCALE 1:10 000 000 (1 mm = 10 km) AT 0° LATITUDE
 MERCATOR PROJECTION



INTERIOR—GEOLOGICAL SURVEY, RESTON, VA-1992
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 This map supersedes I-1486
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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, 2255 North Gemini Drive, Flagstaff, Arizona 86001. A replacement copy will be returned.

PICTORIAL MAP OF IAPETUS