

NOTES ON BASE

This sheet is one in a series of maps that cover the surfaces of the Galilean satellites of Jupiter at a nominal scale of 1:5,000,000 (Eaton and others, 1980). The source for this series was Voyager 1 and 2 images. Essential features of the mapping are noted below.

CARTOGRAPHIC CONTROL

Mercator, Lambert conformal conic, and polar stereographic projections used for the maps of Ganymede are based on a sphere with a radius of 2638 km. The projections have common scales of 1:4,780,000 at lat 21.3° and 1:4,769,000 at lat 65.2°. Longitudes increase to the west in accordance with astronomical convention. Planimetric control was derived by photogrammetric triangulation using Voyager 1 and 2 pictures (Davies and Katayama, 1981). The meridians are numbered so that the reference crater, Anax, is centered on lat 2.5° S, long 128°.

MAPPING TECHNIQUE

A series of mosaics of Voyager 1 and 2 pictures was assembled at 1:5,000,000 using projections described above. Sizes, shapes, and positions of features were taken from the base mosaic using portrayal and interpretation techniques described by Inge (1972) and Inge and Bridges (1976). Surface relief is shown as if illuminated from the west. Albedo markings are shown as they appear on the Voyager pictures. Extreme variations in picture resolution precluded consistent interpretation and portrayal of the pictures used for map compilation. Further limitations were imposed by dark albedo markings, which tend to obscure distinctive surface details.

The colors chosen for this map are intended to provide optimum discrimination of detail and do not represent the color of Ganymede. Image analysis and airbrush representation were made by Patricia M. Bridges.

NOMENCLATURE

Names on this sheet are approved by the International Astronomical Union (IAU, 1980) except for the provisional names listed below.

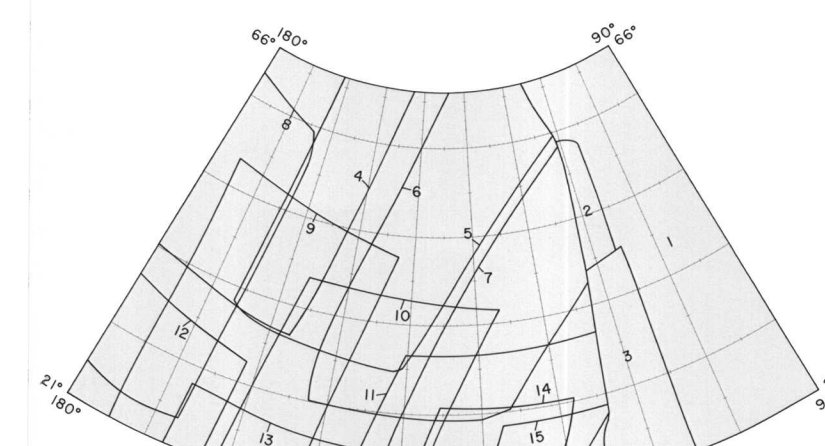
Provisional names: Abydos Facula, Edfu Facula, Gir, Halleus, Bah, Kulla, Lakmu Fossae, Nipper Sulcus, Tetu Facula, Ur Sulcus, and Zu Fossae.

Jg 5M 44/135 AN: Abbreviation for Jupiter, Ganymede (satellite), 1:5,000,000 series; center of sheet, lat 44°, long 135°; shaded relief with albedo markings (A), nomenclature (N).

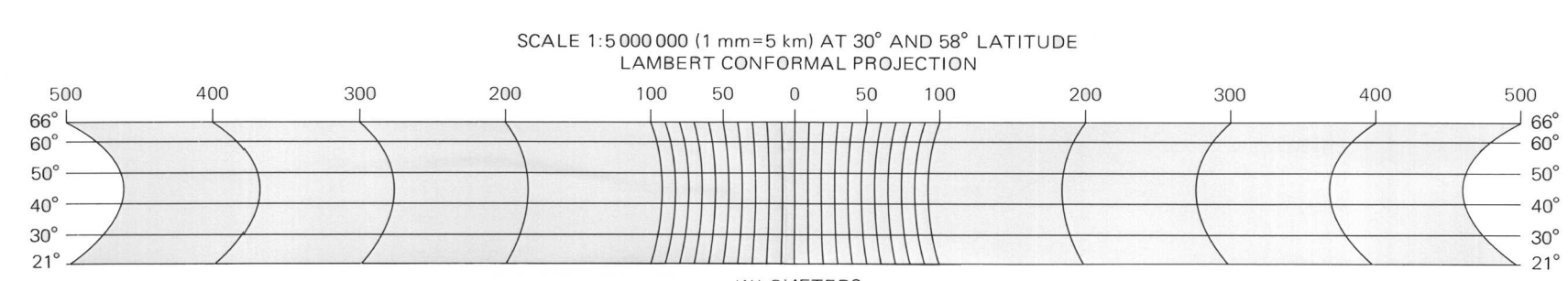
Jg-3: Abbreviation for Jupiter, Ganymede; sheet 3.

REFERENCES

- Batson, R. M., Bridges, P. M., Inge, J. L., Ishii, Christopher, Mansky, Harold, Stebbell, M. E., and Tyner, R. L., 1980, Mapping the Galilean satellites of Jupiter with Voyager data: Photogrammetric Engineering and Remote Sensing, v. 46, no. 10, p. 1393-1312.
- Davies, M. E., and Katayama, F. Y., 1981, Coordinates of features on the Galilean satellites: Journal of Geophysical Research, v. 86, no. A10, p. 8615-8657.
- Inge, J. L., 1972, Principles of lunar illustration: Aeronautical Chart and Information Center Reference Publication AF-72-1, 60 p.
- 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, 1980, Working Group for Planetary System Nomenclature, in 17th General Assembly, Montreal, 1979, Proceedings: International Astronomical Union Transactions, v. 17B, p. 297-304.

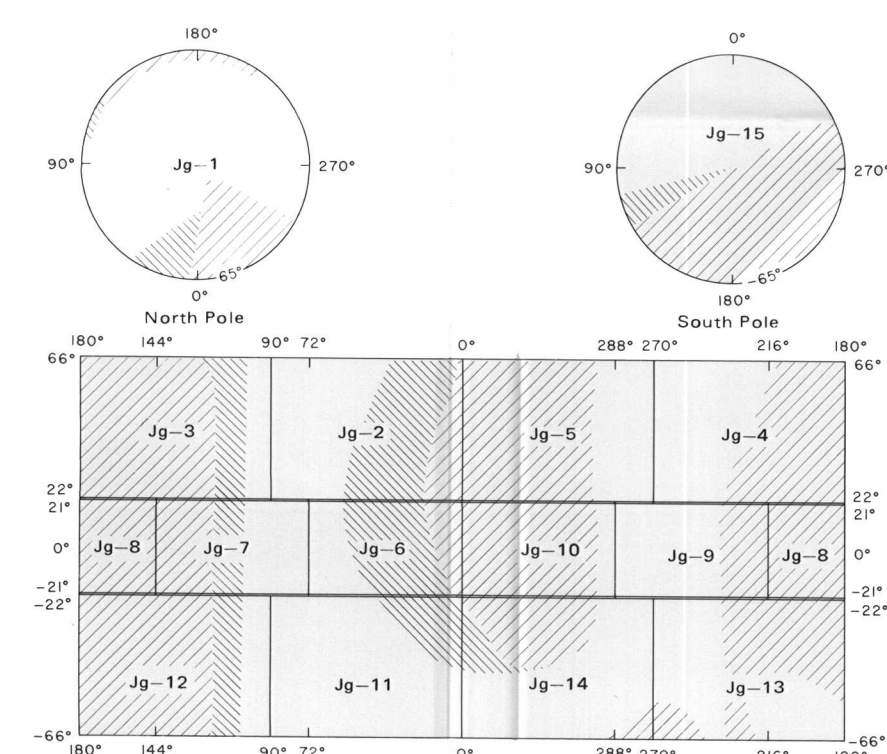
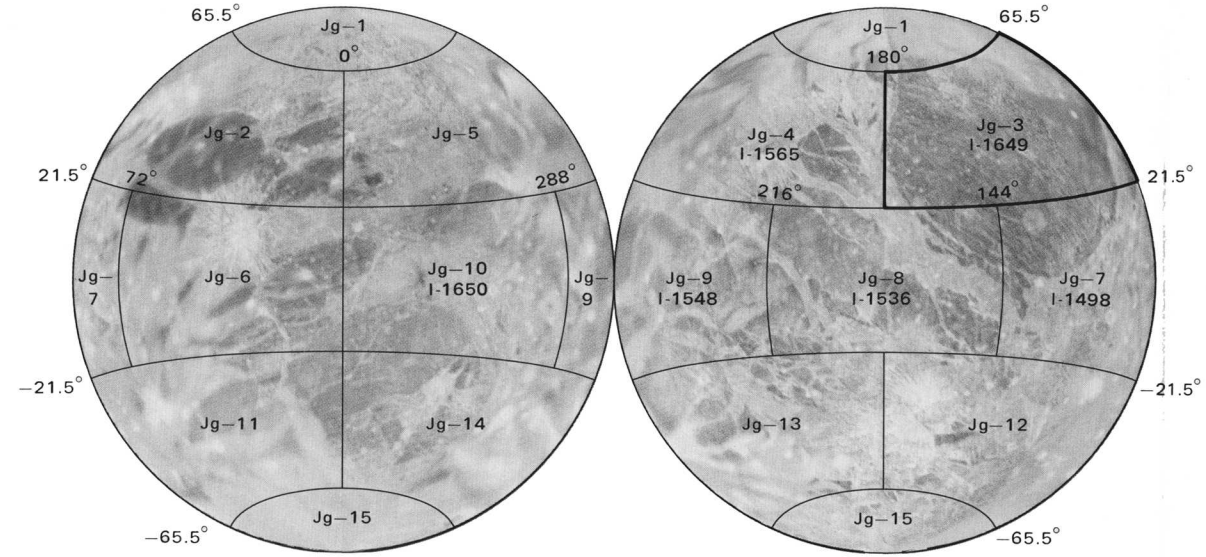


INDEX TO MAPPING SOURCES
The rendition of features on this map was controlled by reference to the primary source pictures outlined above. Supplemental source images used during the compilation are listed separately. Copies of various enhancements of these pictures are available from National Space Science Data Center, Code 601, Goddard Space Flight Center, Greenbelt, MD 20771.



VOYAGER 2

Index No.	Picture No.	Supplemental Source Picture No.
1	53822	53222
2	53823	58221
3	53824	10021
4	53825	10022
5	53826	10023
6	44021	10024
7	44022	33021
8	44023	33022
9	44024	33023
10	40321	38021
11	40322	56021
12	40323	56022
13	40324	56023
14	54201	56024
15	54202	56025



Approximate resolution of available Voyager images expressed as kilometers per picture element (pxl)

- 0.5-2 km/pxl
- 2-5 km/pxl
- >20 km/pxl

SHADED RELIEF AND SURFACE MARKINGS OF THE GALILEO REGIO QUADRANGLE OF GANYMEDE

Jg-3
Jg 5M 44/135 AN
1984

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.

For sale by Branch of Distribution, U.S. Geological Survey, 1200 South East Street, Arlington, VA 22202, and Branch of Distribution, U.S. Geological Survey, Box 23286, Federal Center, Denver, CO 80225