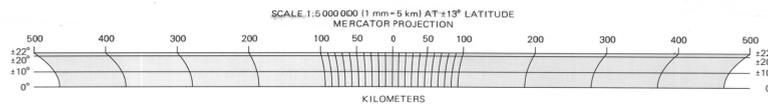


Interior—Geological Survey, Reston, Va.—1984—G82416
Prepared on behalf of the Planetary Geology Program, Planetary Division, Office of Space Science, National Aeronautics and Space Administration under contract W-13,709.



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 (Barton and others, 1980). The source for the 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 2631 km. The projections have common scales of 1:4,780,000 at latitudes 21.3° and 1:4,769,000 at latitudes 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, Anat, is centered on lat 2.8° S., long 128°.

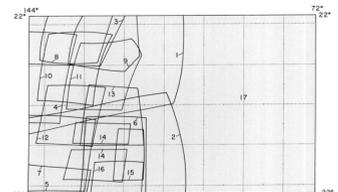
MAPPING TECHNIQUE
A series of mosaics of Voyager 1 and 2 pictures was assembled at 1:5,000,000 using projections described above. Sizes, shapes, and positions of features were taken from the base mosaic using portrayal and interpretation techniques described by Inge (1972) and Inge and Bridges (1976). 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 Jay L. Inge.

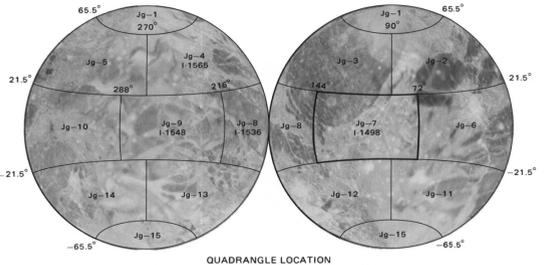
NOMENCLATURE
Names on this sheet are approved by the International Astronomical Union (IAU, 1977 and 1980) except for the provisional names listed below.
Provisional names: Anat, Ius, Lakhmu Fossae, Memphis Facula, Mueh, Nidaba, Ninku, Ninsum, and Siva Facla
Jg 5M 0/108 AN: Abbreviation for Jupiter, Ganymede (satellite); 1:5,000,000 series; center of sheet, lat 0°, long 108°; shaded relief with albedo markings (A), nomenclature (N).
Jg-7: Abbreviation for Jupiter, Ganymede, sheet 7.

REFERENCES
Barton, R. M., Bridges, P. M., Inge, J. L., Isbell, Christopher, Masursky, Harold, Strobel, 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. 1303-1312.
Davies, M. E., and Katayama, Y. Y., 1981, Coordinates of features on the Galilean satellites: Journal of Geophysical Research, v. 86, no. A10, p. 8633-8637.
Inge, J. L., 1972, Principles of lunar illustration: Aeronautical Chart and Information Center Reference Publication RP-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, 1977, Working Group for Planetary System Nomenclature, in 16th General Assembly, Grenoble, 1976, Proceedings: International Astronomical Union Transactions, v. 16B, p. 322-323.
—, 1980, Working Group for Planetary System Nomenclature, in 17th General Assembly, Montreal, 1979, Proceedings: International Astronomical Union Transactions, v. 17B, p. 297-304.

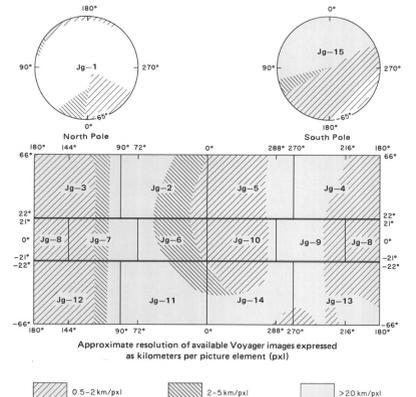


VOYAGER 2		VOYAGER 1		VOYAGER 2	
Primary Source	Supplemental Source	Picture No.	Picture No.	Picture No.	Picture No.
1	1062/001	2451/1000	1042/001	1042/001	
2	1762/001	7471/1000	1222/001	1222/001	
3	4562/001	7961/1000	1242/001	1242/001	
4	4642/001		4672/001	4672/001	
5	4762/001		4862/001	4862/001	
6	4792/001		5432/001	5432/001	
7	4812/001		5632/001	5632/001	
8	5422/001		6262/001	6262/001	
9	5442/001				
10	5482/001				
11	5622/001				
12	5632/001				
13	5622/001				
14	5642/001				
15	5662/001				
16	5682/001				
17	8512/003				

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.



QUADRANGLE LOCATION
Number preceded by 1 refers to published topographic map



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

SHADED RELIEF AND SURFACE MARKINGS OF THE MEMPHIS FACULA QUADRANGLE OF GANYMEDE

Jg-7
Jg 5M 0/108 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.

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