

Interior—Geological Survey, Reston, Va.—1984—G83299
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 (Batson 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 2638 km. The projections have common scales of 1:4,750,000 at latitudes ±21.5° 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. Sites, 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: Agreus, Antum, Geinos, Hursag Sulcus, Lakhmu Fossa, Mir, Nanna, Ombos Facula, Seima, and Tammur.

Jg 5M 0/252 AN: Abbreviation for Jupiter, Ganymede (satellite); 1:5,000,000 series; center of sheet, lat 0°, long 252°; shaded relief with albedo markings (A), nomenclature (N).

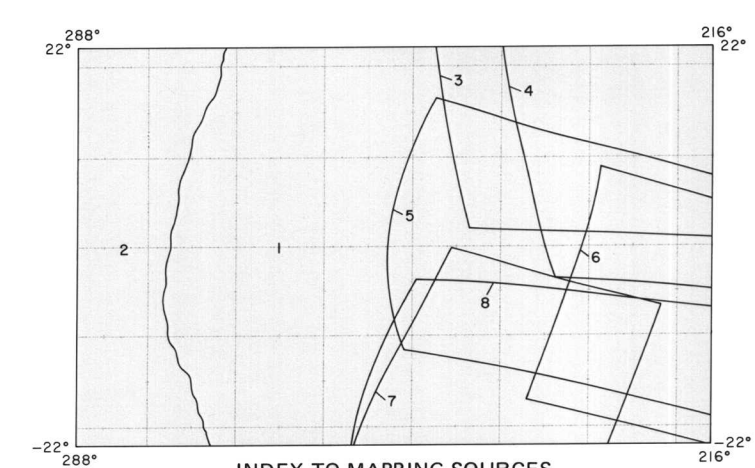
Abbreviation for Jupiter, Ganymede, sheet 9.

REFERENCES
Batson, R. M., Bridges, P. M., Inge, J. L., Isbell, Christopher, Masursky, Harold, Sirochell, 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, F. Y., 1981, Coordinates of features on the Galilean satellites, Journal of Geophysical Research, v. 86, no. A10, p. 8635-8657.

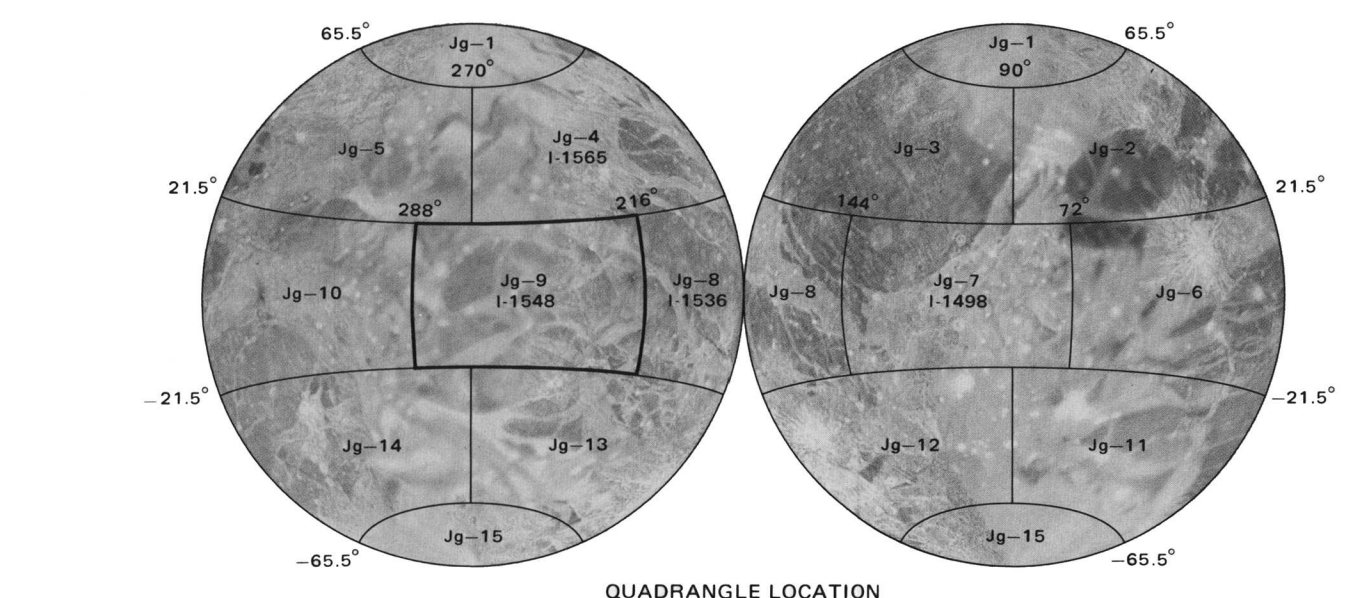
Inge, J. L., 1972, Principles of lunar illustration: Aeronautical Chart and Information Center Reference Publication RP-72-1, 60 p.

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.

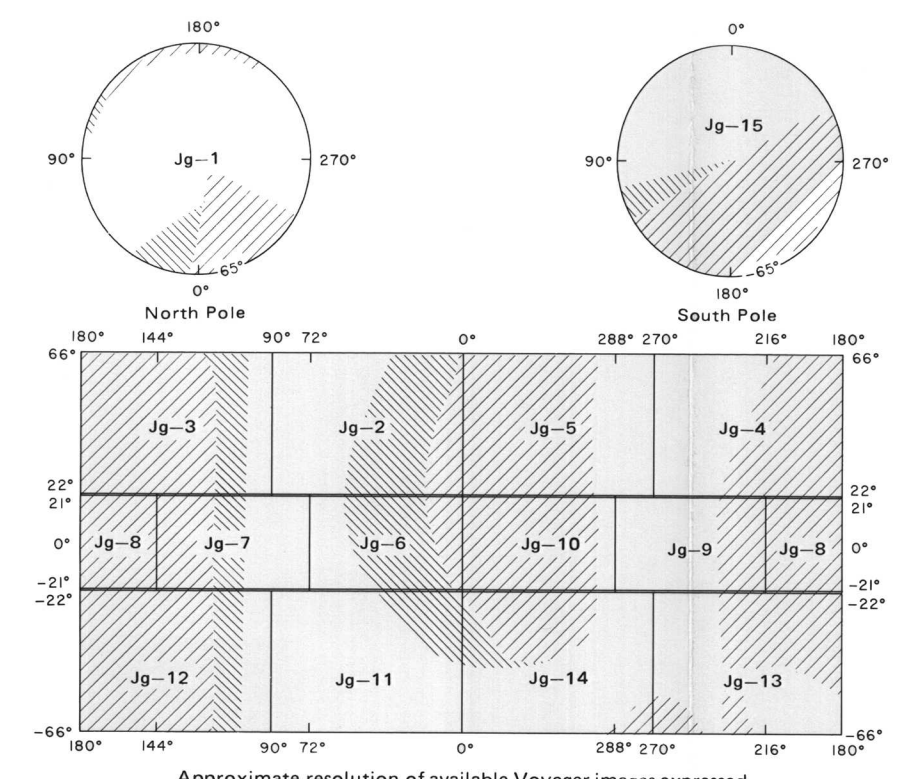


INDEX TO MAPPING SOURCES
The rendition of features on this map was controlled by reference to the primary source pictures outlined above. Supplemental source images used during the compilation are listed separately. Copies of various enhancements of these pictures are available from National Space Science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

VOYAGER 1		VOYAGER 2		VOYAGER 1		VOYAGER 2	
Primary Source				Supplemental Source			
Index No.	Picture No.	Index No.	Picture No.	Picture No.	Picture No.	Picture No.	Picture No.
1	120711 004	3	037412 001	121711 004	009212 001		
2	078611 002	4	037812 001	002311 003	009612 001		
		5	038612 001	102711 002	009812 001		
		6	038912 001		011012 001		
		7	038612 001		011312 001		
		8	040112 001		038612 001		
					041012 001		
					041312 001		
					062112 001		



QUADRANGLE LOCATION
Number preceded by 1 refers to published topographic map



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

SHADED RELIEF AND SURFACE MARKINGS OF THE TIAMAT SULCUS QUADRANGLE OF GANYMEDE

Jg-9
Jg 5M 0/252 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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U.S. Geological Survey, Box 25286, Federal Center, Denver, CO 80225