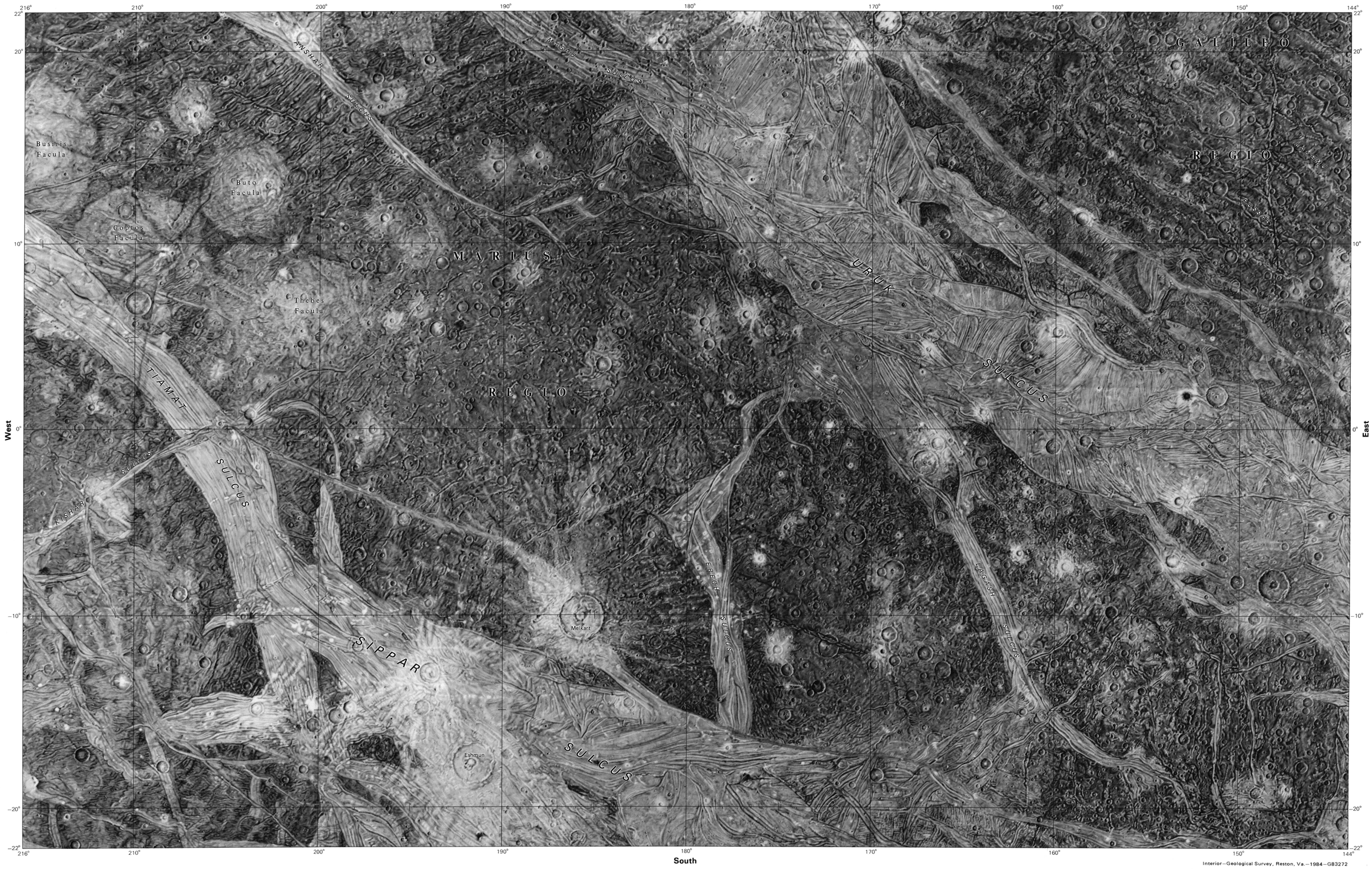
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

Prepared for the
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

ATLAS OF JOVIAN SATELLITES
1:5,000,000 TOPOGRAPHIC SERIES
URUK SULCUS QUADRANGLE — GANYMEDE
Jg 5M 0/180 AN, 1984
I-1536 (Jg-8) SHEET 1 OF 2

North

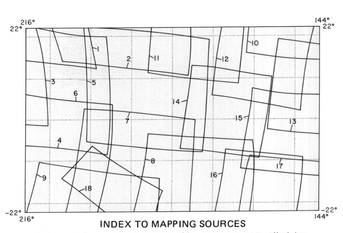


South

SCALE 1:5 000 000 (1 mm=5 km) AT ±13° LATITUDE
MERCATOR PROJECTION

500 400 300 200 100 50 0 50 100 200 300 400 500
KILOMETERS

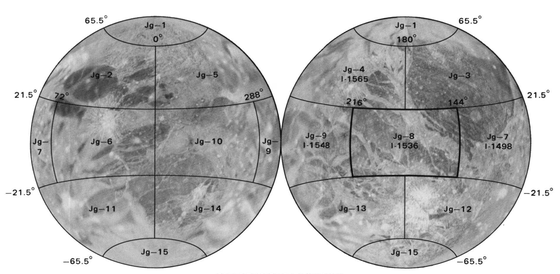
INDEX TO MAPPING SOURCES

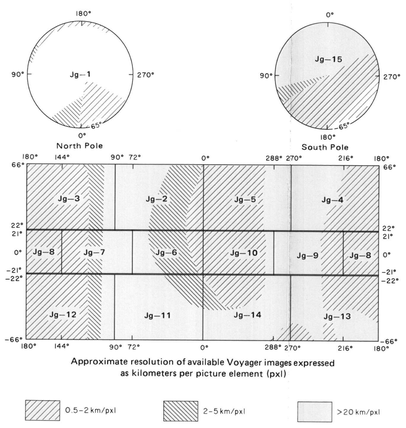


The rendition of features on this map was controlled by reference to the primary source pictures outlined above. Supplemental source images used during the compilation are listed separately. Copies of various enhancements of these pictures are available from National Space Science Data Center, Code 601,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

VOYAGER 2 Primary Source		VOYAGER 1 Supplemental Source	VOYAGER 2 Supplemental Source	
Index No.	Picture No.	Picture No.	Picture No.	Picture No.
1	0366J2-001	0268J1-004	1756J2-004	0384J2-001
2	0370J2-001	1207J1-004	0809J2-003	0386J2-001
3	0374J2-001	0015J1-003	0528J2-002	0398J2-001
4	0378J2-001	0539J1-003	0092J2-001	0401J2-001
5	0382J2-001		0094J2-001	0407J2-001
6	0389J2-001		0096J2-001	0446J2-001
7	0392J2-001		0098J2-001	0449J2-001
8	0395J2-001		0100J2-001	0455J2-001
9	0404J2-001		0102J2-001	0467J2-001
10	0452J2-001		0104J2-001	0476J2-001
11	0458J2-001		0105J2-001	0488J2-001
12	0461J2-001		0106J2-001	0491J2-001
13	0464J2-001		0108J2-001	0494J2-001
14	0470J2-001		0110J2-001	0497J2-001
15	0473J2-001		0112J2-001	0500J2-001
16	0482J2-001		0114J2-001	0543J2-001
17	0485J2-001		0116J2-001	0545J2-001
18	0622J2-001		0118J2-001	0549J2-001
			0120J2-001	0561J2-001
			0122J2-001	0565J2-001
			0124J2-001	0567J2-001
			0126J2-001	0575J2-001
			0362J2-001	0585J2-001
			0362J2-001	0625J2-001
			0376J2-001	0865J2-001
			0380J2-001	

QUADRANGLE LOCATION
Number preceded by I refers to published topographic map





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 URUK SULCUS QUADRANGLE OF GANYMEDE

Jg-8

Jg 5M 0/180 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.

Interior—Geological Survey, Reston, Va.—1984—G83272

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 1:4,780,000 at lats ±21.3° and 1:4,769,000 at lats ±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 Patricia G. Hagerty.

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: **Busiris Facula, Buto Facula, Coptos Facula, Thebes Facula, Lakhmu Fossae, Erech Sulcus, Lagash Sulcus, and Sippar Sulcus**

Jg 5M 0/180 AN: Abbreviation for Jupiter, Ganymede (satellite); 1:5,000,000 series; center of sheet, lat 0°, long 180°; shaded relief with albedo markings (A), nomenclature (N).

Jg-8: Abbreviation for Jupiter, Ganymede; sheet 8.

REFERENCES

Batson, R. M., Bridges, P. M., Inge, J. L., Isbell, Christopher, Masursky, Harold, Strobell, 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.

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.

For sale by Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202, and Branch of Distribution, U.S. Geological Survey, Box 25286, Federal Center, Denver, CO 80225