

INT-88-001—GEOLOGICAL SURVEY, WASHINGTON, D.C.—1988
Prepared on behalf of the Planetary Geology Program, Solar System Exploration Division,
Office of Space Science, National Aeronautics and Space Administration, under contract
W-15,814.
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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). Sources for the series were 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 Callisto are based on a sphere with a radius of 2400 km. The projections have common scales of 14,780,000 at lat $\pm 21.3^\circ$ and 14,769,000 at lat $\pm 65.2^\circ$. Longitude increases to the west in accordance with astronomical convention. Planimetric control was derived by photogrammetric triangulation using Voyager 1 and 2 pictures (Davies and Katsoma, 1981). The meridians are numbered so that the reference crater, Saga, is centered on lat 0.6° N, long 326° .

MAPPING TECHNIQUE

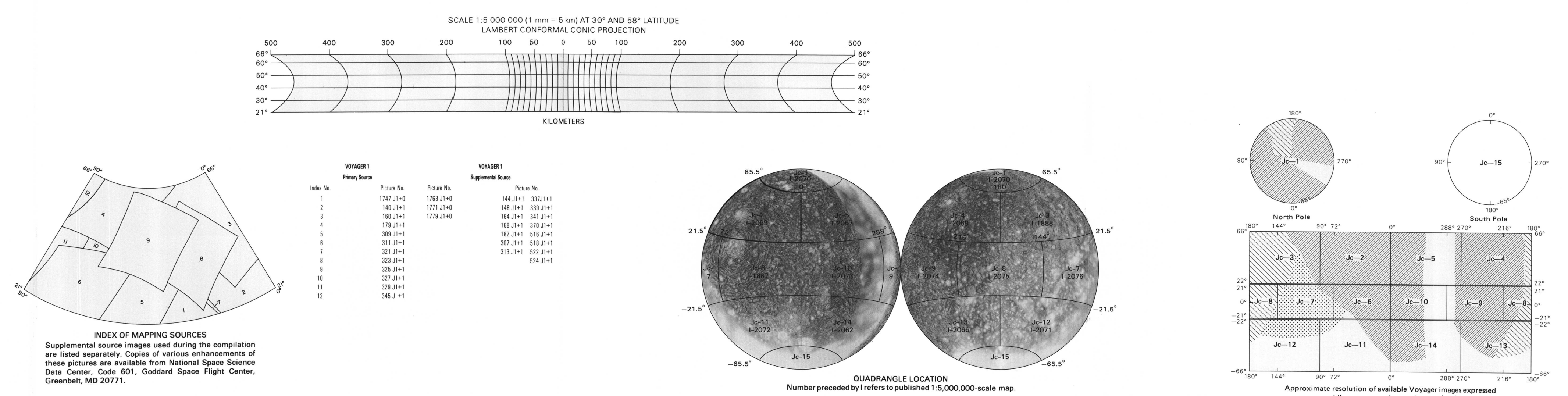
Digital mosaics were assembled at a digital scale of $1/32^\circ$ (1.3 km) per pixel according to methods described by Batson (1987) and Edwards (1987) and transformed to the projections described above. Details from an unpublished, 1:15,000,000-scale, airbrush drawing were combined with the mosaic in regions where image data were very poorly resolved. The mosaic was retouched to obtain uniform tonal balance. Extreme variations in picture resolution precluded comparable display of the images used for the map compilation. Further limitations were imposed by dark albedo markings, which tend to obscure distinctive surface details.

NOMENCLATURE

Names on this sheet are approved by the International Astronomical Union (1980, 1988).
Jc 5M 44/45 CMN: Abbreviation for Jupiter, Callisto (satellite); 1:5,000,000 series; center of sheet, lat 44° N, long 45° ; controlled photomosaic (CM), nomenclature (N).
Jc-2: Abbreviation for Jupiter, Callisto, sheet 2.

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., Isbell, Christopher, Masursky, Harold, Strobel, M.E., and Tyler, 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 Katsoma, F.Y., 1981, Coordinates of features on the Galilean satellites: *Journal of Geophysical Research*, v. 86, no. A10, p. 8635-8657.
- Edwards, Kathleen, 1987, Geometric processing of digital images of the planets: *Photogrammetric Engineering and Remote Sensing*, v. 53, no. 9, p. 1219-1222.
- International Astronomical Union, 1980, Working Group for Planetary System Nomenclature, in 17th General Assembly, Montreal, 1979, *Transactions: International Astronomical Union Proceedings*, v. 17B, p. 297-304.
- 1988, Working Group for Planetary System Nomenclature, in 20th General Assembly, Baltimore, 1988, *Transactions: International Astronomical Union Reports on Astronomy*, v. 20A, p. 706.



VOYAGER 1			VOYAGER 2		
Index No.	Picture No.	Picture No.	Index No.	Picture No.	Picture No.
1	1742 J1+0	1753 J1+0	1	144 J1+1	303 J1+1
2	142 J1+1	1771 J1+0	2	148 J1+1	339 J1+1
3	180 J1+1	1779 J1+0	3	184 J1+1	341 J1+1
4	178 J1+1		4	188 J1+1	370 J1+1
5	305 J1+1		5	182 J1+1	518 J1+1
6	311 J1+1		6	307 J1+1	518 J1+1
7	321 J1+1		7	313 J1+1	522 J1+1
8	323 J1+1		8	324 J1+1	524 J1+1
9	325 J1+1				
10	327 J1+1				
11	328 J1+1				
12	345 J+1				

INDEX OF MAPPING SOURCES
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.

CONTROLLED PHOTOMOSAIC OF THE VESTRI QUADRANGLE OF CALLISTO

Jc 5M 44/45 CMN
(Jc-2)
1990

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 U.S. Geological Survey, Map Distribution, Box 35208, Federal Center, Denver, CO 80225.