U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

Prepared for the
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

ATLAS OF JOVIAN SATELLITES
1:15,000,000 TOPOGRAPHIC SERIES
EASTERN REGION: GANYMEDE
Jg 15M 0/270 2AN, 1992
I–2331 SHEET 3 OF 3

NOTES ON BASE

This sheet is one in a series of maps that cover the surface of the Galilean satellites of Jupiter at a nominal scale of 1:15,000,000 (Batson and others, 1980). Sources for the series were Voyager 1 and 2 images and 1:5,000,000-scale airbrush maps. Essential features of the mapping are noted below.

CARTOGRAPHIC CONTROL

Mercator and Polar Stereographic projections used for the maps of Ganymede are based on a sphere with a radius of 2631 km and a common scale of 1:8,388,000 at lat ±56°. Longitude increases to the west in accordance with astronomical convention. Planimetric control was derived by photogrammetric triangulation using Voyager 1 and 2 pictures. The meridians are numbered so that the reference crater, Anat, is centered on lat 2.8° S., long 128° (Davies and Katayama, 1981).

MAPPING TECHNIQUE

A mosaic consisting of digitized photographic copies of 1:5,000,000-scale airbrush drawings was assembled at a digital scale of 1/64° (0.7 km) per pixel in the database format described by Batson (1987). This database was transformed to the projections described above and retouched as necessary to obtain a uniform tonal balance. 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 the original map compilations. 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 anaylsis and airbrush representations of the original 1:5,000,000-scale maps were made by Patricia M. Bridges, Patricia Hagerty Gray, Susan L. Giustina, and Jay L. Inge. Digital processing and map assembly were done by Haig F. Morgan.

NOMENCLATURE

Names on this sheet are approved by the International Astronomical Union (IAU, 1980, 1983, 1986, and 1988).

Jg 15M 0/270 2AN: Abbreviation for Jupiter, Ganymede (satellite); 1:15,000,000 series; center of sheet, lat 0°, long 270°; second edition; shaded relief and albedo markings (A), nomenclature (N).

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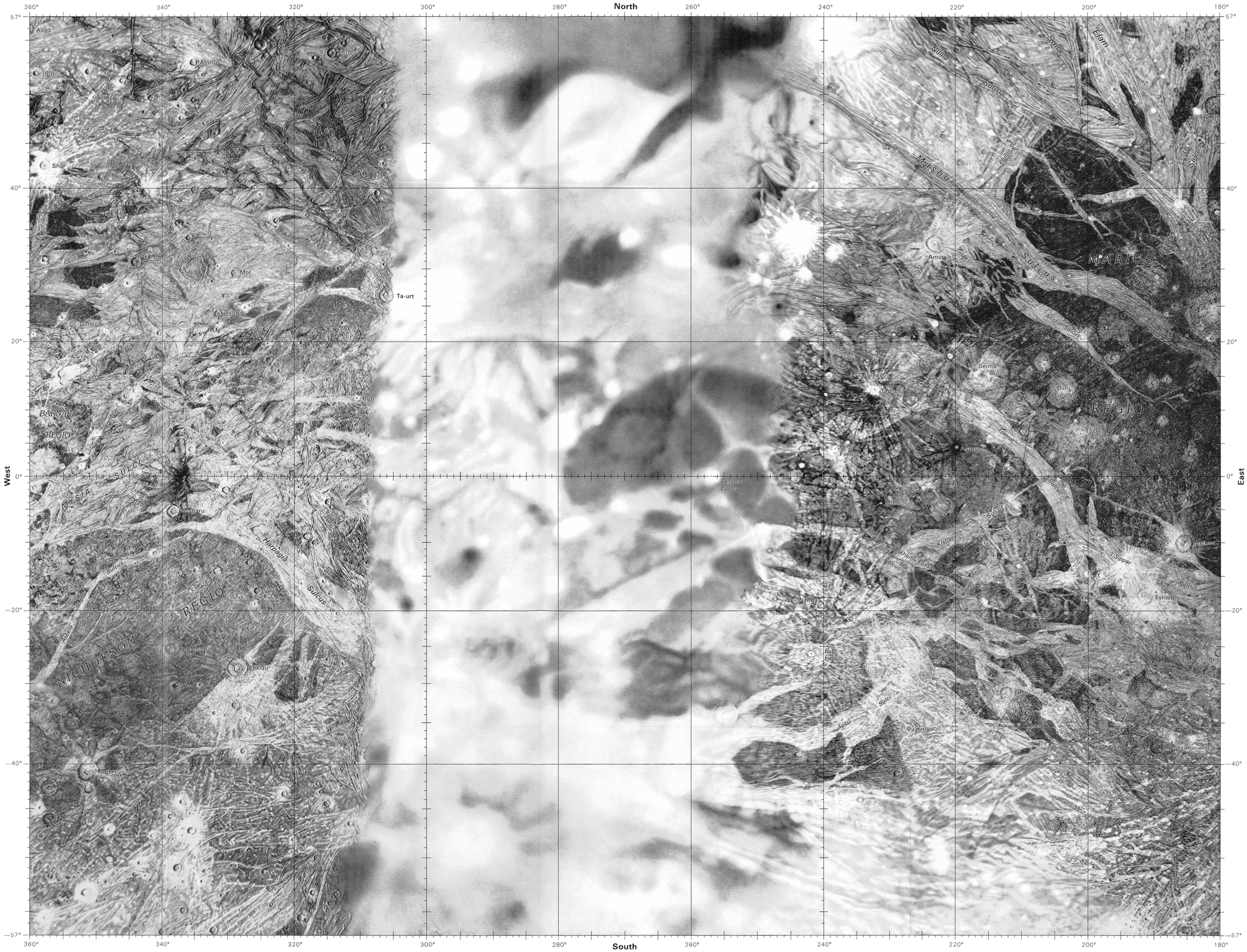
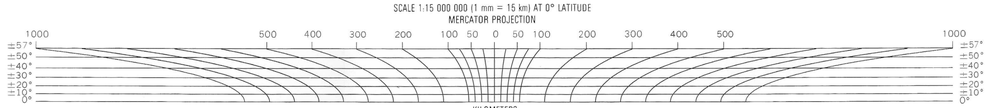


SCALE 1:15 000 000 (1 mm = 15 km) AT 0° LATITUDE
MERCATOR PROJECTION



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These maps supersede I–2034

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SHADED RELIEF AND SURFACE MARKINGS MAP OF THE EASTERN REGION OF GANYMEDE

1992