

NIMS OBSERVATIONS OF THE JOVIAN SYSTEM,
WITH EMPHASIS ON IO AND EUROPA RESULTS

R.W. Carlson and the NIMS Science Team (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA 91109)

During the last half of 1996 the Galileo Near Infrared Mapping Spectrometer (NIMS) observed Jupiter, the four Galilean satellites, and the Jovian ring in the spectral region 0.7 - 5.2 microns. These and forthcoming 1997 measurements will be highlighted, and results for Io and Europa will be discussed in detail.

Io was found to have more than a dozen active volcanic regions, some of which were previously identified by either Voyager or ground-based measurements, while five of these are apparently newly active hotspots. **Malik Patera** showed an increase of about 400 K between the first and second Galileo orbits, separated by two months. Temperatures of the hotspots range from 210 K to 830 K, with projected areas of approximately 10 to 40,000 square km.

Europa shows several distinct spectral units - all containing combinations of water ice frost and hydrated minerals, as yet unidentified. The surface showed **anisotropic backscattering, similiar** to terrestrial snow.

- 1) Robert W. Carlson
MS 183-601
Jet Propulsion Laboratory
Pasadena, CA 91109

Ph.: (818)354-2648
Fx.: (818)393-4605
e-mail: rcarlson@issac.jpl.nasa.gov
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