Results From Newly Acquired Venus Gravity Date

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On August 6, 1993 the Magellan spacecraft successfully completed a 70 day acrobaking phase which changed its orbital parameters from 8480 km apoapsis altitude to 540 km, making Magellan’s orbit nearly circular with a 197 km periapsis altitude. High quality X-Band Doppler data have been acquired daily, allowing us to map a 1200 longitude band from 90°W to 30°E. These new data provide high resolution in the polar regions which previously was very poor due to the orbit’s very high altitudes. The Lakshmi and Maxwell regions are resolved. Gravity/topography ratios and isostatic depths of compensati on for various areas in the high latitudes as well as those near the equator will be displayed. Future plans for gravity data acquisition and prospects for a healthy spacecraft will also be presented.

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