

Heating of Jupiter's upper atmosphere above the Great Red Spot

- New temperature maps of Jupiter's upper atmosphere from NASA's Infrared Telescope Facility reveal that the region above the Great Red Spot (the largest storm in the solar system) is hundreds of degrees hotter than its surroundings
- This increase in temperature can not be explained by cooling from its accretion
- Energy from the Sun is too weak, and auroral energy is trapped in the polar regions
- A new, yet unknown, energy source is required to resolve this "energy imbalance"
- Above the Red Spot a storm-driven coupling process may be occurring, wherein acoustic and/or gravity waves transports energy between Jupiter's lower and upper atmosphere
- Juno observations may be able to uncover the answer

