

## Juno spacecraft resumes full flight operations on its way to Jupiter

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Credit: Southwest Research Institute

(Phys.org) —NASA's Juno spacecraft, which is on its way to Jupiter, resumed full flight operations earlier today. The spacecraft had entered safe mode during its flyby of Earth last Wednesday. The safe mode did not impact the spacecraft's trajectory one smidgeon. This flyby provided the necessary gravity boost to accurately slingshot the probe towards Jupiter, where it will arrive on July 4, 2016.

The spacecraft exited safe mode at 4:12 p.m. CDT (5:12 p.m. EDT)



earlier today. The spacecraft is currently operating nominally and all systems are fully functional.

On Oct. 9, Juno past within 350 miles of the ocean just off the tip of South Africa at 3:21 p.m. EDT (12:21 PDT / 19:21 UTC). Soon after closest approach, a signal was received by the European Space Agency's 15-meter antenna just north of Perth, Australia, indicating the spacecraft initiated an automated fault-protection action called "safe mode."

Safe mode is a state that the spacecraft may enter if its on-board computer perceives conditions on the spacecraft are not as expected. Onboard Juno, the safe mode turned off instruments and a few non-critical spacecraft components, and pointed the spacecraft toward the Sun to ensure the solar arrays received power. The spacecraft acted as expected during the transition into and while in safe mode.

The Juno science team is continuing to analyze data acquired by the spacecraft's science instruments during the <u>flyby</u>. Most data and images were downlinked prior to the <u>safe mode</u> event.

The Juno spacecraft is named for the mythological wife of the god Jupiter, who used her special powers to discover the secrets Jupiter was hiding behind cloud cover. Much like its namesake, the spacecraft will probe the mysteries beneath the planet's visible surface to understand its structure and history.

Provided by Southwest Research Institute

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