

Kepler Mission Manager Update

November 24 2009

(PhysOrg.com) -- Kepler experienced a safe mode event on Nov. 18, 2009.

A [safe mode](#) is a self-protective measure that the [spacecraft](#) takes when something unexpected occurs. During safe mode, the spacecraft points the [solar panels](#) directly at the sun and begins to slowly rotate about a sun-aligned axis.

The spacecraft automatically powers off the [photometer](#) and one redundant subsystem as a safety precaution. Engineers immediately began telemetry analysis to determine spacecraft subsystem health, and root cause determination of the malfunction. This safe mode occurred when the team was preparing to download another month of scientific data from Kepler. The scientific data was not in danger and was downloaded successfully, via the NASA Deep Space Network, on Nov. 19, 2009.

Engineers verified nominal performance of all of Kepler's systems and successfully recovered the vehicle from safe mode. Science data collection was resumed by the evening of November 20.

This was the third safe mode Kepler has experienced since operations began on May 12, 2009. This safing event occurred during a planned break in science data collection, causing a minimal delay in return to science operations. The Kepler engineers budget for the potential loss of up to 12 days of science per year from safing events. While Kepler continues its next 30 days of science data collection, engineers will pour

over data to determine the cause of the malfunction. The next download of science data is scheduled for mid-December 2009.

Meanwhile, the Kepler Guest Observer Office is preparing for the next round of community-led science proposals. The Guest Observer Program is an annual opportunity for astronomers outside of the Kepler Team to add sources of interest to the Kepler target list and receive research grants from NASA to exploit those data. The first cycle of Guest Observer proposals yielded a diverse program of galactic and extragalactic experiments which are currently underway. We eagerly await proposals for the next cycle that will continue to expand the scientific impact of the [Kepler mission](#). The deadline for Guest Observer proposals is Jan. 15, 2010, with Notices of Intent due Dec. 4, 2009. Further details are available at our Guest Observer website, keplergo.arc.nasa.gov.

Provided by JPL/NASA ([news](#) : [web](#))

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