

February exciting month for Kepler team

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(PhysOrg.com) -- The Kepler project team had an exciting month in February. Besides recovering the spacecraft from a Safe Mode event, the team released Kepler's Quarter 2 science data to the public on Feb. 1. The press conference on Feb. 2, announcing the 1,235 planet candidates and the Kepler-11 system, drew the attention of major national and international news outlets. More than 1,150 news media outlets published or aired stories following the announcement. On Feb. 11, NASA Ames Research Center held its first Tweetup. Traveling from five countries and 18 U.S. states, 60 attendees, or 'tweeps' as they are affectionately known, donned their mobile devices to participate in the Planet Hunting Tweetup. The attendees were treated to a rare opportunity to tour the labs at NASA Ames, listen to presentations and have their questions answered by researchers who work at the center. All the while, sharing their experience real-time with nearly 1,000 tweets, Facebook posts, check-ins, and video and photo blogs.

Meanwhile the Science Operations Center (SOC) team has been putting the final touches on an upgrade to Kepler's science data processing software. This software upgrade -- called SOC 7.0 -- will provide enhanced capabilities to search for transiting planet signatures in the Kepler data. The release of SOC 7.0 code brings substantial new capability online for discovering Earth-sized and smaller planets and planets in longer orbital periods than previously possible. With SOC 7.0, the science pipeline can stitch together multiple quarters of data and search for planets with even longer orbital periods. This also greatly enhances the sensitivity to small planets in short orbital periods. In addition, the team can perform a suite of data validation diagnostic tests

across quarterly boundaries, providing important information for prioritizing and ranking the candidates. The software for this upgrade entered its final verification and validation testing in early March and is expected to be operational no later than June.

As for the [spacecraft](#), [Kepler](#) continued in science attitude for the remainder of February and into early March, collecting more of the mission's Quarter 8 science data. The regularly scheduled data download, which was planned for Feb. 22-23, was bypassed since the science data was downloaded in early February in conjunction with [Safe Mode](#) recovery actions over Feb. 1-3. The project spacecraft engineers continued to work on minor operating parameters that will be updated on the spacecraft by March 14. These parameters will update some calibration coefficients and fault protection limits to mitigate sun sensor noise issues seen on the spacecraft last December.

Provided by JPL/NASA

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