

# NASA's Return to Flight Launch No Earlier than Sunday

July 15 2005

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NASA announced the earliest the Return to Flight Space Shuttle mission (STS-114) could launch is 2:14 p.m. EDT, Sunday, July 17. Mission Management Team and engineering meetings took place last night and today at NASA's Kennedy Space Center.

Team members reviewed data and possible troubleshooting plans for the liquid hydrogen tank low-level fuel cut-off sensor. The sensor failed a routine pre-launch check during the launch countdown Wednesday, causing mission managers to scrub Discovery's first launch attempt.

The sensor protects the Shuttle's main engines by triggering shutdown if fuel runs unexpectedly low. The sensor is one of four inside the liquid hydrogen section of the External Tank (ET).

A new official launch date will be scheduled once a troubleshooting plan is complete and engineers are working on a solution. Space Shuttle Program managers plan meetings tomorrow to discuss the problem and finalize the troubleshooting plan.

The launch control team began troubleshooting while the liquid oxygen and liquid hydrogen was drained from the ET last night. The No. 2 liquid hydrogen sensor in the ET's liquid hydrogen tank continued to read 'wet' and did not transition to a 'dry' indication once the tank was completely drained.

Following de-tanking operations, the same commands that were sent

during the launch countdown were repeated while draining. While going through commands, sensor No. 2 continued to show 'wet' instead of 'dry.' The firing room reissued commands, and the sensor went to 'dry' as it should. Another round of commands was sent and sensor No. 2 performed as expected, with all sensors in the 'dry' state. Space Shuttle Discovery remains at Launch Pad 39B. The Rotating Service Structure was put back around the vehicle last night.

The STS-114 crew, led by Commander Eileen Collins, remains at Kennedy Space Center while engineers assess the problem. During their 12-day Return to Flight mission to the International Space Station, Discovery's seven crew members will test new techniques and equipment designed to make Space Shuttle missions safer. They'll also deliver supplies and make repairs to the Space Station.

Source: NASA

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