Return to Flight Moves to July Window

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NASA confirmed today that the Space Shuttle's Return to Flight mission would move to the July launch window to allow for further safety analysis. Furthermore, NASA will probably add a heater to the external tank to address icing issues.

The decision was made yesterday, after a series of reviews showed that further work was needed to address debris issues and some items that were discovered during work on Discovery at the launch pad.

"We're going to return to flight, not rush to flight," said NASA Administrator Michael Griffin. "We're going to do it right."

The Columbia accident revealed a major problem with the insulating foam that covers the External Tank. Investigators found that foam falling off the tank had damaged Columbia's left wing, letting superheated gases inside. Redesigning the External Tank became a top priority in the Agency's Return to Flight work.

NASA engineers made dozens of changes to the tank design, including one to a key mechanism that joins the External Tank with the orbiter. Jutting from the upper third of the tank, the "bipod fitting" is susceptible to icing due to the ultra-cold fuel that tank contains. Until the Columbia accident, the part was protected from ice buildup using thick sheets of foam. The improved bipod design now excludes using foam and instead relies on electric heaters to keep the area clear. The new fitting design is currently being retrofitted to the 11 existing tanks -- including the one chosen for Discovery's flight -- and will be included on those produced

in the future.

Another major safety improvement to the Space Shuttle fleet is the expanded use of enhanced imaging equipment to record the launch of Discovery as it roars into the sky and glides through space.