

# Discovery Rolls Back from Pad

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Space Shuttle Discovery is back in Kennedy Space Center's Vehicle Assembly Building after a nine-hour journey from Launch Pad 39B. The 4.2-mile trip began at 6:44 a.m. EDT Thursday morning.

Orbiter Discovery will soon be removed from its External Tank (ET) and lowered into the transfer aisle. On or about June 7, Discovery will be lifted and attached to its new ET and Solid Rocket Boosters. The new tank, known as ET-121, was originally slated to fly with Atlantis on mission STS-121, but will now help carry Discovery into space.

Discovery is expected to roll back out to the pad in mid-June.

The Space Shuttle Discovery is back in the Vehicle Assembly Building (VAB) at NASA's Kennedy Space Center, Fla. The Shuttle will get a new, modified external fuel tank to ensure a safe Return to Flight

mission (STS-114).

Discovery, carried by a Crawler Transporter, entered the VAB at 4:30 p.m. EDT. The 10-hour, 4.2 mile trip from Launch Pad 39B was briefly interrupted due to an over heated bearing on the Transporter. Today's rollback was the 15th in Space Shuttle Program history.

"Rolling back Discovery was the right thing to do and demonstrates our commitment to a safe Return to Flight," said Shuttle Program Manager Bill Parsons. "We will continue to focus on the processing milestones and complete the additional analysis we determined was required, so that we continue to move toward a launch during the July window."

Technicians will de-mate Discovery from its External Tank (ET-120) and Solid Rocket Boosters on May 31. Discovery will be attached to ET-121 on June 7. ET-121 was originally scheduled to fly with the Shuttle Atlantis on the second Return to Flight mission (STS-121).

In the VAB, a new heater will be added to ET-121 on the feedline bellows. It is the part of the pipeline that carries liquid oxygen to the Shuttle's main engines, to minimize potential ice and frost buildup. The tank also has several safety improvements, including an improved bipod fitting that connects it to the Orbiter.

In addition, NASA's second redesigned tank has been outfitted with temperature sensors and accelerometers, used to measure vibration. These sensors will gather information about the tank's performance during flight.

After the heater is added to ET-121 and the Shuttle is attached to its new propulsion elements, Discovery will roll back out to Launch Pad 39B in mid-June. Discovery's payload, the Italian-built Multi-Purpose Logistics Module Raffaello, will be installed in the payload bay, while the Shuttle

is on the pad.

Launch of Discovery for STS-114 is targeted for July 13. The launch window extends to July 31. During its 12-day mission, Discovery's seven-person crew will test new hardware and techniques to improve Shuttle safety and deliver supplies to the International Space Station.

Source: NASA

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