

# NASA Puts External Camera on Shuttle's Fuel Tank

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The space shuttle's external fuel tank, is getting safety upgrades for its spring 2005 flight. Now, a camera will be installed near the nose of the tank to transmit images of the shuttle for about 15 minutes after launch. The camera will stop taking pictures when the external tank is jettisoned. Then a group of NASA officials will review the images and determine how much insulating foam flew off the tank.

An investigation into the Columbia disaster determined a chunk of foam flew off the external tank during liftoff and struck the shuttle's left wing, creating a hole. Hot gases burned through the hole when the shuttle re-entered the atmosphere, causing the spacecraft to break apart leading to the deaths of all seven astronauts.

## Space Shuttle Processing Status Report

The Space Shuttle fleet is housed and processed at NASA's Kennedy Space Center (KSC), Fla. The order the Space Shuttles are listed in this report does not necessarily reflect the chronological order of future missions.

### **Discovery (OV-103)**

Following the Return to Flight modifications performed on Discovery during its power-down period, work on the orbiter is returning to a more normal processing flow in preparing for its future mission to the International Space Station. Freon coolant loop No. 2 was serviced this week, including the successful completion of leak checks. The final stage of Rudder Speed Brake panel installation continues.

Due to the impending arrival of Hurricane Charley, which was expected to affect the Kennedy Space Center area today, much of the normal workflow was inhibited on Wednesday and Thursday while employees prepared the vehicles, equipment and buildings for the storm.

### **Atlantis (OV-104)**

Atlantis is in a four-month power-down period, and the critical path wiring inspections and Return to Flight electrical modifications continue on schedule.

The right-hand Orbital Maneuvering System main engine was installed. Water coolant loop No. 1 has been drained and X-rays completed. The main landing gear was lowered for technicians to perform checks and optical measurements to ensure the landing gear will perform properly during the mission. Workers also began checkout of the nose cap,

including temperature and impact sensor instrumentation.

## **Endeavour (OV-105)**

Space Shuttle Endeavour is in its Orbiter Major Modification period, which began in December. Electrical modifications continue in the crew module. The Flash Evaporator System, which helps to cool the vehicle while in flight, was installed in the aft of the orbiter.

Three String Global Positioning System wire routing in the avionics bay and flight deck continues. The temporary installation of the nose cap is complete. The chin panel, which is the semicircle-shaped piece of Reinforced Carbon-Carbon insulation under the nose cap, is undergoing a fit-check.

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