

Damage eyed as shuttle heads toward space station

July 16 2009, By MARCIA DUNN, AP Aerospace Writer



Space Shuttle Endeavour lifts-off from the Kennedy Space Center at Cape Canaveral, Fla. Wednesday July 15, 2009. Endeavour's seven member crew are on a 16-day mission to the International Space Station. (AP Photo/Marta Lavandier)

(AP) -- Space shuttle Endeavour rocketed toward the international space station Thursday as engineers on Earth pored over launch pictures that showed debris breaking off the fuel tank and striking the craft.

Mission Control told the astronauts late Wednesday that the damage



looked less extensive at first glance than what occurred on the last shuttle flight, but it will take days to sort through available data to reach a conclusion.

The astronauts planned a Thursday afternoon inspection of their ship's thermal shielding, using a 100-foot laser-tipped boom. The procedure has been standard since shuttle flights resumed after the Columbia accident.

Endeavour's liftoff early Wednesday evening was the sixth try and came more than a month late. It occurred on the eve of the 40th anniversary of the launch of man's first moon landing mission.

"Persistence pays off," launch director Pete Nickolenko told the astronauts, who are carrying up a veranda for Japan's enormous space station lab.

The shuttle had been grounded by hydrogen gas leaks last month and, since the weekend, thunderstorms.

Eight or nine pieces of foam insulation came off the <u>external fuel tank</u> during liftoff, and Endeavour was hit at least two or three times, said Bill Gerstenmaier, NASA's space operations chief. Some scuff marks were spotted, but that probably is coating loss and considered minor, he said.

The impacts that occurred not quite two minutes into the flight were around the edge of the shuttle where the right wing joins the fuselage.

Any additional damage should be evident Friday, when the space station residents use zoom lenses to photograph the entire shuttle as it performs a backflip right before docking.

"The bottom line is we saw some stuff," said Mike Moses, chairman of



the mission management team. "Some of it doesn't concern us. Some of it you just can't really speculate on right now. But we have the tools in front of us and the processes in front of us to go clear this vehicle for entry" in 16 days.

At a news conference, Gerstenmaier noted that the Endeavour crew has shuttle repair kits on board. In case of irreparable damage, the astronauts could move into the space station for two to three months and await rescue by another shuttle.

Columbia was destroyed during re-entry in 2003 because of a hole in its wing, left there by flyaway foam at <u>liftoff</u>.

When commander Mark Polansky and his crew catch up with the space station, it will be the first time 13 people are together in space. All of the major space station partners will be represented. The combined crews will have seven Americans, two Canadians, two Russians, one Japanese and one Belgian.

Endeavour will remain docked at the space station for nearly two weeks. During that time, the shuttle astronauts will help install the third and final piece of the Japanese space station lab, a porch for outdoor experiments. Five spacewalks are planned.

NASA was anxious to get Endeavour flying, given time is running out on the shuttle program. Only eight shuttle flights remain, including this one, before NASA retires the fleet next year.

The space agency, at least, finally has a new administrator to oversee everything. Former <u>shuttle</u> commander Charles Bolden was confirmed by the Senate less than two hours after Endeavour's liftoff. He fills a vacancy left by Michael Griffin's departure in January.



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On the Net:

NASA:

http://www.nasa.gov/mission(underscore)pages/shuttle/main/index.html

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