

# Astronauts forced into shorter shuttle survey

May 15 2010, By MARCIA DUNN , AP Aerospace Writer

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Space shuttle Atlantis lifts-off from the Kennedy Space Center at Cape Canaveral, Fla. Friday May 14, 2010. Atlantis' 12-day mission will deliver a Russian built storage and docking module to the International Space Station. (AP Photo/Marta Lavandier)

(AP) -- A pinched cable forced Atlantis' astronauts to resort to a more inconvenient and less comprehensive method of inspecting their space shuttle Saturday as they sped toward a weekend rendezvous with the International Space Station.

Flight controllers, meanwhile, were monitoring a piece of [space junk](#) that was threatening to come too close to the space station. They were going to decide Saturday evening whether to move the station into a slightly lower orbit. Even if the station has to dodge out of the way, it won't delay Sunday morning's scheduled docking by Atlantis.

A [NASA](#) spokesman said the stalled shuttle survey also would not affect the docking.

The inspection is a standard - and essential - procedure the day after liftoff. A 100-foot boom is used to survey the heat shield on both wings and the nose in a hunt for launch damage. On Saturday morning, however, the [astronauts](#) could not tilt the bundle of laser sensors and TV camera on the end of the pole.

After zooming in with a handheld camera, the astronauts discovered that one cable was pinched by camera equipment at the end of the boom. They didn't think they could free it.

"Oh come on, man, we've got faith in you," Mission Control said. "Can't crack the whip with a little centrifugal acceleration?"

"Need to pull some G," replied commander Kenneth Ham, referring to gravity forces. "Spin her up," joked Mission Control.

The six astronauts used cameras and binoculars to beam down close-up pictures, so engineers on the ground could see what was wrong. The cable was dented where it was being squished, Ham reported.

Finally, after several hours, Mission Control had the astronauts use the backup set of lasers and camera on the boom, which took longer and left out some potential problem areas. They were limited to the daytime side of Earth because of the digital camera equipment.

The crew focused on the most vulnerable areas - the [heat shield](#) on the wings and nose. It was questionable whether they could complete the abbreviated job Saturday.

The day-after-launch shuttle inspections were put in place following the

2003 Columbia disaster. Columbia shattered during re-entry because of a hole in the left wing; it was left there by insulating foam that broke off the fuel tank during liftoff.

Only a few small pieces of foam were spotted coming off Atlantis' tank Friday. Nonetheless, the wings and nose still needed to be checked.

This is Atlantis' last planned flight after a quarter-century of service. It's hauling fresh batteries and a new Russian compartment to the space station. Three spacewalks are planned to plug in the batteries and other equipment.

Only two more shuttle flights remain, by Discovery and Endeavour. NASA is ending the program so it can focus on presidential-ordered trips to asteroids and Mars.

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