

# Astronauts remove troublesome cargo container

April 15 2010, By MARCIA DUNN , AP Aerospace Writer

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In this image provided by NASA astronaut Clayton Anderson, participates in the mission's third and final spacewalk Tuesday April 13, 2010 as construction and maintenance continues on the International Space Station. NASA is considering whether an emergency spacewalk by the crew of space shuttle Discovery is needed to clear a stuck valve in a critical cooling loop at the International Space Station, officials said Wednesday. (AP Photo/NASA)

(AP) -- After struggling for hours with a balky latching system, shuttle Discovery's astronauts successfully removed a cargo carrier from the International Space Station on Thursday.

They used a giant robot arm to move the compartment close to Discovery's payload bay. Because it was so late in the crew's day, Mission Control put off stowing the carrier inside the shuttle until Friday.

"Good job, guys," Mission Control said when the carrier finally came unlatched late Thursday afternoon.

The astronauts stayed up late to accomplish the job. They spent virtually all day dealing with the troublesome latching system.

The cargo carrier, filled with trash and old equipment, needs to return to Earth aboard Discovery so it can be outfitted and fly back up in September on the last shuttle flight.

Earlier Thursday, Mission Control managed to clear another space station problem, at least for the time being. Managers ruled out the need for an emergency spacewalk by the shuttle crew to fix a stuck valve in the cooling system.

Any valve repairs can wait until after Discovery leaves, engineers concluded following two days of analysis.

"Our first priority is to understand: Is it really failed and non-recoverable," said Kirk Shireman, NASA's deputy space station program manager. If it is, then the entire assembly will need to be replaced by spacewalking astronauts.

Shireman said it's unlikely any spacewalk repairs will be conducted before or during the next shuttle flight in mid-May. But he stressed nothing has been ruled out. For now, the space station's cooling system is doing its job.

The nitrogen valve failed to open Tuesday after a new ammonia tank was installed. The nitrogen is needed to pressurize the ammonia.

The latest problem was with one of the control panels that send commands to release the bolts that lock the cargo carrier in place on the

space station. Flight controllers noticed strange electrical signals coming from the panels and, indeed, the astronauts found a sheared screw on one connector. The astronauts taped the screw in place and double- and even triple-checked all the electrical connectors.

Controllers huddled in Mission Control as the problem dragged on, apologizing to the astronauts for the slow step-by-step instructions.

"I'm going to let you know that in my line of sight right now, I have seven flight directors talking about this," Mission Control radioed.

"Wow, that sounds like a party, dude," Anderson replied.

The cargo carrier flew up on Discovery, filled with fresh station supplies and science experiments. The next time the chamber flies, it's supposed to remain permanently at the space station and serve as an extra closet.

Discovery is scheduled to undock from the space station Saturday and return to Earth on Monday. The astronauts should be able to carry out a full inspection of the shuttle's wings and nose Friday as planned, despite the added workload involving the cargo carrier.

Back at NASA's launch and landing site, meanwhile, hundreds of journalists and dignitaries gathered for an afternoon visit by President Barack Obama.

Obama pitched his post-shuttle plans for NASA, including development of a rescue capsule for space station astronauts and expeditions to first an asteroid and then Mars over the next couple decades.

Once Discovery lands, only three shuttle flights will be left. NASA hopes to wrap up the last mission - along with space station construction - by the end of September.

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