

# Shuttle Discovery arrives at space station

August 31 2009, By MARCIA DUNN , AP Aerospace Writer

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Space shuttle Discovery launches from the Kennedy Space Center at Cape Canaveral, Fla. Friday Aug. 28, 2009. Discovery's seven member crew are on a mission to the International Space Station. (AP Photo/John Raoux)

(AP) -- Space shuttle Discovery pulled up and docked at the international space station on Sunday night, delivering a full load of gear and science experiments.

The linkup occurred as the spacecraft zoomed more than 200 miles above the Atlantic and ended a round-the-world chase of nearly two days. The astronauts cheered when the hatches swung open, and the two crews greeted each other with hugs and handshakes.

A thruster failure made the rendezvous all the more challenging for shuttle commander Rick Sturckow.

One of Discovery's small thrusters began leaking shortly after Friday's midnight liftoff and was shut down. None of the little jets was available for the rendezvous and docking, and Sturckow had to use the bigger, more powerful primary thrusters, making for a somewhat bumpier, noisier ride.

Struckow had trained for this backup method - never before attempted for a space station docking - well before the flight. Mission Control radioed up congratulations after his stellar performance.

"You'll be happy to know it occurred on the 25th anniversary of the maiden flight of Discovery," Mission Control said.

A few hours later, flight director Tony Ceccacci said at an early Monday news conference that Sturckow "flew it like a champ."

Discovery and its crew of seven are dropping off thousands of pounds of equipment, including a treadmill named for Comedy Central's [Stephen Colbert](#). The treadmill was launched in more than 100 pieces, and astronaut

Nicole Stott - the space station's newest resident - won't have time to put it together until the shuttle is long gone.

Earlier in the day, Stott sent "big space hugs" down to her 7-year-old son, Roman, from Discovery. "I just want to let him know I love him more than anything," she radioed. Stott will remain at the space station until another shuttle comes to get her in November.

Space station astronaut Timothy Kopra - whom Stott replaced late Sunday - peered at his shuttle friends through a porthole in the hatch as he waited for the door to swing open. Kopra has been on board since mid-July.

"He's not looking for a ride home or anything, is he?" Mission Control asked.

"He looks like he's ready," Sturckow replied.

Discovery will spend more than a week at the orbiting complex. Astronauts will perform three spacewalks to replace an ammonia tank and perform other outside maintenance, with the first one on Tuesday night.

Monday evening's action will involve lifting the huge cargo carrier out of Discovery's payload bay, using a robot arm, and attaching it to the space station.

This is only the second time 13 people have been together in orbit. The first was just last month during Endeavour's space station visit.

Discovery, meanwhile, seems to have fared liftoff well.

The chairman of NASA's mission management team, LeRoy Cain, said Sunday that a preliminary look at launch pictures and other data indicates the shuttle had no major damage. No significant pieces of foam insulation were spotted coming off the fuel tank.

Cain cautioned that another few days of analyses are needed. Engineers got even more data after Discovery arrived at the space station. The [shuttle](#) performed a slow backflip on final approach so the space station crew could photograph its belly in a search for damage. More than 400 pictures were captured.

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