

A successful Quest

STS-104's ISS delivery marks final phase of the early assembly sequence

By Eric Raub

Space Shuttle *Atlantis* returned to Earth on July 24, ending the STS-104 mission after the successful delivery of the International Space Station (ISS) Joint Airlock Module Quest.

The mission, ISS Flight 7A, marked the final phase of the early assembly sequence of the ISS. The *Atlantis* crew consisted of Commander Steven Lindsey (Lt. Colonel, USAF), Pilot Charles Hobaugh (Major, USMC) and Mission Specialists Michael Gernhardt, PhD, Janet Kavandi, PhD and James Reilly, PhD.

"It's great to be back here after 13 days in space," Lindsey said. "We had a great mission. I think we accomplished every mission objective that we set out to do. I'm very, very proud of this crew."

The primary objective of the mission—the installation of Quest and four high-pressure gas tanks—went smoothly thanks to the efforts of crews onboard both the ISS and *Atlantis*.

The operation took precision movement of *Atlantis*' robotic arm and the ISS robotic arm Canadarm2, which showed no signs of the computer problems that delayed the launch of the mission. With Kavandi maneuvering the arm of *Atlantis* and flight engineers James Voss and Susan Helms on Canadarm2, equipment and astronauts stayed right where they needed to be.

"She (Kavandi) was absolutely perfect on that arm," Lindsey said. "She flew flawlessly and was well orchestrated with the Space Station arm as flown by Susan Helms and Jim Voss."

Astronauts Reilly and Gernhardt spent more than 16 hours in space on three

Extravehicular Activities (EVAs) installing Quest, connecting cables and preparing the module to become a permanent doorway for the ISS. Even though the effort proved time-consuming, everything went largely as planned.

"Mike did a fantastic job on this flight," Lindsey said. "Both he and Jim Reilly have worked on these EVAs for years and years and years. ... They went out and executed them flawlessly."

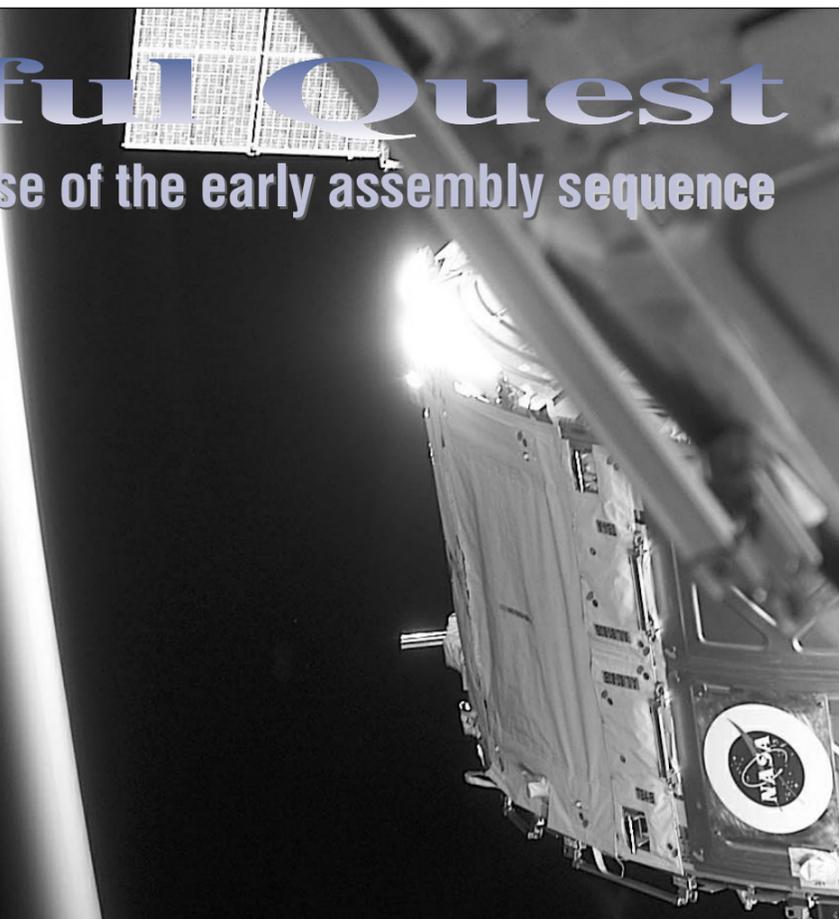
A few technical difficulties did arise with some of Quest's seals and valves. Minor leaks occurred during the mission but none proved serious enough to keep Gernhardt and Reilly from using it for the first time on the third spacewalk.

The airlock safely pumped almost all of the air out of the crew lock and allowed the two men to float gently into space. Those who took the maiden voyage out of Quest are proud of the new addition they left behind.

"There were several leaks and almost all of them were insignificant," Gernhardt said. "At this point there really is nothing at all that's wrong with the airlock... Bottom line is it works great and it's a real tribute to the people who worked on it."

Hobaugh, piloting his first Shuttle mission, could not help but be impressed with the size of the spacecraft he and his crewmates left behind. While Hobaugh had to bear the responsibility of safely piloting the Shuttle around the ISS, the flyaround afforded him a great view.

"On separation it was truly impressive to see what we just left behind from a more clear view," Hobaugh said. "It was quite a sight to behold." ■



The crews of the International Space Station and STS-104 (pictured together in the inset photo) worked as one team to install the Joint Airlock Module Quest, picture at the top with the NASA logo. Bottom row: Jim Voss and Charles Hobaugh. Middle row: Yury Usachev and Janet Kavandi. Top row: Susan Helms, Michael Gernhardt, Steven Lindsey and James Reilly.

NASA STARS rollout continues

In the coming weeks, Johnson Space Center will be implementing the new automated Staffing And Recruitment System known as NASA STARS.

NASA STARS is a resume management process designed to enhance human resources capabilities to attract and retain a world-class workforce. The system is now up and running at Goddard, Marshall and Stennis Space Centers. The rollout for JSC will begin Aug. 27.

This new staffing and hiring process makes it faster and easier for employees and external applicants to apply for NASA jobs. There will be no more application forms to complete, and applicants will no longer need to address Knowledge, Skills, and Abilities (KSAs) when applying for a NASA position.

Instead, those applying for vacant positions posted on the NASA Jobs Web site will use a single resume that they create in an automated Resume Builder. Those who apply will receive automatic notification of the receipt of their resumes and faster consideration of their applications.

Our Human Resources Representatives (HRRs) will receive a week of training on the new system in late August. Employees can begin entering

their resumes into the Resume Builder now by accessing the NASA STARS website, located at: <http://nasastars.nasa.gov>.

Once a resume is entered into the system, employees can use the quick apply feature to apply for a vacancy when positions are posted.

The NASA STARS system has many additional features that will benefit outside applicants, employees and hiring managers. Employee Resume Builder workshops will be held Aug. 27 and 29 in the Building 30 Auditorium on a first-come, first-serve basis. ■

Sessions will be held Aug. 27 9-10 a.m., 10:30-11:30 a.m., 1:30-2:30 p.m. and 3-4 p.m., and on Aug. 29 from 9-10 a.m. and 10:30-11:30 a.m.

For more information on NASA Jobs or NASA STARS please visit: <http://www.nasa.jobs.nasa.gov> <http://nasastars.nasa.gov/jsc/>

Or, you can call the JSC Human Resources Customer Service Desk at x30476. Additional information will be provided to JSC civil servants as the NASA STARS rollout continues.

Did You Know?



Space Shuttle *Discovery* brought home the first International Space Station crew Expedition One and delivered Expedition Two. The current mission, STS-105, will bring back Expedition Two and deliver Expedition Three onboard *Discovery* as well.

EXPERIMENT CORNER

Expedition II Science Experiments

Sub-Regional Assessment of Bone Loss in Long-Term Spaceflight

This experiment is designed to study bone loss, and the recovery from bone loss, that is experienced by astronauts during and after long-duration space flights. Bone loss on the hip and spine will be determined by comparing preflight measurements of the

astronauts to measurements made after landing.

More Sub-Regional info: Expedition Two press kit, p. 25 <http://spaceflight.nasa.gov/station/science/experiments/boneloss.html>

For more details, please read the Expedition Two press kit at: http://spaceflight.nasa.gov/station/crew/exp2/exp2_presskit.pdf

