

Atlantis' 1st full day in orbit nearly perfect

July 9 2011, By SETH BORENSTEIN, AP Science Writer



Space shuttle Atlantis is seen as it launches from pad 39A on Friday, July 8, 2011 at the Kennedy Space Center Friday, July 8, 2011, in Cape Canaveral, Fla. Atlantis is the 135th and final space shuttle launch for NASA. (AP Photo/NASA, Bill Ingalls)

(AP) -- The space shuttle Atlantis hasn't performed like a ship ready for retirement. The first full day of the final flight of the aging space shuttle fleet - the most complicated machines ever built - was practically flawless.

NASA officials say the unusually small four-person crew of Atlantis worked through lunch Saturday and finished their tasks in near-record time. After Friday's launch they inspected the shuttle's <u>heat shield</u> for launch damage and prepared for Sunday morning's docking with the International Space Station.

So far Atlantis doesn't even have minor glitches. The worst problem is



that the crew could not find an eye chart for a <u>vision test</u>, something that caused a chuckle among ground controllers.

"We couldn't be more happy with what we've seen from the crew and Atlantis," <u>Flight</u> Director Kwatsi Alibaruho said.

Often the first full day in orbit for shuttles has "little nuisance-type" glitches in setting up life in space and is usually one of the most difficult days in a flight, said <u>shuttle mission</u> management team chairman LeRoy Cain. He said hard work and good luck have paid off for Atlantis this time.

And yet when Atlantis lands later this month it will join sister ships Discovery and Endeavour as museum pieces. The 30-year-old space shuttle program is ending as NASA hands over the task of flying astronauts to the space station to Russia and private U.S. companies. NASA will shift its efforts to deep space missions to an asteroid and eventually Mars.

"Instead of focusing on the irony, I tend to look at the opportunity on this, the last shuttle mission of the program," Alibaruho said. "I'm very grateful the shuttle is finishing as it is."

Cain said mission managers focused on "finishing strong."

"We wanted the last flight to be the safest flight that we fly. We wanted the performance of the vehicle to be the best it's ever been," Cain said. "I think you're seeing it play out."

The great condition the shuttle is in "helps us enjoy the mission more" because flight controllers don't have to worry as much about little glitches, Alibaruho said Saturday in a press conference.



It also keeps the crew from having to divert from their tasks to fix problems, he said.

Another big factor is that the four astronauts are all space veterans who know what they are doing, Alibaruho said. With four astronauts instead of the normal seven, there "are fewer bodies for the crew to trip over" and there is less heat inside the shuttle, making it more comfortable, he said.

The veteran astronauts felt so good that they canceled their normally scheduled private conferences with mission control's doctors, Cain said. The crew was able to inspect their heat shield and prepare for Sunday in an hour less time than planned.

Early indications are that inspections of the shuttle's heat shield found no damage from launch to worry about, but closer examination is still needed. In 2003, the space shuttle Columbia was destroyed when it returned to Earth because of damage during liftoff. Final results won't be known until Monday or Tuesday.

On Sunday at 11:07 a.m. EDT, Atlantis is scheduled to dock with the <u>International Space Station</u> to deliver more than four tons of supplies. That docking maneuver will be slightly more complicated for the crew because there are fewer people on board to do all the necessary tasks, Alibaruho said.

By Monday or Tuesday, mission managers will know if they have saved enough power on board Atlantis to extend the shuttle's flight one more day, landing on July 21.

Saturday morning's wake-up song - Coldplay's "Viva la Vida" - was accompanied by a mass greeting from the numerous employees of NASA's Marshall Space Flight Center in Huntsville, Ala. That center is



in charge of the propulsion system that sends shuttles into space. Thousands of <u>space shuttle</u> workers throughout the country have been laid off or will lose their jobs not long after Atlantis returns to Earth.

"Good morning, Atlantis," the workers said in a message recorded before launch. "The Marshall Space Flight Center hopes you enjoyed your ride to orbit. We wish you a successful mission and a safe return home."

Pilot Doug Hurley responded, "Thanks for that great message and awesome ride to orbit and the 134 before that with this tremendous space shuttle program."

More information: NASA: <u>http://www.nasa.gov/shuttle</u>

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