

Atlantis to dock with space station on final flight

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The crew of Atlantis prepared to link up with the International Space Station Sunday as part of the final mission of the US space shuttle program.

The space shuttle, which began its journey to the station on Friday, is carrying a crew of four US astronauts who will help re-stock the orbiting lab.

On Saturday, the Atlantis crew inspected the craft's thermal protection system, the outer barrier that protects it from the searing heat upon re-entry into the Earth's atmosphere, in preparation for Sunday's docking at the orbiting ISS.

Crew members used the shuttles [robotic arm](#) "and 50-foot (15-meter) long orbiter boom [sensor system](#) to get a close up look at the shuttles wing leading edges and nose cap," NASA said in a statement.

Cameras on the end of the boom took close-up pictures of the thermal protection system, made in part of a composite material known as reinforced carbon carbon (RCC).

"Imagery experts on the ground will comb through the data to make sure that the heat shield remains in good shape," the statement said.

The inspections "are standard operations to ascertain if there was any ascent damage to the vehicles heat shield tiles," NASA said.

In February 2003 the [space shuttle Columbia](#) was destroyed upon re-entry into the Earth's atmosphere, and a panel of experts concluded that a heat shield tile on the craft's wing was damaged at blast-off, fatally compromising the craft's re-entry protection.

The Atlantis shuttle mission marks the end of an era in [human spaceflight](#). The United States will soon have no spacecraft capable of taking astronauts into orbit, leaving Russia's three-seat [Soyuz capsule](#) as the sole taxi to the ISS.

At least 750,000 people descended on Florida Friday to catch a glimpse of history, braving snarled traffic and warnings of stormy weather that had briefly threatened to postpone the mission.

Once the shuttle retires, astronauts will be limited to catching rides to the ISS aboard the [Soyuz spacecraft](#) at a cost of \$51 million per ticket.

As many as 8,000 people, mostly at the Kennedy Space Center in Cape Canaveral, Florida are being laid off with the closure of the shuttle program.

In the days leading up to Atlantis's last launch, NASA fended off criticism over the lack of an immediate successor to the shuttle and showed off the design of the Orion space capsule, the basis for a multipurpose crew vehicle that may some day travel to deep space.

"I don't see this is as the end of the golden era," said NASA associate administrator for space operations Bill Gerstenmaier after the launch. "I see it as a transition."

Private companies like SpaceX, Boeing and Sierra Nevada are competing to become the first to build a next-generation space capsule to take astronauts and cargo to the orbiting research lab.

But those plans are not likely to come to fruition before 2015 at the earliest.

Former president Richard Nixon ordered the shuttle program in the 1970s, and the first [shuttle mission](#) was launched in 1981.

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