

# Shuttle, station crews begin girder work

March 18 2009

---



In a photo provided by NASA, Japan Aerospace Exploration Agency astronaut Koichi Wakata, STS-119 mission specialist, works on the middeck of Space Shuttle Discovery during flight day two activities March 16, 2009. (AP Photo/NASA)

(AP) -- The astronauts aboard the linked space shuttle and space station began their high-priority girder work Wednesday, a two-day job that will culminate with the installation of two new solar wings at the orbiting outpost.

They cranked up the robot arm on the international [space station](#) and used it to latch onto the 45-foot-long, 31,000-pound frame structure that flew up aboard [shuttle](#) Discovery. The framework, which holds the folded-up wings, was then hoisted out of the shuttle payload bay.

Discovery's robot arm was going to assist with the work.

The \$300 million girder - which has a radiator along with the [solar wings](#) - is the last major American-made piece of the space station. And the pair of wings are the station's last.

The space station's skipper, Mike Fincke, invited Mission Control to watch over Wednesday's activities, via on-board TV cameras.

"We want to share the great adventure with you all," Fincke said.

The job is so complicated and drawn-out that the [astronauts](#) will wait until Thursday before actually hooking up the girder. Two spacewalkers will be outside, helping to attach the framework to the space station.

Once the wings are unfurled - either Friday or Sunday - the 10-year-old space station will finally be at full power. Six wings already are in place and generating power.

NASA needs the extra energy to boost science research. A bigger crew is also needed; the station population is supposed to double, to six, by the end of May.

The 10 space travelers and flight controllers around the world will be watching anxiously when the new wings are commanded to open. The last time new wings were delivered in 2007, one got snagged on a guide wire and ripped, and spacewalking astronauts had to carry out emergency repairs to fix it.

NASA officials said they have learned their lessons. The latest 115-foot wings will be commanded to open a small section at a time, and Mission Control will make sure there is optimal lighting when the procedure takes place. Sun glare contributed to the 2007 mishap; it prevented the astronauts from quickly noticing that the wing had torn.

The wings carried up aboard Discovery are actually the oldest; they were used for testing on the ground. Because they have been packed up in boxes for as long as eight years, some of the pleated panels might stick together. The astronauts have techniques to work around that, if necessary.

Discovery will remain at the space station until next Wednesday. The shuttle arrived on Tuesday.

---

On the Net:

NASA: <http://spaceflight.nasa.gov>

*©2009 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed.*

Citation: Shuttle, station crews begin girder work (2009, March 18) retrieved 24 April 2024 from <https://phys.org/news/2009-03-shuttle-station-crews-girder.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--