



# STS-118

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STS-118 Commander

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STS-118 Pilot

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STS-118 Mission Specialist 1

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STS-118 Mission Specialist 2

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STS-118 Mission Specialist 3

## Barbara Morgan

STS-118 Mission Specialist 4

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STS-118 Mission Specialist 5  
Expedition 15 Flight Engineer

*For more information about NASA  
and the STS-118 mission, please visit*

[www.nasa.gov/sts118](http://www.nasa.gov/sts118)



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## STS-118 Robotics

Robotic systems play a key role in International Space Station assembly and maintenance by moving equipment and supplies around the station, supporting astronauts working in space and installing other payloads to the station.

Robotic operations have a particularly important role in the STS-118 mission. Several of the crew members have received training to enable them to perform these functions with the Canadian arm. Operators are aided by an artificial vision system.

During the mission, robotics will be used to install the external stowage platform and to assist with the four spacewalks to install the S5 truss and replace a failed gyroscope used to help orient the station. The Canadian Space Agency contributed an essential component of the station, the Mobile Servicing System.

The station's robotic arm is able to attach to a mobile transporter so it can be moved to various locations on the station's truss. This allows either end to switch roles from serving as the attached base to operating as a payload manipulator, a feature that effectively permits the arm to "walk" along the truss structure. The system is designed to reduce the time it will take to assemble, service, supply and run the station, and to increase safety by reducing the number of spacewalks required to get those jobs done.

*For additional information, please visit*  
**[www.nasa.gov/sts118](http://www.nasa.gov/sts118)**

