

Boeing-Built Structure 'Center Of Attention' For Space Station

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The first major element of the International Space Station's (ISS) enormous backbone will bring more power supplies and data handling capabilities when it is installed during the next space shuttle mission.

The Starboard 0 (S0) truss segment, will be delivered to the orbiting outpost on STS 110 (ISS-8A) scheduled for launch on April 4, 2002 from Kennedy Space Center. Boeing Human Space Flight and Exploration in Huntington Beach, Calif., built the truss and company operations in Florida prepared it for launch. Human Space Flight and Exploration is part of Boeing Space and Communications a business unit of The Boeing Company [NYSE:BA] that is NASA's prime contractor on the space station.

Astronauts are scheduled to make four space walks during the nine-day mission to install the truss.

"The S0 truss is the keystone of the station," said James McCormick, Boeing launch package manager. "Like the center block of a stone arch, this is the structural centerpiece of the station."

Future shuttle missions will carry five more hefty truss segments that when fully assembled will span the length of a football field. The S0 truss includes pre-installed rails for the Boeing-built mobile transporter that will accommodate Canadarm2, the Canadian-built robotic arm. The arm, currently attached to the Boeing-built U.S. laboratory, Destiny, plays a major role in moving and positioning payloads from the docked space shuttle and assembling the station's structure, including the solar arrays, radiators and experiments.

Power and data cables and the thermal control system that provides heating and cooling wind through the 44-foot by 15-foot 27,000-pound truss to carry energy and information to and from the station's extremities where solar panels collect electrical energy used to power experiments, computers, life support systems and other services.

"The S0 truss is the station's central routing point," McCormick said. "Power, data and thermal coolant are routed through the laboratories from the truss elements. Also, power converters inside the outboard truss elements reduce the solar panel voltage to levels useable by the station's electrical equipment."

Video cameras, attached to the structure, monitor assembly operations and other activities on the station. Other instruments provide the data that astronauts and ground controllers use to maintain the station's position and orient the solar panels.

Two more truss segments, Port 1 (P1) and Starboard 1 (S1), are scheduled to be launched this year and will be attached to S0 by space walking astronauts. Both were built and prepared for launch by Boeing Human Space Flight and Exploration.

Boeing Space and Communications (S&C), headquartered in Seal Beach, Calif., is the world's largest space and communications company. A unit of the Boeing Company, S&C provides integrated solutions in launch services, human space flight and exploration, missile defense, and information and communications. It is the primary systems integrator for U.S. missile defense; and a leading provider of intelligence, surveillance and reconnaissance. The global enterprise has customers worldwide and manufacturing operations throughout the United States and Australia.

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