Shuttle External Tank Ready for Trip

December 30 2004

The momentum towards NASA's Return to Flight continues to build, as the huge, rust-colored External Tank that will propel the Shuttle Discovery into space prepares to make its journey to the Kennedy Space Center.

Image: Workers guide External Tank 120 into the Vertical Assembly Building at Michoud Assembly Facility. Credit: NASA.

The tank, known as ET-120, is set to leave the Michoud Assembly Facility near New Orleans by barge on Friday, Dec. 31 for a four to five day journey through the Gulf of Mexico to Florida. The external tank is the largest element of the Space Shuttle system at 27.6-feet wide and 154-feet tall, and the only part that isn't reused. During the first eight-and-a-half minutes of launch, the tank feeds 535,000 gallons of liquid

hydrogen and oxygen to the Shuttle's three main engines, powering the Shuttle to space during ascent.

ET-120 is the first tank to incorporate safety improvements to address the Columbia Accident Investigation Board's recommendation to reduce the risk to the Shuttle from falling debris during ascent. Investigators believe that during Columbia's launch in January 2003, insulating foam from the bipod area fell off the External Tank and damaged the left wing of the Orbiter.

The External Tank move follows other recent Return to Flight milestones, like the stacking of Solid Rocket Boosters and installation of Discovery's main engines.

The Return to Flight mission, designated STS-114, is targeted for a launch opportunity beginning in May 2005. The seven-member Discovery crew will fly to the International Space Station primarily to test and evaluate new procedures for flight safety, including Space Shuttle inspection and repair techniques.

Source: NASA

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