Dawn moves closer to the asteroid belt

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NASA's Dawn spacecraft has been positioned at Kennedy Space Center's launch pad 17B atop a Delta II rocket for its launch from Florida later this month.

The spacecraft was moved to the launch pad Tuesday in preparation for its more than 3.2 billion-mile odyssey into the heart of the asteroid belt. The launch window opens Sept. 26.

"From here, the only way to go is up," said Dawn project manager Keyur Patel of the National Aeronautics and Space Administration's Jet Propulsion Laboratory in Pasadena, Calif.

Dawn's goal is to characterize the cosmology of the solar system's earliest epoch 4.5 billion years ago by investigating the massive asteroid Vesta and the dwarf planet Ceres, both of which are in the asteroid belt between Mars and Jupiter.

Scientists theorize Vesta and Ceres were budding planets that followed different evolutionary paths during the solar system's first few million years. By investigating two diverse asteroids during its eight-year flight, the Dawn mission is expected to resolve some of the mysteries of planetary formation.

Dawn is designed to be the first spacecraft to orbit an object in the asteroid belt and the first to orbit two bodies after leaving Earth.