ACT details Endeavour's final mission to the California Science Center in Los Angeles

Written by Lindsey Anderson - 28 Nov 2012

Space Shuttle Endeavour was the fifth and final space-worthy NASA space shuttle to be built, constructed as a replacement for Challenger, which was destroyed 73 seconds after its launch on January 28, 1986. For 20 years and 25 missions, the orbiter Space Shuttle Endeavor hurtled through space at speeds exceeding 17,500 miles per hour. On its last mission through the streets of Los Angeles, the coveted orbiter was reduced to speeds of less than 2 mph, as crews slowly hauled the cargo that was once a cargo ship to space.

The Sarens Group planned, engineered and executed the transportation of what the company called its most valuable cargo to date. The enormous but highly fragile space craft began its 12-mile overland journey from Los Angeles International Airport to the California Science Center at midnight on Friday night October 19 and arrived at the museum about 48 hours later.

The Endeavour's trek through Los Angeles is the result of months of meticulous planning by Sarens engineers in collaboration with a multitude of public and private entities. An array of Self-Propelled Modular Trailers (SPMTs) was used to transport the space craft. Comprising four independent, multi-axle, computer-controlled wheeled vehicles, the SPMTs ensured precision maneuverability and stability while moving the shuttle along the densely populated route.

The shuttle weighs 76 tons, has a wingspan of 78 feet tip to tip, is 124-feet long and measures almost 56 feet from the ground to the tip of the tail.

The SPMTs were controlled and steered as a single vehicle by a person walking alongside the shuttle using a remote joystick control panel. Additional spotters were positioned near the nose, tail and wingtips to enable precision travel near potential obstructions such as buildings, poles and trees.

Clearing the path

Clearing the 12-mile route for the width of the shuttle involved cutting down hundreds of trees and temporarily removing street lights, traffic signals, power line poles and parking meters. According to news reports, the California Science Center has pledged to plant more than 1,000 trees to make up for trees that had to be removed.

Sarens directed crews to lay down some 2,000 steel plates at certain areas along the route to prevent damage to roadways and underground

utilities. According to news reports, the project to haul the space craft through Los Angeles to the museum cost about $10 million.

This was the first and most likely the only time that a space shuttle has or will be transported through an urban environment, Sarens said.

"This may not be the largest or heaviest object we have transported before but it is certainly one of the most important in our company's history," said Jim Hennessy, marketing manager, Sarens North America, before the journey began. "The Endeavour is a national treasure and we are honored to play a key role in its final mission en route to the California Science Center where it will be put on display for all to see."

The Endeavour has flown 25 successful missions, travelled nearly 200 km, spent 299 days in space and circled the earth 4,671 times. The orbiter's last flight was STS-134 in May 2011.

About the Endeavour

Space Shuttle Endeavour was the fifth and final space-worthy NASA space shuttle to be built, constructed as a replacement for Challenger, which was destroyed 73 seconds after its launch on January 28, 1986. Endeavour first flew in May 1992 on mission STS-49 and its last mission STS-134 was in May 2011. The orbiter is named after the British HMS Endeavour, the ship which took Captain James Cook on his first voyage of discovery (1768–1771). This is why the name is spelled in the British English manner, rather than the American English "Endeavor." The name also honored Endeavour, the Command Module of Apollo 15, itself also named after Cook's ship.

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