

United Launch Alliance Successfully Launches 47th Air Force GPS Mission



A United Launch Alliance Delta II rocket carrying the U.S. Air Force's Global Positioning System IIR-20 satellite lifts off from Space Launch Complex-17A at Cape Canaveral Air Force Station, Fla., at 4:34 a.m. EDT March 24. After a 1 hour, 8 minute flight the 47th successful GPS satellite launched by a Delta II was delivered to orbit supporting our military operations, along with commercial applications, throughout the world. Photo by Carleton Bailie, United Launch Alliance.



[GPS IIR-20 Mission Booklet](#)

Cape Canaveral, Fla., (March 24, 2009) – A United Launch Alliance Delta II rocket successfully launched the Air Force's Global Positioning Satellite IIR-20(M) into orbit from Space Launch Complex 17A at 4:34 a.m., EDT. This was the 47th successful GPS launch for the Delta II in its storied 20-year history. The very first Delta II launch on Feb. 14, 1989 was the NAVSTAR II-1 launch. NAVSTAR is now commonly known as GPS.

Following a nominal 1 hour and 8 minute flight, the rocket deployed the GPS IIR-20(M) spacecraft, the seventh modernized NAVSTAR Global Positioning System Block II R-M military navigation satellite. GPS is a space-based positioning system designed and operated as a 24-satellite constellation that provides precision navigation and timing information to military and civilian users worldwide.

"Congratulations to the Air Force and all of our mission partners on today's successful GPS satellite launch," said Jim Spornick, vice president, Delta Product Line. "One third of the 140 successful Delta II launches have been dedicated to GPS satellites. The ULA Delta team is extremely proud of the role we've played in launching this incredible satellite constellation. During the past two decades, GPS has changed how people navigate around their neighborhoods and around the globe. GPS has also greatly improved military operations as well as numerous maritime, aircraft, and business operations worldwide."

Designed to operate for 10 years, GPS satellites orbit the Earth every 12 hours, emitting continuous navigation signals. With the proper equipment, users can receive these signals to calculate time, location and velocity. In addition to its military use, GPS satellites provide directional assistance to civilian users around the world.

The ULA Delta II 7925-9.5 configuration vehicle featured an ULA first stage booster powered by a Pratt & Whitney Rocketdyne RS-27A main engine and nine Alliant Techsystems (ATK) strap-on solid rocket motors. An Aerojet AJ10-118K engine powered the second stage. A spin-stabilized Star-48B solid-rocket motor built by ATK boosted the third stage. The payload was encased by a 9.5-foot-diameter metallic payload fairing.

ULA's next launch is the Air Force Wideband Global SATCOM-2 mission scheduled aboard an Atlas V from SLC-41 here. A specific launch date has not been established.

ULA program management, engineering, test and mission support functions are headquartered in Denver, Colo. Manufacturing, assembly and integration operations are located at Decatur, Ala., Harlingen, Texas, San Diego, Calif., and Denver, Colo. Launch operations are located at Cape Canaveral Air Force Station, Fla., and Vandenberg Air Force Base, Calif.