NORTHROP GRUMMAN FACTS

Space Tracking and Surveillance System

Status

- The two demonstration satellites have completed buildup, integration, systems testing and environmental testing, and are in final prelaunch preparation at Cape Canaveral as of 9/10/09.
- They were delivered to the U.S. Air Force's Cape Canaveral Air Station by prime contractor Northrop Grumman on May 1 and June 25, 2009, respectively.

Launch

- Location: Cape Canaveral Air Force Station, Launch Complex 17, Pad B
- Launch Vehicle: United Launch Alliance Delta II
- Tandem Launch: Both satellites will be launched by the same Delta II rocket

Testing

- The satellites were shipped following an extensive test program to prove they're ready for the harsh launch and space environments.
- The sensor suites additionally underwent testing to ensure they will meet their sensitivity and agility requirements once on-orbit.
- The U.S. Missile Defense Agency's (MDA) space element, located at Los Angeles Air Force Base, managed and coordinated the test activity. Integration and test work was conducted at Northrop Grumman facilities in Redondo Beach, Calif.

System Description

- The STSS demonstration satellites have infrared and visible sensors to track missile launches, midcourse travel, and atmospheric reentry.
- Each satellite uses an acquisition sensor for missile launch detection and a movable tracking sensor to follow midcourse objects in space. Working in tandem, they will view the same target to provide 3-D stereo tracking capability.
- The STSS satellites will demonstrate the ability to pass missile tracking data to system interceptors with the accuracy and timeliness necessary to enable successful target intercepts.
- They will communicate with other elements of the overall missile defense system through the Missile Defense Experimentation Center ground station.
- Command and control of the satellites will be run from MDA's Integration and Operations Center located at Schriever Air Force Base, Colorado.
- After launch, on-orbit testing will include both aircraft and missile targets.
- The Missile Defense Agency will be able to make more informed decisions regarding the development of satellites for the operational architecture from the data obtained from these demonstration satellites.

End User / Contracting Authority

- U.S. Missile Defense Agency through the U.S. Air Force Space & Missile Systems Center, El Segundo, Calif.

Contract Details

- Value (as awarded in Aug. 2002): $868.7 million
- Deliverables: Two STSS satellites with ground segment and core systems engineering support

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Last Updated – 9/10/09