Space Tracking and Surveillance System (STSS)

SUMMARY

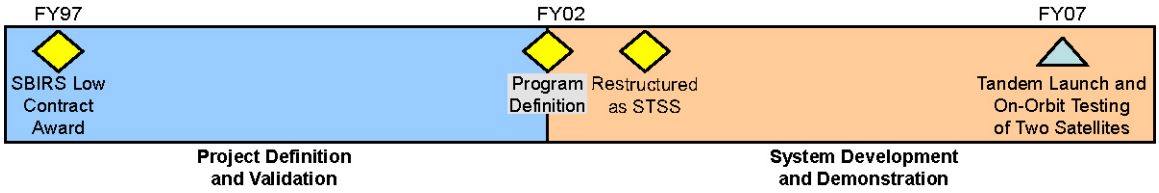
- The Space Tracking and Surveillance System (STSS) program is concentrating on assembly, integration, and test of the first two demonstration satellites, scheduled to launch in FY07.
- Additional activities have focused on the STSS Surrogate Test Bed integration with the BMDS Command, Control, Battle Management, and Communications.
- STSS has no operational capability since it is currently in the design/development phase.

The STSS is the space-based sensor element of the BMDS.

SYSTEM DESCRIPTION AND MISSION

The STSS is the space-based sensor element of the BMDS. It will be a low-earth-orbit satellite constellation with cross-link capabilities. Its mission is to acquire, track, assess, and report ballistic missile and target complex objects from launch lift-off through intercept.

TEST AND EVALUATION ACTIVITY



Block 2004 STSS test activities consist of ground tests, simulations, and dry runs using the STSS Surrogate Test Bed. The program is evaluating communications protocols and procedures to assess the ability to disseminate STSS data through BMDS Command, Control, Battle Management, and Communications to other BMDS elements. System and software integration tests began in FY04. The STSS Surrogate Test Bed participated in the Critical Measurements Program 4 flight-test in FY04, and plans to participate in Integrated Flight-test 13C. Test objectives are to demonstrate data flow and target information to the to BMDS Command, Control, Battle Management, and Communications element.

The STSS Surrogate Test Bed will continue to participate in BMDS flight-tests throughout FY05. MDA has a STSS Development Master Test Plan, with an updated version due at the end of the year. Testing of the full capabilities of the STSS will occur in Blocks 2006 and 2008.

TEST AND EVALUATION ASSESSMENT

The STSS Block 2006 Critical Design Review in FY04 was successful. It is currently in development for a Block 2006 launch. The earliest operational capability will be after the launch of the first two satellites. The early STSS capability will have major onboard power constraints and coverage limitations.