

STSS Mission Highlights

- Aegis Launch on Remote - FTM-20 (Stellar Eyes)
- First Birth-to-Death Track - FTM-16 (Stellar Beowulf)
- First Stereo Birth-to-Death Track - FTX-16 E1 (Pacific Eyes)
- First Impact Collect, First Crosslink Cue on Missile test - FTM-15 (Stellar Charon)
- Enhanced Crosslink Operations - FTG-07
- Three Simultaneous Missile Tracks - FTX-18 (Atlantic Darts)
- Complex Scene - FTX-20 (Pacific Wildcat), GM-CTV-02+
- Use of MWIR in Operations - FTX-21 (Pacific Phantom)
- Track Through Reentry - FTM-27 E2 (Stellar Cestus)
- Intercept Collect - FTI-03 (FTO-03 E1) (Stellar Wawel)



Data Collected

STSS collected data across a broad range of missions

- Precision ballistic missile tracking
- Space launch tracking
- On-orbit satellites
- Satellite re-entries
- Scientific background and scene data on space and ground environments

Capabilities

The satellites used sensors that measure infrared radiation to detect and track ballistic missiles for interception. They:

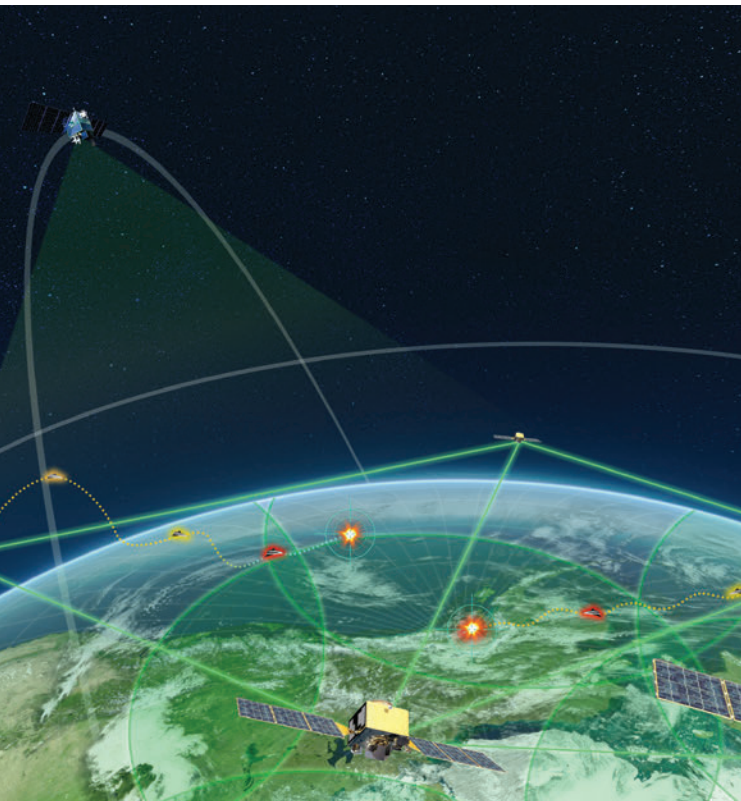
- Tracked targets above and below the horizon; helped discriminate real threats, guide interceptors to targets, and assess interceptor hits.
- Collected data on launches, on-orbit satellites, satellite re-entries and other space-based missions
- Played a critical role in the MDA's integrated Ballistic Missile Defense System FTM-20 flight test.

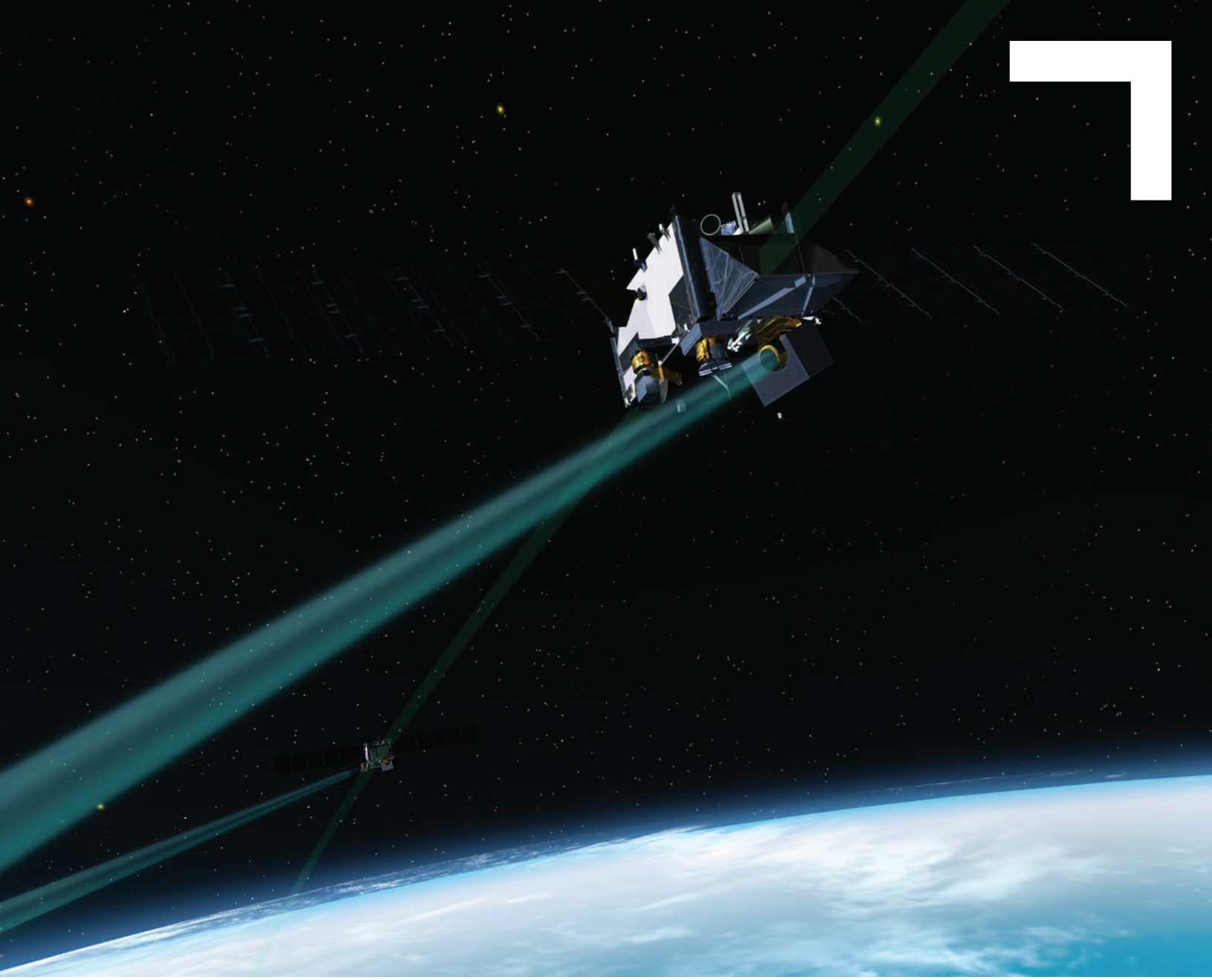
Vital Role for Future Missile Tracking Systems

Northrop Grumman is applying its STSS mission expertise to the Hypersonic and Ballistic Tracking Space Sensor (HBTSS) satellites, which will provide continuous tracking and targeting of enemy missiles launched from land, sea or air.

HBTSS satellites will be a critical part of the Overhead Persistent Infrared (OPIR) multi-layered constellation, which can sense heat signatures to detect and track ballistic missiles and hypersonic glide vehicles from their earliest stages of launch through interception. The satellites are also designed to track threats with near-global reach when prompted by other OPIR systems.

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Space Tracking & Surveillance System

A Stellar Record of Performance

Built by Northrop Grumman Corporation, two demonstration Space Tracking and Surveillance System (STSS) satellites successfully completed their missions for the Missile Defense Agency and have been retired. Their achievements pave the way for future operational missile warning and tracking

systems that will defend the nation. Launched in 2009 and expected to operate for four years, these demonstration satellites outlived their design life threshold three times over. Operating from a low Earth orbit (1,350 km altitude), the STSS experimental spacecraft proved their ability to detect and track short-, medium-, intermediate- and intercontinental-range missiles from boost phase to midcourse. The satellites then communicated target-quality track data to command and control systems for interception.