

# MSST



## Multi-Stage Supersonic Target

The U.S. Navy partnered with ATK to develop a Multi-Stage Supersonic Target (MSST) system that can represent a family of threat systems with an extremely wide variety of flight parameters and representation.

The MSST design is comprised of a two-stage unmanned aerial target, a launcher and associated support equipment, including a subsonic bus stage that will tumble and fall into the sea at stage separation, and a supersonic sprint stage that continues to the desired end point. The minimum cruise altitude is 50 feet with the separation event occurring at altitudes from 50 to 3000 feet. The MSST target can simulate a variety of U.S. Navy's identified threat requirements over a wide range of speeds and altitudes. The fielded system will provide unparalleled threat representation for developmental and operational testing of major DoD and international weapon systems.

### System Design

ATK is the prime contractor for the MSST 50-month SDD program. The MSST vehicle includes the subsonic bus vehicle (a derivative of CEI's BQM-167X), the sprint vehicle rocket motor (a derivative of ATK's MK-114 VLA), and the sprint vehicle front end system which contains a proven, multipurpose guidance and processing electronics system that is currently being used on multiple target platforms.

### Future

- Introduction of MSST system to additional domestic and international markets
- Expansion of launch locations beyond Pt. Mugu to better serve DoD & international customers
- Replacement of higher cost supersonic threat simulators with lower cost MSST
- Growth of MSST from the T&E requirement to a more robust operational target

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