



Medium Range Target Vehicle



*ait-2 on Launch Stool
Kodiak Island, Alaska*

Space Vector's two-stage Medium Range Target Vehicle (MRTV) is the ideal choice for ground launched medium range target missions. Originally developed and flown by Space Vector for the United States Air Force, the MRTV is capable of ranges in excess of 2,100 km with apogee above 1,000 km. The vehicle is horizontally integrated on a custom transporter erector and stool launched providing the user greater flexibility in launch site selection.

The MRTV was first launched on September 15, 1999 from the relatively new and unproven Kodiak Launch Facility. Space Vector, prime contractor for the ait-2 mission, was responsible for all vehicle and support system hardware and software, payload integration, system testing, and launch operations. The vehicle flew a threat representative trajectory to exercise the ground based radar systems located at Beale Air Force Base near Sacramento, California. Various countermeasures were deployed in addition to a complex series of post boost maneuvers to gather ionosphere data for various on-board experiments.

The MRTV utilizes the ATK Castor® IVB solid propellant motor for first stage boost and a decommissioned Minuteman M57 motor as a second stage. Space Vector also produces the single stage Aries (M56) and AltAir (SR19) target systems for shorter range applications.

Features:

- Stool launched two-stage suborbital launch vehicle
- Flight proven INS/GPS
- Post boost 3 axis attitude control
- Demonstrated separating target configurations
- Variety of payload shrouds and split fairings
- Horizontal buildup on Space Vector developed transporter erector
- Launch services including payload integration provided by experienced Space Vector launch team



*Space Vector Launch Team
During Final Arming*



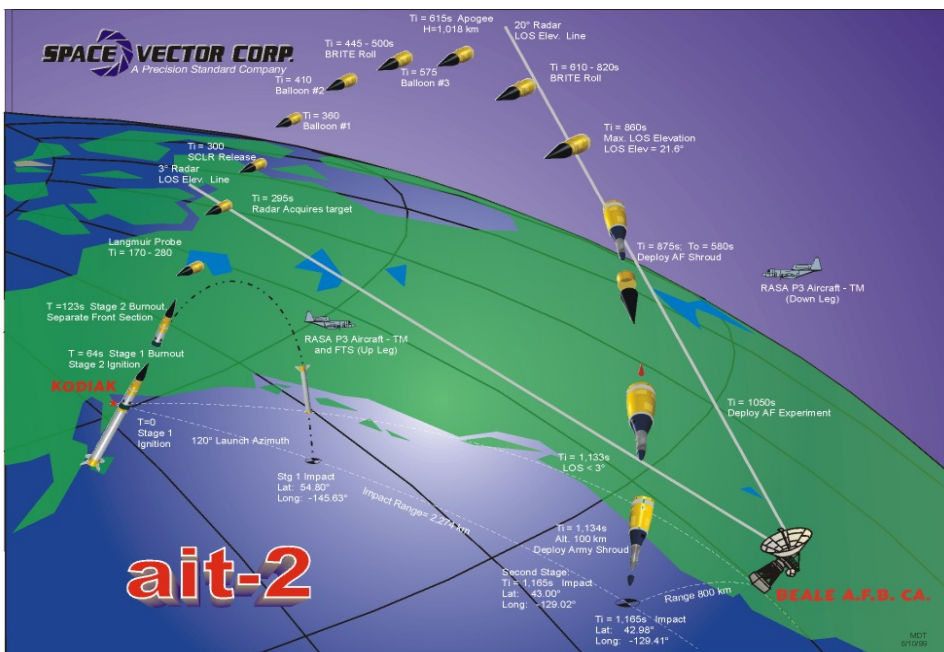
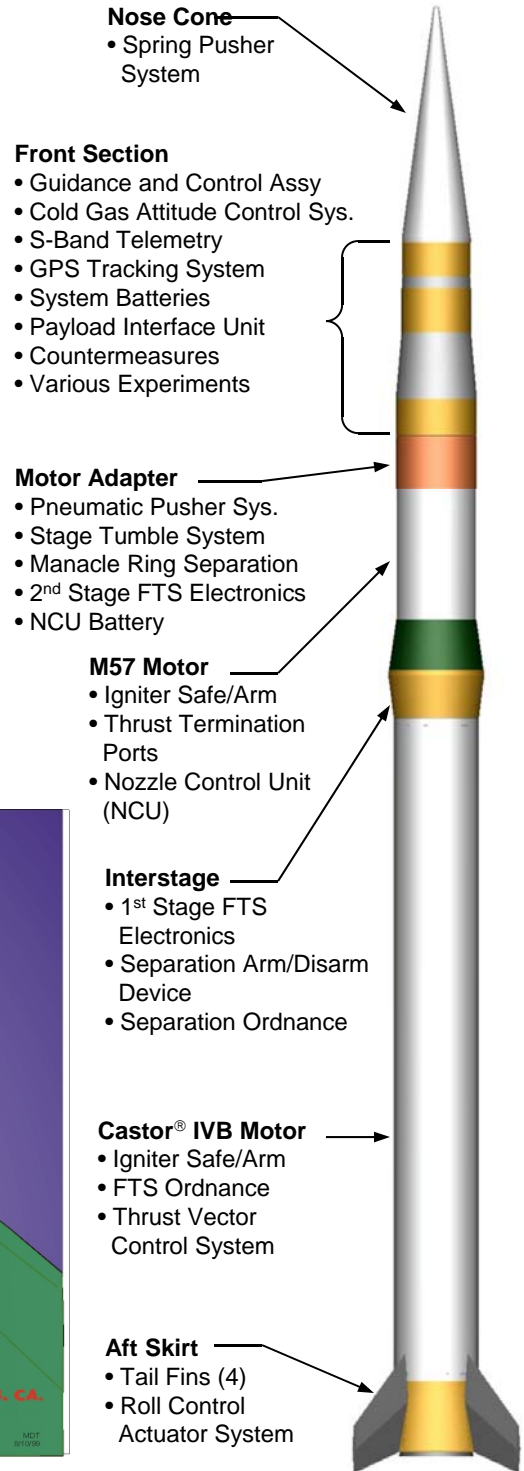
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Specifications:

- 57 foot length
- 32,000 lb gross vehicle liftoff weight
- 2,100+ km range
- 4.3 km/s burnout velocity
- 38 inch payload section
- 1900 lb-sec cold gas attitude control system
- Up to 20 ft/sec payload separation delta velocity
- Optional 2nd stage thrust termination for improved downrange accuracy



ait-2 Launch



ait-2 Target Mission Profile