



# Rattler: Ground Air Launched Supersonic Target (GAL-ST)

The Rattler Ground Air-Launched Supersonic Target (GAL-ST) system has been designed and engineered to realistically replicate air-launched Anti-Radiation Missiles (ARMs) and Supersonic High-Diver threats. QinetiQ Target Systems will operate Rattler for highly effective weapon system Research Development Test & Evaluation, Operational Test & Evaluation, and training-oriented air defence scenarios.

The Rattler GAL-ST, suitable for use over land and at sea, entered service with an Initial Operating Capability (IOC) in May 2018 and can either be ground launched or carried under the Banshee Jet 80, which has a range of more than 100 km. The Rattler has achieved ground launch speeds in excess of 1.85 Mach. However, a phased approach to design will see the target reach speeds well in excess of those when air launched. The Rattler uses a unique material composition that provides high-speed kinematic performance at very low cost compared to the currently available manoeuvrable supersonic targets.

## Specification

### Physical

<b>Length</b>	1.95m (75in)
<b>Diameter</b>	0.15m (5.9in)
<b>Weight</b>	28.5KG (63lb)
<b>Construction</b>	Aerospace aluminium alloys and composites
<b>Propulsion</b>	Solid-propellant rocket motor
<b>Environmental</b>	No toxic or hazardous components or debris after successful flight and termination
<b>Flight Safety</b>	Flight Termination System and real-time GNSS/INS TSPI



The GAL-ST transmits Time Space and Positioning Information (TSPI) and target status telemetry data in real time for range safety and operational requirements monitoring, and can accommodate radar or infrared augmentation, and other payload integration for specific weapon system requirements. Additionally, the target includes a Flight Termination System to maintain range safety during all phases of flight.

The flight profiles of the GAL-ST are dependent on the speed and altitude of the Banshee Jet 80 at the moment of launch. These, combined with the programmable GAL-ST waypoint profile, determine the speed and trajectory of the target during its flight.

### Performance features

- ARM/Supersonic High-Diver threat replication
- A true supersonic missile threat, with proper high speed kinematic performance
- Suitable for use over land and at sea
- Target performance and RCS adaptable to mission requirements
- Best cost-to-performance available

### Typical performance envelopes

- >Mach 1.85
- Range >100 km (air launched mode)



## Collaborating with QinetiQ

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