

QINETIQ



Case Study

Target Solutions for the US Department of Defense

QINETIQ

QinetiQ Target Systems is developing an uncrewed missile target for the US Department of Defense (DOD). These targets will be integral to the US DOD's test and evaluation programme to defend against fast, low-to-the horizon threats and exemplify QinetiQ's ability to design and engineer realistic targets representative of anti-radiation missiles and tailor them to the needs of our customers.



The brief

Potential adversaries' weapons are continuing to grow in sophistication. Our customers therefore need greater test and evaluation capabilities to ensure that they have the right tools and skills to defend their people and assets. The US Department of Defense required a supersonic target to support the development of defensive high energy laser (HEL) systems in response to emerging and evolving threats.

Our solution

To support the US DOD in the development of defensive HEL systems, QinetiQ is delivering its Rattler Supersonic Target, a representation of a potential adversary's air-launched anti-radiation missile. Tailored to the needs of our customer, this unique version of the target is fitted with a new 3rd party specialist target board payload sensor, creating the High Energy Laser Measurement Rattler (HELM-Rattler). The HELM-Rattler allows for training, and test and evaluation with targets of similar flight characteristics of missiles used by adversaries'. They can replicate supersonic speeds and perform both high and low altitude manoeuvres. The integration of the new target board payload means that the US DOD HEL programmes can measure the characteristics of the laser light shone by high energy lasers onto the HELM-Rattler. The data from the target board will be transmitted to a ground unit for subsequent analysis, to provide an essential understanding of how the HEL is performing in an operationally relevant environment.

Outcome and benefits

The delivery of the HELM-Rattler to the US DOD will allow the US armed services to test the success of high energy laser weapons deployed from their warships and other platforms that are used to destroy adversaries' missiles. With this unique capability, the US DOD can test and evaluate its defence capabilities against increasingly capable missiles able to travel at Mach 2.5, nearly 2,000 miles per hour.

This contract demonstrates the flexibility of QinetiQ Target Systems' uncrewed aerial targets, to be used as different assets and in different ways by customers globally, to support their test and evaluation programmes.



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