QinetiQ’s Anechoic Test Facility (ATF) is a versatile test environment offering research and development opportunities for military and commercial customers looking for a fast, safe and cost-effective solution.

Anechoic Test Facility (ATF)

A range of aircraft, vehicles and systems can be accommodated utilising the RF isolation at a secure site. Its novel elliptical design works effectively over a wide range of frequencies, making it possible to meet most customers’ specific test requirements.

Scientifically repeatable testing of military and commercial systems is carried out under controlled conditions with minimum set-up times.

The ATF is supported by an active airfield with experienced aircraft servicing engineers, and can accommodate a range of fighter aircraft and helicopters, including the Typhoon and Merlin.
RF isolated and secure

The ATF measures 31m (L) x 17.5m (W) x 7.6m (H) accommodating testing of large or small systems. The building’s construction and the filtering of cables entering it, shields extraneous RF emissions from interfering with test results. The RF isolation inside the ATF improves the accuracy of results compared with an open area test site and facilitates work of a sensitive and confidential nature.

Electronic warfare

A complex wave generator covering 500MHz to 40GHz can produce up to 120 pulsed emitters and 2.5 million pulses per second in a repeatable dynamic scenario to test radar warning and electronic countermeasure systems. RF measurement techniques are used to validate scenarios and responses to input signals.

Electromagnetic Compatibility (EMC)

The large ATF allows for a range of electromagnetic compatibility testing for emissions, susceptibility and interoperability. The isolation and shielding properties of the ATF provide greater accuracy of results.

Military and commercial applications

Some examples of typical capabilities are:
- EW systems testing
- Investigations into the interoperability of all equipment fitted to a single platform
- Electromagnetic Compatibility (EMC) testing to investigate manifestations of stray RF fields
- Sensitivity measurements utilising the ATF’s 100dB isolation above 500MHz from the external RF environment
- Mobile complex signal generation of EW signals at the customer’s location
- GPS systems testing and research
- RF emissions measurements

Further capabilities

- Large, RF isolated, secure and versatile
- Safety interlocks on all access doors
- Adjacent control cabin with intercom and CCTV monitoring
- Fume extraction
- Antechamber for preparation
- Penetration panels for cable routing
- RF filters on all electrical cables entering building

Filtered electrical supplies available as follows:
- 200/115V 400Hz, 3 Phase up to 90 KVA
- 28V DC @ 10KW
- Standard domestic mains @ 16kW

Collaborating with QinetiQ

QinetiQ is a company of scientists and engineers committed to listening, understanding and responding to our customers’ needs. This enables us to use our depth of experience and our unique science and engineering expertise to equip you with powerful solutions to your most pressing challenges.

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