



QinetiQ's Un-crewed Autonomous System Architecture (QUASAR)

Command and Control for multiple autonomous unmanned systems

QUASAR is a next generation software system designed to enable the efficient Command Control of multiple autonomous unmanned maritime, air and land systems (UxS).

Designed from day one as an open architecture RAS Mission Management System, QUASAR is tailorable and upgradable to the evolving technology and threat environments. The open architecture design provides freedom of action to select, integrate and operate the most appropriate mix of mission specific hardware and software applications to best fulfil the user requirements and Concept of Operation.

As a suite of intelligent software applications it provides a truly Combat / Battle Management System agnostic, UxS agnostic, multi-mission capable operating environment. QUASAR facilitates efficient mission planning, mission execution and monitoring and data management to allow a single or pair of operators to command, control and monitor the concurrent operation of multiple ground, air and maritime autonomous vehicles.

QinetiQ Videos of QUASAR during UK Military Exercises, October 2020

Below is a link to a publicly available video of the exercise. An interview with QinetiQ, discussing the benefits of QUASAR begins at 2m 29s.



Video: [How Drones Could Transform the Future Commando Force](#)

QUASAR can also be seen in action in this official video posted on Twitter:



Video: [QUASAR in Action.](#)

Trusted control for mission-critical RAS

QUASAR has been developed in line with the ADF joint and domain RAS strategies to provide:

- **User Centred Decision Support** through optimised Human Machine Interfaces that support the efficient mission planning and command and control of multiple UxS and the transmission of appropriate and tailored information to a Combat / Battle Management System
- **Joint Integration** of multiple unmanned vehicles across the maritime, air and land domains with the ability to hand off Mission Systems to other QUASAR control stations
- **Future Proofing** due to its modular and upgradable open architecture that is UxS Mission System agnostic, providing for the rapid and efficient insertion of new Mission Systems and sensors as technology develops
- **Sovereign Control** through its ability to be optimised to meet Australia's unique geostrategic environment and the ADF's operational approach to provide trusted, legal and ethical control of ADF Mission Systems



Collaborating with QinetiQ

At QinetiQ we bring organisations and people together to provide innovative solutions to real world problems, creating customer advantage. Working with our partners and customers, we collaborate widely, working in partnership, listening hard and thinking through what customers need. Building trusted partnerships, we are helping customers anticipate and shape future requirements, adding value and future advantage.

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