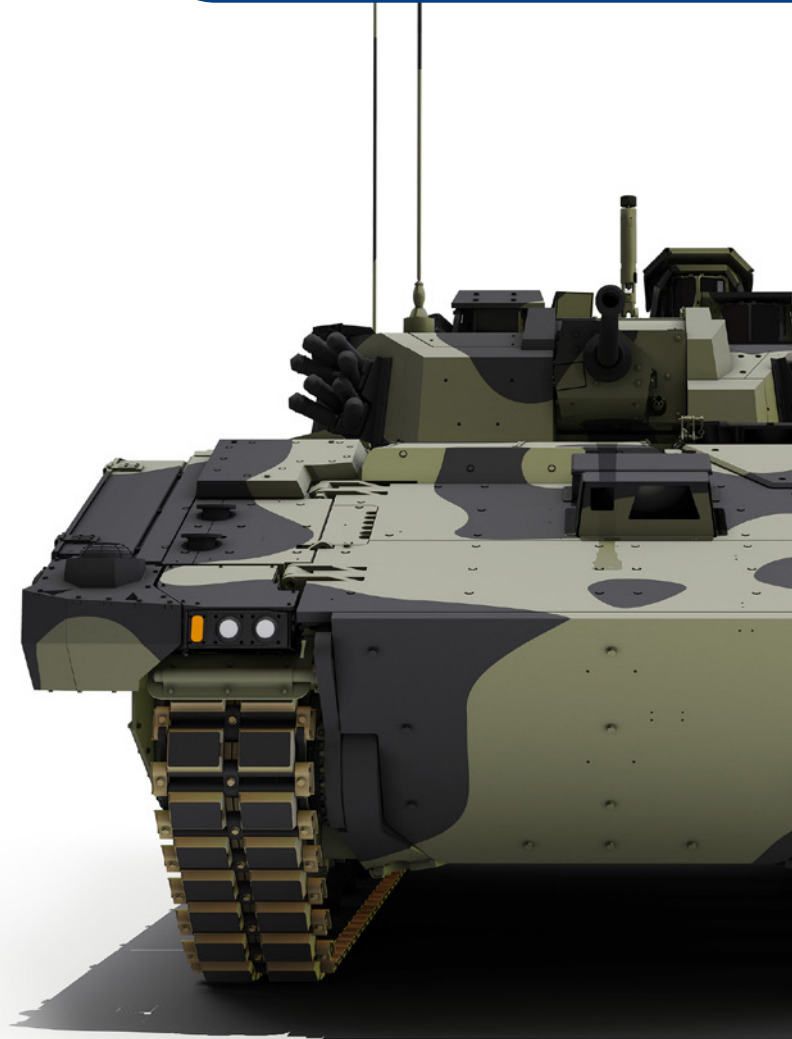




The future of British Army reconnaissance



DSEI

14-17 September 2021

EXCEL, LONDON



Contents

4	Ajax variants
6	AJAX – The Future of Armoured Fighting Vehicles
8	AJAX – ISTAR on the move
10	ARES
12	APOLLO
14	ATLAS
16	ARGUS
18	ATHENA
20	Technical facts
22	Supporting the UK economy

AJAX variants



AJAX



ARES



APOLLO



ATLAS



ARGUS



ATHENA

AJAX – the future of Armoured Fighting Vehicles

The Ajax Family of Vehicles represents the future of Armoured Fighting Vehicles (AFV) for the British Army,

Ajax is a transformational capability for the British Army, and is a key enabler of its modernisation plans. In replacing the ageing CVR(T) family, it provides a manned battlefield reconnaissance capability equipped with the latest state-of-the-art sensors, hosted on a fully-digital, scalable and adaptable open Electronic Architecture. This capability becomes part of the integrated battlespace alongside legacy and future systems. Ajax provides the crew with an operating environment that has exceptional levels of protection against an extensive range of battlefield threats, along with high-levels of lethality from the powerful 40mm cannon, and enhanced mobility for access across the battlefield.

Each Ajax platform is designed for future growth. With an upper design limit of 42 tonnes of driveline capacity, scalable and open Electronic Architecture and a modular armour system, it has enormous potential to combat future threats and incorporate new technology throughout the lifespan of the platform.

The Ajax Family of Vehicles, consisting of six variants, will serve at the heart of British Army's Deep Recce Strike Brigade Combat Teams.

Replacing the British Army's existing force of Combat Vehicle Reconnaissance (tracked) vehicles, Ajax will provide nine different roles:

- reconnaissance; including ground-based surveillance and joint fire control specialist capabilities
- equipment and support repair; repairing and towing damaged vehicles
- equipment and support recovery; recovering damaged vehicles
- command and control; providing a mobile battlefield headquarters
- protected mobility reconnaissance support, including formation reconnaissance overwatch and engineer reconnaissance; delivering and supporting specialist troops across the battlefield
- engineer reconnaissance; carrying specialist engineering equipment and personnel.



AJAX – ISTAR on the move

AJAX will be the medium-weight core of the British Army's deployable Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) capability. It will enable the soldier to be at the point of collection of accurate all-weather commander information within a network-enabled, fully-digitised platform.

The platform provides commanders with a survivable and capable Ground Mounted Manned Reconnaissance capability, which gives them the flexibility to perform a range of roles across the spectrum of conflict.

The primary role of AJAX is to provide accurate and timely information to support decision-making at all levels. It integrates a range of leading-edge technologies to provide an optimised survivable, lethal and agile ISTAR platform.

The panoramic Primary Sight provides advanced all-weather imaging technology capability, which allows the AJAX platform to find, engage and target enemy combatants at far greater ranges than current UK Ministry of Defence legacy platforms.

A sophisticated, packaged Electronic Architecture makes it the first fully-digitised land platform that is able to seamlessly integrate both current and future open ISTAR and communication products.

Enhanced and modular survivability technologies ensures it will survive both current and future threats.

Lethality is provided by the 40mm cannon integrated into a revolutionary, user-defined, fightable turret. Where the operation dictates, a fully-stabilised Remote Weapon System can replace the Primary Sight.

Capability

- Crew of three plus an option to carry a fourth person
- Panoramic Primary Sight
- 40mm stabilised cannon
- Modular armour
- Electronic Architecture
- High-performance power-pack
- Advanced torsion bar system
- Remote Weapon System (replaces Primary Sight)
- Auxiliary Power Unit



ARES

ARES will be used to deliver and support specialist troops across the battlefield to enable organic combined arms manoeuvre at the lowest tactical level, alongside AJAX-equipped troops.

In service, ARES will provide safe transportation of fully-equipped soldiers in a well-protected environment. On dismount, troops will be able to more effectively conduct a variety of tasks, such as dismounted surveillance (including patrols), observation posts and close target reconnaissance.

As with all other variants, it boasts fully-integrated sub-systems utilising its sophisticated Electronic Architecture.

Lethality is provided via a Remote Weapon System, which provides a self-defence capability that can be fired on the move, under armour. The Remote Weapon System is fitted as standard across all variants and it can replace the Primary Sight on the AJAX variant.

ARES also provides the Common Base Platform flexibility that can be adapted for other roles, such as ARGUS and ATHENA.

Capability

- Crew of two
- Four dismounts
- Remote Weapon System
- Modular armour
- Electronic Architecture
- High-performance power-pack
- Advanced torsion bar system
- Medium-weight jettisonable dozer blade
- Route Marking System



APOLLO

APOLLO is one of two Equipment Support variants to be used in a complementary manner to deliver a coherent capability.

APOLLO will be used to tow battlefield damaged vehicles and lift heavy sub-assemblies. When required, it can tow a high-mobility trailer containing main assemblies, enabling battlefield repair tasks.

Its lifting capability allows full power-pack replacement and it has the unique ability to self-repair by changing its own power-pack.

Capability

- Crew of four
- Crane and stabilisation system
- Auxiliary Power Unit
- Remote Weapon System
- Modular armour
- Electronic Architecture
- High-performance power-pack
- Advanced torsion bar system
- Self-repair



ATLAS

ATLAS is one of two variants to be used in a complementary manner to deliver a coherent capability.

It is fitted with a recovery package that is optimised to provide the most effective means of recovering a casualty platform.

Capability

- Crew of three
- Earth anchor
- Two winches
- Remote Weapon System
- Modular armour
- Electronic Architecture
- High-performance power-pack



ARGUS

ARGUS is a specially-designed platform, based on the ARES variant, which has a primary role to provide the combined arms and engineer commanders with timely and accurate engineering information on the natural and manmade environment.

It is also expected to obtain relevant information about enemy engineering activities, intentions and terrain.

Capability

- Crew of two
- Engineer operator
- Gap and slope measurement
- Route Marking System
- Under Armour Demolition Detonation
- MAKEFAST BISA
- Front-end equipment
- Remote Weapon System
- Modular armour
- Electronic Architecture
- High-performance power-pack
- Advanced torsion bar system



ATHENA

ATHENA is a specially-designed platform, based on the ARES variant, which will process and manage information to provide decision support, in order to enable the delivery of rapid and synchronised effects in the joint, inter-agency and multinational situations.

It is fitted with modern, bespoke workstations that provide the ideal operating environment for users.

Capability

- Crew of two
- One watchkeeper
- Three operators (Staff Officer and two signallers)
- Modern, bespoke workstations
- Command furniture, including map boards
- Interfaced protected working environment
- Remote Weapon System
- Auxiliary Power Unit
- Modular armour
- Electronic Architecture
- High-performance power-pack
- Advanced torsion bar system



Technical facts

Enables

- The soldier to be at the point of information collection
- Accurate all-weather commander information within a network-enabled Intelligence, Surveillance, Target Acquisition and Recognition (ISTAR) capability

Delivers

- Modern, growth-enabled surveillance and target acquisition platforms, underpinning the British Army's Deep Recce Strike Brigade Combat Teams.

- The first fully-digitised land platform, representing a step-change in flexible capability
- Best-in-class protection levels, with advanced surveillance and target acquisition, firepower, mobility and growth capabilities

Provides

- The medium-weight core of the British Army's deployable capability
- Commanders with flexible and capable Ground Mounted Manned Reconnaissance ISTAR capability
- Flexibility to continue to perform a range of other roles across the spectrum of conflict

Vehicle performance

- Gross vehicle rating of 42 tonne
- Two tonne of growth
- 810 HP engine with 6F/5R speed transmission
- Unrivalled protection in mission-specific armour configurations
- Fully-digitised Electronic Architecture (Generic Vehicle Architecture compliant)

AJAX – ISTAR on the move

Provides accurate and timely information to support decision-making at all levels. It integrates a range of leading-edge technologies to provide an optimised survivable, agile and lethal Intelligence, Surveillance, Target Acquisition and Recognition (ISTAR) platform.

- Crew of three plus one
- Fully-stabilised CTAI 40mm cannon
- Panoramic Primary Sight (ranges greater than current legacy fleet)

ARES

Provides safe transport of the modern, fully-equipped soldier in a well-protected environment.

- Crew of two
- Four passengers
- Remote Weapon System
- Jettisonable dozer blade

APOLLO

Provides the ability to tow battle-damaged vehicles and lift heavy sub-assemblies.

- Crew of four
- Five tonne crane capable of lifting its own power-pack
- Remote Weapon System

ATLAS

Provides an effective means of recovering a casualty vehicle.

- Crew of three
- Earth anchor
- 300Kn main winch
- 8Kn auxiliary winch
- Remote Weapon System

ARGUS

Provides Royal Engineers with advanced measuring devices without leaving the protection of the platform for counter-mobility tasks.

- Crew of two
- Four dismounts
- Remote Weapon System
- Jettisonable dozer blade
- Route Marking System

ATHENA

Provides battlefield headquarters on the move, with enhanced information processing capability.

- Crew of five
- Auxiliary Power Unit
- Remote Weapon System

Supporting the UK economy

This programme secures not only the UK's sovereign AFV expertise, but it safeguards or creates around 4,100 jobs across more than 230 UK-based companies.



AJAX

The future of British Army
reconnaissance