

Supacat's Range of Vehicles a Big Draw



Supacat, the UK headquartered Special Forces vehicle developer, had a very successful participation at DSEI with its vehicle range attracting attention from trade visitors and delegations alike. The Special Forces vehicle HMT Extenda Mk2, Light Role Vehicle (LRV) and its technology demonstrator for hybrid and optionally manned operations were the highlights at the show.

HMT Extenda Variant Makes Debut

Supacat, showed the most advanced version of its world leading Special Forces vehicle, the HMT Extenda Mk2, for the first time at DSEI 2019. This latest variant offers a step change in capability and payload capacity with an enhanced suspension system enabling gross vehicle weight to increase to

12,000kg from 10,500kg and crew seating to six from four.

The Extenda is a variant of Supacat's successful HMT (High Mobility Transporter) platform, which is operated by Special Forces around the world.

Supacat undertook a rigorous and extensive programme of trials to verify and validate the performance of the system. Besides, the vehicle has successfully completed a 12,500km tour of Australia in order to confirm reliability and performance over long distances.

"The innovations to the HMT platform on the latest Extenda deliver increased capability and superior payload and performance. Our user feedback indicates that the vehicle has exceeded expectations, allowing them to do things

they'd previously thought not possible," said Phil Applegarth, Head of Supacat.

The chassis is now STANAG compliant for recovery purposes and a 6.7 litre Cummins diesel engine comes as standard. The blast and ballistic protection option can now be integrated at the factory build stage.

In line with Supacat's modular design philosophy, the latest Extenda provides for a range of configuration options from the factory in addition to the flexibility to re-role the base platform throughout the lifetime of the vehicle with a variety of mission modules and protection levels to meet changing demands. HMT Extenda has the unique capability of being operated as a 4x4 or 6x6 wheel drive vehicle thanks to a

removable third axle.

Users Describe Light Role Vehicle as 'In a Class of Its Own'

Supacat's Light Role Vehicle (LRV) offers unrivalled performance in terrain access, range and operator comfort. Its low weight and packaging offers a genuine 'Fly / Drive' tactical capability utilising current in-service aviation assets for rapid intervention operations, while maintaining excellent payload capacity.

The LRV is designed to deliver exceptional off road performance lowering user fatigue, reducing cognitive burden and enabling the operator to arrive at their objective "fit to fight."

LRV's upgraded version has a new engine and chassis to provide an optimised mix of bespoke and COTS components. This delivers an extended platform life with ease of supportability and standardisation across the LRV variants.

The Supacat LRV platform is highly modular and offers a range of configuration options to suit a variety of environmental conditions, threat levels and crew requirements. All variants use a common chassis and driveline with customers able to specify modular elements of the vehicle such as open or closed cabs, seating layout, load platform and weapon systems.

LRV has the unique feature of being convertible between 6x6 and 4x4, offering users the flexibility to reconfigure the vehicle to meet different operational requirements within hours by the addition or removal of a third axle module.

"The feedback from our current specialist customer base has been extremely positive and users describe the vehicles as 'in a class of its own,'" said Ben Gaffney, Head of New Programmes, Supacat.

LRV is ITAR free and can be supported

via Supacat's existing globally available spares network. It has been developed with a common user interface to the Supacat HMT 'Jackal' to maximise inter-operability and minimise training.

'Optionally Manned Hybrid' Demonstrator Unveiled

Supacat's technology demonstrator for hybrid and optionally manned operations is developed to keep pace with battlefield logistical requirements on extreme terrain and unpredictable routes.

The technology demonstrator has been developed in collaboration with the University of Exeter as part of an Innovate UK-supported Knowledge Transfer Partnership (KTP).

"Electric hybrid propulsion and autonomous technologies are two important innovations that will enhance the capabilities of users of our in-service high mobility platforms. We have focused our efforts on designing open system architectures, allowing extensive use of commercial off the shelf (COTS) components, which we see as key to a successful and sustainable military solution in a rapidly evolving technology sector," said Steve Austen, Engineering Director of Supacat parent, SC Group. "It is in Supacat's DNA to tailor its platforms and solutions to

each customer's requirements. Our approach uses a common electric drivetrain, each of which can be customised through different powering options depending on mission, range, payload and operating environment.

The 'optionally manned' demonstrator utilises a terrain detection and response system for enhanced mobility and optimised endurance. The object categorisation and response system used for obstacle clearance or avoidance during technical off road driving, can be tailored to the capabilities of the vehicle, driver or a remote operator. The path planning and motion behaviour system uses simultaneous localisation and mapping (SLAM) for the navigation of lead and follow on vehicles.

The technology demonstrator uses the All-Terrain Mobility Platform (ATMP), as its base vehicle, as ATMP is a mature battle proven and relatively simple product, enabling the development programme to focus on the new technologies and capabilities and subsequently allowing rapid development.

Reference Text/Photo:

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Closed Cab LRV