

Custom buggies: The expanding range of special forces vehicles

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Forced to handle growing mission requirements, ranging from counter-insurgency operations through to state-on-state conflict with high-capability adversaries, special operations forces must rely on an extensive suite of tactical ground vehicles. Andrew White reports

The past two decades of counter-terrorism and counter-insurgency campaigns, especially in the Middle East, have seen special operations vehicles (SOVs) tasked with supporting direct action, special reconnaissance, and military assistance operations across many environments.

However, with threats from great power competition emerging, defence industry customers continue to call for optimised SOVs capable of providing small unit teams with extended range and mobility, as well as enhanced lethality and survivability.



A paratrooper assigned to the US Army's 10th Special Forces Group assesses the snowy terrain during the Advanced Snowmobile Course in Taylor Park, Colorado, on 12 February this year. Polaris 800 Titan XC 155 ES and 600 Pro-RMK 155 ES snowmobiles are operated by US Special Forces Groups in cold weather operations in the Arctic Circle and High North. (Sgt Angela Walter/10th Special Forces Group)

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According to the UK-based Jankel Group, which continues to supply international special operations forces (SOF) customers with overt, discreet, and covert ground vehicles, the SOV market remains relentless in its quest to innovate and support small unit teams with “enhanced mobility, technical superiority, and agility”. Commercial director Dan Crosby described to *Jane's* how the market continues to demand a “speed of development that includes working closely with a wide range of equipment manufacturers for seamless integration of customer-specified systems”.

“The market is split between custom vehicles offering very specialist roles and vehicles based on commercially available chassis with significant enhancements alongside durability and in-field supportability,” he said. As Crosby warned, the SOV market is a fast-moving environment in which capability gaps always change.

“The needs are focused on increasing vehicle power and off-road capability, which is almost always directly related to striking a balance between vehicle payload and all-up weight [gross vehicle weight],” he said. “With these known technical parameters the need then turns to maximising and balancing the capability of ground vehicles to fulfil their roles of force projection, protection, and mobility.”

North American breadth

The breadth of these requirements for SOF elements was clearly illustrated at the SOF Industry Conference (SOFIC) in Tampa, Florida, on 22–24 May, where the US Special Operations Command (USSOCOM) illustrated a spread of SOV technologies in design, development, deployment, and sustainment phases.

Addressing delegates at the event, senior service officials from USSOCOM’s Program Executive Office SOF Warrior explained how the organisation was currently sustaining its fleet of BAE Systems Land Systems South Africa RG33 A1 mine-resistant ambush protected (MRAP) vehicles, AM General Ground Mobility Vehicle (GMV) 1.0s, and Oshkosh Defense MRAP All-Terrain Vehicles (M-ATVs).

In addition, service personnel also outlined new introductions into the USSOCOM inventory, including the General Dynamics Ordnance and Tactical Systems (GD-OTS) GMV 1.1, Batelle non-standard commercial vehicles (NSCVs), and the Polaris Government & Defense Light Tactical ATV (LTATV).

Despite this extensive list of in-service vehicles, Program Executive Office SOF Warrior is designing new ‘concept’ SOVs to support force components in the near to medium term. Options include an SOF variant of Oshkosh’s Joint Light Tactical Vehicle (JLTV), purpose-built NSCVs, the Joint Armored Ground Mobility System, and a next-generation LTATV solution.

Arguably one of the most prominent additions to USSOCOM’s inventory will be the next-generation LTATV concept, designed to provide a follow-on vehicle from an existing five-

year contract with Polaris that ends in July 2020. International SOF units are strongly interested in this programme, in part because they continue to procure legacy LTATV variants from Polaris to achieve interoperability with USSOCOM. According to a request for information for the follow-on LTATV programme, published on 6 August 2018, the concept demands a next-generation SOV capable of “bridging the gap” between ATVs and the GMV 1.1.

Specific requirements call for two- and four-seat SOVs capable of being carried in the cargo hold of V-22 Osprey tilt-rotor aircraft as ‘internally transportable vehicles’: a concept designed to extend the range of SOF small unit teams conducting ‘fly and drive’ missions.

A request for proposals is due to be published at the end of October, with Lieutenant Colonel Ray Feltham, programme manager for family SOVs at Program Executive Office SOF Warrior, describing to *Jane's* how the follow-on LTATV will feature a series of additional technology areas of interest beyond the existing family of Polaris MRZR LTATVs. These include hybrid and electric drive solutions, autonomous capabilities, an increased payload, lifecycle improvements, and modular kit capabilities, including weapons and tracks for multiple terrain types.

USSOCOM’s request for information said the LTATV is an “SOF-modified commercial off-the-shelf lightweight vehicle that is internally air transportable” via the Bell Boeing V-22, Sikorsky H-53, and Boeing H-47 Chinook aircraft. The LTATV consists of two- and four-seat variants with the ability to change configuration based on the mission and threat. “It’s intended to perform a variety of missions to include offset infiltration, reconnaissance, and medical evacuation,” the request added.

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