



▶ CANSOFCOM: Next Generation Fighting Vehicle – DEW Engineering Teams with Supacat

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IN JULY 2019, the Department of National Defence (DND) announced the intention to procure approximately 55 to 75 Next Generation Fighting Vehicles (NGFV) to replace the existing High Mobility Multipurpose Wheeled Vehicles (HMMWV). The HMMWV are used by the Canadian Special Operations Forces Command (CANSOFCOM) for expeditionary operations.

Formal industry engagement commenced with a Letter of Interest (LOI) and Request for Information (RFI) about the High Level Mandatory Requirements (HLMR) that had been developed for the new NGFV. The HLMR categories included survivability, lethality, mobility, electrical architecture, durability and sustainability, transportability, interoperability and reliability.

To augment the information requested in the RFI, a voluntary Industry Vehicle Demonstration was offered for industry to present their vehicles in an interactive environment with DND. Vehicles participating in the demonstration were expected to best meet the HLMR, being mature and of high technology readiness.

The demonstration took place at Canadian Forces Base Petawawa, Ontario between October and November. Information gleaned during this industry engagement should enable DND to refine and finalize requirements and support concepts, and complete definition activities sooner than planned, accelerating the schedule for delivery to the troops.

DEW Engineering and Development (DEW) of Ottawa, Ontario and Miramichi, New Brunswick has been following the NGFV program since its inception in the early 2010s. DEW has a long history of successfully bidding on Canadian armoured and logistics vehicle programs, either as prime or as team member.



Previous DEW work on armoured vehicles includes the Armoured Vehicle General Purpose (AVGP) Depot Level Inspection and Repair (DLIR), the Leopard 1 Thermal Weapon Sight and turret rebuild, the M113 Life Extension and the Wheeled Light Armoured Vehicle (LAV) Life Extension.

Logistics truck completions include the Medium Logistics Vehicle Wheeled (MLVW), the Light Support Vehicle Wheeled (LSVW), and most recently, the Medium Support Vehicle System (MSVS) Militarized Commercial-Off-The-Shelf (MilCOTS).

DEW also has a long history of developing, testing and manufacturing ballistic and blast armour for armoured and logistics vehicles. Virtually every legacy vehicle type in the Canadian Army has been equipped with DEW armour since 1994.

Today, DEW is the largest manufacturer of composite armour in North America, supplying armour to General Dynamics Land Systems and General Dynamics Land Systems – Canada for all US Army Stryker vehicles, RG31 Mine Resistant Ambush Protected (MRAP) vehicles, and other international customers. DEW also supplies all door armour to the Ford Motor Company for its pursuit rated police cars in North America.

DEW armour has saved the lives of countless Canadian, US and allied soldiers and police officers. With this responsibility in mind, DEW President, Ian Marsh said, “We looked for a partner

ABOVE RIGHT: The Supacat High Mobility Transporter (HMT) has a unique forward mounted cab providing unparalleled fields of view and situational awareness. It's a supremely versatile platform with unparalleled cross-country performance.

“The HMT is often quoted as the Special Forces vehicle of choice and is in service with four of the Five Eyes nations.”

for the NGFV program that had a history of designing, building and delivering superior Special Forces vehicles. In Supacat, from Devon, England we found the right firm.” Supacat’s High Mobility Transporter (HMT) is a world class expeditionary vehicle with exceptional off road performance. In particular, its air bag suspension provides a very stable firing platform, and significantly lowers user fatigue, enabling operators to arrive ‘fit to fight’ at their objective.

Since the early 1980s, Supacat has designed a family of modular, high mobility vehicles that can be tailored to meet customer requirements. Over 1000 Supacat vehicles have been procured by the world’s premier Special Forces including the UK, USA, Australia, Denmark, New Zealand and Norway. Director and Head of Supacat, Phil Applegarth says, “The HMT is often quoted as the Special Forces vehicle of choice and is in service with four of the Five Eyes nations.” Indeed, Supacat has been following the Canadian NGFV program, and is keen to close the Five Eyes interoperability loop.

The name High Mobility Transporter may sound innocuous, but its key missions are Direct Action in support of Counter Terrorism, High Value Task operations and conventional warfare. The HMT is designed to transport personnel and equipment into operational zones, including directly onto objectives and to support the exit of other assets. The HMT is robust and well-protected, enabling long range and enhanced mission duration, highlighting the payload and self-sustainability of the patrol. It provides the crew with various options for engaging adversaries without dismounting from the protection of the vehicle.

For the NGFV program, the DEW Supacat team will offer the new HMT Extenda Mk2, which was unveiled during the DSEI 2019 trade show in London, England. This vehicle has the unique feature of being convertible between 4x4 and 6x6 within hours, by adding or removing a 3rd axle module. This capability offers users with incredible flexibility to reconfigure the vehicle to meet different operational requirements and environments.

The HMT can be fitted with NATO Generic Vehicle Architecture to enable the integration of a wide variety of mission systems, including Remote Weapon System, Intelligence Reconnaissance



and Surveillance systems, and C4 systems. It is also a superb joint fires effects vehicle.

Of course, the HMT is air portable and has been certified by a number of user nations with different aircraft. Unlike many other military vehicles, the HMT can meet the homologation standards, allowing it to be driven on all roads without restriction which reduces logistics burden and cost. Because of its modularity, the users can select between open or closed cabs, different levels of protection, seating layouts and payload configurations, not to mention weapon systems.

According to Applegarth, “The HMT is ITAR free, and can be supported by the Supacat global supply network which includes our Canadian teammate DEW Engineering.” Supacat undertook a rigorous program of trials to verify the performance of the HMT Extenda. It successfully completed two 12,500km tours of Australia in 2 weeks in order to verify reliability and performance over long distances.

“The innovations found in the HMT Extenda deliver increased capability, payload and performance. In feedback from our users, the vehicle’s performance and capability exceeded their expectations and enabled a wider range of tactical options. Mission success was achieved through enhanced terrain access and protection. They were able to do things they had previously thought were not possible,” said Applegarth. Although the Industry Vehicle Demonstration in Petawawa was not the same as the Australia trials, the HMT Extenda did amply demonstrate its mobility to Canadian troops over a broad sampling of terrains and weather conditions.

DEW’s Marsh said, “I have no doubt there will be stiff competition to win NGFV, but I am confident that the DEW Supacat team have a winning next generation fighting vehicle.” 🍁

ABOVE RIGHT: Unveiled at DSEi 2019 in London, England, the Supacat High Mobility Transporter (HMT) Mk2 Extenda offers a step change in capability and payload capacity. It can be modularised between a 6x6 and 4x4 variant in under three-hours to meet changing environmental demands.