Supporting action: Movements in the military logistics market

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Military logistical equipment rarely grabs attention in the same way as armoured fighting vehicles, but, against a backdrop of ageing vehicle fleets and shifting requirements, Shaun Connors reports on major developments in the global military logistics market and why a truck is much more than just a truck

This year has started well for manufacturers of military logistical and support equipment, with several programmes worldwide either ramping up or reaching contact award stage. One recent award example, and an example featuring a product that seldom occupies column inches, would be the June EUR175 million (USD208 million) award to Liebherr by Germany's Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support (BAAINBw) for 71 protected mobile cranes.

The order includes 38 G-LTM 1090-4.2 90-tonne, four-axle, all-terrain cranes in two slightly different configurations with armoured crew and operator cabs. The order also includes 33 Geschützte Berge-und Kranfahrzeuge (GBKFs), or armoured rescue cranes. In a concept that, with very limited exception, is specific to the Bundeswehr, the GBKF combines the chassis and lifting elements of an all-terrain crane with the recover, lift, and tow capability of a more conventional truck-based recovery platform.

Liebherr is to deliver 33 specialist GBKFs, or armoured rescue cranes, to the Bundeswehr.

(Liebherr)

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JLTV in the limelight

One transport/utility platform that regularly claims column inches is the US Joint Light Tactical Vehicle (JLTV). Often reported as an armoured vehicle, it should be noted that JLTVs are
manufactured by sole supplier Oshkosh to accept an armour kit, but are not fitted with one by default.

On 10 July the US Defense Security Cooperation Agency (DSCA) made the much-anticipated announcement that the US State Department had approved a possible Foreign Military Sale worth more than USD1 billion for 2,747 JLTVs to the UK Ministry of Defence (MoD). The United Kingdom has selected the JLTV to meet Group 1 of the MoD’s ongoing Multi Role Vehicle – Protected (MRV-P) vehicle requirement. The number of units and cost quoted have generated considerable excitement, but Jane’s sources suggest that the 2,747 figure is purely aspirational and was requested to ease any further acquisitions beyond the initial buy, which is understood to be for about 750 vehicles.

Meanwhile, in the United States the most recent JLTV development is the 1 August announcement by Oshkosh of its fifth domestic JLTV order, which is for 748 vehicles worth USD195 million, which brings order totals for the vehicle to 2,127.

After defeating competing bids from AM General and Lockheed Martin, Oshkosh Defense was awarded the JLTV contract in August 2015. The initial JLTV award includes a base contract and eight option years, has a potential value of USD6.749 billion, and calls for a maximum of 16,901 vehicles.

At the conclusion of the initial contract the JLTV programme will be re-competed. The JLTV requirement for the United States remains at 5,500 vehicles for the marines and 49,099 for the army. However, in June it was announced that subject to funding, numbers for the marines could increase to as many as 9,091 vehicles.

The first JLTVs were delivered for testing in October 2016 and by March this year about 30 had been delivered. Overall, about 100 vehicles will be delivered for testing to the army and marines during fiscal year 2017 (FY 2017). According to Colonel Shane Fullmer, project manager for the Joint Program Office under the Program Executive Office for Combat Support and Combat Service Support, full-rate JLTV production should begin in November or December 2019, with an initial operating capability (IOC) expected by early to mid-2020.

More recently Col Fullmer revealed that the first army unit to receive JLTVs will be an infantry brigade combat team in the 10th Mountain Division at Fort Drum, with the vast majority of its 500 High-Mobility Multipurpose Wheeled Vehicles (HMMWVs) set to be replaced by early 2019. Following the 10th Mountain Division, the 173rd Airborne Brigade Combat Team in Vicenza, Italy, and then a brigade in Hawaii (probably with the 25th Infantry Division) will receive JLTVs.

According to Andrew Rodgers, light tactical vehicle programme manager for the marines, the first marine users will be an infantry battalion within the II Marine Expeditionary Force (MEF) at Camp Lejeune, which will receive 69 JLTVs to replace its HMMWVs on a one-for-one basis. Within 12 months, these will have been followed by a unit with I MEF and then a unit with III MEF.

In January, it was reported that the US Air Force (USAF) was considering acquiring JLTVs for its security forces that protect missile launch facilities, while more recently it was disclosed that the USAF had included USD60 million for an initial 140 JLTVs as part of its FY 2018 budget request. In May it was reported that the JLTV – Reconnaissance Vehicle (JLTV-RV) will be incorporated into the current JLTV Technical Data Package (TDP) and will be a kit option on the next JLTV contract. In May 2016 the army suggested that the JLTV could be used as the platform for the US
Army's Light Reconnaissance Vehicle (LRV) programme rather than procuring a new system. The JLTV-RV is currently designated as the interim solution for the LRV requirement.

AM General is still receiving domestic orders for the current HMMWV ambulance variant (M997A3) because there is currently no JLTV-based ambulance solution. (US Department of Defense)

AM General ploughs onwards

AM General, while no doubt disappointed not to have secured the lucrative JLTV contract, can in the near to mid-term at least be relatively confident of a steady, if reduced, income from the continued support of HMMWVs in the inventories of the United States and other countries. The company continues to market the HMMWV globally and the most recently disclosed export deliveries were US government donations or FMS awards.

In June it was disclosed that 14 additional HMMWVs valued at more than USD3.8 million had been donated to Serbia, while in March, AM General announced the supply of 24 HMMWVs worth USD3.5 million donated by the US government to Bosnia and Herzegovina, with a further 20 to follow by the end of the year. More broadly, from late 2016 to date, several sources sought/pre-solicitations have been released by the US government for the acquisition of HMMWVs. These could amount to 14,800 additional vehicles.

AM General also continues to innovate, with the company’s latest offering being the Multi-Purpose Truck (MPT). Unveiled at IDEX 2017, the MPT is engineered and designed based on existing AM General components including the HMMWV’s engine, off-the-shelf (OTS) AM General items, COTS items from other commercial vehicles, and military commercial off-the-shelf (MilCOTS) items. The MPT has a gross vehicle weight (GVW) of 8,319 kg and is designed to allow customers to configure payload modules based on their needs; payload on the base chassis-cab is 2,359 kg.

AM General, which has previously been the incumbent supplier to US armed forces for the M35 series 2.5-ton, the M809/M939 series five-ton, and the M900 series line-haul tractors, is also
rumoured to be actively pursuing the US Army’s Family of Medium Tactical Vehicles (FMTV) A2 requirement, an initial solicitation for which was released in October 2016.

The FMTV A2’s requirements-type contract is projected to have five ordering years with two additional one-year option periods. The total estimated number of vehicles, including the option years, is 2,400. This hardly dents the 110,000 FMTV trucks and trailers that have previously been ordered by the US government, but post-solicitation a US Army spokesperson clarified that the "actual quantities in any future award are undetermined and will depend on proposed pricing for this quantity, army requirements, and available funding”.

The FMTV is currently scheduled to remain in the army’s inventory until well beyond 2045. Incumbent supplier Oshkosh has received orders for more than 24,500 trucks and more than 11,400 trailers, bringing the total FMTV order value to the company of more than USD5.3 billion. The latest FMTV contract extension, which was awarded in September 2016, runs until 25 August 2019 and will close-out production of the current FMTV A1P2.

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Europe and beyond

Away from the United States, other current light utility and truck-related projects and developments of interest include those involving Chile, Denmark, Finland, France, Germany, Ireland, the Netherlands, and Peru.

Sweden’s Scania is currently the big winner within Europe, although arguably that should be Germany’s Scania, with Volkswagen AG and MAN SE owning almost 90% of Scania between them. (Shaun C Connors)

Sweden’s Scania is currently the big winner in Europe, while elsewhere Germany’s truck-makers reign. Arguably, however, Scania should also be considered German because Volkswagen AG and MAN SE own almost 90% of Scania between them.
In February, Finland’s MoD placed a final delivery order with Scania under a three-year frame agreement that ran during 2014–17. Calling for 50 trucks, this order brought totals under the award to 253. The Finnish procurement organisation, Hansel, has also awarded Scania a follow-on two-year frame agreement for trucks during 2017–19 (with a two-year option); comparable contracts were also awarded at the same time to MAN and Mercedes-Benz. The estimated order total under this frame agreement is 320 trucks.

Finland will also this year receive 10 ex-Belgian army Scania T144GB6x4NZ530 tank transporter tractors and six-axle LOHR SRPB60 semi-trailers, which will receive minor modifications by local maintenance and life-cycle support company Millog Oy before entering service. A further 10 combinations should be delivered by 2019. In 1998 the Belgian army received 26 T144/LOHR combinations, but now that it has no main battle tank capability, these heavy combinations are all but redundant.

Excluding the current three-year frame agreement, since 1999 Scania has received orders from the Finnish Defence Forces for about 700 trucks in assorted configurations that range from road-going driver training vehicles to tank transporter tractors.

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The 10 trucks involved in this latest order are predominantly for use on deployed operations, most probably with the United Nations Interim Force in Lebanon (UNIFIL), and will be equipped with a hooklift-type load handling system (LHS), a container handling unit (CHU), and an armoured cab. The actual award was made to Westward Scania, Scania’s local importer, which is also likely to be responsible for any integrated logistic support (ILS) component that the contract award may include. It is probable that Scania will deliver a P-Series truck comparable with the 15 R124CB8x8HZ420 the company supplied to the Irish Army from 2005 and similar to the 555 trucks ordered by the Netherlands in 2003.

Like the previous Irish delivery, and in common with the Irish Army’s 22 Astra M320.42WM 8x8 vehicles delivered during 1998–2000, the LHS will be a Multilift MPH-165-SC, which is a military-specific hooklift and essentially the same as the system fitted to the British Army’s Demountable Rack Off-Loading and Pick-up System (DROPS) and US Palletized Load System (PLS) fleets. The armoured cab solution is understood to be an evolution of a cab that was developed by Scania in partnership with Essonne Sécurité of France for the 8x6 P440CB8x6HZ2 tractor trucks that were supplied to the French Army for its Carapace 22,000-litre fuel tankers.

More recently, on 14 March, the Danish Defence Acquisition and Logistics Organisation (DALO) disclosed that Scania had been selected as the supplier for a framework contract for trucks. The initial order under the award calls for 200 Military Terrain Capable Trucks (MTCTs) and 100 Commercial Trucks (CTs). Jane’s understands that Scania was the winner on all points in the DALO’s evaluation process between the two remaining bidders in the competition: Scania and incumbent supplier Rheinmetall MAN Military Vehicles (RMMV).

Four companies qualified to bid for the requirement, with Mercedes-Benz and Oshkosh withdrawing voluntarily. The Danish requirement is understood to call for about 400–500 MTCTs and 300–400 CTs. The award covers two contracts, a purchasing contract and a system house engineering agreement. Both contracts run for seven years, with an extension option in place for the system house engineering agreement. As a framework agreement, fleet composition and most related details are currently unknown. With regard to emissions compliance, the DALO has opted for Euro 6 emissions-compliant engines for the CT fleet, but according to Jane’s sources, it may
resist environmental pressures and opt for Euro 5-compliant engines for the (deployable) MTCT fleet.

Scania’s most recent success was announced on 9 June, with the Dutch MoD announcing that, subject to parliamentary approval, it will award the 50, 100, and 150 kN segment of the Defence-wide Replacement Programme of Wheeled Vehicles (Defensiebrede Vervanging Operationele Wielvoertuigen: DVOW) to Scania. The MoD also stated, “If the contract is awarded in mid-2017, the first trucks will be delivered in the fourth quarter of 2018, with final deliveries in 2022.”

The overarching DVOW requirement has evolved considerably since it was first mooted in 2008, with Jane’s sources suggesting that the 50, 100, and 150 kN segment will now include the delivery of 2,037 trucks. The award will also include a performance-based maintenance contract for an initial 10 years. As a framework agreement, few specific details are available at this time, but it is understood that all trucks will be fitted with Euro 6 emissions-compliant engines, and that to reduce the overall number of chassis required a swap-body system will be employed.

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Jane’s understands that Scania was one of five contractors invited to respond to the DVOW medium and heavy truck segment request for quotations (RFQ) in February. Also invited to respond were DAF, Iveco, Mercedes-Benz, and Renault. Jane’s analysts had previously suggested that DAF and Scania would be front-runners for this requirement.

Scania previously secured the Dutch Defence Materiel Organisation’s (DMO’s) most recent sizeable truck order, supplying 555 P124CB8x8HZ420 trucks from 2004, the vast majority of these equipped with a DROPS/PLS-type LHS. Manufactured at Scania’s facility at Zwolle in the Netherlands and delivered with a projected operational lifetime of at least 13 years, based on usage/serviceability, a life extension of up to 10 years is currently being implemented for these trucks.
Scania’s most recent success was announced on 9 June, with the Dutch MoD announcing that it will award the 50, 100, and 150 kN segment of its DVOW requirement to Scania. The trucks to be replaced were supplied by DAF. (Shaun C Connors)

DAF, owned since 1996 by Paccar of the United States, supplied the vast majority of trucks that will be replaced by the DVOW purchase. These were delivered from the early 1980s and are long overdue for replacement. Following its acquisition by Paccar, DAF effectively withdrew from the defence sector. However, for a home market opportunity, the company elected to re-enter the fray, albeit with essentially a Czech truck.

DAF has an arrangement with Tatra under which it supplies its CF cab and Paccar MX engine to the Czech company, which are then mated to Tatra’s unique tubular backbone-style chassis for the Phoenix range of heavy-duty trucks. Jane’s understands that it was a badge-engineered Phoenix truck offered to the DMO by DAF.

A struggling Tatra was acquired by its current owners in 2013 and in 2016 the now Tatra Trucks produced 1,326 trucks, with production growing by 50% year on year and breaking the 1,000 barrier for the first time since 2008. The most recent delivery to the Czech army was in July this year, when 40 T-815-7 8x8 81 mortar transport platforms were delivered.

Elsewhere, Tatra’s chassis/suspension set-up means that the type is being increasingly favoured for chassis-only applications where axle load requirements exceed the limits of traditional choices, such as the Mercedes-Benz Unimog. Recent recipients of Tatra chassis have included Brazil, Denmark, and Jordan, the most recent of those being Denmark, for which T-815-7 chassis will be delivered to Nexter as the base for the CAESAR self-propelled artillery system.

Germany’s RMMV announced on 7 July that the BAAINBw had awarded the company a seven-year framework contract for 2,271 HX2 range trucks, the total value of which is about EUR900 million. An initial order for 558 trucks has been placed, with deliveries scheduled for 2018–21. Valued at about EUR240 million, this initial award includes specialist tools and training support. To secure the Ungeschützte Transport Fahrzeuge/Unprotected Transport Vehicle (UTF) contract,
RMMV is understood to have initially faced competition from Mercedes-Benz (Arocs and Zetros) and Iveco (Trakker), with actual trials and final selection between RMMV and Iveco.

Under the Bundeswehr’s UTF programme these new trucks are set to replace the old KAT I generation of trucks made by MAN, the oldest examples of which were delivered in 1976.

Deliveries under the UTF programme involve two HX2 range models: the HX42M 6x6 with a five-tonne payload and the HX44M 8x8 with a 15-tonne payload. The Bundeswehr required a family of trucks with about 90% commonality between models and also the UTF trucks to be legislatively compliant by default, but for tactical considerations, waived Euro 6 emissions requirements.

The ability to mount an armoured cab while maintaining a full five-tonne payload capability was the key factor in the reasoning behind a three-axle 6x6 truck for a weight category that was traditionally dominated by two-axle trucks. Technically a two-axle cab-over-engine (COE) truck with the correct tyre fit would be capable of the armoured cab/payload combination, but with a GVW of more than 20-tonnes split between just two axles, the truck would not be road legal within the European Union and soft ground mobility would be severely compromised.

UTF calls for cargo variants only, with other types (including LHS) to be procured separately. The five-tonne HX42M is fitted with an EMPL torsion-free subframe and a SAXXAS Crossmobil body, while the HX44M is fitted with an EMPL low-torsion subframe and a SAXXAS Crossmobil body. Bodies are retained by ISO-standard twistlocks and can be removed for the transport of any standard ISO envelope shelter or container.

The UTF requirement, which will deliver up to 2,271 HX2 trucks to the Bundeswehr over the next seven years, traces back to 2011/12. Following a market analysis during 2014, a request for information (RFI) followed in 2015, with a pre-qualification questionnaire released in early 2016. Prototypes were delivered in August 2016 for trials and evaluation, and in September 2016 a RFQ was issued. Trials, many of the repetitive segments of which were conducted autonomously, were concluded earlier this year. In January contractors were requested to provide their best and final offers (BAFO) and on 5 July RMMV signed the UTF contract.
UTF deliveries for the Bundeswehr include the 15-tonne payload HX44M 8x8, which is fitted with an EMPL low-torsion subframe and a SAXXAS Crossmobil body. (Shaun C Connors)

The Bundeswehr has about 3,300 KAT 1 trucks to replace, the first of which was delivered in 1976. As far back as the late 1980s the Bundeswehr launched a project – Geschützte TransportFahrzeuge (GTF) – to start replacing the oldest KAT 1 trucks. Numerous re-evaluations of requirements and needs followed while the Bundeswehr restructured after the Cold War and more asymmetric threats developed. It was 2012 before the first GTF order (now for protected trucks) was finally placed, with Mercedes-Benz awarded a contract to deliver 110 Zetros 1833A 4x4 vehicles with armoured cabs. A quantity of Iveco Trakker 8x8 trucks have also been ordered to address an urgent GTF 15-tonne need. It is anticipated that there will be additional GTF procurements.

The choice of RMMV trucks made by the Bundeswehr could not realistically be further removed from the choice of Scania made recently by the Danish, Dutch, and Irish authorities. Scania’s philosophy for military trucks is that they should be as close as possible to the company’s construction-grade commercial product and be near-produced on the commercial product line. Meanwhile, RMMV’s HX2 range of trucks, as with the earlier HX range, is about as close as one will now get to a purpose-designed military truck. While for obvious reasons using as much of MAN’s rest-of-world-grade TGS commercial truck as possible, this is delivered in what is clearly a designed-for-purpose package that is manufactured at a military/specialist-specific facility.

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Light vehicles

At the lighter end of the vehicle scale, Renault Trucks Defense (RTD) was awarded the French Army’s Véhicule Léger Transportable Polyvalent Non Protégé (VLTP NP) contract earlier this year. The VLTP programme was initially stated as a requirement to replace the 3,800 remaining Peugeot P4 light vehicles (licensed Mercedes-Benz G-Class) along with the Dangel J5 vehicle: a 4x4 conversion of a Peugeot medium-weight van. Moving up the size/weight scale slightly, part or all of the Renault TRM2000 2,000 kg truck fleet was also set to be replaced. In 2011 the VLTP programme called for between 4,900 and 5,100 light vehicles in three segments from 2012.

The VLTP1 project set out to acquire 2,500 COTS (probably) light vehicles to part-replace the P4. Bids were scheduled for 2012 with first deliveries in 2014, with some suggesting that these could even be leased vehicles.

VLTP2 would include the acquisition of 2,100 5,000 kg light protected tactical vehicles (close to Panhard PVP specification) to part-replace the P4. Bids were due to be placed in 2014 for deliveries during 2016–25. This slipped in 2012 to an estimate of bids in 2016. VLTP3 was to acquire 300–500 7,500 kg GVW light armoured vehicles (including 100 ambulances) to part-replace the P4, the Dangel J5, and Renault TRM2000 2,000 kg light truck. Bids were due in during 2014 for deliveries during 2016–25. This slipped during 2012 to an estimate of bids during 2016. In early 2013 it was suggested that VLTP2 and VLTP3 would be merged to procure about 1,000 vehicles of 10,000 kg GVW. This shift gave a new total of about 3,500 vehicles.
In early 2014 it was suggested that VLTP would be delayed by four to five years. This was confirmed at IDEX 2015, with “movement around 2019” expected. By May 2015 a further review of a potential refurbishment of the existing P4 fleet had concluded that this was uneconomical and VLTP totals were revised to 2,450 Standard 1 and 2,000 Standard 2 vehicles, with the latter incorporating unspecified additional capacities.

However, in 2015 and to part-replace the P4, an order was placed for 1,000 Ford Ranger crew-cab pick-ups for ‘white fleet’ duties in France. In April 2016 the decision was then taken to advance VLTP from 2019 and, following industry submissions, in December 2016 the VLTP NP contract was awarded to RTD. Under the award RTD will supply 3,700 VLTP NP vehicles over four years and the initial order for 1,000 examples will include 500 deliveries in 2018 and 500 in 2019.

The chosen VLTP NP vehicle is based on a Ford Everest (Ford Endeavour in India), which is built in Thailand and South Africa. The Ford Everest is based on the Ford Ranger, which is also built in South Africa and Argentina. The base vehicle will be up-rated/militarised by RTD at subsidiary ACMAT’s facility. The awarded contract also includes support for 15 years. Modification and support account for 60% of the undisclosed contract value.

It was announced on 7 January 2016 that RTD had won the competition to supply 443 new patrol vehicles to France’s special forces. The contract placed by the Direction Générale de l’Armement (DGA) includes two different vehicle types: light (Véhicules Légers des Forces Spéciales (VLFS)) and heavy (Poids Lourds Force Spéciale (PLFS)). It also includes the “integration of intelligence and sensitive communications equipment and their supporting elements”, according to the DGA, which limited the competition to French companies. The contract covers 241 light vehicles and 202 heavy vehicles.

Earlier this year, RTD delivered the first batch of 25 PLFS vehicles, with deliveries of the second batch of 177 vehicles not expected to begin until January 2019 and concluding in December 2021. In order to meet the urgent needs of French special forces operating in the Sahel region of Africa,
the DGA and RTD opted for an incremental development programme, with two different standards of the PLFS.

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