

# Army Guide monthly



## # 8 (83) August 2011

- Oshkosh Defense to Deliver Nearly 7,000 Additional FMTV Trucks and Trailers to the U.S. Army
- BAE Systems Receives \$108.4 Million for Recovery Vehicles
- GD to Supply 33 Light Armored Vehicles to USMC
- Navistar Defense Receives Incremental Vehicle Order to Support Afghanistan
- Three Holes-In-One For Denel Developed Artillery
- Oshkosh Defense Showcases TerraMax™ Unmanned Ground Vehicle Technology at AUVSI 2011
- BAE Systems and Iveco Defence Vehicles Finalize Teaming Agreement in Pursuit of the Marine Corps Personnel Carrier
- BAE Launch New Casspir Vehicle
- QinetiQ Introduces Micro-Robot for Military Missions
- BAE Systems-Northrop Grumman team selected for \$449.9 Million technology development contract for Ground Combat Vehicle program
- General Dynamics Team Awarded Army Ground Combat Vehicle \$440 Million Technology Development Contract
- iRobot receives \$21 million order from the U.S. Navy
- Force Protection Submits Bid for Australia's REDFIN Special Ops Vehicle Project
- IDF will acquire 500 Sufa 3 jeeps over next two years
- General Dynamics Awarded \$49 Million Contract for Field Service Support
- Supacat Team Australia submits bid for JP2097 Ph 1B (REDFIN) to DMO - offering proven HMT capability and fleet commonality
- U.S. Army Selects Northrop Grumman for Force Protection Contract
- Cubic Receives U.S. Army Production Order for Tactical Vehicle Training System

## Defence Industry

### Oshkosh Defense to Deliver Nearly 7,000 Additional FMTV Trucks and Trailers to the U.S. Army



OSHKOSH, WI -- Oshkosh Defense, a division of Oshkosh Corporation, will deliver nearly 7,000 additional Family of Medium Tactical Vehicles (FMTV) trucks and trailers to the U.S. Army following an order from the U.S. Army TACOM Life Cycle Management Command (LCMC).

Oshkosh has now received orders for nearly 26,000 FMTV trucks and trailers, and is delivering vehicles to meet the Army's delivery schedule.

"We continue to support the Army on this successful program with the on-time delivery of very high-quality, Oshkosh-built FMTV trucks and trailers," said Mike Ivy, vice president and general manager of Army Programs for Oshkosh Defense. "Our robust manufacturing capabilities, combined with the exceptional value Oshkosh brings to this program as a specialty vehicle manufacturer, prompted the Army to order more vehicles at an earlier point in the program than they had anticipated before the award to Oshkosh."

The FMTV supports Army and National Guard units at home and abroad in combat operations, relief efforts, unit-resupply missions and other functions. The FMTV is a series of 17 models ranging from 2.5-ton to 10-ton payloads. Vehicles have a parts commonality of more than 80 percent, resulting in streamlined maintenance, training, sustainment and overall cost efficiency.

Oshkosh has more than 90 years of experience mobilizing the U.S. military, and the company is the only supplier of the Army's medium and heavy tactical wheeled vehicle fleets. Oshkosh incorporated its rigorous quality checks and production standards into its work on the FMTV program to ensure delivery of high-quality trucks and trailers.

This is the latest order under the five-year FMTV contract awarded to Oshkosh Defense for the production of trucks and trailers, as well as support services and training, through calendar year 2015. The order is valued at more than \$904 million and deliveries are scheduled to be completed in June 2013.

## Contracts

### BAE Systems Receives \$108.4 Million for Recovery Vehicles

ARLINGTON, Virginia -- BAE Systems was recently

awarded a contract modification for \$108.4 million to provide 45 M88A2 Heavy Equipment Recovery Combat Utility Evacuation System (HERCULES) vehicles and associated parts to the U.S. Army and Marine Corps.



"We are a leading provider of recovery vehicles for the U.S. military," said Joe McCarthy, vice president and general manager of Combat Vehicles at BAE Systems. "HERCULES answers the need for cost-efficiency, reliability and high performance for our customers as they retrieve heavy vehicles in the field."

HERCULES provides unparalleled capability for recovering today's 70-ton combat vehicles including the M1A1, M1A2, Leopard, bridging systems and other medium weight vehicles. The M88A2 offers soldiers additional armor protection and increased engine horsepower, towing muscle, lifting strength and winching power.

Using remanufactured hulls supplied by the U.S. Government, BAE Systems will provide 29 vehicles to the U.S. Army and 16 vehicles to the U.S. Marine Corps.

Vehicle deliveries will begin in April 2013 and continue through December 2013. Work will be performed by existing workforces at BAE Systems facilities in York, Pa. and Aiken, S.C. The contract was awarded by Army Contracting Command – Warren.

This award brings the total value of U.S. Government contracts BAE Systems has been awarded on the HERCULES program to \$1.4 billion. To date, 394 HERCULES vehicles have been fielded against an overall U.S. Army requirement of 607 vehicles. A total of 75 vehicles have been fielded to the U.S. Marine Corps.

## Contracts

### GD to Supply 33 Light Armored Vehicles to USMC



London, Ontario, Canada -- General Dynamics Land Systems-Canada has been awarded a \$42 million contract to produce 33 Light Armored Vehicles (LAV-A2) in various configurations for the United States Marine Corps. General Dynamics Land Systems, the Canadian company's parent corporation, is a business unit of General Dynamics.

The LAV-A2 is a mobile, agile and survivable system for conducting offensive and defensive operations in support of the Marine Air-Ground Task Force. The eight-wheeled amphibious vehicle is equipped with enhanced armor protection and an automatic fire-suppression system for crew protection, as well as a robust suspension for mobility.

Vehicle production will be performed at the General Dynamics Land Systems-Canada operations in London, Ontario, and will be completed by December 2012. In total, 240 LAV-A2 vehicles have been ordered by the Marine Corps since 2007. Nearly 800 units of an earlier version of the Light Armored Vehicle entered service with the Marine Corps in the 1980s and continue operational deployment today.

The contract was awarded through the Canadian Commercial Corporation, a Crown Agency of the Canadian Government.

Under the delivery order, Navistar will provide general troop transport vehicles based on the International® 7000-MV, or WorkStar®, platform as well as parts. Other variants currently serving in Afghanistan include wreckers, water tankers and fuel trucks.

“Providing vehicles to allied forces continues to be one piece of our business strategy,” said Massicotte. “While we are always pursuing new sales, providing sustainment services to our fleet of more than 32,000 vehicles also keeps us on track with our goal to maintain a \$1.5 to \$2 billion revenue base.”

Production will occur at the company's Garland, Texas, and West Point, Miss., assembly facilities.

Navistar International Corporation is a holding company whose subsidiaries and affiliates produce International® brand commercial and military trucks, MaxxForce® brand diesel engines, IC Bus™ brand school and commercial buses, Monaco® RV brands of recreational vehicles, and Workhorse® brand chassis for motor homes and step vans. It also is a private-label designer and manufacturer of diesel engines for the pickup truck, van and SUV markets. The company also provides truck and diesel engine service parts

## Contracts

### Navistar Defense Receives Incremental Vehicle Order to Support Afghanistan



WARRENVILLE, Ill. -- Navistar Defense, LLC today announced that it received both a contract extension and a delivery order to support Afghanistan Security Forces. The \$28 million order from the U.S. Army TACOM Life Cycle Management Command calls for 194 general troop transport vehicles.

The contract extension runs through December 2011 and has a ceiling of \$83 million to allow for additional vehicle orders and support packages.

“Supporting the Afghanistan Security Forces has been one of our initiatives since 2005 and it is essential for our nation's success,” said Archie Massicotte, president, Navistar Defense. “Today we have nearly 12,000 Navistar vehicles serving in security and rebuilding missions with Afghan forces. All of those vehicles leverage our current commercial platforms and we'll continue to support those units throughout their 15-20 year lifecycles.”

## Future Technologies

### Three Holes-In-One For Denel Developed Artillery



Denel Land Systems has developed an artillery piece that can directly fire three shells through the same hole – at a distance of one kilometre.

The accuracy of this locally developed piece of artillery is equally impressive. This system fire at a range of 30km and deliver 50% of its projectiles within the size of a soccer field.

This remarkable degree of accuracy was achieved when the latest version of DLS's 105mm Stryker was recently tested at the Alkantpan testing range in the Northern Cape. The Stryker LAV III LSPH (Light Self-propelled Howitzer) differs from previous versions in that it can now be serviced by a crew rather than being remotely fired.

Stephan Burger the CEO of Denel Land Systems (DLS) says the firing tests were witnessed by members of the SA Defence community. The tests underline the world-class characteristics of the gun and the quality of the engineering team responsible for its development,



says Burger.

The 105-mm Stryker is a joint project between DLS, General Dynamic Systems and Rheinmetall Denel Munitions – another subsidiary of Denel, South Africa's largest manufacturer of defence products.

Research and Development work on the system started in the 1990's when a Denel/Armcor project team was set the task to produce 155mm, 39 calibre Artillery range, accuracy and lethality from a 105mm system. The end product was an artillery piece with the weight of a 105mm howitzer, but the range and terminal performance of a 155mm System -- with better precision.

The latest version tested at Alkantpan has a crew of three - a driver, commander/gunner and loader. Because the system fires off its wheels it can be quickly deployed in action. The system weighs 18,200 kg with 36 rounds on board and is air-transportable with a C130 aircraft.

Burger says the range of the artillery is between 6 and 30 kilometres – depending on the configuration of the projectile and propellant charge.

Its accuracy is exceptional. During the firings error margins of less than 0,3% of range was consistently achieved at maximum range. This kind of performance was made possible through the system engineering approach that was followed in developing the gun, the charges and the projectiles as an integrated system.

Burger says the system has generated significant international interest since it was first unveiled at the African Aerospace and Defence Exhibition in 2000. The turreted version of the 105mm System will also be able to fire off the Patria AMV vehicle, currently the platform for the South African Badger family of Infantry Combat Vehicles.



## Exhibitions

### Oshkosh Defense Showcases TerraMax™ Unmanned Ground Vehicle Technology at AUVSI 2011



OSHKOSH, Wis. -- Oshkosh Defense, a division of Oshkosh Corporation (NYSE:OSK), will present its TerraMax™ Unmanned Ground Vehicle (UGV) technology at the Association for Unmanned Vehicle Systems International (AUVSI) Unmanned Systems 2011, hosted August 16-19 in Washington, D.C. The TerraMax technology recently completed its first limited technical assessment for the U.S. Marine Corps Cargo UGV initiative, and Oshkosh will soon begin training Marines to independently conduct autonomous convoy missions for evaluation.

The Cargo UGV program utilizes an Oshkosh Medium

Tactical Vehicle Replacement (MTVR) equipped with Oshkosh's TerraMax UGV technology, resulting in an unmanned vehicle that has the potential to increase operator's situational awareness, or reduce Warfighters' exposure to lethal attacks. The Cargo UGV program is sponsored by the Marine Corps Warfighting Laboratory (MCWL) and the Joint Ground Robotics Enterprise (JGRE) Robotics Technology Consortium (RTC).

"The first limited technical assessment of Oshkosh's TerraMax technology on the MTVR involved numerous tests and successful results, including obstacle avoidance, leader-follower behavior, GPS-denied operation and water crossings," said John Beck, chief unmanned systems engineer for Oshkosh Corporation. "We are excited to be getting this technology into the hands of the Marines next week, when we train them to operate the system and gain their valuable feedback on its performance in a tactical environment."

Accomplishments achieved during the Cargo UGV program's first limited technical assessment included:

- Completion of more than six miles of driving without GPS input
- Successful avoidance of all obstacles
- Successful tracking of a variety of cooperative and non-cooperative vehicles

Oshkosh has advanced its TerraMax technology to deliver high performing road-following behavior, even in the absence of GPS. Oshkosh is incorporating short-range radars to provide 360-degree close-proximity obstacle detection and avoidance, which will allow a TerraMax-equipped vehicle to operate safely around pedestrians and in traffic, even in dusty conditions. Oshkosh received a contract for the Cargo UGV initiative in June 2010.

The Oshkosh TerraMax UGV technology is designed to retain a vehicle's original payload and performance capabilities. Designed as a scalable kit, it can be integrated on vehicles, including those built by other manufacturers, as they are produced or retrofitted on existing vehicle fleets. The TerraMax technology can function in the same weather conditions and operating environments as manned vehicles, requiring minimal human interaction and operator training.



## Defence Industry

### BAE Systems and Iveco Defence Vehicles Finalize Teaming Agreement in Pursuit of the Marine Corps Personnel Carrier



ARLINGTON, Virginia -- BAE Systems and Iveco

Defence Vehicles today announced their official teaming relationship, which followed the licensing agreement announced last June, for the pursuit of the U.S. Marine Corps Personnel Carrier (MPC) program.

The companies have signed both a Teaming Agreement and Technology Cross Licensing Agreement (TCLA).

"This teaming agreement is particularly timely as we recently responded to the Marine Corps' Request for Information (RFI) for the MPC program. Combining our expertise allows us to best address the requirements of the U.S. Marine Corps and its MPC program with an affordable amphibious platform that balances performance, capability and cost," said Ann Hoholick, vice president and general manager of amphibious and new programs at BAE Systems. "We are well positioned to meet any current and future amphibious vehicle needs that our Marine Corps customer faces."

"With over 70 years in the defence vehicle business, Iveco looks forward to combining its expertise with that of BAE Systems, creating a powerful, forward-looking relationship," said Pietro Borgo, general manager at Iveco Defence Vehicles.

These agreements allow a teaming and collaboration effort between BAE Systems and Iveco Defence Vehicles to modify and adapt the Iveco SUPERAV 8x8 for the MPC program.

Both BAE Systems and Iveco Defence have extensive experience across a range of mine-protected and armored vehicles, including several 8x8 models. Iveco has an exceedingly capable and economically efficient 8X8 vehicle based on mature and fielded technologies that include enhanced survivability, dynamic mobility performance, proven amphibious capability as well as superior sustainability garnered from an extensive worldwide supply chain and logistics support network. BAE brings in depth knowledge of USMC amphibious vehicle requirements, vehicle systems integration experience and systems engineering bolstered by project management expertise.

The MPC is designed to provide a modern amphibious armored wheeled personnel carrier capability within the Marine Corps' Ground Combat Element. It will be a flexible and highly mobile asset for the Marines that will be well protected, sustainable, networked and include a strong amphibious capability.

## Defence Industry

### BAE Launch New Casspir Vehicle



Johannesburg, South Africa -- BAE Systems is releasing details of the latest addition to its proven mine protected vehicle range, the Casspir Mk6 Armoured Personnel Carrier (APC). The Casspir Mk6 evolved from the reliable and renowned Casspir heritage.

The latest development also incorporates experience from the battle proven RG31 (over 2400 in service) to ensure a superior and affordable APC.

"This new version integrates decades of experience saving lives, offering a solution with a world class track record", said Johan Steyn, Managing Director, Land Systems South Africa. "With proven mobility, crew and ballistic protection, getting the soldiers safely around any environment was top of mind during development of this vehicle," added Steyn.

The Casspir Mk6 is an open architecture fit for many applications including the option for different variants - 4x4, 6x6, utility, APC and command. This battle-proven workhorse with its robust design is suitable for the harshest African conditions. COTS (Commercial-off-the-shelf) building blocks are used in the design and manufacturing for increased cost benefit, and contributing to the superior mine protection is the monocoque V-shaped hull.

The Casspir Mk6 measures approximately 7.59 meters in length, 2.67 meters in width, with a ground clearance of 380 millimeters. Its gross vehicle mass is 14,320 kg and seats 16 crew members. The straight forward utilisation of a total commercial drive train ensures affordability of this battle proven vehicle.

## Robots

### QinetiQ Introduces Micro-Robot for Military Missions



Reston, VA -- QinetiQ North America today announced the availability of a new Micro Unmanned Ground Vehicle (MUGV) for military and first responder robotic missions. At just over ten pounds, Dragon Runner 10 (DR10) is small enough to carry in an assault pack and rugged enough to throw into buildings and hostile environments.

With multiple sensor and payload options, DR10 is ideal for reconnaissance and surveillance missions to support small military units, patrols and first responder teams.

The warfighter uses a wearable controller to send DR10 in first, to assess the situation in advance. Whether it's being driven or thrown into a potentially hostile area, DR10 can quickly gain situational awareness and report

information back to the operator. Its day and night sensors enable DR10 to serve as the team's forward eyes and ears, while carrying out critical missions such as Explosive Ordnance Disposal, setting counter-IED charges, delivering remote sensors, gathering intelligence and conducting surveillance.

"Military robotic missions save lives, and if possible, it's better to send the robot in first," said QinetiQ North America Technology Solutions Group President JD Crouch. "Dragon Runner 10 is a practical solution that makes it easier to carry and operate sophisticated robots in theater."



## Contracts

### **BAE Systems-Northrop Grumman team selected for \$449.9 Million technology development contract for Ground Combat Vehicle program**

ARLINGTON, Virginia -- BAE Systems has been awarded a \$449.9 million contract to participate in the technology development (TD) phase of the U.S. Army's Ground Combat Vehicle (GCV) program. BAE Systems is teamed with Northrop Grumman Corporation to offer a vehicle that provides exceptional growth and survivability at an affordable price.

The TD phase of the GCV program is a 24-month program directed at maturing the GCV proposal through the preliminary design review in anticipation of prototype builds during the engineering and manufacturing development phase of the program. The BAE Systems-Northrop Grumman team was one of two industry teams awarded TD contracts.

"Advancing to this next phase in the competition brings us one step closer to fielding a vehicle for our soldiers that is affordable, provides for maximum force protection and is built to accommodate future technological enhancements," said Mark Signorelli, vice president and general manager of Weapon Systems at BAE Systems.

"We appreciate being selected by the U.S. Army and the Department of Defense to mature our GCV solution, a critical capability required to modernize our Army and provide soldiers with a decisive edge against any adversary. At BAE Systems, we take pride in protecting those who protect us and with our partners and teammates, are fully committed to the success of this program."

The BAE Systems-Northrop Grumman vehicle features an adaptive platform that will remain relevant for decades to come, bringing more survivability, mobility and versatility to the Army and with levels of protection scalable to the demands of a variety of missions.

"The BAE Systems-Northrop Grumman team has applied its expertise and lessons learned from a decade of warfare to design a network-ready, fully integrated vehicle with significantly increased capability, so U.S. forces can engage and prevail in full-spectrum operations

today and in the future," said Joe G. Taylor, Jr., Northrop Grumman Information Systems' vice president for Ground Combat Systems.

The team's offering includes a hybrid electric drive propulsion system that enables exceptional force protection and mobility in a lower weight vehicle while provisioning for growth in power requirements as new technologies are matured and integrated into the platform. This technology allows for GCV to meet the demands of near term operations while providing a robust platform for future technology integration and growth at low risk and cost.

The BAE Systems-Northrop Grumman Ground Combat Vehicle team includes: QinetiQ, iRobot Corporation, MTU and Saft. As prime contractor, BAE Systems leads the overall program management, systems integration, vehicle design, structure and logistical support as well as readiness and sustainment of the platform. Northrop Grumman serves as the C4ISR lead. QinetiQ provides the key component of the hybrid electric drive propulsion system, the E-X-Drive®. iRobot serves as the unmanned ground vehicle integrator and will enhance future autonomous operations. MTU provides the engine and power generation for GCV and Saft provides the battery and energy storage system.

Work under the technology development phase will be performed at BAE Systems and Northrop Grumman sites in Sterling Heights and Troy, Michigan; Santa Clara and Carson, California; York, Pennsylvania; Minneapolis, Minnesota; and Huntsville, Alabama.



## Contracts

### **General Dynamics Team Awarded Army Ground Combat Vehicle \$440 Million Technology Development Contract**

STERLING HEIGHTS, Mich. -- A team led by General Dynamics that includes Lockheed Martin, Raytheon Company) and Tognum America, Inc., was awarded a \$439.7 million contract for the Technology Development (TD) phase of the U.S. Army's Ground Combat Vehicle (GCV) Infantry Fighting Vehicle (IFV) program.

The overall goal of the GCV IFV program is to develop and produce an affordable and operationally effective Infantry Fighting Vehicle in seven years.

"The General Dynamics team's design is focused on delivering an affordable ground combat vehicle that provides optimal Soldier protection and operational effectiveness. Our design draws on affordable, mature technologies to provide protection, capacity for a nine-soldier squad, network interoperability, mobility and lethality that is unmatched by any existing infantry fighting vehicle," said Steve Schultz, vice president, Ground Combat Vehicle Program for General Dynamics Land Systems.

"Our approach capitalizes on the proven ability and competencies of each team member to meet the requirements for an integrated next-generation fighting system," Schultz said. "We are offering a balanced and



affordable solution that meets the requirements of the U.S. Army."

General Dynamics assembled a best-in-class team with unmatched experience and industry leading program management, systems engineering and technical expertise which resulted in an affordable and operationally effective solution. Together, this team provides a storied legacy of performance on contemporary ground combat vehicles.

"Our solution will provide a nine-Soldier squad an affordable protected mobile environment, mounted and dismounted connectivity, and superior lethality while providing the Army with the growth potential necessary to adapt the GCV IFV platform to the varied and evolving conditions of combat," Schultz said.

The purpose of the 24-month GCV TD phase is to complete the preliminary design of the GCV and to reduce the risk of performance of the Engineering and Manufacturing Development phase of the program. Deliverables for this contract include the Rocket Propelled Grenade (RPG) Protection Subsystem Prototype, the Mine Blast Subsystem Prototype Test Article, technical documentation and associated data.

With more than 70 years of ground combat vehicle design, development, integration and sustainment experience, General Dynamics Land Systems leads the team as the prime contractor and has overall responsibility for program management, vehicle design and integration. General Dynamics also is responsible for vehicle structure and chassis, squad and crew environments and integrated survivability and safety.

Lockheed Martin has responsibility for the turret, lethal and non-lethal effects and embedded training. The company offers over 50 years of experience in systems integration and is a world leader in design and development of missiles and fire control systems.

Raytheon is responsible for the RPG protection system, indirect-vision and sensor integration. The company brings more than 40 years of combat sensor and systems integration experience in providing advanced situational awareness, target engagement and force protection capabilities for a variety of ground combat vehicles.

Tognum America has responsibility for the power pack, which comprises the engine, transmission and generator. Tognum is the premier provider of high-capacity diesel propulsion systems based on MTU engines. The company has over 100 years of proven integration experience in combat systems worldwide.

General Dynamics C4 Systems leads the network and communications integrated product team and has responsibility for network integration, communications, computing and information assurance. The company brings over 50 years of experience in the development of the some of the world's most advanced command, control, communications and computing systems and information assurance.

Work is being done at General Dynamics Land Systems sites in Sterling Heights, Mich., and Lima, Ohio; Lockheed Martin in Grand Prairie, Texas;

Raytheon in McKinney and Plano, Texas; General Dynamics C4 Systems in Scottsdale, Ariz., Taunton, Mass., and Fort Wayne, Ind.; and Tognum America in Detroit, Mich., Aiken, S.C., and Friedrichshafen, Germany.



## Robots

### iRobot receives \$21 million order from the U.S. Navy



BEDFORD, Mass. -- iRobot Corp., a leader in delivering robotic technology-based solutions, has received a \$21 million order from the Naval Sea Systems Command (NAVSEA).

This is the fourth order under a \$230 million Indefinite Delivery/Indefinite Quantity (IDIQ) contract, bringing total orders under this contract to \$36 million. The latest order calls for delivery of more than 100 Man Transportable Robotic System (MTRS) MK 1 MOD 1 robots and spares kits.

MTRS MK 1 MOD 1 is modeled after the iRobot 510 PackBot. These combat-proven robots perform bomb disposal and other dangerous missions while keeping warfighters out of harm's way.

"Improvised explosive devices (IEDs) remain one of the biggest threats to our forces overseas," said Robert Moses, president of iRobot's Government and Industrial Robots division. "iRobot's unmanned ground vehicles save lives every day by providing our troops with the ability to identify and dispose of IEDs from a safe standoff distance. We are pleased that the Navy is continuing its investment in this technology."

iRobot has delivered more than 4,000 unmanned ground vehicles to military and civil defense forces worldwide.



## Defence Industry

### Force Protection Submits Bid for Australia's REDFIN Special Ops Vehicle Project

LADSON, S.C. -- Force Protection Australasia Pty Ltd (FPA), a FORCE PROTECTION, INC. group company announced august 24 it has submitted a bid to the Australian Defence Materiel Organisation for the manufacture of Special Operations Vehicles - Commando for the Australian Defence Force.

The tender for Project JP 2097 Phase 1B (also known

as Project REDFIN) is based on a variant of the company's Ocelot vehicle, which is already being evaluated as part of the Australian Government's Land 121 Phase 4 Protected Mobility Vehicle – Light (PMV-L) program.



Force Protection Australasia Managing Director, Dave Miller, says the Commando variant continues the Ocelot's core design concept whereby the crew and passengers sit inside a protective pod made of advanced composite materials while beneath them critical components such as the engine, fuel tank and transmission are contained in a V-shaped armoured spine that deflects a blast away from the vehicle.

"We're very confident our team has produced the most highly protected and agile vehicle of its size and weight available on today's market. One of the most attractive aspects of the vehicle, on top of its survivability levels which protect the crew and mission systems, is its unique modular construction which means that pods can easily be changed in theatre to suit the requirements of each mission," Mr. Miller said.

The vehicle has already proven its worth when Force Protection was recently contracted by the UK's Ministry of Defence (MoD) to supply its Ocelot for the MoD's urgent operational requirement for the Light Protected Patrol Vehicle program (LPPV).

The first of these vehicles, known as the Foxhound in the UK, is now in production and will be in service by mid-2012. Force Protection vehicles already represent some 46 per cent of the UK Army's Protected Patrol Vehicle fleet.

Force Protection Australasia is one of three companies selected for consideration to undertake the next phase of the Land 121 Phase 4 Manufactured and Supported in Australia (MSA) program, with the contract for the future production of up to 1300 vehicles valued at more than \$A1 billion by the Australian Government.

The survivability and reliability of Force Protection's range of vehicles globally is demonstrated by the fact they have survived in excess of 4,000 IED and land blasts, and that the majority of its vehicles in service since 2004 remain operational.



The vehicle, which was jointly developed by the IDF, the American Chrysler corporation and the Nazareth vehicle industrial plant, will in the next two years replace the Sufa 1 and Sufa 2 all-terrain vehicles currently used by the IDF.



According to the IDF's procurement plan, 500 of the new jeeps will be acquired.

At a ceremony at the Nazareth plant on Tuesday (August 23), the first jeep was delivered to the head of the Ground Forces Technological Brigade, Brig. Gen. Haim Rubin, who received the keys to the sparkling new vehicle.

The Sufa 2 is one of the vehicles most commonly seen during training drills and exercises. Since the Sufa 2 was integrated into the IDF in 2005, the vehicle has displayed great capabilities to move through difficult terrain conditions. However, the IDF strived to continue for perfection and in 2008 began the Sufa 3 project.

Chrysler sent three prototypes and they were subjected to a long series of tests by the IDF. Over the past two years, the vehicles were driven tens of thousands of kilometers and have undergone changes to meet the IDF's operational needs. For example, a special snorkel has been attached to the vehicle to absorb air and allow the vehicle to move through sandy ground and water obstacles.

"This is a completely different vehicle from the Sufa 2," said Lt. Col. Nissim Einat, the IDF's head of tactical vehicles. "The Sufa 3 is much more comfortable for the user. Inside, it is very similar to a private vehicle. There is an integrated and reliable radio system - much more reliable than the Sufa 2. There are much fewer glitches and problems. Also, it is an automatic vehicle that is driven by a diesel engine."

Additional features that the IDF requested be put in the Sufa 3 include: quality air conditioning, special tires, a communication system, a strong night lighting system and front and rear towing hooks that will give the vehicle the ability to be rescued if stuck, which could prove critical in emergency situations.

The Sufa 3 will start to become part of the military landscape this month.

The Sufa 3 "is an excellent tool that meets the IDF's needs, particularly the ground forces," Brig. Gen. Rubin said.



## Army

### IDF will acquire 500 Sufa 3 jeeps over next two years

156 horsepower, diesel engine, room for five passengers, a load capacity of 1,053 kilograms, and speed up to 130 kilometers per hour - meet the Sufa 3 jeep, the IDF's new all-terrain vehicle.

## Contracts

### General Dynamics Awarded \$49 Million Contract for Field Service Support



LONDON, Ontario, Canada -- The U.S. Army TACOM Life Cycle Management Command has awarded a USD\$49.2 million contract to General Dynamics Land Systems-Canada for training and field service support for Light Armored Vehicles (LAV) previously supplied under a Foreign Military Sale (FMS) contract.

General Dynamics Land Systems, the Canadian company's parent corporation, is a business unit of General Dynamics.

Support activities under this contract include the provision of field support teams to conduct operator and maintenance training, technical support and fleet status monitoring. The period of performance is for five years and will be completed by July 2016.

The contract was awarded through the Canadian Commercial Corporation, a Crown Agency of the Canadian Government.

### Defence Industry

#### Supacat Team Australia submits bid for JP2097 Ph 1B (REDFIN) to DMO - offering proven HMT capability and fleet commonality



Canberra, ACT -- Supacat Team Australia submitted its bid today to the Australian Defence Material Office (DMO) for the JP2097 Ph 1B (REDFIN) programme, offering the proven Special Forces HMT Extenda vehicle at the very latest configuration to meet the requirement.

The Supacat HMT series is world renowned as the vehicle of choice for Special Forces, including Australia. The REDFIN 1B vehicle shares commonality with the Nary HMT fleet, which Supacat successfully delivered to the DMO in October 2009. Supacat is a proven supplier to the DMO and to the UK Ministry of Defence for whom it has delivered over 500 HMT vehicles, Jackal and Coyote, into service in Afghanistan.

Supacat has selected and signed MOUs with proven Australian suppliers to form Supacat Team Australia. The team will build and deliver REDFIN Ph 1B efficiently and on a best value basis for the Commonwealth of Australia whilst creating and sustaining high value Australian jobs. Supacat's Global Support Solution is already supporting in-service vehicles in Australia and will be expanded to support the REDFIN Ph 1B fleet.

Designed for use by Special Forces, the HMT Extenda is unique in being convertible to either a 4x4 or 6x6

configuration to meet different operational requirements by inserting or removing a self-contained third axle unit. Like other HMT series platforms, the HMT Extenda can be supplied with optional mine blast and ballistic protection kits and with a variety of mission hampers, weapons, communications, ISTAR and force protection equipment to suit a wide range of operational roles. Supacat's 1B solution offers capability improvements in the key areas of firepower, protection, capacity, operability and safety based upon direct feedback from the worldwide operational use of existing HMT fleets. There are also a number of options offered that the Commonwealth may wish to choose from.

Nick Ames, Managing Director of Supacat said, "The HMT Extenda is a proven off the shelf capability and the best in class to meet the REDFIN requirement while offering the cost benefits of fleet commonality within Australian forces. Supacat has proven itself as a supplier to DMO and is fully committed to partnering with Australian industry to transfer capability and give local companies entry into global supply chains".

### Contracts

#### U.S. Army Selects Northrop Grumman for Force Protection Contract

HUNTSVILLE, Ala. -- Northrop Grumman Corporation has received an indefinite delivery, indefinite quantity (ID/IQ) award from the U.S. Army to provide force protection systems and components in theater and the continental United States.

Northrop Grumman is one of 19 companies awarded this ID/IQ contract under the direction of the Army Product Manager, Force Protection Systems, Fort Belvoir, Va. The companies will compete for task orders under the contract, which has a potential value of \$997 million collectively over a three-year base and two-year option, making the potential period of performance five years.

"We look forward to continuing to demonstrate the value of our scalable systems approach to deliver more flexible, integrated and affordable force protection solutions to the Army," said Mike Twyman, vice president of integrated command, control, communications and intelligence systems for Northrop Grumman Information Systems. "We will draw upon our extensive experience integrating complex, open-architecture systems to provide early detection and assessment of threats, thus enabling rapid decision-making and response."

The scope of this contract includes the design, development, production, integration, test, and installation of components and systems for early warning and protection of forces and critical assets. The contract also covers technology insertion and training for the systems.

Since 1996, Northrop Grumman has developed and deployed more than 100 force protection systems at

installations in more than 18 countries. Northrop Grumman is the prime contractor for crucial force protection programs including Counter-Rocket, Artillery and Mortar, and Integrated Base Defense Security System.

### Training And Simulators

## Cubic Receives U.S. Army Production Order for Tactical Vehicle Training System



SAN DIEGO, California -- Cubic Defense Applications, the defense systems business of Cubic Corporation, announced today that it has received the first production order for its Tactical Vehicle System (TVS), used in combat training scenarios.

The \$13 million task order was issued by the U.S. Army's Program Executive Office for Simulation, Training and Instrumentation (PEO STRI) under an indefinite delivery/indefinite quantity (ID/IQ) contract awarded last year.

TVS uses laser sensors mounted at strategic spots on vehicles, a control module, and other electronics to provide instant feedback to vehicle crews when laser simulated weapons score "hits" during training.

The task order, signed at the end of July, represents the start of full production. It covers kits that Cubic will begin delivering in 2012 for use at multiple U.S. Army installations around the world. Including the task order, Cubic has been awarded almost \$18 million thus far under the ID/IQ contract, which has a potential value of more than \$100 million over four option years.

"This important contract positions Cubic to expand delivery of the TVS system to the U. S. Army and many international customers over the next several years," said Bradley H. Feldmann, President of Cubic Defense Applications.

delivered the Oshkosh Tactical Armoured Patrol Vehicle (TAPV) to Aberdeen Test Center in Maryland where the Canadian Department of National Defence (DND) will conduct mobility, survivability and weapons testing.

Oshkosh Defense's response to the TAPV solicitation was submitted to the Public Works and Government Services Canada (PWGSC) last week.

"Today, Oshkosh has delivered the best solution for the TAPV program including the most advanced military vehicle technologies and the finest Canadian-based sustainment services for the DND," said Serge Buchakjian, senior vice president and general manager of International Programs for Oshkosh Defense. "Our TAPV is a fully integrated vehicle that is customized to the Canadian Force's specific requirements, offering them the best-value solution. With our partners at General Dynamics Land Systems-Canada and Oshkosh Corporation's London Machinery, Inc., we can produce the vehicle in a way that creates considerable benefits for the Canadian economy for the next 25 years."

The TAPV is intended to replace the Armoured Patrol Vehicle (APV) and the Coyote reconnaissance vehicle, to help ensure the Canadian Army remains capable of effective training, supporting domestic operations and sustaining deployed forces as part of the Canada First Defence Strategy. The Oshkosh TAPV, which is based on the company's proven Mine-Resistant Ambush Protected All-Terrain Vehicle (M-ATV) platform, leverages a mission-proven chassis and the patented TAK-4® independent suspension system used on more than 20,000 military-class vehicles, which have proven highly-effective in some of the most extreme operating environments, including Afghanistan.

In independent testing conducted to date, the Oshkosh TAPV has undergone on- and off-road durability validation, successfully met ballistic and other survivability threat requirements (including the use of steel-pot method for NATO STANAG blast tests), and completed extensive live-fire demonstrations of the fully integrated dual Remote Weapon Station (RWS). The combination of these activities demonstrates the effectiveness, maturity and reliability of the Oshkosh TAPV.

Oshkosh Defense is teamed with General Dynamics Land Systems-Canada and Oshkosh Corporation subsidiary London Machinery, Inc. (LMI) in its bid for the TAPV program. General Dynamics Land Systems-Canada will provide in-country support and system integration. LMI will contribute local advanced manufacturing capabilities to assemble the vehicle, conduct subsystem integration and final acceptance testing, which will be performed by its highly skilled workforce.

### Defence Industry

## Oshkosh Defense Delivers Canadian TAPV for Government Testing



OSHKOSH, Wis. & OTTAWA, Ontario -- Oshkosh Defense, a division of Oshkosh Corporation, today

### Defence Industry

## General Dynamics Proposes PIRANHA 5 for the Close Combat Vehicle Program

LONDON, Ontario, Canada -- General Dynamics Land Systems-Canada announced today that it will offer the PIRANHA 5 vehicle fitted with Rheinmetall's LANCE 30mm Modular Turret System for the Government of Canada's Close Combat Vehicle (CCV) Program.



The goal of the CCV program is to deliver a well-protected armoured vehicle with very high tactical mobility, able to deliver an infantry section in close combat, while operating in intimate support of main battle tanks. In response, General Dynamics Land Systems-Canada is leading an all-Canadian team that leverages the best of the Canadian defence industry to deliver and support a vehicle that will meet those stringent requirements.

The PIRANHA 5 CCV is the latest evolution of the proven PIRANHA family of wheeled combat vehicles, incorporating the newest lethality, mobility, protection and communications technologies. It provides the best of both worlds, combining track-like performance with the strategic mobility of a wheeled platform. Advanced suspension technology allows the PIRANHA 5 CCV to go anywhere a medium-weight tracked vehicle can go with significantly lower fuel, maintenance and lifecycle costs.

Danny Deep, vice president of General Dynamics Land Systems-Canada, stated, "With the PIRANHA 5 CCV, Canadian soldiers will control the battlefield and fight, manoeuvre and communicate with agility and precise lethality. And they will do it in a vehicle that achieves the deployability and lifecycle cost benefits enjoyed by the rest of Canada's wheeled combat vehicle fleet."

Deep further stated, "With 35 years of experience in delivering and supporting vehicles that meet or exceed the requirements of the Canadian Army, General Dynamics Land Systems-Canada is committed to delivering to the Canadian soldier the best tools for the job and the best protection that we can give them. We know that our vehicles carry the soldiers we depend on to fight for the freedoms we cherish."

General Dynamics Land Systems-Canada has assembled a powerful Canadian team for this program. General Dynamics Land Systems-Canada will be the prime contractor for the CCV program and will manufacture and assemble the PIRANHA 5 chassis at its facility in London, Ontario. Rheinmetall's LANCE 30mm turret technology will be transferred to its Rheinmetall Canada facility in Saint-Jean-sur Richelieu, Quebec, for full turret production. Armatec Survivability

Canada of Dorchester, Ontario, will augment the PIRANHA 5's inherent protection with a survivability suite of advanced composite materials and the latest technology in energy-absorbing troop and crew seating, all designed and tested to meet rigorous blast, IED and kinetic-energy threats. The remainder of the team will be drawn from a supplier base of over 400 Canadian companies. This combined production effort offers a world-class vehicle built in Canada, by Canadians, to protect Canadians.

