

# Army Guide monthly



## # 8 (35) August 2007

- Prowler Light Tactical Wheeled Vehicle (LTATV) Now Available On Gsa Schedule
- General Dynamics Awarded CAD\$49 M Contract to Supply LAV III Infantry Section Carriers to Canadian Forces
- Thailand to Procure Ukrainian-made Armoured Personnel Carriers
- Patria AM Chosen As the Preferred Vehicle in Croatia
- Elbit Systems Awarded 3 Contracts Valued at \$163 M for Integrated Land Systems
- Integran Technologies USA Awarded Contract by US Air Force
- General Dynamics Awarded \$606 M in Defense Contracts
- FLIR Systems Announces \$22.9 M Order From U.S. Army First Delivery Order Under New \$77.9 Million IDIQ Contract
- The First Set of Durability AGT 1500 Turbine Engines Completed
- Oshkosh Truck Subsidiary, Pierce Manufacturing, Awarded Contract to Build Water Tenders for U.S. Army
- FRES: the VBCI selected for the Trials of Truth
- GVT® - Virtual Reality & Training Intelligence
- BAE Systems Unveils Hybrid Electric Drive System For Future Combat Systems
- Army Unveils First Hybrid-Electric Propulsion System for New Combat Vehicles
- Rafael Releases M-TAPS – New Add-On Armor for Combat Vehicles
- Napalm
- Patria wins Croatia armour tender
- General Dynamics Awarded \$56 Million for Fox NBCRS Upgrades
- Thales and Rosoboronexport sign contract for supply of Catherine FC cameras for Russian Army

**Contracts****Prowler Light Tactical Wheeled Vehicle (LTATV) Now Available On Gsa Schedule**

The All Terrain Vehicle Corporation division of Phoenix International Systems, Inc., announced that its Prowler LTATV is now available for purchase on the US General Services Administration schedule (FSS78) Contract No. GS03FOO56T.

The Prowler is a vehicle purpose-built for the military with a peerless record for endurance, reliability and operator safety. While similar in size and appearance to a generic ATV, it is completely different in operation, structural design and performance.

According to Phoenix International's CEO, Amos Deacon, "Prowlers are more rugged, reliable and stable than any other ATV type product available - including those that have been modified for military use."

"Since its introduction in 2002, the Prowler has been deployed around the world by military forces in a wide range of assault, ISR, SAR and other 'special mission' configurations.

a Remote Weapon Station on to the converted chassis. The LAV III chassis were originally manufactured under a previous contract for LAV III TOW Under Armour (TUA) vehicles. Rheinmetall Canada of Saint-Jean-sur-Richelieu, Quebec, will supply the Remote Weapon Station, which will feature a universal gun cradle capable of mounting 5.56, 7.62 and 12.7 mm armaments and a cooled thermal sight system.

Dr. Sridhar Sridharan, senior vice-president of General Dynamics Land Systems-Canada, said, "As Canada's leading armoured vehicle manufacturer, our workforce is committed and proud to support the Canadian Forces. The modification of these LAV III vehicles will provide the army with additional capability as they conduct their challenging overseas missions."

**Defence Industry****Thailand to Procure Ukrainian-made Armoured Personnel Carriers**

Thailand's army is going to order 96 armoured personnel carriers at a cost of four billion baht from Ukraine.

This was announced by Sonthi Boonyaratkalin, Thailand's army commander-in-chief and chairman of the Council for National Security.

Some vehicles would be stationed at the Second Infantry Division in Saraburi province and the rest would be deployed in the deep South.

Gen Sonthi said the choice was carefully considered. The Ukrainian model is within the army budget and spare parts are still being made in Ukraine. The Defence Ministry would seal the procurement as a government-to-government deal.

Defence Minister Boonrawd Somtas said last week that the army favoured the BTR-3E1 armoured vehicle, because it was the cheapest of the nine bidders. Gen Boonrawd said Canada, Russia and China had lobbied hard for the sale, but price was the deciding factor.

"The Canadian vehicles are excellent, but we would get only half of the 96 vehicles we will get from Ukraine. It's like buying Japanese cars over European cars," he said.

Source: Bangkokpost

**Contracts****General Dynamics Awarded CAD\$49 M Contract to Supply LAV III Infantry Section Carriers to Canadian Forces**

London, Ontario -- The Canadian Department of National Defence has awarded a CAD\$49.2 million (approximately USD\$46.3 million) contract to General Dynamics Land Systems-Canada to provide 33 LAV III Infantry Section Carriers.

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

Under this contract, General Dynamics Land Systems-Canada will modify 33 existing LAV III chassis to an infantry section carrier configuration and integrate

## Defence Industry

### Patria AM Chosen As the Preferred Vehicle in Croatia



Patria has today received an official confirmation that the Croatian Government has on 2 August, 2007 approved the State Committee's proposal for selection of Patria AMV 8x8 as the preferred vehicle for the Croatian armoured vehicle program.

Final contract negotiations start immediately and are expected to be concluded by the end of 2007.

The current scope of the deal covers 84 wheeled armoured personnel carriers. The vehicles will be manufactured in Finland and in Croatia together with the local co-operation partner Djuro Djakovic Special Vehicles.

"We are extremely contented that the best system was chosen. The decision was based on the excellent field test results in Croatia and other countries together with our competitive offer. By choosing Patria AMV Croatian customer will get the technologically most advanced product that is already in serial production and with over 200 delivered up to date. In the longer term co-operation with Patria will offer new working opportunities for the local partners and other Croatian industry", states Mr Jorma Wiitakorpi, President and CEO of Patria.

## Defence Industry

### Elbit Systems Awarded 3 Contracts Valued at \$163 M for Integrated Land Systems

Haifa, Israel -- Elbit Systems Ltd. announced it has been awarded three contracts valued at a total amount of \$163 million for the supply of tank and artillery systems upgrades for customers in three Asian countries.

The projects include upgrading of Fire Control and Command & Control systems for tanks and artillery systems. The various programs covered by the contracts are scheduled to be performed through 2009.

Joseph Ackerman, President and CEO of Elbit Systems, said "Recent land systems orders announced by the company, including the sale of turrets to Romania and Slovenia, positions Elbit Systems as one of the leading companies in the field of land systems. Our strong technological infrastructure and know-how, accumulated experience and the synergy of the wide range of activities performed by the companies and divisions of the Elbit Systems Group enables us to

provide our customers with unique solutions delivering significant added value which distinguishes us from the competition. I believe the new orders will serve as a springboard for additional orders from these customers and other customers worldwide".

## Future Technologies

### Integran Technologies USA Awarded Contract by US Air Force

Pittsburgh, PA -- Integran Technologies USA Inc. a leading developer of metallurgical nano-technologies announced today that it has been awarded a \$699,000 Phase II SBIR contract by the US Air Force (Robins AFB, Georgia) for the further development and optimization of medium caliber gun barrel bore coatings.

This Phase II contract follows on a successful Phase I program in which Integran demonstrated the feasibility and benefits of applying a nanocrystalline cobalt-based coating as an alternative to hard chromium coatings.

"The further development and optimization of the cobalt-based nano-composite coating is expected to yield extended service life and reduced repair & overhaul costs for medium caliber barrels, as well as eliminate the use of toxic hexavalent chromium in Air Force depots" said Dr. Virgil Provenzano, a Senior Scientist with Integran.

The US Air Force SBIR Program (Small Business Innovation Research) provides early-stage research & development funding directly to small US-based technology companies.

Source: Integran Technologies USA Inc.

## Contracts

### General Dynamics Awarded \$606 M in Defense Contracts

Falls Church, Va. -- The U.S. Department of Defense yesterday announced more than \$606 million in recent contract awards to business units of General Dynamics.

The announcements included:

Three awards valued at \$428.9 million to General Dynamics Land Systems of Sterling Heights, Mich., for system enhancement package (SEP) work on Abrams M1A2 Tanks. Work will be performed in Sterling Heights; Lima, Ohio; Tallahassee, Fla.; Anniston, Ala.; and Scranton, Pa. Work is expected to be completed by July 31, 2010.

Two awards valued at \$163.4 million award to General Dynamics Land Systems for Stryker vehicle hull-protection kits and materiel for Stryker Mobile Gun System (MGS) and Nuclear, Biological, and Chemical Reconnaissance Vehicle (NBCRV) variants. Work will be performed in Sterling Heights; Auburn, Wash.; London, Ontario, Canada; Germany, Iraq and Kuwait. Work is expected to be completed by Feb. 29, 2008.

A \$12.6 million award to General Dynamics Armament and Technical Products, Charlotte, N.C., for production of Joint Service Lightweight Standoff Chemical Agent Detectors. Work will be performed in Charlotte, N.C., and is expected to be completed by April 30, 2009.



**Contracts**

**FLIR Systems Announces \$22.9 M Order From U.S. Army First Delivery Order Under New \$77.9 Million IDIQ Contract**

Portland, OR. -- FLIR Systems, Inc. (NASDAQ: FLIR) announced today that it has been awarded a \$22.9 million order from the U.S. Army Space and Missile Defense Command in Huntsville, Alabama for its Star SAFIRE(R) III stabilized multi sensor systems.

This represents the first delivery order under a newly awarded \$77.9 million indefinite delivery, indefinite quantity contract. The units delivered under this contract will support ongoing U.S. Army and U.S. Marine Corps programs. Work on the delivery order will begin immediately and be performed in FLIR's Portland, Oregon production facility.

"This contract, a continuation of FLIR's relationship with the Army RAID Program Office and the U.S. Marine Corps, demonstrates the value of our systems for force protection applications. We are pleased the U.S. Army has once again chosen FLIR products for this critical mission," said Earl R. Lewis, President and CEO of FLIR Systems, Inc.



**Defence Industry**

**The First Set of Durability AGT 1500 Turbine Engines Completed**

Anniston Army Depot completed the first set of durability AGT 1500 turbine engines as part of the Army's Total Integrated Engine Revitalization, or TIGER, program.

The four engines, along with four upgraded transmissions, were sent in July for testing at Yuma Proving Ground, Ariz., where the powerpack was mated and tested in the M1 Abrams tank.

The U.S. Army expects the TIGER program to improve and extend the life of the AGT1500 turbine engine used to power the Abrams family of vehicles.

Under a long-term agreement, the Program Manager Heavy Brigade Combat Team, TACOM LCMC, ANAD and Honeywell want to give the Soldier a more durable tank while reducing the cost of operating it.

Honeywell, which occupies building space at the depot under facility use agreements for various partnering programs, provides engineering support and

integrated supply chain management for the TIGER program, as well as durability design improvements, material management and data collection.

The four X1100 transmissions that went to Yuma with the engines were upgraded from their regular 13,000-mile capability to one that will run for 19,000 miles, said Trent Stewart, production controller. He said all four transmissions passed testing.



**Contracts**

**Oshkosh Truck Subsidiary, Pierce Manufacturing, Awarded Contract to Build Water Tenders for U.S. Army**



OSHKOSH, Wis. -- Oshkosh Truck Corporation announced that its subsidiary Pierce Manufacturing Inc. has been awarded a five-year, Firm Fixed Price contract by the U.S. Army Tank-Automotive and Armaments Command (TACOM) for the production of 10 Oshkosh(R) Heavy Expanded Mobility Tactical Truck (HEMTT) platform-based Water Tender (HEWATT) vehicles, worth \$4.5 million.

The initial order could lead to a total of 119 vehicles under this new contract, with an estimated total value of \$56 million. The vehicles are scheduled for delivery beginning in June 2008.

The five-year contract was awarded after four HEWATT vehicles were delivered to and evaluated by TACOM at the U.S. Army Yuma Proving Ground earlier this year. The HEWATT is designed as a multi-purpose water distributor, capable of providing structural and airfield crash/rescue support alongside the Pierce(R) Tactical Fire Fighting Truck (TFFT).

The HEWATT can operate under extreme conditions and in a broad range of terrain, ranging from secondary roads to cross-country. The HEWATT water tender is built to support the TFFT while providing supplementary fire suppression capabilities.

"Earlier this year TACOM put four of our water tenders to the test. This contract is a direct result of the HEWATT's performance and reliability in those tests," said Wilson Jones, president of Pierce Manufacturing. "This is among the largest U.S. Army contracts received by Pierce, and we look forward to fulfilling TACOM's need for powerful and reliable water tenders used to help protect our soldiers."

Each HEWATT is each equipped with a 2,500 gallon integrated water tank, 500 gpm single-stage pump, 50 gallon foam cell, 250 gpm front bumper mounted turret/monitor, Detroit Diesel 8V92TA electronic engine,

two-person seating, an 8 x 8 axle configuration, Oshkosh two-speed transfer case and LED lighting.



### Defence Industry

#### FRES: the VBCI selected for the Trials of Truth



VBCI (Infantry Combat Vehicle) has been selected by the British Ministry of Defence to take part in the "Trials of Truth" for the FRES (Future Rapid Effect System) programme. The FRES programme is intended to provide British Armed Forces with a new medium armoured vehicle.

The VBCI has already been ordered by the French Authorities, to equip French Army infantry regiments. The contract is for a total of 700 vehicles. Two versions will be supplied: infantry combat and command post. Series production is already under way, for initial vehicle deliveries in 2008.

The VBCI is designed to counter the new types of threat being met by armed forces. Its level of protection easily outclasses that of all the currently existing 8x8 vehicles, while retaining an upgrade margin and capability. Its remarkable tactical mobility (achieved by Renault Trucks Defense) is based on excellent obstacle clearance, acceleration and handling capabilities. The VBCI has a range of 470 miles and a top speed of more than 60 mph, and this performance, together with its airtransportability, make the vehicle extremely mobile strategically. The VBCI is equipped with air conditioning and NBC protection, and its interior volume exceeds 13 mBi. It can therefore be produced in various versions or variants, to meet the specific armed forces' requirements.



### Training And Simulators

#### GVT® - Virtual Reality & Training Intelligence

Nexter Systems is presenting its GVT® training tool at Paris Air Show on 19th June. This new package provides manufacturers with the experience of a leading land defense supplier, that combines a high technological level with the extreme stringency required by the nature of the systems that it designs, integrates and helps to operate and maintain in operational condition.

GVT® is an integrated package that provides training in the operation, maintenance and diagnostic of complex and/or sophisticated systems. It provides industry (automotive, aerospace, defense, power, rail,

shipbuilding, nuclear, transport, and all types of high-tech environments) with the expertise of Nexter Systems, a leading company in the field of land-based defense technologies.

Nexter R&D has made considerable progress in the field of virtual reality and simulation training systems. This is a direct result of our partnership with leading universities, and also of training programs developed, notably, to maintain the Leclerc MBT in operational condition. We are now able to offer these concepts to all companies using sophisticated or high-tech systems.

GVT® is a new product that is original, flexible, upgradeable and high performance, addressing a rapidly expanding market. It's a tool that provides high added value, and that facilitates the acquisition of both knowledge and expertise in three strategic fields: basic training, operation and maintenance training, and fault identification and diagnostic training. GVT® both enhances the effectiveness of the training and also reduces its cost.



### Future Technologies

#### BAE Systems Unveils Hybrid Electric Drive System For Future Combat Systems

SANTA CLARA, California -- BAE Systems demonstrated the first hybrid electric drive system for ground combat vehicles as part of the U.S. Army's Future Combat Systems (FCS) program. Creation of the hybrid electric drive system, led by BAE Systems, is a joint development with General Dynamics Land Systems in partnership with the Army and the FCS Lead Systems Integrator team of Boeing and Science Applications International Corp.

The FCS Manned Ground Vehicles (MGV) family of eight vehicles is the first ever planned operational Army suite of ground combat vehicles to use hybrid electric technology. The first use of the hybrid electric drive technology will be in the Non-Line-of-Sight Cannon (NLOS-C) — the lead FCS ground combat vehicle slated to begin initial production in 2008. The NLOS-C, designed and built by BAE Systems – in partnership with General Dynamics Land Systems -- is a fully automated, 155mm self-propelled howitzer.

FCS is the U.S. Army's principle modernization program, which is made up of a family of manned and unmanned ground and air systems, and sensors connected by a common network.

The test held today in Santa Clara marks a significant milestone in technological maturity of the hybrid electric drive system. Today's test is the first evaluation of the complete MGV hybrid electric system consisting of the engine, generator, generator dissipater controller, traction drive system, energy storage system, and cooling subsystem. The hybrid electric drive is the cornerstone of integrated power management designed to meet the demands of future ground combat vehicles in a networked environment while allowing the tailoring of power and cooling dictated by the mission.

“This is an extraordinary milestone for the FCS Program,” said Hugo Croft, vice president, FCS and Advanced Programs at BAE Systems. “Teamwork and hard work by the best of industry enabled the integration of these hybrid drive components. The result is a hybrid electric drive system with improved fuel economy and a resultant reduction in the Army’s logistics footprint. Its advanced energy storage, electric traction drive, power generation, regenerative braking, and integrated power management technology all serve to provide our warfighter’s increased performance and unprecedented flexibility.”

“The integration of this fuel-saving, hybrid electric propulsion system is another illustration of the benefits of the partnership between the FCS ‘best of industry’ team and the U.S. Army to accelerate the development and delivery of next generation technologies to our nation’s soldiers,” said Dennis Muilenburg, vice president-general manager, Boeing Combat Systems, and FCS program manager. “This system will be common to all FCS Manned Ground Vehicles which will require less fuel than current force vehicles and lower overall maintenance costs, and is further evidence that FCS technologies are on track and our team is ready to move into initial production in 2008.”

Other advantages over currently fielded, conventional combat vehicle power train systems include:

- Greatly increased power for integration of high efficiency electric drives, sensors, and computing systems
- Exportable electric power that reduces logistics burden for towed generators
- Enhanced low speed maneuverability
- Smaller overall vehicle profile for concealment
- Low acoustic signature and quiet ride
- Embedded diagnostics/prognostics permitting maintainers to directly determine the source of faults and advanced planning for unscheduled maintenance.
- Produces high amounts of electrical power - equivalent to the demand of 300 typical American homes and over 10 times that provided by a current force vehicle. There is sufficient electric power to enable the use of future high power technologies.

In addition, the MGV design allows for future improvements by decoupling the power generation unit from the drive train architecture. The existing power generation unit can simply be replaced by a fuel cell, for example, once this technology has matured to further improve fuel consumption, acoustic signature, and mobility performance.

The achievement of this milestone was made possible by the Power & Energy System Integration Lab (P&E SIL) located in Santa Clara where today’s ceremonial test took place. The lab is an \$80 million science and technology initiative administered by the U.S. Army’s Tank Automotive Research, Development and Engineering Center (TARDEC), and managed by Science Applications International Corporation (SAIC) and BAE Systems. Utilized for eight years, the P&E SIL has allowed the Army and industry to jointly solidify the foundation for hybrid electric combat vehicle technology

of the future.

## Future Technologies

### Army Unveils First Hybrid-Electric Propulsion System for New Combat Vehicles

The US Army, which has long been at the forefront of developing hybrid-electric vehicles, is planning to demonstrate the first eight hybrid-electric propulsion system for a new fleet of Manned Ground Vehicles (MGVs) that will equip 15 Future Combat Systems Brigade Combat Teams (FCS BCTs). □

Unlike commercial hybrid vehicles, the military hybrid-electric vehicles are significantly more robust and more powerful. The first hybrid-electric MGCV variant, the Non-Line-of-Sight Cannon (NLOS-C), will commence production in late 2008.

The soldiers will benefit from increased speed and mobility, advanced technologies in addition to enhanced survivability. These new MGVs are using a common chassis.

Major General Charles Cartwright, Program Manager said that the new MGCV hybrid-electric propulsion system was providing state-of-the-art capabilities to their Soldiers sooner rather than later.

The Army, for the first time, will be integrating a functional hybrid-electric drive system, being a part of the propulsion system, that powers the vehicles, into a combat vehicle.

The hybrid-electric power is used by the Army because the more modern FCS BCTs have much greater electrical power requirements than the current-force Heavy BCTs. The requisite electrical power is provided because Hybrid-electric vehicles employ a rechargeable energy storage system, thus putting less reliance on oil, natural gas, and other fossil fuels. Colonel Bryan McVeigh, product manager for MGCV systems integration said that the MGCV drive train was unique and the traditional engine had been de-coupled from the drive train architecture and was designed only to recharge the energy storage system and power the vehicular systems. Further he added that the hybrid drive system alone literally could move the vehicle and that it was a new and better way of moving across the battlefield.

FCS Spin-Out 1 technologies will be tested at Ft. Bliss by the soldiers in the Army Evaluation Task Force (AETF). after completion of evaluation these technologies will become available for fielding to deployed forces.

In Iraq and Afghanistan they already use FCS technologies, including the PacBot Tactical Robot and Micro (Unmanned) Air Vehicle. These technologies of FCS incorporate manned and unmanned air and ground systems and sensors, all connected by a common network and designed specifically to improve soldier situational awareness, survivability and battlefield effectiveness.

**Defence Industry**

**Rafael Releases M-TAPS – New Add-On Armor for Combat Vehicles**

Rafael Armament Development Authority Ltd. announces the release of the M-TAPS – Multi-Threat Armor Protection System – a new generation add-on armor technology for combat vehicles.

The recently developed M-TAPS is the newest generation hybrid (reactive / passive) add-on armor designed to defeat a variety of modern threats in the combat arena. The M-TAPS is a modular system that can be easily fitted onto any wheeled or tracked vehicle or MBT.

The system, when installed on a combat vehicle, is able to defeat Rocket Propelled Grenades (RPG), Improvised Explosive Devices (IED), Explosively Formed Projectiles (EFP), high speed fragments from artillery bombs (simulated by FSPs) and Armor Piercing (AP) projectiles from heavy machine guns.

The M-TAPS technology is an upgrade of Rafael's combat proven, Insensitive Reactive Armor system that has been successfully applied to the US Bradleys, IDF vehicles and a variety of NATO APCs.

The system has been intensively tested at Rafael's facilities and by the IDF and has demonstrated its ability to defeat powerful EFPs and RPGs, as well as other threats.

"We anticipate the successful integration of M-TAPS in the MRAP II and MPV programs as it is the ideal solution against RPGs and EFPs, which make up the majority of threats to troop vehicles in Iraq, Afghanistan and in other current conflicts" says Mr. Nehemia Shachar, Head of the Protection Systems Sector of the Ordnance and Protection Division at Rafael.



**Napalm**



Napalm is any of a number of flammable liquids used in warfare, often jellied gasoline. Napalm is actually the thickener in such liquids, which when mixed with gasoline makes a sticky incendiary gel.

Modern napalm is composed primarily of benzene and polystyrene, and is known as napalm-B.

Napalm was used in flamethrowers and bombs by the U.S. and Allied forces, to increase effectiveness of flammable liquids. The substance is formulated to burn

at a specific rate and adhere to materials. Napalm is mixed with gasoline in various proportions to achieve this. Another useful (and dangerous) effect, primarily involving its use in bombs, was that napalm "rapidly deoxygenates the available air" as well as creating large amounts of carbon monoxide causing suffocation. Napalm bombs were also used in the Vietnam War to clear landing zones for helicopters.

Napalm is usually a mixture of gasoline with suitable thickening agents. The earliest thickeners were soaps, aluminum, and magnesium palmitates and stearates. Depending on the amount of added thickener, the resulting viscosity may range between syrupy liquid and thick rubbery gel. The content of long hydrocarbon chains makes the material highly hydrophobic (resistant to wetting with water), making it more difficult to extinguish. Thickened fuel also rebounds better from surfaces, making it more useful for operations in urban terrain.

There are two types of napalm: oil-based with aluminum soap thickener, and oil-based with polymeric thickener ("napalm-B").

Napalm reaches burning temperatures of approximately 1,200 °C (2,200 °F). Other additives can be added, eg. powdered aluminum or magnesium, or white phosphorus.



**Defence Industry**

**Patria wins Croatia armour tender**



Finnish arms maker Patria said in a statement Monday it had received official confirmation from the Croatian government that the country had selected its Armoured Modular Vehicle (AMV) 8X8 as the preferred vehicle for the Croatian military's armoured vehicle programme.

The deal covers 84 wheeled armoured personnel carriers, to be manufactured in Finland and Croatia with local partner Djuro Djakovic Special Vehicles.

"We are extremely contented that the best system was chosen. The decision was based on the excellent field test results in Croatia and other countries together with our competitive offer," said in a statement Jorma Wiitakorpi, the chief executive of Patria.

**Term of the day**

Croatian news agency Hina had reported already Thursday that Patria had won the tender, thought to be worth about 200 million euros.



**Defence Industry**

**General Dynamics Awarded \$56 Million for Fox NBCRS Upgrades**



STERLING HEIGHTS, Mich. – The U.S. Army Research, Development and Engineering Command has awarded General Dynamics Land Systems, a business unit of General Dynamics, \$56 million to upgrade 14 M93 and four M93A1 Fox Nuclear, Biological and Chemical Reconnaissance Systems to the M93A1P1 configuration.

The M93A1P1 is the most updated configuration of the Fox NBCRS and features a survivability improvement package. This includes slat armor, armor protection against improvised explosive devices and accommodations for the common Remotely Operated Weapon Station.

The Fox is in service in the U.S. Army and U.S. Marine Corps. It detects contamination in its immediate environment through point detection, and at a distance of up to three miles with a stand-off detector.

Work will be performed in Anniston, Ala.; Sterling Heights, Mich.; Lima, Ohio; and Germany, and is expected to be completed by September 2009.



**Defence Industry**

**Thales and Rosoboronexport sign contract for supply of Catherine FC cameras for Russian Army**



This contract constitutes a first for western equipment to qualify for the Russian Army.

Thales has signed a contract with Rosoboronexport for the delivery of around 100 Catherine FC thermal imaging cameras for the Russian Army.

Recently qualified for deployment with the Russian armed forces - a first in Russia for Western equipment - the Catherine FC thermal imaging cameras will be integrated on T-90 armoured vehicles.

This contract further reinforces Thales's position as a partner to Russian industry in the field of defence optronics for land forces - a position achieved after many years of cooperation on export contracts.

It also marks a decisive step forward in Thales's commitment to extend its position in the Russian defence market and to step up cooperation and investment with local industry.



**Defence Industry**

**Force Protection, Inc. Ahead of MRAP Vehicle Production Schedule**



Ladson, S.C. -- Leading armored vehicle manufacturer Force Protection, Inc. announced that it is ahead of its Mine Resistant Ambush Protected (MRAP) production schedule for the month of August.

The company has produced more than 50 Cougar vehicles to support the U.S. Department of Defense MRAP program. The Category II Cougar 6x6 vehicle commitment for August has already been shipped.

"We have not yet closed August and are well ahead of our production objectives," said Force Protection COO Raymond Pollard. "This is indicative of the efficiencies of our proven manufacturing processes that are producing a proven solution which has effectively countered more than 3,000 mine detonations and IED attacks in the past four years."

The Pentagon has awarded Force Protection contracts for more than 1,900 Cougar and Buffalo vehicles to support its Category I, II, and III MRAP program requirements.

"This is also reflective of the fact that our efforts to mobilize industry resources through our partnering agreements are having their intended effects," added Pollard. "We will continue to do everything necessary to meet the needs of our customers and the men and women who depend on these vehicles."

Force Protection's Cougar and Buffalo vehicle series have been deployed in Iraq and Afghanistan since 2003. They have become the gold standard for troop safety, and their proven performance has formed the basis for the MRAP vehicle program. In addition to its own production capacity, Force Protection has created a joint



venture with General Dynamics Land Systems to increase both capacity and deliveries under its MRAP program awards.

■

---

### Defence Industry

## The Finnish Defence Forces has awarded a contract for Environics Oy



The Finnish Defence Forces has awarded Environics Oy the contract for lightweight CBRN Reconnaissance Vehicles after an open international bidding contest.

The contract is for a light CBRN vehicle prototype and production options. The value of the contract if the options are executed will be approximately 15 million euros.

During the project a next generation reconnaissance vehicle, which will be suited for light crossterrain use, will be manufactured. The vehicle will contain a wide selection of measurement and analysis equipment and will have protection for both ballistic and NBC threats. Other countries have also been interested in similar undertakings to replace the older and heavier reconnaissance vehicles so the contract is very significant opening for international markets as well.

■