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- LEOPARD 2 PSO Peace Support Operation
- Force Protection Exceeds June Production Objectives
- Avon Protection's M53 NBC Mask Receives US Government Approval for Entering Volume Production
- Egypt Offers 181 Millions for 200 M109 SP Howitzers
- SOE KMDB Begins to Series-produce Simulators for T-55 Battle Tanks
- General Dynamics Receives a $127 Million Order for Stryker Vehicles
- Alliant Techsystems Strengthens Its Position As a Leader in Development of Precision Projectiles
- BBN Technologies Receives a $5.5M Order for Development of Artificial Intelligence Technology
- New UN Model Transport Regulations to Include Millennium Cell Fuel Cartridges
- General Dynamics Awarded $23M Contract for MK47 'STRIKER40' Weapon Systems
- Metal Storm Signs a US$331,426 Contract to Develop 18mm Stacked Round Firing Systems
- L-3 Is Awarded Contract to Provide Special Mobile Communications Vehicles
- FMV Orders the New-generation Vehicle System
- Main Battle Tank
- TIAX to Develop Skin Cream to Protect Soldiers from Chemical Warfare Agents
- Thermal Imaging Sight (Thermal Imager)
- USA Might Sell JAVELIN Anti-tank Missile Systems to Bahrain
- Autoloader
- Bombproof Vehicles for Troops in Iraq
- Fixed Gun Tank
- Armor Holdings Gets $27M Award for Pinzgauer Protected Patrol Vehicle

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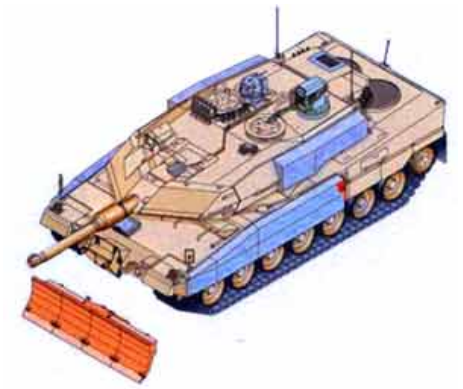
Future Technologies

LEOPARD 2 PSO Peace Support Operation



Krauss-Maffei Wegmann is designing a new version of the LEOPARD 2 MBT for Peace Support Operations (PSO), intended for peacemaking and peacekeeping deployments. The future vehicle is claimed to feature higher military assertiveness, sustainability, mobility, and protection.

It will be a tank that is suitable for use in both built-up and non-built-up terrain. KMW presented the first demo LEOPARD 2 PSO - mainly financed from its own funds - at the 2006 Eurosatory.

The new LEOPARD 2 variant concentrates on those components that allow it to accomplish assignments in urban areas and asymmetric threats. They include highly effective all-round protection, a secondary weapon station that is operable under protection, an option for equipping with non-lethal effective means, a high-performance camera system for close observation, an enhanced reconnaissance ability, search light and a dozer-blade for barricade removal.

The LEOPARD 2 PSO also has additional components making it highly suitable for deployment in urban areas under all climatic conditions. It has a high-performance cooling unit, APU (auxiliary power unit), and modern guiding systems.

Defence Industry

Force Protection Exceeds June Production Objectives

Force Protection, Inc. today announced it has again exceeded vehicle production objectives. The armored vehicle manufacturer produced and delivered 19 Cougar Joint Explosive Ordnance Disposal Rapid Response Vehicles (JERRV) and three Buffalo route clearance vehicles to the U.S. government in June.

"This is an important season for Force Protection," said CEO Gordon McGilton. "Starting in November 2005, we committed substantial time and resources to the expansion of our production capacity and capabilities, and we have met or exceeded production schedules each month since as a result. We look forward to continuing this remarkable upward trend as we address the Iraqi Light Armored Vehicle (ILAV) contract."

Force Protection was awarded a contract by the U.S. Department of Defense in May 2005 for 122 Cougar JERRVs for use by all branches of the armed forces. The contract, administered by the Marine Corps, was slated for completion in June 2006.

"We have done precisely what we committed to do," said Vice President for Marine Corps Programs Wayne Phillips. "The completion of the JERRV contract took place as we told the Marines last year when our ramp-up efforts began. In addition, we are on track for the on-time completion of the current Buffalo contract with the Army, and will apply these same practices to the ILAV program."

Force Protection's Buffalo and Cougar vehicles have been deployed in Iraq and Afghanistan since 2003. Popular with military engineers and explosive ordnance disposal teams, not a single reported fatality has occurred in three years despite more than 1,000 mine detonations and improvised explosive device attacks.

Defence Industry

Avon Protection's M53 NBC Mask Receives US Government Approval for Entering Volume Production

The US government has given a go-ahead signal to volume production of the the M53 NBC mask, which has been developed to counter various threats encountered in modern warfare. It provides high protection against chemical agents, radioactive dust, and biological threats.

The mask has a new faceseal with either a right- or left-handed filter mount to give the best possible sighting position for shoulder-placed weapons. A new

polyurethane flexible visor considerably increases the field of view and minimises eye-strain. The harness and buckles provide comfortable integration with combat helmets and communication headsets. The M53 is offered with an integrated, lightweight NBC hood, available in all four sizes and using the latest materials, providing full head and neck protection. The hood can be easily and efficiently attached to the mask and stored in the carrier. A new voice projection unit offers enhanced speech performance.

Contracts

Egypt Offers 181 Millions for 200 M109 SP Howitzers

The US Congress is considering a possibility of selling 200 repaired M109A5 Paladin self-propelled howitzers with 155 mm gun, as well as accompanying equipment and services, to Egypt. The total amount of the deal is said to be USD181,000,000.

The Egyptian government requested the US Armed Forces to sell 200 M109A5 Paladin self-propelled howitzers with 155 m gun, communications equipment, spare parts, auxiliary and test equipment, technical documentation, training equipment, and logistic support. This is to be acquired in oder to enhance the combat capabilities of the Egyptian Army.

BAE Systems Land and Armaments is supposed to be the main contractor for repairing the howitzers.

Defence Industry

SOE KMDB Begins to Series-produce Simulators for T-55 Battle Tanks

Kharkiv, Ukraine. The State-owned Enterprise Kharkiv Morozov Machine Building Design Bureau (SOE KMDB) has begun to series-produce computer-based simulators for T-55 battle tanks.

The SOE KMDB has a multi-year experience in designing, developing and manufacturing various simulators for armoured vehicles. The specific feature of the computer-based simulators developed by the SOE KMDB is their modular design.

The simulators can be used both for training the whole crew and for training the driver, commander, and gunner separately. At the customer's request, the simulators can either be installed on the universal motion platform or supplied in a static version.

Use of the simulators enables the customers to solve several main problems:

- to save operational materials, ammunition, and service life of the vehicles due to computer-based training;
- to increase the quality of training;
- to carry out training of the personnel in the environments that do not allow using real vehicles, e.g. urban areas and NBC environment.

The open architecture makes it possible to unite several simulators into one network and to create combined tactical training systems.

The simulators for T-55 battle tanks that are now series-produced by SOE KMDB will be supplied to a foreign customer. The export contract envisages supply of not only the simulators themselves, but also a set of accompanying services including installation and adjustment in the country of the customer, guarantee and after-guarantee service, and training of the customer's service personnel.

Contracts

General Dynamics Receives a $127 Million Order for Stryker Vehicles

The U.S. Army has placed a $127 million order for 103 additional Stryker wheeled combat vehicles from General Dynamics Land Systems, a business unit of General Dynamics.

Additionally, the U.S. Army awarded General Dynamics a $9.5 million contract modification to procure additional parts for Stryker vehicle battle damage repair.

Stryker, a family of eight-wheel-drive combat vehicles that can travel at speeds up to 62 mph on highways with a range of 312 miles, is the Army's highest-priority production combat vehicle program and the centerpiece of the ongoing Army Transformation. Stryker operates with the latest C4ISR equipment and an integrated armor package protecting soldiers against improvised explosive devices, rocket propelled grenades, and a variety of infantry weapons.

The U.S. Army placed an FY06 order for 306 Strykers combat vehicles in April. To date, General Dynamics has delivered more than 1,500 Strykers to the U.S. Army.

Defence Industry

Alliant Techsystems Strengthens Its Position As a Leader in Development of Precision Projectiles

Alliant Techsystems, a leading company in the development of newest precision projectiles, has received one of the two technology demonstration contract from the U.S. Army Armament Research, Development and Engineering Center to develop a Precision Guidance Kit for the Army's 155mm Howitzer.

This Precision Guidance Kit will make the stockpile of existing artillery ammunition significantly more effective at relatively low cost by adding GPS guidance and navigation capability in a package that fits into the fuze well of an existing 155mm round.

The six-month technology demonstration phase of the program will be followed by a selection to one design that will proceed with a System Development and Demonstration award. Alliant Techsystems has designed a Precision Guidance Kit solution and it believes that it offers the U.S. Army the most accurate, lowest cost-per-kill of any design in the competition.

Future Technologies

BBN Technologies Receives a $5.5M Order for Development of Artificial Intelligence Technology

BBN Technologies has been awarded $5.5 million in funding from the Defense Advanced Research Projects Agency for the first phase of development of an artificial intelligence capability, which is called "Integrated Learner" and will learn plans or processes after being shown a single example. The total value of the effort could be up to $24 million.

The purpose of this project is to combine specialized domain knowledge with common sense knowledge to create a reasoning system that learns as well as a human being and can be applied to a variety of complex tasks. Such a system will significantly expand the kinds of tasks that a computer can learn.

According to the contract, BBN Technologies's first year research will focus on military medical logistics planning, specifically, a simulation that requires evacuating wounded military personnel from Iraq to hospitals in Germany and Kuwait. However, successful demonstration of this system will have implications beyond the ability to automate the medical evacuation planning process by providing the groundwork for automated systems capable of learning other tasks of similar complexity. This will enable a capacity to develop more effective military decision/planning support systems at lower costs and that require less training for human users.

Future Technologies

New UN Model Transport Regulations to Include Millennium Cell Fuel Cartridges

Eatontown -- Millennium Cell Inc. (NASDAQ:MCEL), a leading developer of hydrogen battery technology, announced today that new regulations for the commercial transport of sodium borohydride-based fuel cartridges for fuel cells were approved by the United Nations Subcommittee of Experts on the Transport of Dangerous Goods at its semi-annual meeting in Geneva last week.

Formal ratification by the full UN Committee of Experts is scheduled for December.

The model regulations will be used by countries around the world to establish shipping requirements for fuel cartridges containing sodium borohydride. The new UN shipping name, number and packaging instructions also will assist international air transport authorities in developing regulations to allow passengers to carry and use these cartridges on-board airplanes.

"This approval will provide our licensees a clearer and more definitive pathway for shipping hydrogen batteries in bulk or small quantities. This UN action is also a key next step in the approval process for in-cabin passenger use of hydrogen batteries, especially as we and our partners continue to design and develop these products for use in consumer electronics applications," noted Adam P. Briggs, Millennium Cell President.

Defence Industry

General Dynamics Awarded $23M Contract for MK47 'STRIKER40' Weapon Systems

CHARLOTTE, N.C. -- General Dynamics Armament and Technical Products, a business unit of General Dynamics (NYSE: GD), on June 7 was awarded a $23.5 million contract from the U.S. government for production of the MK47 MOD 0 Weapon System, a lightweight 40mm grenade launcher.

The award is part of a five-year Indefinite Delivery Indefinite Quantity contract with a total potential value of $82 million.

The MK47, also known as STRIKER40, is a lightweight grenade launcher capable of firing airbursting munitions. Its integrated Fire Control system provides a decisive technological advantage over enemy forces equipped with older crew-served weapons.

Work will be completed at General Dynamics' facility in Saco, Maine. General Dynamics is partnered with Raytheon (Dallas, Texas/Forest, Miss.) to build the Lightweight Video System (LVS) Fire Control. Program administration will be conducted at General Dynamics' Vermont-based Burlington Technology Center.

Contracts

Metal Storm Signs a US$331,426 Contract to Develop 18mm Stacked Round Firing Systems

Metal Storm was awarded a US$331,426 contract by the United States Marine Corps Warfighting Lab, Ground Combat Element Branch for the development, manufacture, and tests of 18mm stacked round firing systems.

According to the contract, Metal Storm will explore the feasibility of employing 18mm fin-stabilised high explosive projectiles from an accessory under-barrel weapon for the M-16A4 service rifle. The firing technology will be a test-bed potentially leading to Marine Corps experimentation with larger diameter finned projectiles than are possible with shotgun-launched munitions.

Contracts

L-3 Is Awarded Contract to Provide Special Mobile Communications Vehicles

L-3 Communications has been awarded a contract to provide 19 MC2 Sport Utility Vehicle-based mobile command centres and two large Sentinel custom body-on-chassis mobile communication centres to support a wide range of homeland security requirements for the Department of Defense.

The mobile command vehicles are designed for use in all types of emergencies where communications restoration and coordinated inter-agency resource deployment are vital. Work on the vehicles is expected to be completed by November, 2006.

Being self-contained mobile communications centres with onboard power generation capabilities, the L-3 Wolf Coach MC2 and Sentinel vehicles are rapidly deployed to mission locations to restore communications to disaster areas where the conventional and/or cellular communications infrastructure is inoperative. The systems establish data connectivity via satellite access and provide telephony through Voice over Internet Protocol. For incident commanders coordinating emergencies, the vehicles establish a base of operation to coordinate the flow of information and personnel deployment, providing connectivity to fixed sites in the chain of command. In addition, the command centres facilitate interoperable communications between various governmental, law enforcement, rescue/recovery, and disaster relief agencies.

Contracts

FMV Orders the New-generation Vehicle System

FMV (Swedish Defense Materiel Administration) placed an order on development of the new-generation military vehicle system SEP from BAE Systems Hagglunds AB. The order value amounts to approx. 500 million Swedish Kronor.

The development order contains two SEP 6 x 6 wheeled vehicles and two SEP tracked vehicles, both as troop transport and logistic configurations. The Swedish Defense Forces is planning to have the SEP system working operatively by 2014.

SEP is a military vehicle system based on both wheeled and tracked configurations which can carry a number of different role modules depending on purpose. SEP is a relatively light vehicle with either electric or mechanic transmission and high loading capacity and can be transported by air.

Term of the day

Main Battle Tank

Originally, the battle tanks were divided into three groups – heavy, medium, and light. However, in the post-war period, with the medium tanks having almost reached the capabilities of heavy tanks while remaining in the same weight class, the medium and heavy tanks were united into one group – main battle tanks (MBT).

The best MBTs of the world nowadays include (left to right on the geographic map according to the location of the manufacturer) M1A2 Abrams SEP (USA), Challenger-2E (UK), Leclerc (France), Ariete (Italy), Leopard-2A6 (Germany), T-84 (Ukraine), Merkava Mk4 (Israel), T-90S (Russia), Type 98 (China), Type 90 (Japan).

Information about how many MBTs of different types are in service with various countries can be seen on-line at this site or at the World Defence Almanac published by the Monch Publishing Group (Germany).

Recommended reading: Tanks of the World by Bernard & Graefe Verlag, Bonn, Germany.

Contracts

TIAX to Develop Skin Cream to Protect Soldiers from Chemical Warfare Agents

TIAX, a leading collaborative product and technology development company, was awarded a Phase II contract to continue development of a skin cream that protects users from exposure to chemical agents. The Phase II contract was awarded to TIAX by the Department of Defense Chemical and Biological Defense Small Business Innovative Research program.

This new contract builds on work TIAX began as part of a Phase I contract to develop the initial concept for the cream and establish the efficacy of the neutralizing actives. In Phase II, TIAX intends to develop a Neutralizing Skin Protectant for use in topical formulation prototypes that protect exposed skin from chemical agents while also neutralizing the agents into less toxic products before reaching the skin. Testing by the U.S. Army Medical Research Institute of Chemical Defense will evaluate the efficacy of the formulations against the actual agents.

Currently, the Army equips soldiers at risk for exposure to chemical warfare agents with Mission Oriented Protective Posture gear, including suits, masks, gloves, and boots. Although this gear is designed to protect soldiers from head to toe, there can be gaps in protection if the equipment does not fit correctly or is not fully secured. As a result, any exposed skin is vulnerable to contamination. The decontaminating skin cream developed by TIAX will be used to seal off these exposed areas. It will be applied to the soldier before he or she enters into a potentially hazardous situation. If the soldier is exposed to a CWA, the cream protects the skin by both dissolving and neutralizing the agent. This dual action chemical process is the very first of its kind.

Term of the day

Thermal Imaging Sight (Thermal Imager)

A sight based on the use of infra-red technology to produce a picture of the heat signature of an object against its background. It is a passive system which detects infra-red (IR) radiation emitted by the target and converts this into an electrical signal which can be used to create a visual image.

There are a number of materials which produce an electrical signal when exposed to IR radiation, but the most commonly used is Cadmium Mercury Telluride (CMT). This semiconductor material, with suitable doping, produces usable outputs in both the 3-5 and the 8-13 micron wavebands. With the CMT cooled to about -200 degrees Centigrade, particularly high sensitivity is achieved in the 8-13 micron waveband. Thus, when good picture quality is required, 8-13 microns has proved to be first choice for scanning TI systems, in which the detector is only briefly exposed at each picture point. Detectors operating in the 3-5 micron waveband will produce usable images at about -60 degrees Centigrade. Other materials, such as Indium Antimonide are also used in the 3-5 micron waveband.

Unlike other sights, which requires some ambient visible radiation, the thermal imager will function in complete darkness, enabling the operator to see various objects at distances of up to several kilometers.

The main component of the thermal imager is a thermal camera. The most known producers of thermal cameras are French SAGEM and THALES companies.

Contracts

USA Might Sell JAVELIN Anti-tank Missile Systems to Bahrain

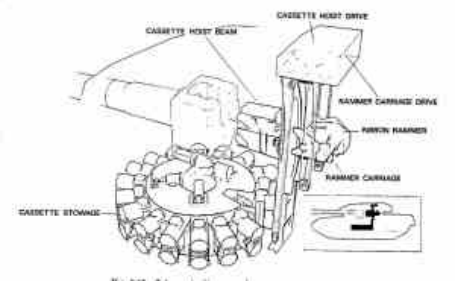
The Defense Security Cooperation Agency notified the US Congress of a possible sale to Bahrain of JAVELIN anti-tank missiles as well as associated auxiliary equipment and services. The total value could total up to $42 million.

Bahrain has requested a possible sale of 180 JAVELIN anti-tank missiles and 60 JAVELIN command launch units, simulators and other training equipment, spare parts, publications and technical data, personnel training and equipment, and other related elements of logistics support.

The desert warfare missions of Bahrain's infantry and light armoured units require the protection afforded by the capabilities of the JAVELIN anti-tank missile system. The land forces of Bahrain are small, well-rounded, and multi-mission oriented. JAVELIN will provide the forces with a credible anti-armour defence that is critical to success in the desert. The proposed sale of JAVELIN is consistent with Bahrain's ongoing efforts to modernise its armed forces.

Term of the day

Autoloader



Autoloader (also called automatic loader) is a mechanical system to load the main armament and so eliminate one member (human loader) from the fighting vehicle's crew.

There are two main types of autoloader, the bustle and the carousel.

In the bustle autoloader, the rounds are stowed in tubes on an endless belt within the autoloader. A microprocessor is used to recognise various types of ammunition.

In the carousel autoloader, the rounds are stowed in a circular, rotating structure on the turret floor. Ammunition is two-piece, the projectile and charge are stowed one above the other, each complete round called a cassette. Another version – the projectile and charge are positioned at an angle of 90 degrees to each other in a foldable loading tray, the projectile being placed horizontally, and the charge, vertically. As in the bustle autoloader, a microprocessor is used to recognise various types of ammunition.

The first tank autoloader was used in the Soviet-designed T-64 main battle tank (MBT). Nowadays, the most modern tanks fitted with an autoloader include French Leclerc, Japanese Type 90, Ukrainian Yatagan MBTs (bustle autoloader) as well as Russian T-90S, Chinese Type 98, Ukrainian T-84 MBTs (carousel autoloader).

Some Western nations have developed prototype autoloaders for their future tanks with larger calibre guns, as, for example, did Germany for its 140mm-armed Leopard MBT.

Contracts

Bombproof Vehicles for Troops in Iraq

MORE than 100 new heavily armoured patrol vehicles have been ordered by the government to protect British troops in Iraq against roadside bombs.

The move follows a review ordered by Des Browne, the defence secretary, after the father of a soldier killed in a Snatch Land Rover accused the government of allowing soldiers to die needlessly to save cash.

Roger Bacon, whose son was killed by a roadside bomb last September, spoke out after the 18th death of a soldier in a Snatch Land Rover. He welcomed the new move.

The latest vehicles will be upgraded versions of the armoured Cougars used by US marines in Iraq. They will have additional armour, making them the most protected vehicles of their kind in the world.

Browne, a former chief secretary to the Treasury, asked his former boss Gordon Brown to provide the tens of millions of pounds to rush new vehicles to Iraq, a senior defence source said yesterday.

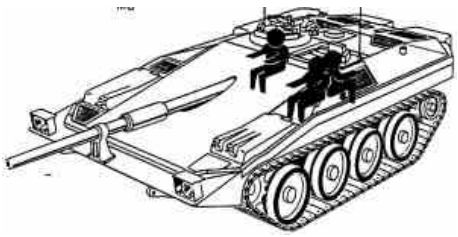
Snatch Land Rovers cost about 50,000 British pounds apiece. The new vehicles cost about eight times as much but carry more troops.

Ministry of Defence (MoD) officials were ordered to bypass their complex procurement system and buy the best vehicle available. The Cougar, built in America by BAE Systems, came closest to fulfilling the requirement, but despite surviving a number of bomb attacks in Iraq it was still deemed to have insufficient armour. The MoD aims to have the Cougars in Iraq by the end of the year.

The US marines initially used them as the lead vehicles in their convoys but found them so effective against roadside bombs that they replaced all their Humvee vehicles with Cougars.

Term of the day

Fixed Gun Tank



This is a turretless tank that features a gun fixed to its chassis rather than installed in a turret. This design offers a simple method of automatic loading and would permit a longer barrel to be used than would be possible in a turreted tank of similar size and weight.

The vehicle is essentially simpler as the complexity of a fully rotating turret is eliminated, a three man crew is possible and the reduced volume permits high levels of armoured protection to be achieved for a given weight.

The commander and gunner have controls with which they can steer the tank when driving and traverse and elevate when firing. These controls are identical; thus, if necessary, either the commander or gunner alone can drive and fight the vehicle without changing crew positions, making it operable by one man in an emergency. The third crewman, the radio operator, faces rearward and is responsible for driving the tank

backwards.

Because the gun is fixed in relation to the hull, the gun is aimed in azimuth by traversing the whole vehicle. The steering system allows the traversing velocity to be continuously variable, giving fine control of gun traverse rates. Elevation is achieved by raising or lowering the front and rear road wheels. The fixed gun tank offers the advantage of a lower silhouette because the gun can be placed close to the turret roof. The design will normally allow for the glacis to be given a large angle of slope. As in the external gun tank, the compartment can be given a very high level of protection and because the crew are all co-located, this configuration offers the best possible protection for a given weight of vehicle. However, the design suffers from one very considerable disadvantage in that it is impossible to fire on the move.

Contracts

Armor Holdings Gets $27M Award for Pinzgauer Protected Patrol Vehicle

Armor Holdings, Inc., a leader in the manufacturing and distributing of safety and survivability systems, tactical wheeled vehicles, and vehicle armour systems serving military and homeland security, announced the receipt of an order valued at approximately $27 million from the UK's Ministry of Defence. The contract was recently issued to Armor Holdings Aerospace & Defense Group's U.K. based Pinzgauer division, which was acquired as part of Armor's May 2006 acquisition of Stewart & Stevenson. Production is expected to be completed in early 2007 at the Company's U.K. facilities.

Robert Schiller, President of Armor Holdings, Inc., said, 'We are pleased to support the U.K. Ministry of Defense's efforts to improve the Pinzgauer 6x6 light tactical vehicle in order to create their new Protected Patrol Vehicle. This vehicle is expected to provide enhanced survivability protection, improved mobility, increased payload, as well as incorporate the use of sophisticated electronic countermeasures to increase survivability for British Armed Forces on patrol in hostile areas. We hope to leverage this development and production to address potential needs in the Pinzgauer user community which includes 28 countries and approximately 26,000 vehicles world-wide'.

Future Technologies

BAE Systems Develops Human-in-the-loop Simulation Capabilities for Hybrid Electric Drive Vehicles

BAE Systems engineers in Santa Clara have developed a human-in-the-loop simulation capability to support the design of Hybrid Electric Drive systems for future vehicles.

BAE Systems has been using modeling and simulation capabilities for more than two decades in the development and integration of combat vehicles and technology, and now this technology is being used with a human in the loop for the development of Hybrid Electric Drive vehicles.

The technology uses high fidelity, physics-based models running in real time which allow engineers to quickly evaluate how a vehicle responds as the driver in a simulator operates the vehicle on a cross country terrain environment. Using this approach, future vehicles are accurately evaluated and optimized in a realistic environment before a hardware prototype is built. As the performance of the vehicle is simulated, engineers can see in real time how their Hybrid Electric Drive concept is performing.

Using the BAE Systems human-in-the-loop development tool, designers have real time access to all engineering and design data to help them optimize their Hybrid Electric Drive concepts. Engineering teams can monitor key data such as how the battery is charging and the traction drive system is performing, then evaluate the overall performance of the vehicle.

Army

New Equipment to Help Protect UK Forces in Iraq and Afghanistan

Defence Secretary, Des Browne, unveiled a package of new equipment to help protect UK Forces in Iraq and Afghanistan following an armoured vehicles review.

This will include: the purchase of around 100 additional Pinzgauer 'Vector' for Afghanistan, on top of the 66 already on contract, with deliveries to begin early in 2007; the provision, for Iraq, of around 70 uparmoured and upgraded FV430 troop carriers, in addition to the 54 already on contract, with deliveries starting late this year and building up to a mechanised infantry battlegroup by Spring 2007; and the acquisition of around 100 of a new medium weight vehicle, 'Cougar', which is manufactured by Force Protection Incorporated of Charleston, South Carolina, and is expected to be delivered to Iraq and Afghanistan in batches over the next six month rotation, with an effective capability in place in Iraq by the end of the year.

This new package emerged from the urgent review ordered by the Defence Secretary last month, and builds

on work that had been ongoing with the MoD. Complementing heavily armoured Warriors and lighter Snatch patrol vehicles, these new vehicles will give commanders on the ground in Iraq and Afghanistan more options to deal with the developing threats they are facing.

Contracts

Lockheed Martin Corp. Awarded a Guided Multiple Launch Rocket System Contract Modification

Lockheed Martin Corp., Grand Prairie, Texas, was awarded on the 24th of July, 2006, a $16,574,025 modification to a firm-fixed-price contract for guided multiple launch rocket system full rate production I – conversion of dual-purpose improved conventional munition to urgent material release unitary rockets.

Work will be performed in East Camden, Ark. (80 percent), and Grand Prairie, Texas (20 percent), and is expected to be completed by the 30th of November, 2008. Contract funds will not expire at the end of the current fiscal year. This was a sole source contract initiated on the 25th of April, 2006. The Army Aviation and Missile Command, Redstone Arsenal, Ala., is the contracting activity.

Contracts

O'Gara-Hess & Eisenhardt Armoring Co. Awarded a Modification to Contract for M1114, M1116, and M1145 vehicles

O'Gara-Hess & Eisenhardt Armoring Co., Fairfield, Ohio, was awarded on July 19, 2006, a $5,831,385 modification to a firm-fixed-price contract for M1114, M1116, and M1145 vehicles, emergency rescue wrenches, traversing units, and integration of engineering change proposal 653R1.

Work will be performed in Fairfield, Ohio, and is expected to be completed by the 30th of January, 2007. Contract funds will not expire at the end of the current fiscal year. This was a sole source contract initiated on the 10th of April, 2000. The Army Tank-Automotive and Armaments Command, Warren, Mich., is the contracting activity.

Contracts

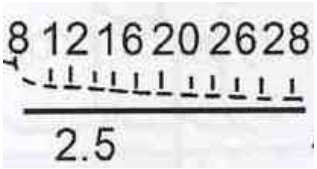
Armor Holdings Announces $74M in Body Armor Component Awards

Armor Holdings, Inc., a leader in the manufacturing and distributing of safety and survivability systems, tactical wheeled vehicles, and vehicle armour systems serving military and homeland security, announced the award of two contracts by the Defense Logistics Agency's Defense Supply Center-Philadelphia for Outer Tactical Vests and components for use in the Interceptor Body Armor ensemble.

The company announced that the two awards are comprised of a new Indefinite Delivery/Indefinite Quantity contract that has a maximal value of up to $45 million with the initial delivery order totaling approximately $4.7 million, and a new purchase order under an existing contract for $20.2 million to supply Outer Tactical Vests. The Company also announced the receipt of an $8.7 million delivery order from the U.S. Marine Corps Systems Command to supply an additional quantity of ceramic protective inserts used as personal armor by Marines. Work will be performed in 2006 and 2007 by the Armor Holdings Aerospace and Defense Group facilities located in Tennessee and Alabama for the vest production and in Arizona for the plate production.

Term of the day

Stadiametric Ranging



A method of ranging in which markings in the field of view of the operator's sighting system are compared with an assumed standard dimension of the target - for example, the vehicle's height.

It is an alternative, but much less accurate, method of optical rangefinding. If a standard value is assumed for a key target dimension (e.g., target tank height = 2.5 metres), graticule marks can be set in the gunner's field of view which correspond to that dimension at different ranges. The operator determines which marks just bracket the target and reads off the appropriate range. This is a relatively quick, simple and inexpensive technique, but it is not particularly accurate, because the true target dimension must be close to the pre-determined value, the relevant target dimension must be clearly visible, and the gunner must be skilled in judging when the marks are bracketing the target.

In general, stadiametric marks are a useful secondary method of rangefinding, being relatively simple to implement in existing sights, both optical and electronic.