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[5] Army Fails To Sell FCS Effectively, Retired General Says

By Nathan Hodge

The Army needs to do a better job selling the Future Combat Systems (FCS) to Capitol Hill, according to a prominent retired general and military consultant.

Retired Army Maj. Gen. Robert Scales said the service has devised an "incredibly effective message" on FCS technology, but added: "They have not done what they should have done in explaining it in the context of warfighting."

In a conversation with Defense Daily, Scales said he saw opposition to FCS beginning to coalesce in Congress, much as it did around the United Defense [UDI] Crusader self-propelled howitzer and the Boeing [BA]-Sikorsky [UTX] RAH-66 Comanche armed reconnaissance helicopter. Both Crusader and Comanche were ultimately cancelled.

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FCS, the Army's biggest acquisition program, is an ambitious, multi-year effort to develop a networked array of manned and unmanned air and ground vehicles, sensors and robotics that will form the core of a light, lethal and rapidly deployable future force. Boeing, with Science Applications International Corp. (SAIC), is acting as lead systems integrator, responsible for ensuring the different systems work together.

The program--which was restructured last year--is now expected to cost between $122 billion and $125 billion (Defense Daily, April 7). But with FCS beginning to resemble national missile defense in terms of size, cost and complexity, some in the service are worried that the program could be targeted for cuts.

Last week, the service announced that it would change the business model for FCS to bring it in alignment with more traditional procurement practice. And in what was seen as a pre-emptive move, Army Secretary Francis Harvey met last week with Sen. John McCain (R-Ariz.) to discuss the changes to the program.

Scales, who served as deputy chief of staff at the Army's Training and Doctrine Command at Fort Monroe, Va., and as commandant of the Army War College at Carlisle Barracks, Pa., said the service must do a better job explaining how FCS will change the way the Army fights.

"You sell it [a defense program] because of its technology, you sell it because of its adherence to its ability to achieve its technological goals, and you sell it because of its operational fit."

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Asked how the service might better make that point, Scales suggested that veterans of Iraq combat may be able to provide useful testimonial on how emerging technology meshes with future operational needs.

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Asked how he envisioned his role in selling FCS, he said, "I want to be able to show how this system fits into the Army's scheme for future operations."

Meanwhile, Army leadership continues its effort to explain FCS to the public. Speaking at an American Enterprise Institute conference where Scales was a panelist, Army Chief of Staff Gen. Peter Schoomaker said the service would defer buying FCS platforms "until they ... provide us with something that would give us a significant improvement over the platforms that we have."

When the service restructured FCS last year, it decided to bring forward certain mature technologies (such as some robotics), while deferring others (such as next-generation combat vehicles).

"So until we've got something that is a huge leap over the M1 Abrams tank, we're not going to move in that direction," Schoomaker said. "Until we have something that's a huge leap over what the Bradley [Fighting Vehicle] will give us, we're not going to move in that direction."

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[11] United Defense Awarded $143 Million For Bradley Combat System Vehicles

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[1] MDA Independent Review Panel Suggests More Rigor, Accountability

By Ann Roosevelt

The Missile Defense Agency's (MDA) Independent Review Panel recommends adding more rigorous processes and accountability, the agency director said.

Just over a week ago, the panel, set up after a Feb. 14 flight test launch failure, made its recommendations, including a more rigorous test certification process, Air Force Lt. Gen. Trey Obering, MDA director, said during a presentation yesterday at the American Institute of Aeronautics and Astronautics 3rd Annual U.S. Missile Defense Conference in Washington.

This would mean an "ongoing, independent, but concurrent assessment of our test readiness," he said. The assessors would report to the MDA director as part of the flight readiness review process.

Obering set up the three-member panel of independent, non-government personnel after a launch failure during a Feb. 14 ground-based midcourse defense flight test.

The panel was charged with examining the ground support equipment and other test infrastructure based upon the failure of a support arm to fully retract within the silo causing the launch abort (Defense Daily, March 11).

Boeing [BA] is the prime contractor on the Ground-based Midcourse Defense segment of the planned multi-layer ballistic missile defense system MDA is developing. The review panel came after a second launch failure. In December, a fault in a line of software code caused a flight test failure.

Another recommendation: MDA should strengthen its approach to system engineering. "Turns out in some cases, we didn't have proper flow-down on some of the specifications to all the suppliers," he said.

MDA should also perform additional ground qualification testing, the panel said, "to make sure we have more robustness" among components. MDA is addressing this, he added.

The panel also felt that "we could have much, much better support from the contractor functional organizations, some of the quality mission assurance experts within the companies, the engineering expertise, that we could tap better into," Obering said.

The panel felt" it was very important to stabilize the schedules and the baselines for the ground-based midcourse defense system and make sure we have the resources allocated properly within that program so that we can do some of the steps that they talked about," Obering said.

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[2] Quality Control MDA's Top Priority

By Ann Roosevelt

After two failed flight tests, the Missile Defense Agency's (MDA) number one priority is quality control, the agency director said.

"We have demonstrated the basic technical capabilities of the system," MDA Director Air Force Lt. Gen. Trey Obering said yesterday at the American Institute of Aeronautics and Astronautics 3rd Annual U.S. Missile Defense Conference in Washington. "What we haven't done is demonstrated that we can operate it reliably and that we can count on it routinely."

Since October, MDA has been in the "shakedown" phase of the ground based midcourse ballistic missile defense (BMD) system that is to protect the United States from a limited attack. At the same time, MDA is continually working to expand and improve a layered ballistic missile defense system.

To improve quality, Obering established a Director of Mission Readiness, run by Navy Rear Adm. Kathleen Paige, who is also the program director of the Aegis ballistic missile defense program (Defense Daily, March 11).

Paige has already set up a mission readiness task force to look at test and development program approaches and is laying out a roadmap for the return to flight testing, Obering said.

Additionally, MDA's director of procurement and quality assurance is setting up audit teams, comprised of NASA, service and MDA personnel to fan out to sites around the system, "so that we can make sure that we are keeping the quality control that we need and that we are putting the processes and the discipline procedures in place so that we can begin to drive out" some of the past mistakes.

The push comes after two recent flight test failures Obering termed, "major disappointments." The first failure, Dec. 14, was tracked to a software timing glitch, fixed by changing one parameter in one line of code. The second, a Feb. 13 interceptor launch abort, came after one support arm holding the interceptor in the silo failed to fully latch out of the way and the other two arms did not operated as expected (Defense Daily, March 10).

Once the cause of the aborted February flight is determined and fixed, MDA could potentially hold another test in May, though Obering said events drive the timing of the flight tests, not dates.

The ground-based midcourse defense interceptors are the heart of the midcourse defensive layer, with interceptors sited in Alaska and California. Boeing [BA] is the prime contractor for the midcourse system.

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[3] Stewart & Stevenson Says ATL Deal Will Boost Earnings

By Calvin Biesecker

Stewart & Stevenson's [SVC] $47 million acquisition of a British light truck developer and manufacturer will be accretive to earnings this year and is expected to produce returns at or above current goals, company officials told investors yesterday.

Texas-based Stewart announced its purchase of Automotive Technic Holdings Ltd (ATL) last Friday, its first of another military truck company (Defense Daily, April 11).

ATL is expected to post about $80 million in sales this year, driven mainly by deliveries of Pinzgauer all terrain vehicles under

contracts to the United Kingdom and New Zealand defense forces, Denny Dellinger, president of Stewart's Tactical Vehicles Segment, said on a conference call. He said ATL would deliver 450 trucks this year, which includes 236 for the British and 148 for New Zealand.

While most of the deliveries under both contracts will be finished this year, the U.K. contract allows for additional purchases to be made annually to meet requirements, Dellinger said. Moreover, the arrangement with New Zealand includes another contract for logistics support over the next 15 years, he said.

Last year, Stewart had $550 million in military truck sales, mostly related to its Family of Medium Tactical Vehicles (FMTV), which are in the 2.5 and 5-ton categories.

On the earnings front, Stewart aims for a 12 percent return on its invested capital and the company expects the ATL deal to meet or beat that, John Simmons, Stewart's chief financial officer, said on the call. He also said the company would not be incurring any debt as a result of the acquisition, which is being paid for in cash with a small amount of deferred consideration that includes some shareholder notes and the outcome of some warranty issues.

On the business front, the acquisition complements the FMTV line by filling in a niche below that class of vehicles. The Pinzgauer comes in 1.4 ton (4x4) and 2.4 ton (6x6) variants. About 30,000 Pinzgauers have been sold over the years to customers in 30 countries.

ATL's broad customer footprint geographically may open up some opportunities for FMTVs in other countries, Dellinger said. And, he added, "We can help them here."

Beyond the United Kingdom and New Zealand contracts, ATL is pursuing opportunities in the United States, Australia, Oman, the United Arab Emirates and others.

In the United States, the Pinzgauer is being offered for the Marine Corps' Lightweight Prime Mover program, which would fill a requirement between the light utility AM General-built High Mobility Multi-purpose Wheeled Vehicle, or Humvee, and the 7-ton range Oshkosh Truck [OSK]-built Medium Tactical Vehicle Replacement. ATL has several competitors in that program currently going through a run-off with the selection of a winner expected in August and production slated to begin early next year, Dellinger told Defense Daily.

For the Australia's fleet replacement program, called Land 121 Project Overlander, both ATL and Stewart are competing for separate contracts along with a host of other firms (Defense Daily, March 18). The Pinzgauer is competing for the light vehicle component and the FMTV is being reviewed for the medium to heavy component.

ATL has 160 employees, all of whom have had their contracts extended, and the company's management team has signed on to remain with Stewart under a contract that is longer than usual. ATL is a non-union shop. ATL's fabrication and manufacturing operations currently run on a single shift at 80 percent capacity, so there is room to expand production on the current shift and potentially add a second shift if ever need be, Stewart officials said.

Dellinger said the Pinzgauer, which is a proven reliable vehicle given its widespread use, is known for its low life-cycle costs. The original designs were gas powered but now the vehicles are diesel-powered.

As far as competition goes for the Punzgauer, Dellinger said that in nations of the British Commonwealth, the vehicle has little direct competition. However, in some East European and Middle Eastern countries, the bias is in favor of lower cost, less capable vehicles, he said.

Stewart officials said an agreement in late 2003 between its truck business and Germany's Daimler Chrysler [DCX] to market that company's G-Wagen series of light vehicles to potential U.S. government customers doesn't put those vehicles in competition with the Pinzgauer here. The G-Wagens are smaller, they said.

The bidding for ATL was competitive. Livingstone Guarantee LLP was ATL's financial adviser on the deal while Stewart used internal resources to work the deal. Max Lukens, Stewart's president and CEO, said that while his company is interested in additional acquisitions, there is no pipeline of opportunities at the moment.

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[4] Early Work Begins on South Asia Aircraft Sales

By Sharon Weinberger

After an initial slew of publicity surrounding the potential export of advanced fighter aircraft to Pakistan and India, the U.S. government is now beginning the very initial work involved in negotiating those sales, according to the head of the Pentagon agency in charge of foreign military sales.

While the announcement of the possible aircraft sales to Pakistan and India came at roughly the same time, the two are quite separate and will proceed at different paces, Air Force Lt. Gen. Jeffrey Kohler, the head of the Defense Security Cooperation Agency, said in an interview with Defense Daily last week.

"The Pakistan issue is more defined," Kohler said, adding that the government in Islamabad submitted a formal letter of request for new F-16s some time back. "That will pretty much be a production airplane--if Congress approves it--for their new buy," he said.

Another aspect of the sale--upgrades to Pakistan's older F-16s--is also very clear.

"We know exactly what the mid-life upgrade looks like, so that's not something new and unusual," Kohler said. "It's a more straightforward sales process."

The possible sale for India, however, is still in its initial stages. "They haven't officially put out their formal request for proposals," Kohler said.

Arms sales to Pakistan and India were suspended in the late 1990s following tit-for-tat nuclear tests the two countries conducted. Following the terrorist attacks of Sept. 11, 2001, the embargo was lifted.

While arms exports have since resumed, the possible sale to the region of fighter aircraft, announced last month, is considered a major policy shift.

Pakistan already has older model F-16s bought from the United States in the 1980s, although U.S. government sanctions blocked the sale of additional F-16s as well as spare parts for the existing fleet. Since those sanctions were lifted, Pakistan has consistently pushed to renew talks on an F-16 sale.

India, on the other hand, has relied primarily on Russia to supply it with advanced weapons, like fighter aircraft. The sale of an American-built fighter would be the largest such sale to India to date.

"They are dissatisfied with other suppliers," Kohler said. "They've been asking us lots of questions."

Unlike Pakistan, which has clearly stated its intent to buy F-16s, India is looking more broadly for a replacement fighter, which could

include the F-16, the Boeing [BA] F/A-18, or another foreign aircraft. India has issued a request for information on new aircraft, although the specifics are still unclear.

"There are a lot of unknowns right now," Kohler said, adding that he would be traveling soon to India to discuss possible sales.

And even while Pakistan's request is more specific than India's, there are still many issues left to be resolved, according to Kohler. The official notification to Congress is for 18 new F-16 Block 50/52 aircraft, but there is still no information on specific weapons, technology or engines, he said.

Kohler said the U.S. government has gone back to Pakistan with a list of questions on the specifics of the aircraft, and once final details are worked out, the package would be sent to Congress for official notification.

"Any sale, to get to a contract, still has to be approved by Congress," he said.

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[6] Northrop Shows Ability To Operate Multiple UAVS With 'One System'

Northrop Grumman [NOC] conducted its first flight of its Endurance Hunter (E-Hunter) unmanned aerial vehicle (UAV), a reconfigured Army RQ-5A UAV that has a 54-foot wingspan and is a stepping stone to an extended range/multipurpose variant (ER/MP), according to a company official.

Northrop Grumman was also able to demonstrate that it could operate multiple UAVs with a single ground control system, said Doug Valenzuela, Northrop Grumman's E-Hunter program manager.

"With the first flight, what was important was it flew from a shelter," he said.

Northrop Grumman upgraded an existing Army One System ground control station with its own funds. The system is based on the Shadow UAV shelter that can fly both the Shadow and Hunter UAVs.

AAI Corp., Baltimore, Md., is the prime contractor on the Army's One System.

The objective is to show that multiple UAVs can be flown using one common ground station, Valenzuela said. The flight test last month demonstrated that Hunter, E-Hunter and Hunter II could all be flown using the One System ground control station, he added.

"To validate the shelter we had to fly Hunter. We verified we could fly a standard Hunter," he said. "The first production shelters are rolling off the [assembly] line as we speak."

The flight test is part of a cooperative effort between Northrop Grumman and the Army to extend the range, endurance and payload capacity of the Hunter system.

Valenzuela said the UAV tested last month had a wing and tail design based on the Israel Aircraft Industries' (IAI) Heron UAV.

High Speed Runs

During the 40-minute flight, E-Hunter demonstrated high-speed taxi runs, was flown to an altitude of 2,000 feet and put through a series of controllability tests at 60 knots and 80 knots. E-Hunter was also taken through a series of low-approach passes to validate low-speed handling and to visually verify landing gear and arresting hook extension, the company reported. The flight tests were conducted at Northrop Grumman's facility in Cochise College, Ariz., Valenzuela said.

Northrop Grumman has three Hunter variants: a baseline Hunter than can reach an altitude of 15,000-feet; the E-Hunter which can reach 18,000-feet and Hunter II, an extended range/multipurpose system (ERMP) which will be able to reach an altitude of 25,000-feet, Valenzuela said.

The wing and tail assemblies are identical on both the E-Hunter and Hunter II. The ER/MP variant competed in systems demonstrations in February, Valenzuela said.

The E-Hunter has upgraded avionics and a diesel engine. The E-Hunter program is running parallel to the Hunter II program to demonstrate that enhanced capability to the Army, he said.

"There are a whole series of [tests] planned to do envelope expansion," Valenzuela said.

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[7] Pentagon IG Will Audit Two More Air Force Programs

By Sharon Weinberger

Two more major Air Force acquisition programs have been added to a growing list of contracts being audited by the Pentagon's Inspector General (IG), according to the Defense Department.

The IG intends to investigate contracts for the Raytheon [RTN] T-6A Joint Primary Aircraft Training System (JPATS) and the Northrop Grumman [NOC] Joint Surveillance and Target Attack Radar (Joint STARS), according Marine Lt. Col. Rose-Ann Lynch. Those two programs will now join a list of 10 other possibly tainted contracts that had involvement by former Air Force acquisition official Darleen Druyun, who is currently serving a nine-month prison sentence for violating conflict-of-interest laws.

"One of the two additional audits (Joint STARS) had already started, but has been temporarily suspended because of higher priority work," Lynch said. "The other additional audit, the Joint Primary Aircraft Training System (JPATS), was announced about 10 days ago and we are starting the audit this month (April 2005)."

That raises the total number of contracts currently under review to 10, although the IG is considering the addition of three more. Those additional contracts will not be identified unless there is a decision to perform a full audit, according to Lynch.

The audits stem from a widening investigation that arose from the Air Force's now defunct plans to lease and buy 100 KC-767 tankers from

Boeing [BA]. Druyun was a key official involved in the tanker negotiations until she retired from government and went to work for Boeing in 2002.

An internal company probe prompted by congressional inquiries found that Druyun had conspired with former Boeing Chief Financial Officer Michael Sears to cover up employment discussions the two had while Druyun was still negotiating contracts on behalf of the Air Force--a violation of federal procurement law.

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[8] Lockheed Martin Contracts Boeing For Additional PAC-3 Seekers

Lockheed Martin [LMT] has contracted with Boeing [BA] to produce more PAC-3 missile seekers to be manufactured between 2006 and 2007.

The terms of the contract, which will not be disclosed, are in addition to the current contract for 159 seekers and include the first international sales of PAC-3 missiles.

"The PAC-3 enhanced Patriot System provides unrivaled, in-theater protection for our military and allies," Debra Rub, vice president Boeing Air & Missile Defense Systems, said in a statement yesterday.

Work on the PAC-3 program at the Boeing Huntsville, Ala., facility includes production, assembly, integration and testing of the seeker. In El Paso, Texas, Boeing produces and tests circuit card assembly, while in Anaheim, Calif., the PAC-3 program office and design-engineering functions have program management and design responsibility for the seeker.

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[9] L-3 Awarded Marine Corps Contract For Its F/A-18C/D Simulator

The Marine Corps yesterday awarded L-3 Communications [LLL] a $12 million competitive contract and a $10 million program option to build two F/A-18C/D Aircrew Flight Trainers for the service's Hornet aircrews, according to a company statement.

The trainers will be used to reinforce a full range of aircrew warfighting skills, including air-to-air and ground-to-air tactical employment, air refueling, carrier operations, and normal and emergency procedures training, according to L-3.

L-3 will deliver the systems in December 2006.

The trainers consist of two independent cockpits for the pilot and weapons sensor operator. The crew station for each cockpit will be housed within a SimuSphere (tm) visual display system, allowing the training systems to support both single seat F/A-18D training. SimuSphere is built by L-3's Link Simulation and Training (Link) division.

The nine-panel SimuSphere displays surrounding each F/A-18C/D crew station will provide a 360-degree out-the-window field-of-view. Link's SimuView (tm) personal computer image generation system will power both out-the-window and cockpit sensor display imagery, the company said.

Link will also provide a fully integrated mission briefing and debriefing facility for each F/A-18C/D AFT. As the mission is flown, a debriefing system will capture all mission event data. Following mission execution, Hornet aircrews will have the opportunity to review their tactical performance and capture lessons learned to maximize training time, according to L-3.

In addition, the F/A-18C/D Aircrew Flight Trainer (AFT) will have a distributed training capability compliant with the Navy Aviation Simulation Master Plan (NASMP). By being NASMP-compliant, the trainers can be networked both locally and across the country, according to a

company statement.

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[10] Israel Accepts First AH-64D Apache Longbows

Israel on Sunday accepted the first three Boeing [BA] AH-64D Apache Longbow helicopters from the Pentagon.

The Israel air force is modernizing its fleet through a combination of AH-64A helicopter upgrades and newly built Apache Longbow helicopters. The IAF has operated the AH-64A Apaches since the early 1990s.

The aircraft, which the IAF designates the AH-64D-I Apache, were purchased through a U.S. Army foreign military sales agreement. Some modifications are being completed through a direct commercial sale agreement signed in 2000. The process allows Boeing to make several undefined changes directly with the IAF.

The exact numbers and configurations of the apache Longbow helicopters that will be delivered over the next several years under the contract have not been released.

Israel is one of 11 nations to fly Apache helicopters, and one of nine to have ordered or received the multi-mission next-generation AH-64D.

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[11] United Defense Awarded $143 Million For Bradley Combat System Vehicles

The Army awarded United Defense [UDI] a $143 million contract modification to provide Bradley Combat System vehicles for the service, according to a company statement.

The contract, awarded last week, calls for UDI to remanufacture and upgrade 55 fully digitized Bradley A3 vehicles. The award from the Army's Tank-automotive and Armaments Command (TACOM) was funded initially at $71.5 million, according to UDI.

Work on the remanufacture contract will begin immediately and will be performed at UDI's facilities in York, Pa., Fayette County, Pa., and Aiken, S.C. The vehicles are scheduled for delivery by January 2007, the company said.

"We are excited about this opportunity to provide additional Bradley A3 vehicles for the Army," said Andy Hove, director of Bradley Combat Systems for UDI, in a statement.

The Bradley A3 is a technologically advanced, digital combat system that significantly increases the Bradley's lethality and survivability in battle, according to the company.

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[1] MDA Considers Space Layer For Ballistic Missile Defense

By Ann Roosevelt

The changing nature of the threat and its global implications has led the Missile Defense Agency (MDA) to once again consider adding space-based defenses to its developing multi-layer ballistic missile defense, the agency director said.

"Emerging threats and uncertainty would really have us take a hard look at developing a space-based layer that we could add to the system," Air Force Lt. Gen. Trey Obering, MDA director said at the American Institute of Aeronautics and Astronautics 3rd Annual U.S. Missile Defense Conference in Washington on Monday.

Such a layer could consist of advanced sensors and interceptors.

"We intend, beginning in '08, to establish a space-based test bed so we can explore options for space-based interceptors," he said.

However, considering a space-based BMD layer does not mean a return to the 1980s heyday of SDI. Then, space-based interceptors were known as "Brilliant Pebbles." This concept envisioned garage-sized objects packed with interceptors orbiting in space for missile defense.
It became a lightening rod for controversy.

Key to this new effort, Obering said, is that, "we are not proposing that we put up thousands of interceptors."

Even if space-based interceptors would be part of future missile defense is unsure: "I don't know but I'm willing to experiment," he said, responding to a question from the

NY Times
9071

audience. There's a lot of "attractiveness" to space-based interceptors, for their potential for swift reaction time, global coverage, and lack of damage on the ground, but there's "emotionalism" and "religious argument" about the concept.

Elsewhere, to expand surveillance and tracking capabilities, in 2007 MDA expects to launch two satellites as a test bed for a Space Tracking Surveillance System (STSS) satellite system. An STSS constellation would augment the Defense Support System satellites currently in place. Northrop Grumman [NOC] is building the satellites, which will carry a sensor payload from Raytheon [RTN] (Defense Daily, Apr. 2, 2004).

"I believe this is critical, by the way, to the future of the missile defense program," Obering said. "I believe we have to get to space as it relates to our sensing capability because we don't know where the threat is going to be emerging from so we have to be able to provide global coverage and this is the only way to do it really, is from space."

MDA also intends in FY '07 to start the Near Field InfraRed Experiment (NFIRE), a satellite that would collect data on ballistic missile plumes.

Additionally, MDA plans to expand the capabilities of its ground- based systems, he said. After internal risk assessments last winter, the agency believes that after completing the fielding of Block 8 and Block 10 "we should be moving to more mobile capabilities that have more flexibility" because of the uncertainty of the future.

The agency has also postponed moving ahead on a third interceptor site in Europe, in view of a potential future move away from a static defense to a mobile BMD solution.

Here, STSS would be vital: "We believe that the Space Based Tracking and Surveillance provides a significant effectiveness improvement" across the entire threat spectrum, Obering said.

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[2] DHS Announces $142 Million In Transit Security Grants

The Department of Homeland Security (DHS) yesterday announced it would award nearly $142 million in grants for the protection of regional transit systems related to rail, intra-city bus and ferry modes of transportation.

The grants provide funding for the prevention and detection of explosive devices and chemical, biological, radiological and nuclear agents.

Under the grant program, $135.3 million is for rail security, $22.4 million is for bus systems, $6.7 million is for security enhancements to Amtrak's intercity rail operations in the Northeast Corridor and at its hub in Chicago, and $5 million is for ferry systems.

The latest transit security grants are significantly higher than prior allocations. In FY '04 DHS awarded $50 million and in FY '03 $65 million under the program.

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[3] TSA Awards L-3 $33 Million For Explosives Detection System

L-3 Communications [LLL] yesterday said its Security & Detection Systems subsidiary has received a $33 million order from the Transportation Security Administration for the company's eXaminer 3DX explosives detection systems.

The systems include features and enhancements included in L-3's latest version of eXaminer, the 6500 model. The model can process over 600 bags per hour as part of a fully integrated baggage handling system and can handle long oversized bags.

Separately, TSA yesterday said it has deployed a General Electric [GE]-built explosives trace detection walk through portal to Phoenix Sky Harbor International Airport. TSA is conducting pilot demonstrations with walk through trace portals made by GE and Smiths Detection, a division of Britain's Smiths Group, at some of the nation's airports. The demonstrations are scheduled to last through the summer.

TSA has budgeted $28.3 million to purchase and install 147 trace portals in addition to those being used in the pilot program. The agency is creating plans for the purchase and deployment of the equipment in more airports by January 2006.

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[4] LCS Trimaran Design Provides Flexibility, Stability And Volume, GD says

By Geoff Fein

General Dynamics [GD] officials believe its trimaran concept for the Littoral Combat Ship (LCS) offers a unique, flexible design that provides a larger flight deck, increased interior cargo volume, a more stable platform to launch helicopters and unmanned aircraft in even the most extreme sea states, and an open architecture.

"It's a force multiplier because it is so small, fast and agile,"

Jim Baskerville, vice president Littoral Combat Ship program, told Defense Daily in a recent interview. "It's a small ship that acts as a big ship. It can go places only small ships can go, at speeds only small ships can meet."

The aluminum-steel (the vessel has 30 tons of steel) trimaran LCS is 100 feet shorter than the DDG-51-class of destroyer and has a beam that is 30-feet wider than the DDG-51, Baskerville said. GD's LCS weighs 2,800 tons, about 6,700 tons less than a DDG-51. The GD LCS also cost about $800,000 less than a DDG-51, he added.

Like DDG-51, LCS will use two gas turbines to power four maneuverable water jets that can push LCS to upwards of 48 knots, depending on the loads the vessel is carrying, Baskerville said.

The GD LCS is also equipped with one drop down Azipod propulsion system. Baskerville said it offers the quietest mode of operation.

"If we were in a mine field and wanted to maneuver very quietly, or go over 7,000 [nautical] miles and we wanted to do it at 4 to 7 knots, but stay there for a long time and be very quiet, we would use the drop down Azipod thruster," he said.

The trimaran has a range of more than 4,000 nautical miles at more than 25 knots, Baskerville said. The maximum range is 7,000 nautical miles using the Azipod.

General Dynamics and Lockheed Martin [LMT] are competing to build LCS. Each company believes its specific design offers the Navy the most suitable ship for the requirements it needs.

LCS is the Navy's answer to addressing the global war on terror and asymmetric threats. The Navy intends to operate LCS close to shore and pack it with a variety of mission modules to allow crews to convert from antisubmarine warfare to mine detection to surface warfare to take on numerous threats.

GD's trimaran hull is built around a traditional monohull thus making the ship develop characteristics of a relatively large ship, Baskerville explained. GD's LCS can carry two MH-60 helicopters and launch them from a deck that is 2.5 times the size of DDG-51's deck, he added.

"No other ship in the fleet, short of an LPD or LHA can simultaneously operate two H-60s or accommodate a H-53 or V-22. So, for a 2,800 ton ship, smaller than a FFG-7 frigate, to be able to handle that is indicative of what the trimaran hull form can do," Baskerville said.

The flight deck is also positioned far enough above the water that aircraft and crews shouldn't be affected by sea spray or problems with wet deck, he said.

"Ask an aviator, ask [them] which one they would rather land on, three feet off deck or almost as high as a LPD? We are 11 meters in height, which is close to a LPD, and significantly higher than DDG-51,"
he said.

And GD's LCS can launch and recover aircraft in sea state five, he added. A 10,000-ton ship cannot launch and recover helicopters in sea state five.

"This trimaran will be able to do that, it's been certified by NAVAIR (Naval Air Systems Command) as being able to do that," he said.

Trimarans tend to be associated with ferry ships or fast sailing ships. Nonetheless, Baskerville believes the GD version for LCS will provide a host of benefits for the Navy.

The trimaran gives the Navy the largest internal volume for the dollar, he said. The concept also gives the most room for weapons, core mission systems and packaged mission systems, best speed and endurance, remarkably efficient horsepower, the biggest flight deck able to operate aircraft in sea state five and the most warfigitng capacity.

"You can put more weapons on this ship than any other ship percentage wise," Baskerville said.

The GD version will be outfitted with a medium-caliber gun made by Bofors, a subsidiary of United Defense Industries [UDI]. It will also be equipped with a surface to air missile launcher, dual purpose automated gun, decoys and countermeasures, and air, surface and subsurface sensors.

But LCS is probably best known for the Navy's requirement to make it multi-mission. Modules that will carry everything needed to convert the ship to any of three missions will be stored in the cargo holds, below the flight deck. Because of the increased volume inside GD's LCS, Baskerville said the vessel would be able to carry several mission modules, thus avoiding the need to swap out the systems at port side or at sea.

"I don't care what system you have installed now. I can [swap it] in less than 24 hours. Frankly, in a lot less than 24 hours, because I've got the volume on board to be carrying much of another module if not all [of it]," he said.

While no one has seen the mission modules yet because the Navy split that part of the program away from the ship design and construction phases, GD officials believe that the size and ability of their LCS to carry volume and not be restricted by size or weight will be a benefit to firms contracted to build the modules.

"Maybe they can do something differently for a lot less money and get the best

value," Kendell Pease, a spokesman for GD, said. "So for those folks bidding on those modules, this will give them a much greater appreciation for doing whatever makes it best. Plus we believe we can keep a multi [mission] selection on board because of our ability to store."

Pease added that GD hasn't decided if it will compete to build the modules because the Navy hasn't come up with a requirement yet.

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[5] QDR Ignoring Crisis In The Army, Panelists Say

By Nathan Hodge

The Quadrennial Defense Review (QDR) currently underway is giving insufficient attention to the issue of Army force size, according to participants in a panel this week on the future of the Army.

"We are facing the risk of breaking the U.S. Army, and it is not being treated as a central issue in the ongoing defense review," said Michele Flournoy, a senior adviser at the Washington-based Center for Strategic and International Studies. "It is the elephant sitting in the middle of the room, and we need to start addressing it in the highest levels of government."

Flournoy made the case for renewed attention to Army force structure as part of a panel discussion hosted Monday by the conservative American Enterprise Institute (AEI). A deputy assistant secretary of defense in the Clinton administration, Flournoy led a working group at the National Defense University in preparation for the 2001 QDR, and she told attendees the current administration was giving short shrift to the crisis in the Army.

"We need to take the debate from inside a room like this and into the decision-making circles of this government," she said. "Right now we're in the middle of a QDR, and this issue is not front and center."

Retired Maj. Gen. Robert Scales echoed that sentiment. He said decisionmakers should start to think about boosting the size of the active-duty Army by at least 100,000.

"I remember the 'broken Army' after Vietnam, and I remember the 'hollow Army' in the late '70s and early '80s," he said. "And I'll be damned if I'm going to stand around here and watch a third broken Army because we don't put the resources toward building a land power force that's able to transform itself and fight a war at the same time."

The QDR, a top-to-bottom review of force size and strategy, is expected to have a broad impact on Pentagon acquisition programs. Among other things, it could decide the fate of shipyards, determine whether aircraft production lines stay open or force changes in high-profile weapons efforts.

On Saturday, Marine Gen. Peter Pace, Vice Chairman of the Joint Chiefs of Staff, and Paul Wolfowitz, the outgoing deputy defense secretary, hosted an all-day meeting at the Pentagon to update the progress of the QDR, according to sources. Several representatives from other agencies, including Deputy Director of the Department of Homeland Security Michael Jackson, attended the high-level meeting, they added.

With the Army stretched thin by operations in Iraq, Afghanistan and elsewhere, some panelists expressed concern that the QDR may focus too much on platform acquisitions instead of the more pressing issues of manpower.

Frederick Kagan, a professor of military history at the United States Military Academy at West Point, endorsed the radical expansion of the active-duty Army.

"I personally think we probably need another 100,000 or so soldiers in the active-duty force," he said.

The Army has made much of its "modularity" initiative, which will reorganize the service's brigade structure to create a more efficient force. But Scales said a "materiel revolution" would have to accompany the structural changes if modularization is to succeed.

"Without FCS, modularity will not work," he said "Why? Because you've taken the aviation component out of it, you've taken the firepower component out of it, and you have to replace it with something. And the only way to replace it with something is to use the components of FCS to give it the killing power and the projectability and the sustainment necessary to fight the protracted battle at extended distances for long periods of time."

Army leadership may be taking note. Army Chief of Staff Gen. Peter Schoomaker also appeared at the conference, and he hinted that the issues raised at AEI had resonated within the Pentagon.

"I understand you had rather a dynamic morning, and the seismograph there in the Pentagon was reporting all kinds of tremors,"
he said. "And I kept asking what that was, and they said that's AEI over there and they're talking about the Army. So I'm glad you're having this conversation."

However, Schoomaker also reaffirmed the Army's current line that it needs no further increase in permanent end-strength to handle its commitments abroad.

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[6] Lawmakers Urge End To Airbus Subsidies

By Sharon Weinberger

The Senate agreed unanimously Monday to condemn European launch aid for Airbus aircraft, urging the U.S. administration to file a complaint in the World Trade Organization if the issue is not resolved.

In a 96-0 vote, the Senate approved a non-binding resolution that asks the European Union not to provide launch assistance for the A350 aircraft, a potential competitor to the Boeing [BA] 787. If the EU does not comply, the resolution asks the United States Trade Representative to take action in the World Trade Organization (WTO) and also urges the U.S. president to protect the domestic aircraft market.

The EU and U.S. government have been trying for three months to resolve their differences during a formal mediation over commercial subsides for aircraft manufacturing. The Senate vote came the same day that the three-month mediation deadline lapsed, leaving open the option for a formal WTO complaint.

While the subsidies deal with the commercial aircraft market, the debate also spills over into the military market.

Sen. Trent Lott (R-Miss.), whose state is home to a European Aeronautic Defence and Space Co. (EADS) facility, received assurances, however that the resolution was aimed at the commercial market and would not affect defense or homeland security contracts.

Airbus is owned by EADS and BAE SYSTEMS.

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[7] GD's Open Architecture Allows For Rapid Upgrades To LCS, Officials Say

By Geoff Fein

While the General Dynamics [GD] Littoral Combat Ship has several features that set it apart from most combat ships, it's what isn't seen that company officials take pride in--a truly open architecture that will allow third party providers to offer upgrades, even if they are not a sub contractor.

"We have an open architecture that creates a technical infrastructure based on three things: industry standards, off-the-shelf [technologies] and published interfaces," said Robert Draim, GD's vice president Littoral Combat Ship C4ISR program, told Defense Daily in a recent interview.

"Using those three, we enable a business model that prevents any contractor from locking out other contractors from participating," he said. "You create a business environment where you detach software applications which would allow the Navy customer to go out and compete for upgrades to those applications from third party providers that don't have to be subcontractors to the prime."

This approach creates a business environment that allows for competition and for anyone to enter that fray, Draim added.

"People talk about open architecture, but can a third party provider write an application to run on your architecture if they are not a subcontractor to you? That gives you indication of just how open the architecture is," he said.

GD has installed a tremendous amount of communications capability on its LCS to connect to the network, the Internet, to download information from other ships and to uplink information from them, Draim explained.

Additionally there are communications capabilities driven by the mission packages, he added.

"When you put [these] vertical take-off [unmanned aerial vehicles] out there as well as 11 meter [rigid inflatable boats] going out and getting information and transmitting it back to the ship, you need a rather hefty communications capability," Draim said. "We solicited the best of industry. We used an e-business model and Internet web site to go through the selection process. And this is all existing equipment."

There was no new technology development in the selection of the core mission system, including sensors and weapons, he added.

The foundation of the core mission system is a computing environment, not a legacy combat system, Draim explained.

"We have core capability based on a computing environment that operates as if it's an Internet using Internet protocols [and] Ethernet connections," he said.

Providers, for example, a sensor, offer information to this Internet. And they have users, like the integrated combat management system that subscribes to that data, Draim said.

The system then works in reverse as the combat management system provides a firing command that is sent to a weapon that then becomes the user, Draim added.

"So it's a 'publish and subscribe' Internet-based system," he said.

The Navy assessed two middle ware products it determined to be open, Draim said. "We are using both in this architecture."

"Once you publish the interface it allows any third party providers to write applications, know how to design hardware, so [they] can run on this network, run on this infrastructure, without having to work through the prime," he said.

GD is building adapters that take inputs from weapons or sensors that are currently capable of running on modern networks and writing interfaces that adapt them to run on Internet-like core mission system architecture, Draim said. And the company is doing this with existing technologies, he added.

"So what we have here are open standards, non-propitiatory interfaces and the ability to link mission packages into this architecture the same way that we have a sonar, radar or gun," Draim said. "And we provide to [companies] the same interface standards and it gives us the flexibility to be able to see rapid upgrades even in the technology in the mission packages, because they have the same flexibility."

The open architecture also permitted GD to bring together without constraints of legacy equipment, ship condition, navigation and steering displays, as well as the warfighting area. The idea allowed for more information to be put in one small area. "That really drove the flexibility of ship, the size of the crew and facilitated what we called 'any display anywhere,'' Draim said. "So you could, based on the mission, change where you will display certain key pieces of information."

There is also a second integrated command center that would allow for the transfer of operations, should the need arise.

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[8] Industry Official Offers Alternative Plan For DD(X)

By Sharon Weinberger

Rather than proceeding with a "winner take all" strategy for the Navy's next generation DD(X) destroyer, the service should consider various options for altering the program's production plans and requirements, according to a senior industry official.

"Given this consistent emphasis on process integration and open cooperation, General Dynamics finds the Government's recent announcement of a winner-take-all competition at this late stage in the program, after over seven years of development, to be confusing, contradictory and very disturbing," Michael Toner, the executive vice president for Marine Systems at General Dynamics [GD], said yesterday during a hearing in front of the Senate Armed Services sea power subcommittee.

The Navy is proposing to break up the existing DD(X) national team led by Northrop Grumman [NOC] and Raytheon [RTN]. That plan would mean that rather than splitting work between Northrop Grumman's shipyard in Mississippi and General Dynamics' shipyard in Bath, Maine, just one facility would be selected to build DD(X) (Defense Daily, Mar. 4). If GD loses, it might ultimately be forced to close its shipyard because it has no orders for work after the Navy completes its buy of DDG-51- class destroyers in 2010.

The proposed strategy, which is currently under review by DoD leadership, has met with stiff resistance from the contractors involved in the program and lawmakers who represent them. The Navy has argued that that using just one shipyard would save about $3 billion--$300 million per ship over 10 ships--under the new plan.

An alternative strategy, Toner suggested, would be to rethink the production of the first five ships, pushing out some capabilities or requirements to the future. "The DD(X) operational requirements drive an unprecedented number of new technologies brought to bear simultaneously on the first ship," he said.

In his written testimony, Toner provides examples of various alternatives, including an option would have the first DD(X) include "revolutionary technologies," while deferring other technologies to later production. "The Tumblehome hull form, the revolutionary electric drive propulsion systems, and the appropriate level of capability in the combat system are things that would remain on the first and all following ships," Toner said.

Other capabilities could be rethought, however, including the composite deckhouse and hangar. Those configurations could be considered for deferral to a later spiral, he said.

Another option would be to defer some of the ship's basic capabilities, he said. For example, the first five ships could start with the ant-submarine warfare component, and then the Navy could add mine countermeasures, signature reduction, and other requirements

later.

Industry officials from both General Dynamics and Northrop Grumman have consistently argued that the declining shipbuilding budget and overall funding instability has been detrimental for the shipbuilding industrial base.

"The instability in shipbuilding rates has produced sinusoidal waves in workforce," Philip Dur, the head of Northrop Grumman Ship Systems, said in his testimony yesterday. "There is a prohibitively high cost to the nation for this turbulence--measured in dollar costs and lost capabilities to shape world events, respond to crisis and fight wars."

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[9] EADS To Supply German Army C2 System To Improve Netcentric Operations

The European Aeronautic Defence and Space Co. (EADS) said on Monday it will supply the Germany army with software valued at approximately $29.7 million for a modern army command and control information system, called FuInfoSys Heer.

The system is to equip the army with a comprehensive range of highly mobile battlefield and command post facilities over the next several years. This is a major step toward improving the army's command strength while satisfying the new NATO requirements and the German army's extended mission range.

The new system will be introduced starting in 2007 with the active army units. The system will help create an integrated control structure encompassing all levels of military command, from division level to troops, improving the army's network centric operations.

The Defence and Communications Systems business unit is EADS' systems house and an integrated part of the EADS Defence and Security Systems Division.

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[10] Another Step Forward Toward Launching Soyuz From French Guiana

The leaders of Arianespace and Russian space agency Roscosmos April 11 signed a partnership contract in Moscow for the infrastructure needed to launch Soyuz from the Guiana Space Center (CSG) in French Guiana.

Arianespace has already signed contracts for Soyuz launches from French Guiana with both government and commercial customers for launches starting in 2008.

The contract marks the first step in applying the inter- governmental agreements among France, the Russian Federation and the European Space Agency to allow Soyuz launches from French Guiana. It comes after four agreements on program financing signed March 21.

The infrastructure contract provides for the manufacture, assembly and validation by Russian companies of Soyuz launcher interface systems and equipment, adaptation of the launcher to range safety, telemetry and environmental conditions at CSG and completion of the final development of the latest version of the Soyuz 2-1b launcher.

For the contract, Roscosmos is working with the Samara Space Center TsSKB Progress, prime contractor for the Soyuz launch system, NPO-Lavotchkine, prime contractor for the Fregat upper stage, the KBOM design office, prime contractor for ground infrastructures, and TsENKI, the government center in charge of supervising the Russian industrial partners involved in the ground infrastructure.

Currently, Soyuz launches from the Baikonur cosmodrome in Kazakhstan, and are marketed by Starsem, a joint subsidiary of ArianeSpace, the European Aeronautic Defence and Space Co. (EADS), Roscosmos and the Samara Space Center.

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