

HII Wins Contract To Incorporate SPY-6 AMDR Radar On DDG-51 Destroyer

By Richard Abott

The Naval Sea Systems Command awarded **Huntington Ingalls Industries** [HII] an unspecified fixed-price-incentive-firm target contract modification on Tuesday to incorporate Flight III baseline on to the future DDG-125 *Arleigh Burke*-class destroyer.

Flight III will incorporate the SPY-6 air and missile defense radar (AMDR), upgrade the electric power and cooling capacity, and other associated changes.

The Navy highlighted the award amount is considered source selection sensitive information because it expects to release a comprehensive solicitation for additional DDG-51-class ships in the configuration in the future. Therefore, the Navy did not make the value public.

This award represents the first DDG-51 Flight III baseline contract award, the Navy said.

DDG-125 will be named the *Jack H. Lucas*, after the World War II Medal of Honor recipient from the Battle of Iwo Jima.

The work is scheduled to be finished by fiscal year 2024. 60 percent of the work will occur at HII's facility in Pascagoula, Miss.

Last month **Raytheon** [RTN] won a \$327 million modification option to produce the first three low-rate initial production (LRIP) SPY-6 AMDR units for delivery by early 2020 ([Defense Daily, May 5](#)).

The SPY-6 is a Gallium-Nitride-based radar designed to increase the range, sensitivity, and discrimination accuracy compared to the SPY-1s on existing DDG-51s.

HASC Democrats To Offer Climate-Change Amendment

Democrats plan to propose an amendment on the national security implications of climate change when the House Armed Services Committee (HASC) marks up its fiscal year 2018 defense authorization bill June 28.

Rep. Jim Langevin (D-R.I.), the ranking member of the HASC's emerging threats and capabilities subcommittee, is expected to spearhead the amendment.

While President Donald Trump has expressed skepticism about climate change, defense officials have warned that the massive melting of ice in the Arctic could open the region to more activity by Russia and other potential adversaries, possibly requiring the United States to place more surveillance and other assets there.

Defense officials have also said that certain U.S. coastal bases, such as those in the Norfolk, Va., area, could be deluged by rising sea levels and that climate change in less-developed parts of the world could foster instability.

White House Announces Potential Defense Sales To India

By Calvin Biesecker

The White House late Monday announced the potential sale of several military platforms and related systems to India, including an additional C-17 transport aircraft, attack helicopters and a maritime variant of the Predator unmanned aerial vehicle.

On Monday, the Pentagon’s Defense Security Cooperation Agency (DSCA) said the U.S. State Department has approved a possible Foreign Military Sale of one **Boeing** [BA] C-17 aircraft to India for \$366.2 million, including four Pratt & Whitney F-117-PW-100 engines, an **Orbital ATK** [OA] AN/AAR-47 Missile Warning System, a **BAE Systems** AN/ALE-47 countermeasures dispensing system, a **Raytheon** [RTN] AN/APX-119 identification friend or foe transponder, precision navigation equipment, spares and other related support. Pratt & Whitney is a division of **United Technologies Corp.** [UTX].

DSCA said it has delivered the required notification to Congress of the possible sale.

India already has 10 C-17s that it ordered in 2010. The additional transport is the last one Boeing produced and is stored in a company facility in San Antonio, Texas, a company spokesman told *Defense Daily* on Tuesday. Boeing ended C-17 production more than a year ago.

The Boeing AH-64 Apache attack helicopters mentioned in a White House fact sheet refers to a potential \$1.4 billion FMS deal proposed by the Pentagon in Dec. 2010 for 22 AH-64D Block III Longbow variants of the helicopters.

The planned deal for the Apaches also included engines made by **General Electric** [GE], various radar system, Hellfire and Stinger missiles, target acquisition and pilot night vision sensors, with **Lockheed Martin** [LMT] and Raytheon responsible for the various systems and missiles.

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The White House announcement referred to the Sea Guardian UAV, which is a version of the General Atomics-built Predator aircraft. A proposed sale of the Sea Guardian hasn't been announced by the Pentagon or State Department although media reports have but the number of aircraft at 22.

The potential sales were announced the same day that Indian Prime Minister Narendra Modi met with President Donald Trump at the White House.

The White House fact sheet says completion of the equipment sales "will further enhance the capabilities of the Indian Armed Forces and provide additional opportunities for interoperability," adding that if the sales go through, they "would increase bilateral defense trade to nearly \$19 billion, supporting thousands of United States jobs."

India is also hosting a fighter aircraft competition in which the U.S. is offering Lockheed's F-16 and Boeing's F/A-18 aircraft.

The U.S. and India are currently working on a Defense Technology and Trade Initiative to strengthen collaboration on defense development and production programs. The technologies and platforms under discussion for potential co-development include India's participation in the U.S. Future Vertical Lift program, the White House said.

Army Network Establishes On-The-Move Open Architecture Capable Of Constant Upgrades

By Dan Parsons

TAUNTON, Mass. – Recent criticism from lawmakers aside, the Army's battlefield network not only is fielded but has established a baseline communication backbone capable of constant technological upgrades needed for future fights where battle happens as much in virtual world as on the ground, sea or air.

The Warfighter Information Network-Tactical, or WIN-T, program came under fire at a recent Army budget hearing by Senate Armed Services Committee (SASC) Chairman John McCain (R-Ariz.) for taking more than 10 years to field, among other concerns.

"That's one of my concerns: that it's not going to get fielded. It's already been in development for 10 years. A lot of this stuff is already out of date," McCain told Army Chief of Staff Gen. Mark Milley during a SASC hearing in May. "So the entire acquisition approach, especially in information technologies, we need to review that. It's one thing to build homogeneous steel and guns and tanks and vehicle systems. But the technological speed of advance in the commercial sector on information technologies is far more rapid than anything that the government's acquisition system is capable of handling."

Engineers and executives at **General Dynamics** [GD] Mission Systems, which holds the contract to manufacture WIN-T, recently explained why the system is designed specifically to accomplish what McCain is concerned it is failing to do.

WIN-T is not simply a satellite-based communication network over which commanders and soldiers can talk. It is a mobile intranet that, under most circumstances, allows mission command on the move and for individual soldiers in a war zone to communicate all the way back to the continental United States, according to Bill Weiss, vice president and general manager of ground systems at GDMS.

"It's an IP-routed intranet that very flexibly allows applications to plug into it and those applications can change over time responsive to new operational needs, threats, whatever," Weiss said. "From just the communications standpoint ... if operational needs change, the threat environment changes, certain pieces of the communications part, the radios and SATCOM part needs to change, then they can readily change without changing that core

network.”

“It is a logical place to improve rather than just starting over,” Weiss added.

While WIN-T is in fact a 10-year-old program, the technology it has fielded has been consistently upgraded over the past decade, Weiss said.

Increment 1, which started delivering in 2004, was already being reset and refreshed two years later. As units equipped with WIN-T returned from deployments, GD takes their gear and either clean it up and rest it to its original condition or refresh the hardware and software with more up-to-date versions.

“Since 2006 we have been keeping that technology up to date,” Weiss said. “We still continue to do that for units that are equipped with Increment 1. Even though, from a functional standpoint, Increment 1 hasn’t changed appreciably since it was first fielded in 2004, the technology is state of the art.”

Weiss explained the open-architecture design of WIN-T by comparing it with the relatively closed-off, single-purpose Blue Force Tracker system. Where Blue Force Tracker simply provides location information of friendly forces, the WIN-T enterprise network can host voice, video and data transmissions and is ready to accept new capabilities and functionality.

“Blue Force Tracker is a very narrowly focused stovepiped network to support a very limited service and capability,” he said. “What WIN-T is, it’s an open standards-based [internet provider] network. Just like the enterprise network that support a building, just like the Internet, whatever services can run over that network are permitted over WIN-T.”

An added benefit of Increment 2 in particular is that is can accept new capabilities not originally specified by the Army. As threats to a dispersed battlefield network grow or change, WIN-T2 can be tweaked, hardened or altered to address those issues, Weiss said.

“We’re always having to put in additional protections against cyber threats,” Weiss said. “That’s a very routine thing that we do regularly.”

GD also is working to provide precision navigation and timing through WIN-T as a backup positioning system should the Army lose GPS in a future fight. Near-peer adversaries are expected to attack GPS connectivity, if not also the constellation of satellites themselves future wars where the electromagnetic spectrum is contested.

“There still is engineering work that is being done from a couple of key standpoints,” Weiss said. “We need to make sure that commercial gear that we buy is sufficiently rugged to withstand the expected environments.”

Relying heavily on commercial-off-the-shelf technologies, GDMS is constantly addressing capability gaps and improving the established functionality of WIN-T. GDMS uses networking software provided by commercial companies like **Cisco** [CSCO] and **Juniper Networks** [JNPR] and hosts it on ruggedized computers it manufactures for use on military vehicles. In “environmental labs” at its Taunton, Mass., facility, GD tests the resilience of commercial components in temperature chambers and on shake tables that simulate a system riding atop a Humvee over rough terrain.

“It’s not a one-off for them,” Weiss said. “It is something that they will continue to support as a commercial product, but we get the advantage of being able to run these commercial networking functions on rugged computing that we’re providing and that allows us to make things a lot smaller, which is very important for what we’re doing.”

Over time, GDMS has dramatically reduced the size and deployability of WIN-T components. The size of the WIN-T tactical communication node (TCN) – the main communications relay used by a division, brigade or battalion command post – initially required a 5-ton truck to haul it around. The new version, called the TCN Light, can be installed on a Humvee. The TCN Light is undergoing tests at Fort Campbell, Ky., and will soon move to Fort Bliss, Texas, to field with the 2nd Brigade, 101st Airborne Division during the Network Integration Evaluation in July.

A more-mobile WIN-T “point of presence” (PoP) – which functions as a remote satellite relay from battalion or higher to dismounted troops - currently takes up two racks on the back of a Humvee.

The system has been redesigned to fit in a single rack, which frees up half the space it used to take up for other gear needed to set up a mobile command post. Particularly in Europe, the Army is interested in making command posts more mobile because a stationary communications hub is a sitting duck for modern sensors and artillery.

“Aside from WIN-T, what a command post is, is computing infrastructure that runs applications,” Weiss said. “Now the computing infrastructure to support command post operations can be installed right together with WIN-T into one, which more readily supports expeditionary operations.”

“The cost roughly follows that,” Weiss said. “There, about a third of the cost that comes out of it as well.”

Bob Lennox, a former Army three-star general who is senior vice president for Strategy and Customer Engagement at GDMS, said WIN-T could be upgraded and improved to satisfy the Army's need for a more-mobile command post.

“You don’t need a separate command-post program,” Lennox said. “You can get that capability with WIN-T by just adding a couple of boxes” to the back of a Humvee.

WIN-T also is able to “fall-upon” other standard-based systems like the Vehicular Integration for Command, Control, Communication, Computers, Intelligence, Surveillance, Reconnaissance/Electronic Warfare Interoperability, or VICTORY, architecture. VICTORY is the baseline network software configuration for tactical vehicles. Having both it and WIN-T designed as open-architecture systems allows the network to dual-purpose some component like GPS receivers or processors, which saves space in tightly packed combat vehicles.

The current Increment 2 kit forces the removal of two seats in a Stryker wheeled combat vehicle. The new half-size version is installed behind the seats and allows for replacement of the two spots lost with the previous version. The new version is not yet fielded with Stryker brigades because the next unit to be outfitted with Increment 2 is not scheduled to rotate through depot maintenance until 2019.

“The Army could choose to retrofit Stryker units that already have WIN-T but they haven’t chosen to do that yet,” Weiss said.

At the May hearing, Milley told McCain he had concerns over WIN-T’s resilience and reliability in a contested environment

“There are some significant changes and improvements that must be made in the short-term on our ability to have assured communication. I’ll just leave it at that,” Milley said. “The communications architecture of the United States Army, and I would argue the United Department of Defense, is a critical capability and at the same time a critical vulnerability.”

GDMS contends WIN-T Increment 2 is more survivable than the first iteration. It also is working to address connectivity issues with networking radios that connect to WIN-T at the tactical edge. One near-term solution for extending the range of a radio-to-WIN-T connectivity is through the Mobile User Objective ultra-high frequency SATCOM system. GD also has experimented with using unmanned aircraft as expeditionary, short-range communications relays to extend the range of networking radios.

“Strictly speaking, how do you extend communications, it’s very viable, technically,” Weiss said. “It’s not particularly difficult. We’ve demonstrated it a number of times. It’s just a matter of a decision to apply resources to it and work out the operational issues.”

McCain called for a review of the Army’s tactical network modernization strategy and was seconded by Milley, who has ordered a report on the issue by mid-July so its recommendations can be incorporated into the service’s fiscal 2018 budget request.

Lennox said that review likely will spawn new requirements for WIN-T from Training and Doctrine Command.

“That will generate all the changes of resourcing and the PEO actually sending out a request for information on how to improve the system,” Lennox speculated. “We don’t wait for that, generally, as you saw with the size, weight and power changes that were made ... Those requirements don’t exist that we are allegedly not meeting.”

Lockheed Martin Finishes Building Second GPS III Satellite

By Marc Selinger

Lockheed Martin [LMT] has finished assembling the second Global Positioning System (GPS) III satellite for the U.S. Air Force and plans to begin environmental testing of the navigation spacecraft this summer, the company announced June 26.

The testing, which will take place at a company plant near Denver, is designed to ensure the satellite can withstand the harsh conditions of launch and space. The satellite is slated to be available for launch in 2018.

Eight more GPS IIIs are in various stages of production, including the third satellite, whose navigation payload was delivered by **Harris Corp.** [HRS] in May.

The first GPS III satellite completed its final factory functional qualification testing in February and is in storage awaiting its expected launch in 2018.

GPS III satellites are designed to replenish the GPS constellation and provide more accurate signals, be more resistant to jamming and last longer than existing spacecraft.

In May 2016, the Air Force awarded contracts to **Boeing** [BA], Lockheed Martin and **Northrop Grumman** [NOC] to study the feasibility of producing the 11th GPS III satellite and beyond.

Those studies are expected to wrap up this summer and lead to the completion of an acquisition strategy, including a decision on whether a competition will be held, Air Force officials told reporters last month.

Glock Protests Not Getting Second Shot When Army Shortened Pistol Program

By Dan Parsons

Speeding up the process for selecting a new Army sidearm could have spurred the 100-day protest that held up replacement of the Beretta M9 pistol, according to the Government Accountability Office (GAO) redacted [decision](#).

The Army in January awarded **Sig Sauer** a contract to build up to 550,000 P320 pistols to replace the M9, which has been the service's primary sidearm since the 1980s. **Glock Inc.**, manufacturer of pistols in ubiquitous use by U.S. law enforcement agencies and foreign militaries, protested the award to the GAO, contending that the Army had failed to award more than one contract for what was initially a secondary test phase.

A request for proposals for the Modular Handgun System was issued in August 2015. The Army eventually received a total of nine proposals from five handgun manufacturers. Each competitor could submit either a full-size handgun or a full-size model and a compact version for consideration.

The Army's original acquisition plan called for downselecting to as many as three handguns that would undergo additional testing to determine which design would replace the M9. Army Chief of Staff Gen. Mark Milley took a personal interest in speeding the program early in his tenure as the service's top officer. He truncated the program by eliminating the second phase of testing and going straight from testing the five competitors to a single award.

Glock protested "that the solicitation required the [Army] to make at least two awards after the initial evaluation phase is denied, where the solicitation did not require this outcome," GAO General Counsel Susan Poling writes in the GAO decision issued June 5 but published last week after redactions were made. "Instead, the agency reasonably determined that a single award was in the best interest of the government, where proposals were technically proximate and the protester's proposed price was substantially higher than the awardee's price."

Glock's submission also came in at a dramatically higher price tag than did Sig Sauer's, according to the GAO report. Though it does not show per-unit or total cost of competitive bids, the report says Glock's pitch cost \$102.7 million more than Sig's.

The Army found Sig Sauer held a "slight technical advantage" over Glock, according to the GAO decision. In deciding to make only one award, when up to three were permitted, the Army found "no correlating superior performance factor for Glock, as compared to Sig Sauer, to support paying that premium."

"Based upon the technical evaluation and my comparative analysis of the proposals, the Sig Sauer proposal has a slight technical advantage over the Glock proposal," Poling writes. "Since there were so few other discriminators between the two proposals in most aspects, the least important factor, price, became a significant discriminator. ... Consequently, I cannot justify paying a price premium of over 37% for the Glock submission, even as a second award.

Glock alleges several other inadequacies with the Army's selection process, including it too-heavily weighted the requirement for a manual safety switch. An elemental feature of Glock's pistol design is a trigger-safety that is always activated until the shooter puts pressure on a lever integrated into the trigger. It does not have an independent slide-mounted safety switch. The Sig P320 does have such a safety.

The portion of the GAO decision explaining its denial of Glock's protest regarding the safety is heavily redacted. GAO points out that the Army's initial solicitation highlighted overall safety as a priority, and stated proposals could be disqualified for 'safety issues,' as determined by Army testers.

“The Army assigned Glock’s proposal a weakness after [REDACTED], which could result in an [REDACTED],” the decision says. “In addition, during testing under the early warfighter acceptance subfactor, the Glock handgun [REDACTED] was [REDACTED]. Offerors were informed that the Army would evaluate the ability of the user to operate the safety as part of the joint warfighter ergonomics subfactor. The [REDACTED] on the handgun was reasonably encompassed by the factors disclosed to Glock. Furthermore, [REDACTED], we do not think that the Army placed undue emphasis on the safety in the evaluation. This protest ground is denied.”

New UK Carrier Starts First Sea Trials

By Richard Abott

The U.K. Royal Navy’s HMS *Queen Elizabeth* aircraft carrier went out to sea for the first time as it begins sea trials in the North Sea off the coast of Scotland, the Ministry of Defence (MoD) said Monday.

The Royal Navy’s largest ship in history moved from its basin at Rosyth, where it was under construction since 2014, into the Forth estuary over the course of four hours.

There the ship had to wait until it could pass under two road and one rail crossings before starting the six weeks of sea trials.

The trials will have over 700 sailors and 200 contractors onboard the ship testing its engines and propulsion systems, ability to produce fresh water, cope with sewage, feed the crew, and supply electricity, the Royal Navy said.

“This floating fortress is by far the most powerful ship ever built in Britain that will enable us to tackle multiple and changing threats across the globe,” Defence Secretary Michael Fallon said in a statement.

The Defence Ministry highlighted the lock at Rosyth had just 35 cm of space on either side of the ship and 50 cm separating the keel from the lock bottom. 11 tugs helped maneuver the *Queen Elizabeth* into the Forth estuary.

The maneuver was practiced over 30 times in simulators.

“This is a hugely significant moment for the Royal Navy, for all our Armed Forces – and for our island nation. Once in service, *Queen Elizabeth* will be the largest aircraft carrier in the world outside the United States,” First Sea Lord Admiral Sir Philip Jones, added.

The *Queen Elizabeth* will have a range of 10,000 nautical miles and 500 nautical miles per day with 65,000-ton displacement. It is 280 meters long and 90 meters wide.

Following sea trials, the *Queen Elizabeth* is set to be handed over to the MoD on behalf of the Royal Navy this year.

Last September Fallon said the carrier will host U.S. F-35s starting in 2021. Each *Queen Elizabeth*-class carrier can take up to 40 aircraft, both rotary and fixed wing. It is predicted they will routinely operate with 12 F-35s while being capable of carrying up to 36 F-35B short takeoff and vertical landing variants ([Defense Daily, Sept. 7, 2016](#)).

The ship was built by the Aircraft Carrier Alliance, a team of Britain’s **BAE Systems**, France’s **Thales**, **Babcock**, and the MoD.

CSRA To Provide Infrastructure Services For DISA's Cloud Development

By Matthew Beinart

The Defense Department's Defense Information Systems Agency (DISA) is ramping up the first development phase of milCloud 2.0, its platform to connect commercial cloud providers with defense networks, by awarding **CSRA Inc.** [CSRA] a \$498 million ceiling contract to utilize their private infrastructure and help broaden their cloud portfolio.

The indefinite-delivery contract, officially awarded on June 9 and announced on June 26, will begin with an initial \$600,000 task order to the information technology (IT) and professional services company and contains a three-year base period for operations through June 2020 with five subsequent one-year follow-up options.

"During the initial task period, CSRA will be responsible for Non-Classified Internet Protocol Router hardware installation, certification, and accreditation activities. It will also include tasks to achieve an Infrastructure as a Service Department of Defense Level 5 Provisional Authorization, tasks to achieve transition of initial consumer workloads, and several other tasks," CSRA spokesman Tim Doheny told *Defense Daily*.

All eight years of possible contract options would involve phase one of the milCloud 2.0 development, according to Doheny.

With milCloud 2.0, DISA will expand upon current services offered in 1.0 while moving towards continued support of DoD data center consolidation and the transition from legacy applications to cloud computing services. DISA is aiming to reduce the total cost of ownership for defense infrastructure services and utilize the cloud to allow mission partners to meet real-time operational requirements.

CSRA's role in phase one of milCloud 2.0, if subsequent contracts are picked up, will include providing infrastructure services to DoD consumers and partners, improving performance of data center services, reducing DoD's total cost of ownership for delivering infrastructure services, broadening the overall cloud portfolio, and ensuring that all services meet cybersecurity and privacy regulations.

"We are now positioned as the industry leader for cloud and military IT. The milCloud 2.0 platform will enable our DoD customers to deploy CSRA's next-generation technology and services to complete their missions more efficiently and more securely," CSRA President and CEO Larry Prior said in a statement. "The Department of Defense is ready to take the next step in its IT transformation. We are excited to continue this partnership with the military and provide our experts and resources to exceed their demands."

The ceiling contract would also utilize CSRA's Integrated Technology Center to provide additional support for the various areas of the DoD's cloud network.

Leonardo DRS Completes Acquisition Of Daylight Solutions

By Calvin Biesecker

Italy's **Leonardo** on Monday said its United States-based subsidiary Leonardo DRS completed its \$150 million acquisition of Daylight Solutions, a deal which adds to its business base in America and provides it with new laser technology.

"Innovation is at the core of Leonardo DRS and Daylight Solutions brings an exceptional record of technology advancements in the growing field of infrared laser systems," William Lynn, CEO of Leonardo DRS, said in a statement.

Leonardo DRS plans to integrate Daylight's quantum cascade laser technology into its core electro-optical and infrared sensors and systems.

Daylight Solutions is based in California. Leonardo first announced the deal in March, saying at the time the small company is poised for significant growth given its position on new U.S. military aircraft survivability systems that are rolling out.

Leonardo also said that the acquisition will expand technology solutions for medical and industrial customers.

Daylight's financial advisor on the deal was **Mooreland Partners**.