Navy Awards Lockheed Martin Contract for LCS 31

ARLINGTON, Va. – Naval Sea Systems Command has awarded to the Lockheed Martin LCS team a fixed-price, incentive-fee contract for an additional littoral combat ship, LCS 31, the company said in a release.

LCS 31 will be built in Marinette, Wisconsin, at teammate Fincantieri Marinette Marine's (FMM's) shipyard. The ship will be the 16th Freedom-variant LCS ordered by the U.S. Navy to date.

"The team will leverage capital investment and improvement in the shipyard and efficiencies created with serial production to maintain high quality at an affordable cost," said JoAnn Grbach, senior manager, Naval Programs Communications, Lockheed Martin Rotary and Mission Systems. "Today, there are seven ships in various stages of construction. The Navy just commissioned LCS 13 (Wichita) and we're preparing to lay the keel for LCS 25 (Marinette).

"We are excited to continue our partnership with the U.S. Navy and FMM to build and deliver capable ships to the fleet," said Joe DePietro, vice president and general manager, Lockheed Martin Small Combatants and Ship Systems. "With the Freedom variant in serial production, we continue to enhance efficiency and incorporate capability while maintaining ship and program affordability."

The value of the contract was not released by the Navy yet because of ongoing competition.

Austal USA Reveals Features of Its FFG(X) Conceptual Design for Navy Competition

ARLINGTON, Va. – Austal USA officials have revealed features of its conceptual design for the Navy's competition for the Future Guided-Missile Frigate (FFG(X)), an evolution of its Independence-class littoral combat (LCS) design.

The company has provided an artist's concept and displayed a model Jan. 15 -17 at the Surface Navy Association symposium.

The general form of the Independence is preserved – the trimaran hull, the large flight deck aft, the Mk110 57 mm gun – but many changes are featured.

The Austal FFG(X) design has a longer hull with deck space aft of the flight deck. Occupying that space is a 32-cell-array Mk41 Vertical Launching System battery and two sets of tube launchers for the Naval Strike Missile. The SeaRAM launcher is forward of the bridge rather than on the aft super structure atop the helicopter hangar.

The helicopter hangar is large enough to accommodate an MH-60 helicopter and an MQ-8C Fire Scout unmanned aerial vehicle. On top of the hangar, where the SeaRAM launcher is on the Independence class, the space was blank.

Terry O'Brien, Austal USA's vice president of business development, said the space was reserved, per the Navy's requirement, for a future directed-energy weapon.

The face of the deckhouse superstructure is not as streamlined as on the Independence. The ship's speed requirement is less than the 40-plus knots of the LCS, and, accordingly, it would be driven by twin controllable-pitch propellers rather than

waterjets.

Navy’s DDG 51 Manager Revels in Program Stability

ARLINGTON, Va. – The program manager for the Navy’s new-construction Arleigh Burke-class (DDG 51) guided-missile destroyers reveled in the stability of the program in wake of the passage of the 2019 defense budget and the approval of multiyear procurement of 10 destroyers.

The first passage of a defense budget in 10 years without a continuing resolution enabled the Navy to proceed early in the fiscal year with a multiyear procurement for fiscal 2018 through 2022 of six DDGs for Ingalls Shipbuilding and four for Bath Iron Works, with each contract offering an option for five more DDGs.

Each shipyard was awarded a DDG in the 2019 budget and Congress awarded a third DDG, with the Navy giving the ship award to Bath Iron Works.

“You know, here we are in January and all my ships are awarded,” Capt. Casey Moton, the DDG 51 program manager, said Jan. 16 at the Surface Navy Association symposium. “It’s a good deal. I like that.”

Moton said the multiyear procurement was “very important to us” and would bring cost savings in terms of economic quantity of order.

He said that the program has 22 ships under contract, 10 of them currently under construction. The first Flight III

version, DDG 125, is one of the ships under construction at Ingalls. Its keel-laying is scheduled for June. The first Flight III ship to be built at Bath Iron Works is DDG 126, the construction of which will begin this year. A total of 13 Flight III ships are under contract.

The Flight III has capability enhancements including the Raytheon-built SPY-6 Air and Missile Defense Radar and Aegis Baseline 10/Technical Insertion 16 software. The SPY-6 gives a 15-decibel increase in sensitivity over the SPY-1 radar on the earlier DDG flights. An air conditioning capacity of more than double the current capacity will give the increased cooling needed by the Flight III ships.

Moton said the testing of the SPY-6 “has gone very well” and has performed successfully in 14 ballistic-missile tracking events, with one more test to go.

He said that a SPY-6 radar will be installed at the Lockheed Martin facility in Moorestown, Pennsylvania, for “full array integration with the Aegis Baseline 10 Combat System.

Despite the favorable fiscal climate, Moton stressed that “shipbuilders need to continually work to get cost down.”

Navy FFG(X) Program Cost Estimates Trending Downward

ARLINGTON, Va. — The cost estimates of the Navy’s future guided-missile frigate (FFG(X) are coming in under the required threshold and trending downward toward the cost objective, the program manager said.

Speaking Jan. 17 to an audience at the Surface Navy Association symposium, Dr. Regan Campbell noted that the cost threshold for the ship will be under the $950 million threshold (in fiscal 2018 dollars).

“We started close to the $950 [million],” Campbell said. “We’re trending close to the $800 [million].”

She estimated that government-furnished equipment will total to one-third of the cost of the ship. Most of the equipment is common with other ship types, its selection aiding in the control of costs.

The Navy plans to fund one FFG(X) in 2020 and two per year thereafter for a current requirement of 20 ships.

The program office has completed a set of initial design reviews of the five competing designs and is planning a second set this spring. The program is in the 11th month of the 16-month conceptual design phase competition.

“We now have a CDD [Capabilities Description Document] that has been Navy-approved,” Campbell said, noting that the program is soon coming up for approval before the Joint Requirements Oversight Committee. “Our requirements are secure.”

The program office expects to issue a draft request for proposals in the spring for a detailed design and construction contract award in the fourth quarter of 2020. The down-select will award only one design.

The FFG(X) will be equipped with the Raytheon-built Enterprise Air Search Radar, the Mk110 57 mm gun, the Mk41 Vertical Launching System – armed with the Standard Missile-2 surface-to-air missile and Block II of the Evolved SeaSparrow Missile – the Block II of the SLQ-32 SEWIP (Surface Electronic Warfare Improvement Program), with a space reservation for SEWIP Block III. The ship will be able to carry one MH-60R Seahawk

helicopter and one MQ-8C Fire Scout unmanned aerial vehicle.

Navy Surface Chief: Western Pacific Ship Readiness Improving

ARLINGTON, Va. – The readiness of the Navy's Forward-Deployed Naval Forces (FDNF) stationed in Japan is improving, the Navy's surface warfare chief said, crediting a new command, the Naval Surface Group Western Pacific, with driving much of the improvement.

"The ships are producing better readiness," Vice Adm. Richard A. Brown, commander, Naval Surface Forces and Naval Surface Force Pacific, told reporters in a Jan. 11 teleconference, noting that there was "a lot of hand-wringing" when the additional layer of command was added to the FDNF following the two 2017 at-sea collisions involving the Arleigh Burke-class guided-missile destroyers USS Fitzgerald and USS John S. McCain.

Investigations revealed that many FNDF surface ship crews were going on patrol without all of the certifications in specific warfare areas, caused in part by heavy operational schedules that hindered crew training in all of the required areas.

The Naval Surface Group Western Pacific was established to provide more supervision of the training and other support to the FNDF surface ships.

"The Naval Surface Group Western Pacific is on point," Brown said, noting that ships in the group are now "going out fully

certified.”

LCS Mission Modules Progressing Toward Operational Capability

ARLINGTON, Va. – The various mission modules for the three mission packages designed for the Navy’s littoral combat ship (LCS) are progressing through their testing milestones toward their initial operational capability (IOC), a Navy official said.

“This is really a good time to be in mission modules,” Capt. Ted Zobel, the Navy’s mission module program manager, said Jan. 15 at the Surface Navy Association annual symposium, noting that two years ago progress was less impressive.

Zobel is in charge of development of mission modules for three mission packages currently in development for the LCS: Surface Warfare (SUW) Anti-Submarine Warfare (ASW) and Mine Countermeasures (MCM).

He said that the Surface-to-Surface Mission Module of the SUW package – a launcher that fires the Hellfire Longbow missile – has completed developmental test on USS Milwaukee (LCS 5) and USS Detroit (LCS 7) and is in operational test on Detroit. A total of 55 missiles have been fired to date with a greater than 91 percent hit rate. He showed a video of the missiles being fired from an LCS and successfully destroying a swarm of six high-speed targets.

Zobel said the Hellfire missiles countered the targets that

were “pretty representative of an attack by FIAC (fast inshore attack craft).”

The SSMM will reach IOC in the second quarter of 2019 on USS Jackson (LCS 6).

The preproduction test article of the ASW package’s Variable-Depth Sonar (VDS), delivered from Raytheon in November, is going through testing on board a ship at the Atlantic Underwater Test and Evaluation Test Center at Andros Island in the Bahamas. The VDS is scheduled for installation on USS Fort Worth (LCS 3) during the third quarter of 2019, with developmental test scheduled for August or September.

Zobel said the VDS “should be able to [reach] IOC in 2020.”

With the COBRA (DVS-1 Coastal Battlefield Reconnaissance and Analysis) sensor reaching IOC last year, all three aviation mission modules of the MCM mission package are certified to deploy on an Independence-variant LCS. During fiscal 2019, the MCM package will be integrated on a Freedom-variant LCS, Fort Worth.

Zobel said the Knifefish MCM autonomous underwater vehicle went through integration testing on an Independence-variant LCS in December. The UISS (Unmanned Influence Sweeping System) was in its last week of integration testing and is on track for developmental test and operational test by 2021. The full MCM package is slated to reach IOC in 2022.

Navy Starting Dialogue for

Future Surface Combatant USVs

ARLINGTON, Va. – The Navy is beginning to move forward on its plans for a force of future combatants that will include three types of unmanned surface vessels (USVs), a service official said.

The Navy "is just starting a dialogue with industry," Capt. Peter Small, the Navy's program manager for Unmanned Maritime Systems, said Jan. 15 at the Surface Navy Association symposium.

The Navy envisions the Future Surface Force to include a Large Surface Combatant, a Small Surface Combatant, a Large USV, a Medium USV and a Small USV. The concept is in the technology maturation phase of development.

Under the concept, a Large USV is envisioned to provide distributed fires. The Medium USV is envisioned to provide distributed sensing and communications relay. The Small USV – the Mine Countermeasures USV – would provide mine sweeping, mine hunting and mine neutralization.

The Large USV could be partially manned or optionally manned, Small said.

A draft request for proposals is expected to be issued for the Medium USV within the next two months.

The Office of Naval Research (ONR) currently is experimenting with the Sea Hunter medium-displacement USV, a vessel developed by the Defense Advanced Research Projects Agency and turned over to ONR for further concept and technology development. A second Sea Hunter is being built by Liedos for the Navy.

Small said he expects the Sea Hunter to be transferred to the Unmanned Maritime Systems program office in the future and

that his office is “working to extract all the information that we can.”

Small stressed that the Navy must be able to adapt and upgrade future USVs using a standardized architecture that will be streamlined enough to avoid complex intertwining as systems are added or changed.

Over the next two years, Small said, the Navy will develop the Unmanned Maritime Autonomy Architecture, which is intended to become a feature of future requests for proposals.

Small said the Navy is taking a “crawl, walk, run” approach to development of the future USVs and their command and control systems, stating that it needed to bring craft into service “such that we can learn along the way.”

Boeing to Deliver Second Batch of Net-Enabled Harpoons to Navy in 2020

ARLINGTON, Va. — Boeing will be delivering a second production run of Block II+ kits for the Navy’s AGM-84 air-launched Harpoon cruise missiles in 2020, a company official said.

Jim Bryan, director of Cruise Missile Systems for Boeing Missile & Weapon Systems, in a Jan. 16 conversation at the Surface Navy Association symposium, said the second batch will follow the 15 missiles delivered in 2018. The quantity to be delivered in 2020 will depend on options selected by the Navy.

The Block II+ version of the Harpoon is a net-enabled weapon that can receive target updates via data link to more refine

the missile's radar acquisition. Bryan said a Block II+ kit runs in the range of a couple hundred thousand dollars, much cheaper than delivering a new missile.

The Block II+ kits are being delivered to Naval Air Systems Command for airborne weapons. Bryan said Boeing stands ready to build kits for the surface-launched and submarine-launched versions of the Harpoon should the Navy determine a requirement.

Last summer, the Navy launched a Harpoon from the submarine USS Olympia during the Rim of the Pacific (RIMPAC) exercise for the first time in almost two decades. Bryan said that the Navy pulled it out of storage and Boeing inspected and recertified the missile for the shot.

He said the company would be interested in a contract to conduct similar re-certifications on other submarine-launched Harpoons and modernize them as well.

Six Harpoon missiles were fired during RIMPAC and all six were successful shots.

Bryan also pointed out the long shelf life and reliability of the existing Harpoon inventory.

He said the Navy's plan to increase the size of its battle force to 355 ships offers opportunities to Boeing to sell more Harpoons. The Harpoon is under tough competition from other cruise missiles with passive seekers, but he pointed out that only an active radar can give a sea-skimming missile a true all-weather capability.

The Harpoon is now fielded by more than 30 nations. The Block II, version which is not net-enabled, is marketed to international customers. Bryan said Boeing has the largest order backlog in the Harpoon program's history and will be meeting demand by expanding its manufacturing facilities.

U.S. 6th Fleet Commander: No Fixed Boundaries Between 6th, 2nd Fleets

ARLINGTON, Va. – The commander of the U.S. Navy's fleet in Europe and African waters said there will be no hard distinction between the respective areas of responsibility of the U.S. 6th Fleet and the newly established U.S. 2nd Fleet.

2nd Fleet was established in August and is scheduled to reach initial operational capability in mid-year. An earlier iteration of the 2nd Fleet, a fixture of the Cold War, was disestablished in September 2011. It operated primarily in the North Atlantic.

"Our idea is not to make a line in the water, because when you make lines, adversaries exploit them," Vice Adm. Adm. Lisa M. Franchetti, commander, U.S. 6th Fleet, Jan. 16 at the Surface Navy Association symposium. "Our idea is to work together between myself and [2nd Fleet Commander Vice Adm. Andrew L. "Woody"] Lewis to be able to figure out how to flow forces and work together to address whatever challenges come our way.

During the Cold War, 6th Fleet was much larger than its current force and mostly operated in the Mediterranean and Black Seas. Over the last five years, it has expanded its operations to include the Baltic Sea and North Atlantic and Arctic Ocean and off West Africa.

Franchetti said that until recently 6th Fleet had a relatively quiet existence, but the resurgence of Russian activity in the region has changed since 2014. Russian naval forces have been increasingly present in the Eastern Mediterranean, often in

support of the Syrian forces in that country's civil war, and in the Baltic and North Atlantic, the latter reminiscent of the submarine activity during the Cold War.

"We are rebuilding muscle by dusting off the books [of the Cold War]," she said.

"The 6h Fleet has been operating at flank speed," Franchetti said. "Operationally, it's night and day different in 6th Fleet. The days of lengthy port visits and wine and cheese events have long since disappeared."

Navy to Deploy Two Littoral Combat Ships This Year; East Coast LCSs to Deploy in 2020

ARLINGTON, Va. – The Navy will restart overseas deployments of its littoral combat ships (LCSs) this year after a hiatus of more than a year, the Navy's surface warfare boss said. Two LCSs will deploy this year from San Diego, followed by two from the East Coast in fiscal 2020.

"It's happening," Vice Adm. Richard A. Brown, commander, Naval Surface Forces, and Naval Surface Force, U.S. Pacific Fleet, told reporters in a Jan. 11 teleconference, noting that from then on "there will always be LCS forward-deployed."

Brown said that the Independence-variant LCSs USS Montgomery and USS Gabrielle Giffords will deploy this year. These deployments will mark the second and third for the Independence variant. He declined to narrow down the deployment windows for operations security reasons.

Brown said the first LCS deployments from the East Coast, departing from Naval Station Mayport, Florida, would be undertaken by the Freedom-variant LCS USS Detroit in 2020, followed by sister ship USS Little Rock.

For all of these deployments, the ships will carry the full Surface Warfare mission package, Brown said.

He said the naval component commanders of the regional combatant commands were asking for the LCSs to deploy.

The gap in LCS deployments after the deployments of USS Freedom, USS Fort Worth and USS Coronado was the result of the Navy taking time out to revamp its operational and crew concepts for the LCS. In September 2016, the Navy announced several significant changes to the LCS program based on operational experience.

The original 3:2:1 crew concept – three crews, two ships, one deployed – was changed to a Blue/Gold concept similar to that used by the ballistic-missile submarine force, with two crews dedicated to each LCS. The mission package detachments are merging with the LCS crews. The ships are being organized in four-ship divisions specializing in a single warfare specialty, with three deployable ships and the fourth a dedicated training ship that will remain in local waters to train and certify the crews.

The first four LCSs will be dedicated to research, development, test and evaluation and, like the training ships, they will be single-crewed, but could be deployed as fleet assets if needed on a limited basis.

The Navy also decided to base the LCSs according to class, with the Independence variant based in San Diego and the Freedom variant in Mayport. The decision to base the Freedom variant on the East Coast was a matter of pier support. The Freedom class, due to its size, is a better fit for the port loading requirements of Mayport.