http://nationalinterest.org/blog/the-buzz/the-us-navys-master-plan-sink-russia-china-or-anyone-else-19028

The U.S. Navy's Master Plan to 'Sink' Russia and China (Or Anyone Else)

Kris Osborn
1/12/2017

The Navy and Lockheed Martin are looking at developing a variant of the LRASM missile that fires from a deck-launcher on a ship - as opposed to having a weapon that only fires from aircraft and vertical launch tubes.

Lockheed Martin is developing a new deck-mounted launcher for the emerging Long Range Anti-Ship Missile engineered to semi-autonomously track and destroy enemy targets at long ranges from both aircraft and surface ships.

The weapon, called the LRASM, is a collaborative effort between Lockheed, the Office of Naval Research and the Defense Advanced Project Research Agency, or DARPA.

The LRASM, which is 168-inches long and 2,500 pounds, is currently configured to fire from an Air Force B-1B bomber and Navy F-18 carrier-launched fighter. The current plan is to have the weapon operational on board an Air Force B-1B bomber by 2018 and a Navy F-18 by 2019, Navy statements have said.

With a range of at least 200 nautical miles, LRASM is designed to use next-generation guidance technology to help track and eliminate targets such as enemy ships, shallow submarines, drones, aircraft and land-based targets.

Navy officials said LRASM is currently developing along with what it calls Increment 1 to establish an initial air-launched missile solution for the Navy.

"The objective is to give Sailors the ability to strike high-value targets from longer ranges while avoiding counter fire. The program will use autonomous guidance to find targets, reducing reliance on networking, GPS and other assets that could be compromised by enemy electronic weapons," a Navy statement said.

The missile has also been test fired from a Navy ship-firing technology called Vertical Launch Systems currently on both cruisers and destroyers – as a way to provide long range surface-to-surface and surface-to-air offensive firepower.

Navy officials told Scout Warrior that the service is making progress with an acquisition program for the air-launched variant of LRASM but is still in the ealry stages of planning for a ship-launch anti-ship missile. The Navy will likely examine a range of high-tech missile possibilities to meet its requirement for a long-range anti-ship missile -- and Lockheed certainly plans to submit LRASM as an option for the Navy to consider.

"The Navy is in the process of researching and defining requirements for a shipboard anti-ship missile. Competition will absolutely factor into any acquisitions strategy to ensure that we fulfill the requirement at the best value to the government," Navy spokeswoman Lt. Kara Yingling told Scout Warrior in an interview last year.

Yingling said requirements for a ship-launched weapon of this kind were still being determined.

"The current LRASM program is fulfilling a specific capability for an air-launched anti-surface weapon. While DARPA evaluated the feasibility of a ship-launched variant, it would be inappropriate to speculate about a ship-launched version ahead of the requirements, informed by the updated Analysis of Alternatives (AoA), and any resulting budget plans," she added.

'A deck-mounted firing technology, would enable LRASM to fire from a much wider range of Navy ships, to include the Littoral Combat Ship and its more survivable variant, called a Frigate, Scott Callaway, Surface-Launched LRASM program manager, Lockheed Martin, told Scout Warrior in an interview.

“We developed a new topside or deck-mounted launcher which can go on multiple platforms or multiple ships such as an LCS or Frigates,” Callaway said.

The adaptation of the surface-launcher weapon, which could be operational by the mid-2020s, would use the same missile that fires from a Mk 41 Vertical Launch System and capitalize upon some existing Harpoon-launching technology, Callaway added.

High-Tech Semi-Autonomous Missile:

Along with advances in electronic warfare, cyber-security and communications, LRASM is design to bring semi-autonomous targeting capability to a degree that does not yet exist. As a result, some of its guidance and seeker technology is secret, developers have said.

The goal of the program is to engineer a capable semi-autonomous, surface and air-launched weapon able to strike ships, submarines and other moving targets with precision. While many aspects of the high-tech program are secret, Lockheed officials say the available information is that the missile has a range of at least 200 nautical miles.

Once operational, LRASM will give Navy ships a more a short and long-range missile with an advanced targeting and guidance system able to partially guide its way to enemy targets and achieve pinpoint strikes in open or shallow water.

LRASM employs a multi-mode sensor, weapon data link and an enhanced digital anti-jam global positioning system to detect and destroy specific targets within a group of ships, Lockheed officials said.

LRASM is engineered with all-weather capability and a multi-modal seeker designed to discern targets, Lockheed officials said. The multi-mode sensor, weapon data link and an enhanced digital anti-jam global positioning system can detect and destroy specific targets within a group of ships, Lockheed officials said.

LRASM is armed with a proven 1,000-pound penetrator and blast-fragmentation warhead, Lockheed officials said.

Distributed Lethality:

The development of LRASM is entirely consistent with the Navy's emerging "distributed lethality" strategy which seeks to better arm the fleet with long-range precision offensive and defensive fire power.

Part of the rationale to move back toward open or "blue water" combat capability against near peer competitors emphasized during the Cold War. While the strategic and tactical capability never disappeared, it was emphasized less during the last 10-plus years of ground wars wherein the Navy focused on counter-terrorism, counter-piracy and things like Visit Board Search and Seizure. These missions are, of course, still important, however the Navy seeks to substantially increases its offensive "lethality" in order to deter or be effective against emerging high-tech adversaries.

Having longer-range or over-the-horizon ship and air-launched weapons is also quite relevant to the "distributed" portion of the strategy which calls for the fleet to have an ability to disperse as needed. Having an ability to spread out and conduct dis-aggregated operations makes Navy forces less vulnerable to enemy firepower while. At the same time, have long-range precision-strike capability will enable the Navy to hold potential enemies at risk or attack if needed while retaining safer stand-off distance from incoming enemy fire.