



# NAVY LEAGUE *of the United States*

## Navy League Legislative Affairs Weekly Round-Up – May 18

### **Navy League Breakfast**

Your membership helped to support one of the Navy League's monthly Special Topic Breakfasts on Wednesday morning, this one featuring Coast Guard Vice Admiral Charles W. Ray, Deputy Commandant of Operations. At this May event VADM Ray gave his remarks on the agility of the Coast Guard, and led a discussion with input from many individual and corporate members here in Arlington, Virginia within view of the Capitol.

### **House Appropriators finish Transportation bill**

The Appropriations Subcommittee on Transportation, Housing and Urban Development reported their Fiscal Year 2019 bill to the full committee, which will mark it up at the end of May. Here are the details relevant to the Navy League from the Maritime portion:

- Maritime Security Program (MSP): \$300M
- Maintenance and Repair of training ships at State Maritime Academies: \$22M
- National Security Multi-Mission Vessel (NSMMV): \$300M
- Refurbish an existing school ship: \$30M
- Merchant Marine Academy (USMMA) facilities maintenance/repair: \$18M
- Assistance to small shipyards: \$20M
- Ship disposal: \$5M



Shipmates work to upload ordnance to an F/A-18 Super Hornet on the flight deck aboard the carrier Harry S. Truman. The Truman Strike Group has been pounding ISIS in Syria, launching sorties around the clock. (MC2 Thomas Gooley/Navy)

## Other stories of interest:

### Top Stories

#### [Dwindling Merchant Marine fleet crimps US ability to wage war – McClatchy/May 14](#)

WASHINGTON (Tribune News Service) — The once-mighty U.S. Merchant Marine fleet has nearly collapsed under the weight of high labor costs, zigzagging federal policies and intense competition from abroad, damaging America's position as the only country in the world able to supply and sustain a long-distance war.

***Support the Merchant Marines and our National Defense, [take action now](#) to tell your Member of Congress to fund the Maritime Security Program!***

#### [America Can't Afford to Cede the Seas – WSJ/May 14 \[Paywall Text below\]](#)

The escalating territorial disputes in the Pacific between China and America's allies create an ever-more-urgent need for U.S. sea power. But even as China rapidly expands and modernizes its navy, the Trump administration has not proposed enough funds to maintain America's maritime advantage. Beginning with the coming 2019 federal budget, the president and Congress must commit to funding a full, modern fleet—or risk ceding essential U.S. and allied interests.

#### [Navy's Top-Dollar Stealth Fighter May Not Go the Distance – CQ News/May 16 \[Paywall Text below\]](#)

The Navy's newest fighter jet, the stealthy F-35C, may not have the range it needs to strike enemy targets, the House Armed Services Committee said in a new report, raising troubling questions about whether the multi-billion-dollar program is already outpaced by threats.

#### [Navy to Explode Bombs Near New USS Ford Carrier & Finalize Weapons – Warrior Maven/May 14](#)

The US Navy is planning to finalize weapons integration on its new USS Ford carrier and explode bombs in various sea conditions near the ship to prepare for major combat on the open seas, service officials said.

#### [U.S. Navy's Costliest Vessel Just Got Even Pricier – Bloomberg/May 11](#)

The Navy's costliest vessel ever just got pricier, breaching a \$12.9 billion cap set by Congress by \$120 million, the service told lawmakers this week.

### Seapower

#### [China's Navy Prepares to Close the Gap on the U.S. – RealClearDefense/May 14](#)

All fitted out, China's second-ever aircraft carrier — and the first built entirely in China — is set to sail for sea trials. The construction of the aircraft carrier represents a significant milestone in China's steady rise as a major naval power. And barring any hiccups, Beijing will continue its ascent in the following decade to the degree that it challenges the United States for naval supremacy — at least in East Asia.

#### [NAVSEA Leadership: High-Velocity Learning Key To Expanding The Advantage – Seapower Magazine/May 17](#)

WASHINGTON — The two top leaders of Naval Sea Systems Command (NAVSEA) bookended the first high-velocity learning (HVL) summit to show their commitment to HVL, one of the pillars of the NAVSEA

Campaign Plan to Expand the Advantage, the Naval Surface Warfare Center's Carderock Division said in a May 17 release.

[China Launches Its First Domestically Made Aircraft Carrier – NY Times/May 13](#)

TAIPEI, Taiwan — China launched its first domestically built aircraft carrier to begin sea trials on Sunday, reaching another milestone in the expansion of the country's navy.

[Truman Strike Group is pummeling ISIS in Syria – Navy Times/May 12](#)

Aircraft launched from the aircraft carrier Harry S. Truman have been carrying out strikes against ISIS targets in Syria for a little over a week now, pummeling the remaining Daesh strongholds in the Middle Euphrates River Valley in support of Operation Inherent Resolve.

[Two Fleets or One? HASC Settles on Single Readiness Generator After Lengthy Debate – USNI News/May 10](#)

The House Armed Services Committee debated how to balance ensuring that all forces throughout the Navy are equally ready for battle when they deploy versus ensuring the U.S. Pacific Fleet is nimble enough to respond to whatever military crisis or natural disaster may arise – with the majority of lawmakers ultimately deciding they wanted the Navy to enforce a single standard of readiness.

[US Navy sees 'period of uncertainty' in Gulf – France24/May 15](#)

ABOARD USS GEORGE H.W. BUSH (UNITED STATES) (AFP) -

Iranian behavior in the Gulf is entering a "period of uncertainty," the head of the US Navy said Monday following President Donald Trump's decision to quit the Iran nuclear deal.

[RE-ORIENTING AMERICAN SEAPOWER FOR THE CHINA CHALLENGE – War on the Rocks/May 10](#)

As a seafaring state, America demands maximal access to the world's oceans within the constraints of international law. Though seldom recognized, U.S. efforts to defend its interest in maritime freedom in the Western Pacific have been fairly successful. When the People's Republic of China unlawfully draws "fences" around the sea, U.S. warships steam through the fences. Beijing recognizes the seriousness of America's position, and thus far has generally yielded.

**Surface Warfare**

[The newest weapon in the US Navy's arsenal is now under construction – Defense News/May 11](#)

WASHINGTON — When the destroyer Jack Lucas joins the U.S. Navy's fleet in 2024, it will look similar to the 73 Arleigh Burke-class destroyers that preceded it. But it's going to be a very different, more capable killer than its predecessors.

[Zombie Zumwalt: The Ship Program That Never Dies – CQ News/May 17 \[Paywall Text below\]](#)

In 2006, Congress started funding construction of the first of three Navy destroyers named after the late Adm. Elmo Zumwalt, a famed former Navy chief. But nearly a dozen years later, none of the Zumwalt ships is yet ready to fight.

[USS Fitzgerald Combat Team Unaware of Approaching Merchant Ship Until Seconds Before Fatal Collision – USNI News/May 10](#)

WASHINGTON NAVY YARD – The sailors who were manning the combat nerve center of USS Fitzgerald (DDG-62) did not know they were on a collision course with a ship almost three times their size until about one minute before impact, according to new information revealed in the preliminary hearing for two junior officers accused of negligent homicide for their role in the collision that resulted in the death of seven sailors.

### **Submarine Warfare**

[Future attack sub Rickover hits milestone as US Navy churns through Virginia Block IV – Defense News/May 12](#)

WASHINGTON — The Navy marked a milestone Friday for the ship named after the famously ornery and uncompromising father of the nuclear-powered Navy, Hyman G. Rickover, as the Navy burns its way through the latest iteration of the Virginia-class attack submarine.

[Submarines are increasingly lurking in seas around the world, and the US Navy's high-tech Poseidon is there to hunt them – Business Insider/May 14](#)

For NATO members and other countries, augmenting antisubmarine abilities means not only adding ships but also advanced maritime-patrol aircraft to scour the sea. A number of aircraft on the market fill this role, but the US-made P-8A Poseidon is among the most sophisticated.

### **Expeditionary Warfare**

[Marines Are Already Calling Their First New Sniper Rifle Since Vietnam ‘An Incredible Win’ – Task and Purpose/May 11](#)

The Marine Corps confirmed in early April that its snipers would get the Mk13 Mod 7 sniper rifle to replace the M40 rifle, versions of which the Corps’ snipers have been carrying since the early days of the Vietnam War.

[Marine Corps announces sweeping changes to ground-combat forces – Stars and Stripes/May 15](#)

The Marine Corps is making sweeping changes to the structure and equipment of its ground-combat forces aimed at improving lethality and agility on the battlefield.

Officially announced last week, the modifications are the result of nearly two years of study and experimentation known as Marine Corps Force 2025 and Sea Dragon 2025. Marine Corps Commandant Gen. Robert Neller spoke about them earlier this month at a gala for the service’s top officers and enlisted ground-combat leaders in Arlington, Va.

[The Untold Stories Of Marine Special Ops ‘Getting Some’ Against ISIS – Task and Purpose/May 11](#)

U.S. Marine Special Operators on the ground in Iraq and Syria in the coalition’s anti-ISIS fight have been getting into plenty of direct combat going back to at least January 2016, according to award citations obtained by Task & Purpose.

[The US Sending More Marines To Protect Its Embassies As The Middle East Explodes – Task and Purpose/May 14](#)

Extra Marine Corps security guards have been deployed to U.S. diplomatic posts in light of the protests that have followed President Donald Trump's decision to move the U.S. embassy in Israel from Tel Aviv to Jerusalem, a Marine Corps official confirmed on Monday.

## **Personnel**

### [Hearing for former Fitzgerald commanding officer canceled – Navy Times/May 14](#)

The former commanding officer who was in charge of the destroyer Fitzgerald when it collided with a merchant vessel June 17 off the coast of Japan, killing seven sailors, has voluntarily waived his right to an Article 32.

### [All-female Crew Proves its Chops on Carrier Roosevelt – Military.com/May 12](#)

Brandi Hoefft didn't join the U.S. Navy to make a point about being a woman in a man's world -- the 20-year-old Rice Lake native knew she wanted to be in the military all her life.

## **Homeland**

### [Coast Guard Offloads Six Tons of Cocaine in Port Everglades – Maritime Exec/May 10](#)

On Thursday, the crew of the Coast Guard cutter James transferred six ton of cocaine to the pier at Port Everglades, Florida. The \$180 million haul is the latest consignment of confiscated drugs from the USCG's ongoing counternarcotics campaign in the Eastern Pacific.

### [Navy Wants to Limit Offshore Wind Development in California – Defense Communities/May 14](#)

California officials are urging the Navy to show more flexibility as to where it would accept the development of wind farms off the state's coast, after the department indicated offshore turbines along Southern California and the Central Coast would conflict with testing and training activities. The Navy would consider wind energy development off the coast of Northern California, however. The Pentagon doesn't have the authority to restrict offshore wind projects in federal waters; that power rests with the Interior Department's Bureau of Ocean Energy Management (BOEM). But that agency will consider input from DOD before approving development sites, reported the San Diego Union-Tribune.

## **Cyber/Technology**

### [Navy Cyber War Breakthrough - AI Finds Malware in Encrypted Traffic – Warrior Maven/May 14](#)

The Pentagon is working with major industry tech developers to use artificial intelligence and cloud computing to detect enemy cyberattacks buried or otherwise obscured beneath encrypted web traffic.

### [Newport News Deploys 3D Printing for Naval Shipbuilding – Maritime Exec/May 11](#)

Huntington Ingalls' Newport News shipyard, the sole builder of the U.S. Navy's aircraft carriers, is working with 3D printing firm 3D Systems to qualify metal additive manufacturing in production applications. The first step is the installation of a top-end metal 3D printer at Newport News to produce replacements for castings, valves, housings and brackets in marine-based alloys for nuclear-powered vessels. 3D Systems says that it is the first time a metal 3D printer has been added to the production workflow at a major U.S. Navy shipyard.

## **Aviation**

[US Coast Guard requests long-endurance UAV to counter drug and migrant smuggling – Flight Global/May 10](#)

The US Coast Guard issued a request for demonstrations of long-range, ultra-endurance unmanned aerial vehicles to conduct intelligence, surveillance and reconnaissance missions in US coastal transit zones that are highly trafficked by illegal drug and migrant smugglers.

[US Coast Guard Cadets Improve Helicopter Rescue Basket Design – Rotor & Wing/May 13](#)

Cadets from the U.S. Coast Guard Academy have been prototyping a new rescue basket. The redesigned basket could improve how the Coast Guard conducts search and rescue missions with MH-60 Jayhawk helicopters, the Guard said.

[Navy, DoD Manpower Nominees Address Pilot Shortages, Retention Concerns – USNI News/May 10](#)

A policy that would let Navy and Marine Corps pilots flow in and out between active duty, the reserves and civilian work may be the way for the sea services to address aviation retention shortfalls, the nominee for the department's top civilian manpower post told the Senate Armed Services Committee Thursday.

[This Fatal Flaw Could Crash the F-22 or F-35 – The National Interest/March 14](#)

Both Air Force and Navy pilots have refused to fly airplanes they deemed to be outfitted with faulty OBOGS. Military officers—trained from Day One to follow orders—don't take such steps lightly. What's amazing about it is that military leaders, who are forever insisting the safety of their troops is one of their most sacred responsibilities, are having to be pushed to take action by their subordinates who fear for their lives.

[Navy receives new electronic warfare environment for its F-35 jets – C4ISRNet/May 12](#)

Northrop Grumman has delivered a new tool to the U.S. Navy that will allow the service to test its F-35s in a dynamic electronic warfare environment that can recreate mission-like conditions, the company said.

**Jones Act discussion** – *As you read these articles remember the Navy and Coast Guard leaders have said the Jones Act is critical for the military, oppose repeal now at our [Voice to Congress website](#) if you haven't taken action already!*

[How cheap is too cheap? – Boston Globe/May 13](#)

...The Jones Act protections were designed to shelter America's shipping industry from the myriad pressures of global competition, and for a time it also turned a few shipping routes, including Puerto Rico, into enormous cash cows for the few companies that owned US-flagged ships. (Hawaii and Alaska are the other two golden Jones Act runs.)...

[America's Finest: The Critics Respond – Cato Institute/May 10](#)

In a recent opinion piece for the Wall Street Journal I highlighted the plight of America's Finest, a fishing vessel that, unless it is granted a waiver, will be prohibited from operating in U.S. waters due to its violation of the Jones Act. Although built in Washington state, the ship used steel, amounting to approximately 10 percent of the ship's weight, that was cut and bent in the Netherlands. Coast Guard

rules related to the Jones Act limit the amount of such foreign-modified steel to 1.5 percent (foreign-made raw steel, in contrast, can be used in unlimited amounts).



An F-35C takes off from the flight deck of the USS Abraham Lincoln in the Atlantic Ocean in March. (U.S. Navy photo)

## *Navy's Top-Dollar Stealth Fighter May Not Go the Distance*

May 16, 2018 – 3:44 p.m. By John M. Donnelly, CQ

The Navy's newest fighter jet, the stealthy F-35C, may not have the range it needs to strike enemy targets, the House Armed Services Committee said in a new report, raising troubling questions about whether the multi-billion-dollar program is already outpaced by threats.

And critics say the Navy fighter — part of the Joint Strike Fighter initiative, the most expensive weapons program in history — may actually have been out of date years ago.

The committee's conclusion, buried in the 606-page report on the fiscal 2019 defense authorization bill (HR 5515), is confirmation from lawmakers who support the jet program that the aircraft-carrier based version of the F-35 may not have enough so-called combat radius, or distance it can fly without refueling, to function effectively in likely future wars.

"While the introduction of the F-35C will significantly expand stealth capabilities, the F-35C could require increased range to address necessary targets," the report states.

The reason, experts say, is that the aircraft carriers from which the F-35Cs would operate may be required to sail too far away from enemies to avoid their increasingly long-range missiles.

The committee does not want to stop buying F-35Cs, but instead wants to start also buying new sorts of warplanes.

“After billions of dollars have been spent on the F-35C, but before the first aircraft are ready to deploy, lawmakers are already looking at the next carrier-based aircraft,” said Bryan Clark, a former Navy strategist who is now an analyst with the Center for Strategic and Budgetary Assessments.

Dan Grazier, a defense expert with the Project on Government Oversight, said the House directive “highlights just how poorly conceived the Joint Strike Fighter program has been from the very beginning.”

“The issue of anti-ship cruise missiles is not a new one,” he said. “The complexity of the F-35 program has dragged out the design process to nearly 20 years, which means we are not keeping pace with emerging threats.”

### **Unprecedented Cost**

The F-35 program is developing and purchasing 2,456 jets in three different variants — the F-35C for the Navy, the F-35A for the Air Force and the F-35B for the Marine Corps — with allies expected to purchase hundreds more. The Navy will buy 273 F-35Cs for its carriers and another 67 for the Marine Corps, on top of the Marine Corps' own model, which takes off and lands vertically.

The cost to develop and build all three models is projected to reach \$406.1 billion, with another estimated \$1.1 trillion to operate them over their life spans. Most of the acquisition money has yet to be spent, the Government Accountability Office said in an audit last month.

The reason for concern about the F-35C's range is the proliferation of increasingly long-range missile threats to U.S. aircraft carriers, experts say. If the Navy has to sail its carriers 800 to 1,000 nautical miles off shore from these threats to stay out of their range, then its stealthy F-35Cs, with a combat radius now projected as 595 nautical miles, will, in order to reach their destinations, have to be refueled by tanker aircraft that are not stealthy and are more visible to enemy radar.

The refueling operations would expose the fighter jets and tankers to adversaries, defeating the value of the F-35C's radar-evading materials and sleek silhouette. And the requirement for repeated refueling and possibly a need to deploy more F-35Cs would increase the cost of operating the F-35C squadrons.

Alternatively, the Navy could seek to reduce the need for refueling its F-35Cs by operating its carriers closer to enemy territory or nearer to enemy warships and aircraft at sea. The carriers and attendant ships do have self-defense capabilities.

But sailing the carriers within range of enemy missiles would nonetheless raise the risk to these floating cities, each of which typically carries more than 6,000 sailors and costs roughly \$13 billion.

### **'Carrier Killer' Missile**

The congressional critique of the F-35C program comes 17 years after the program entered full-scale development.

The Navy is already buying the carrier-based jet and has requested nine of the fighters for fiscal 2019 but does not expect to deploy F-35Cs on a carrier until 2021.

Throughout the design and development of the F-35, even before production began a decade ago, missile systems owned by potential adversaries could boast growing ranges, as well as the ability to evade defenses.

Given those facts, the likely inadequacy of the F-35C's range should not surprise the Navy, experts say.

Approximately a decade ago, in fact, China finished developing its "carrier killer," the DF-21D anti-ship ballistic missile, with a reported range of 780 nautical miles, though the People's Liberation Army is reportedly still perfecting the system for giving the missile targeting information.

The U.S. Tomahawk cruise missile has a range in excess of 1,000 nautical miles, and the Navy expects to field an anti-ship variant of it in four years. Given Chinese and Russian advances in the field, and the fact that F-35 jets are expected to be deployed for 60 years, the realistic prospect of adversaries' having the ability to hold carriers at risk from 1,000 nautical miles or more during the F-35's lifespan was foreseeable, critics say.

Already, China's CSS-5 anti-ship cruise missile, to name one of many extant threats, can strike ships about 930 miles away, the Defense Intelligence Agency has testified.

Potentially compounding the problem: Clark and other experts worry that as more testing is done on the F-35C, the projected range of 595 nautical miles may turn out to be closer to only 500.

#### New Drone Envisioned

The House Armed Services Committee, and Washington in general, have been unstinting in funding the F-35, despite a drumbeat of criticism from experts about problems that include software snafus, oxygen shortages in the cockpits and ejection seats that can endanger pilots rather than save them.

For fiscal 2019, for example, the House will vote next week to approve a defense authorization bill that approves purchase of 77 more F-35s across the services.

The F-35C's range has gotten some press attention but usually it has focused on comparing the new jets' range to the program's initial goals or to the range of the F/A-18E/F Super Hornet fighters that will share carrier flight decks with F-35Cs in the decades ahead.

The fact that the F-35Cs limited range may reduce its operational utility has received comparatively little public attention.

The F-35's range is less of an issue for the Air Force's F-35A because the service can strike faraway targets with long-range bombers and reserve F-35As for shorter-range missions, Clark says. For the Marine Corps, the F-35B would be a major increase in range in its fighter squadrons, nearly doubling the distance they can travel compared to the AV-8B Harrier planes that the F-35Bs are replacing.

The committee's report directs the Navy secretary to brief House and Senate Armed Services panels by January 2019 on options for developing new systems, including manned and unmanned aircraft that would "expand the strike range of a carrier air wing in a contested environment."

The House committee did not recommend buying fewer F-35Cs. But it did suggest other solutions. These include "developing a stealth tanker capability, improved engine technology or to develop and procure a strike capability that is purposely built to strike at increased range."

The Navy is developing an unmanned tanker aircraft, the MQ-25. But, as currently planned, it will not be stealthy and will not be capable of bombing targets.

"This language suggests members want the Navy to pursue a long-range, stealthy, unmanned strike aircraft in addition to the MQ-25 tanker, or that the MQ-25 use an airframe that could be adapted to also be a long-range stealthy unmanned strike aircraft," said Clark, the former Navy strategist.

To some critics, though, the report language on the F-35C's range is a play by lawmakers to justify development of new drone aircraft that might be built by many of the same contractors in many of the same congressional districts as the F-35. The F-35 program has contractors in almost every state and is ultimately assembled at Lockheed Martin's facility in Fort Worth, in the district of Kay Granger, R-Texas, who chairs the House Defense Appropriations Subcommittee.

"A new program would benefit pretty much the same members now unless a new prime contractor emerges," said Grazier of the Project on Government Oversight.

In fairness to the Navy, the service did envision the need for a longer-range fighter jet. But the effort collapsed.

In the 1980s, the Navy developed a fighter jet dubbed the A-12 Avenger II with a projected range of about 800 nautical miles. But the Pentagon killed that program in 1991 amid spiraling costs. Even that range might not have proven sufficient, given current and emerging anti-missile threats.

The Navy settled for the F-35C. The new jet was meant to be less costly as a common vehicle for all three services but, in the process, it did not provide any of the services of an aircraft optimized for that service's particular needs.

By the time the jets are fielded, it appears now the program's plans may have been overcome by global events. That may be an argument to field capabilities faster. But it also suggests, critics say, that a keener eye is needed about what future requirements will be.

---

## *America Can't Afford to Cede the Seas – Wall Street Journal*

By Seth Cropsey

May 14, 2018 6:47 p.m. ET

The escalating territorial disputes in the Pacific between China and America's allies create an ever-more-urgent need for U.S. sea power. But even as China rapidly expands and modernizes its navy, the Trump administration has not proposed enough funds to maintain America's maritime advantage. Beginning with the coming 2019 federal budget, the president and Congress must commit to funding a full, modern fleet—or risk ceding essential U.S. and allied interests.

American sea power has secured the Pacific since the end of World War II, assuring safe and open trade, while defusing conflict throughout the region. Maintaining a powerful navy for these ends is hardly an American innovation: No great state or empire has ever retained its status without pre-eminent sea power. The histories of Athens, Venice, Spain, Holland and England show that losing control of the oceans leads ineluctably to losing great-power status.

The rapid growth and improvement of China's naval forces is the major challenge to American sea dominance today, and likely for the foreseeable future. Retired Capt. James Fanell, former director of intelligence for the U.S. Pacific Fleet, stated in 2015 that China's combat fleet will reach 415 ships in

2030. Beijing is particularly focused on adding submarines, amphibious vessels and small surface combatants. The buildup demonstrates China's clear intention to dominate in coastal regions and amphibious operations—domains in which the U.S. has pre-eminence today.

As Adm. Phil Davidson, nominated to lead the U.S. Pacific Command, told the Senate in April: China "is no longer a rising power but an arrived great power and peer competitor." He added that "China has undergone a rapid military modernization over the last three decades and is approaching parity in a number of critical areas; there is no guarantee that the United States would win a future conflict with China."

The White House has proposed expanding the U.S. Navy to 355 ships, but its plan is too slow and underfunded. The full fleet would not be complete until 2050 at the earliest. Although President Trump proposes to dedicate \$20 billion for new ship construction in 2019, and about the same in constant dollars in each of the next five years, the Congressional Budget Office estimates the project requires an additional \$6.6 billion a year over the next 30 years. Without increased funding, the fleet will be smaller in three decades than it is today, and China's navy could surpass it by 2030.

Americans would quickly see the consequences of ceding power in the Pacific. Already, China's growing navy may soon aim to control movement around the first island chain in the East China Sea, which stretches from Japan to the Philippines.

If Beijing gains control of the region, it could hamper America's coordination with its allies and cast doubt on the U.S. security umbrella. The White House would find it more difficult to prevent distant crises from escalating into direct threats. American business around the world, meanwhile, would be decimated. China would suddenly become the more appealing partner for trade and security. The global maritime order, which has long maintained that the East and South China Seas are international waters, would be replaced by a regional system based on "Chinese characteristics"—the euphemism by which the Chinese Communist Party refers to its brand of state control.

This is not a *fait accompli*; American sea power can be restored. But it will require the U.S. to decide that its status as the world's great power is worth preserving. The Navy's evolutionary approach to modernizing its fleet must be replaced by a revolutionary approach, increasing the current fleet's technological advantage. And by 2035, the fleet should be expanded to no fewer than 375 ships.

The U.S. must also prepare to engage China's navy. That means situating U.S. forces within striking distance of the East and South China Seas, with enough troops on hand to police the region effectively. It also means responding in kind to China's existing provocations. The U.S. should bolster its military and naval support for Taiwan. The Pentagon should lean forward by actively planning to defend the entire first island chain, as well as to blockade the Southeast Asia straits, through which oil from the Middle East now flows to China.

Conflict may come sooner than most Americans imagine. This month alone, Beijing is reported to have placed anti-ship cruise missiles and surface-to-air missiles on three artificial islands in the South China Sea. The U.S. also recently said that American military pilots in Djibouti have been hit with lasers fired from a new Chinese base. The Pentagon has filed a diplomatic *démarche* requesting that China investigate, but mere diplomacy won't suffice in the game Beijing is playing.

Timidity deters nothing. It encourages the increasing Chinese aggression. But so far America's plans to upgrade the U.S. combat fleet have been diffident. To remain the world's dominant maritime force, U.S.

sea power will have to be trained, equipped and exercised. On this rests the future of the U.S. as a great power.

*Mr. Cropsey is director of the Hudson Institute's Center for American Seapower. He was a naval officer and a deputy undersecretary of the Navy in the Reagan and George H.W. Bush administrations.*

## *Zombie Zumwalt: The Ship Program That Never Dies*

May 17, 2018 – 5:00 a.m. By John M. Donnelly, CQ

In 2006, Congress started funding construction of the first of three Navy destroyers named after the late Adm. Elmo Zumwalt, a famed former Navy chief. But nearly a dozen years later, none of the Zumwalt ships is yet ready to fight.

None will be for years. And hundreds of millions more dollars will be required to get there. The ships, known as DDG 1000s, may yet become capable and, with enough additional money, they may even become warships of unprecedented lethality. But the extent of the program's problems to date – and the remaining cost to make things right – has not been fully appreciated even among many defense experts.

For starters, no Zumwalt-class ship is ever expected to perform the primary mission it was built for: striking land targets with artillery. The guns the Navy and its contractor built the ships around do not work well enough and the rounds they would fire cost too much.

As a result, late last year – more than a decade after the first contracts were signed to build the ships – the Navy said the vessels would have a new primary mission: “surface strike,” which mainly means attacking enemy ships at sea with as yet undeveloped cruise missiles.

The Navy and the program's supporters in Congress have still depicted the program as a success story. The first two Zumwalts have been “delivered” from the shipbuilder, General Dynamics Bath Iron Works in Maine, to the Pacific Fleet in San Diego, the Navy has announced.

But the ships lack a functioning combat system, the brains of any warship, among scores of other shortfalls, and they are years from demonstrating even rudimentary capability, even before the cruise missiles or other possible new weapons are integrated.

“The Navy is now pursuing a new mission for the Zumwalt class that requires them to demonstrate new capabilities,” said Shelby Oakley, a director in the national security acquisitions auditing team at the Government Accountability Office. “However, the Navy hasn't even demonstrated the current basic capabilities of the class. Doing so will require several more years and significant additional funding.”

The Navy now projects that designing, developing and building the three ships ultimately will have cost at least \$23.5 billion – or nearly \$8 billion on average per vessel. That makes the Zumwalts the most costly and time-consuming ship project, aircraft carriers aside, in recent memory, analysts say.

According to Bryan Clark, an expert on Navy issues at the Center for Strategic and Budgetary Assessments, each of the Zumwalts has cost about twice as much to build as an Arleigh Burke, the Navy's other type of destroyer, even when non-recurring design and engineering costs are subtracted.

What's more, the first ship in the Zumwalt class took twice as long to build as the first Arleigh Burke.

Thus far, the Zumwalt costs twice as much to operate, too, as an Arleigh Burke, budget documents show. This is the case despite the Navy's longstanding promise that the Zumwalts would have lower operating costs than ships of older vintage because the highly automated Zumwalts, officials have said, need smaller crews.

"The program made most of the mistakes that the acquisition manual tells you not to make," Clark said.

### **Superhero Ship?**

To be sure, the new ships are futuristic. They are sleek, svelte and stealthy. Everything from the ships' propulsion to weapons to computers will be powered by an integrated electric power system — the first of its kind.

"If Batman had a ship, it would be the USS Zumwalt," said Adm. Harry Harris, the then-commander of U.S. Pacific Command during the Zumwalt's 2016 commissioning ceremony.

But Batman would be outgunned in the Zumwalt right now.

The ship was designed to be a latter-day battleship, capable of attacking land targets from upwards of 75 miles offshore with rocket-propelled shells from ultra-modern artillery.

Yet the guns now lay idle, and they will remain so indefinitely. That's because the round they were going to fire costs almost four times initial estimates, or as much as \$915,000 apiece, the Navy said late last year.

Besides, officials and analysts now say, the system isn't reliable and cannot meet range requirements.

So it's on to the next mission: surface strike, enabled by the new Tomahawk, the Navy recently said.

But that missile is four years from fielding, assuming all goes as planned, and it will cost \$679 million in the next several years, the Navy says. The service is considering replacing the defunct guns with still more missile launchers — but that would add still more to the cost.

Meanwhile, other new ideas for the ship abound, and each of these would also add to the ship's price tag.

These proposals include lasers and electromagnetic rail guns, which fire high-speed projectiles — technologies that are still in development and would require even more time and money than the new Tomahawks, experts say. A new nuclear-tipped cruise missile soon to enter development might also be a candidate for the Zumwalts.

Normally, appropriations for constructing ships such as a destroyer occur over a year or two, not more than a decade. And the costs after the first year or two are typically in the tens of millions of dollars per ship, not in the billions.

### **But the Zumwalt is not a typical program.**

The administration plans to request just over \$1 billion in additional funding for the three-ship class in the next five years — starting with \$522 million in fiscal 2019 — a sum that covers integrating the new Tomahawk.

Despite the three ships' minimum \$23.5 billion price tag, the program has been an afterthought in the last decade's annual debates on the Navy's ship budget. At Navy hearings on Capitol Hill, the Zumwalts typically come up only when a lawmaker from Maine asks about them.

Yet, since procurement of the ships began in fiscal 2007, the Navy has spent upwards of \$1 billion on the program in some years.

The cost hikes show no signs of abating. Last year, the Senate Armed Services Committee, in the report accompanying its version of the fiscal 2018 defense authorization bill (PL 115-91), noted that the Navy's estimate for the total remaining procurement costs for the three ships had gone up in each of the last three budgets, from \$572.9 million to \$914.3 million to \$1.1 billion.

The senators lamented the "continued significant cost growth in this program across the fiscal year 2016 to 2020 period."

### **'Delivered' But Incomplete**

Bath Iron Works has already "delivered" to the Navy the first two of the three ships in the Zumwalt class, the Elmo Zumwalt (DDG 1000) and the Michael Monsoor (DDG 1001), the service says. The third of the ships, the Lyndon B. Johnson (DDG 1002), is not far behind.

That the ships have arrived at their homeport sounds like good news. But it's not.

The first ship arrived at the Navy's Pacific Fleet headquarters in San Diego in May 2016 with "320 serious deficiencies that could impact ship operation or safety," according to the April GAO report.

Most importantly, the first Zumwalt was delivered without her combat system. Two years later, the combat system has been installed. But it is still not activated. And the program has yet to test other key ship systems in an integrated way, according to GAO.

The Navy calls it a "two-phase" approach to fielding a ship. But the Armed Services Committees are having none of it. Congress cleared and the president signed a defense authorization law (PL 114-328) in 2016 specifying that, for any ship to be considered delivered, it needs to be fully built.

Regardless, the Navy issued a press release in mid-April of this year announcing that the second ship in the Zumwalt class, the Michael Monsoor, had been "delivered," too — even though, as the press release acknowledged, that ship also still lacks a combat system.

It is normal for U.S. ships to prove themselves in testing only after the contractors send them to the Navy. But the Zumwalt program is leaving an unusual amount of work to be done after the ships arrive in government custody and before they can join the operational fleet.

According to the latest plan, the first Zumwalt-class ship will not be ready to deploy until 2021, fully five years after it was "delivered."

These delays were not reflected in the glowing assessment Vice Adm. William Merz, the deputy Navy chief for warfare operations, gave to a Senate Armed Services panel in testimony last month.

"We think the ship is very well built and ready to join the fleet," Merz said.

### **Promise**

To be sure, the Zumwalt's future may yet be bright. Once it gets the new maritime Tomahawk and the Standard Missile 6 – a killer of aircraft, cruise missiles and surface targets – the Zumwalt will be an offensive force. Its unique shape reduces radar signature, making it hard for enemies to detect. And the high-powered electric system would come in handy for rail guns and other purposes.

"I will tell you that we are learning more lessons from Zumwalt every single day about the capability that ship brings, whether it be power generation, the role of stealth, the volume that the ship brings, the capability of the ship to bring down very sensitive communications etc.," said Chief of Naval Operations Adm. Jonathan Richardson, at a Senate Appropriations Defense Subcommittee hearing in April.

Maine's senators, Republican Susan Collins and Angus King, an independent, said in a joint statement for CQ that the Zumwalt is "an extraordinary, cutting-edge warship designed to meet the demands and threats of the 21st century."

Certainly, the Zumwalt literally has room to grow. The ship is about 64 percent bigger than an Arleigh Burke (15,600 tons versus 9,500). All that space creates room for new weapons, including unmanned aerial and underwater vehicles, says Bryan McGrath, a former destroyer commander who is now a consultant and analyst with the Hudson Institute think tank.

"There's so much potential there," McGrath says.

Lt. Lauren Chatmas, a Navy spokesperson, said the Navy sees "a tremendous opportunity with this ship class in terms of having the most advanced capabilities of any surface ship fielded to date. The return on investment will be realized once the platform is deployed as a surface strike asset in the years ahead."

The Zumwalt ships will be able to fire fewer cruise missiles than an Arleigh Burke (80 launchers versus 96) and will lack the Burkes' missile defense capabilities. The Zumwalts also have a less capable radar than originally planned – a cost-cutting move.

Each of the Zumwalts will still have more weapons punch than an attack submarine.

Submarines are completely stealthy, not just partly stealthy like the Zumwalts. That invisibility has advantages. But sometimes so does being visible – when coercive diplomacy is required in places such as the South China Sea, one of the waters in which the Zumwalts may be deployed.

The ship would be "a great big middle finger" to China, McGrath says.

### **Lowball Budgets**

Development of the Zumwalt class began in the early 1990s. But as the Cold War ended and the program neared its construction phase, the Navy had begun to reconsider the initial plan to buy 32 Zumwalts.

At the time, the Navy's fleet was shrinking and admirals knew their budgets were unlikely to be as high as they had been in the 1980s. The premium, then, was on less expensive ships, and the Zumwalt did not qualify, said Clark of the Center for Strategic and Budgetary Assessments.

In addition, the brass had an inkling that the future might require the Navy to fight other navies in open ocean more than to attack land targets, another demerit against the Zumwalt.

In 2008, with two of the ships under construction, the Navy announced that it would halt production of new ones.

After years of saying the Zumwalt was the destroyer of the future, the brass was now saying that the destroyer of the present, the Arleigh Burke, was more cost effective.

Congress added a third Zumwalt destroyer in fiscal 2010, with many lawmakers saying then that they were motivated by ensuring enough workload at Maine's Bath Iron Works.

The so-called truncation of the Zumwalt class caused all the development costs to be apportioned to three ships, not 32, making each one on average cost more than any similar ship ever had.

"Engineering challenges are common for the first in any new class of ships, particularly one as advanced as the DDG-1000s," said Collins and King in their statement to CQ. "These challenges in the Zumwalt program were exacerbated by the Navy's decisions over time to reduce the total number of ships procured from 32 to three."

But the reduction in quantities wasn't the only factor driving up costs. The task was also more complex than the Navy had foreseen. And it was far harder than the Arleigh Burke class, some of which are built by Bath Iron Works and some by Huntington Ingalls Industries in Mississippi.

The budget problems were largely of the Navy's own making, though, and not just because of the service's cut to the quantities.

In particular, the service chose to budget to its own relatively low cost estimates for the program, not the historically more realistic estimates of the Defense secretary's cost-analysis office. Kenneth Krieg, the Pentagon's then-acquisition chief, acquiesced in that decision.

Congress has had to appropriate \$2.3 billion more to reflect the reality of the ship's higher costs, as opposed to the Navy's sanguine projections.

While the development costs were a factor in higher estimates, so too were procurement costs, which have risen 45 percent in the last nine fiscal years, or about \$4 billion, according to the Congressional Research Service.

The shipyard's troubles have included problems developing and building the vessel's first-of-its-kind electrical system.

What's more, costly redesigns were required, experts say, because the Navy failed to hew to best practices in acquiring the new ships.

In 2005, at the start of the so-called detailed design phase, a critical juncture in shipbuilding when technical goals and means should be largely set, only one of 11 critical technologies had proven mature. Later, when the ship's systems were further developed and tested, redesigns were required that delayed schedules and drove up costs, GAO has reported.

Even today, with two of the three ships "delivered," most of the key technologies are not yet mature, GAO said last month.

### **The Next Class**

The Zumwalts were the product of Donald Rumsfeld's Pentagon, which prioritized leap-ahead technologies under the rubric of "transformation."

But trying to simultaneously incorporate unprecedented technologies ended up being too big a leap.

Back in 2005, then-Rep. Gene Taylor, a Mississippi Democrat, asked the Navy chief at the time, Adm. Vern Clark, a question that resonates today: “Is it wise to have a dramatic change as opposed to an incremental change to the existing platform?”

As the Navy turns its attention to designing in the next few years a new class of destroyer and cruiser warships, the service will use technologies tested on the Zumwalts and may even use the Zumwalt as the basis for the new ship’s design.

The Navy is intent on not only gleaning the good from the Zumwalts but, perhaps more importantly, avoiding the bad.

Richardson, the Navy chief, said after the April Senate Appropriations panel hearing that an important lesson of the Zumwalt program is the importance of “stability of requirements and stability of design.”

In other words, the Navy wants to ensure it knows what it wants from the ships and sticks to that, that it does not reach for more than it technically can achieve and, critics would add, does not cut corners in development.