Why the U. S. Navy Should Reactivate the Remaining Iowa-Class Battleships

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Editor’s Note: Although the days of battleships slugging it out on the high seas has come and gone, their usefulness in supporting amphibious landings and troops ashore continues to be felt. The following articles clearly demonstrate the thought processes concerning battleship operations and the need for support of forces ashore.

Enemy beaches and coastal waters are two of the most dangerous areas for the US Armed Forces. The reason: The US Navy blatantly refuses to reactivate the two remaining Iowa-class Battleships, leaving thousands of Marines and sailors lives in jeopardy. If an amphibious landing, like those on D-Day or at Okinawa in World War II becomes necessary, many Marines and sailors will be slaughtered needlessly in the attack. The US Navy should not overlook this glaring inadequacy; the consequences are far, far too great.

Battleships have had a long, interesting history. In the mid-1800’s, naval experts experimented with new technologies such as steam power, iron armor, and heavy rifled guns. In 1862, during the American Civil War, naval warfare was changed forever when the Union ironclad USS Monitor and the Confederate ironclad CSS Virginia engaged off Hampton Roads, Virginia. The ships fought to a draw, as none of the weapons of either vessel were powerful enough to penetrate the iron of the other, but the battle changed the way naval officers and architects thought forever. In the late 1870’s and early 1880’s, nations experimented with steel-hulled cruisers powered by steam and using heavy rifled cannon. These ships used all modern technology, throwing centuries old sail technology away. In the early 1890’s, these ships were improved with newer technologies and expanded into huge ships designed to destroy anything they encountered and to project a nation’s power around the world. These ships were named battleships and provoked a massive naval arms race in the early 1900’s, primarily between Great Britain, France, and Germany. In 1906, the first modern battleship, the British HMS Dreadnought, was commissioned. The ship was powered by steam from huge coal boilers and carried large-caliber guns in revolving turrets, which enabled the ship to fire on a target without changing course. It had thick steel armor and set the standard for all future battleship design. This arms race continued until World War I began in 1914.

During World War I, battleships escorted convoys and fought duels and small engagements with other ships, mostly. In late May of 1916, however, the full force of two nation’s huge battleship fleets clashed off Jutland. Britain and Germany fought this battle to a draw, but battleships had proven their power. After World War I, though, battleships would start their demise as symbols of national power.

In 1921, the Washington Naval Treaty imposed a moratorium on the production of capital ships such
as battleships for ten years and limited the tonnage, displacement, and gun caliber of other vessels. Aircraft Carriers, however, were allowed by the treaty, which was signed by Great Britain, the United States, Japan, France, and Italy. The role of the battleship was questioned by naval experts who insisted that aircraft carriers were the way of the future, however, most admirals still saw the need for the heavy guns and thick armor of a powerful battleship and refused to let them die.

In the 1930’s, battleship development was still halted in most nations. Although allowed in 1931, most nations did not build up their fleets and instead relied on old World War I-era battleships. These nations did, however, begin to plan the next class of their powerful capital ships. On 17 May 1936, the US Congress approved an act authorizing a new class of battleships, the Iowa-class, and ordered the first two built, BB-61, USS Iowa, and BB-62, USS New Jersey. However, those would not be the only two. Most military experts considered the Japanese the enemy and the need to build up the weakening US Navy was seen. On 12 June 1936, the General Board and War Plans division approved a fast (33 knot) design for the Iowa-class and ordered two more built, the BB-63, USS Missouri, and BB-64, USS Wisconsin. In July 1940 after the fall of France and the realization that a two-ocean war, a military nightmare, was becoming a reality, Congress authorized a large emergency construction program. This included two new Iowa’s, BB-65, USS Illinois, and BB-66, USS Kentucky. Only the Iowa, New Jersey, Missouri, and Wisconsin were completed late in World War II in 1945. The other two, Illinois and Kentucky, were partially built and would later be used for parts. World War II would change naval warfare forever and relegate the battleship to a supporting role.

On 7 December 1941, the Japanese attacked Pearl Harbor and severely crippled the US battle fleet. Although all battleships sunk except the Arizona and the California would be salvaged, the damage forced the US to wage war without a large battleship fleet for a time until the North Carolina, South Dakota, and Iowa class ships were completed and the sunken battleships could be raised and repaired. This allowed the aircraft carrier become the capital ships of the fleet. In fact, in May of 1942, the Americans repelled a Japanese invasion of Australia at Coral Sea without using opposing ships firing on each other. All of the fighting was by carrier aircraft. A month later, the American fleet repelled a Japanese invasion of Midway Island in the same way, although battleships were there to protect the vulnerable carriers.

Battleships did play an essential role in the war effort, however. They were immensely valuable in protecting carriers; the South Dakota once shot down
nearly thirty-six aircraft in five minutes. An unidentified naval officer described them as, “floating anti-aircraft fortresses.” The battleship’s heavy guns were also extremely useful in amphibious assaults all over the world. During the struggle for Okinawa in 1945, battleships expended 23,157 rounds of 16-inch, 12-inch, and 14-inch heavy ammunition weighing nearly 12,000 tons in support of US Marines and Army forces (Donnigan and Nofi 91). The USS Missouri was even selected, out of all other ships in the fleet, to host the surrender of the Japanese to General of the Army Douglas MacArthur on 2 September 1945. The future for battleships in the years after the war was not, however, very good.

After World War II, the battleship’s usefulness was, however, questioned. Proponents of naval aviation insisted that battleships were no longer useful. Immediately after the war, all South Dakota and North Carolina-class ships were decommissioned. In 1948, the New Jersey and the Wisconsin were decommissioned. In 1949, the Iowa saw a similar fate. This left the proud US fleet with only one battleship, the Missouri, and it was downgraded to a training vessel with a reduced crew. This would change in 1950, however.

In 1950, the Korean War broke out and the USS Missouri was the only US Battleship ready to fight. The Iowa’s were all recommissioned to join the war effort. They were slightly modified and updated with new radar and communications systems and minor weapon upgrades. Helicopters were also added. The Missouri and the others all fought well, supporting troops in Korea and destroying bridges, supply depots, and other targets. However, after the war, the battleship’s fate was again uncertain. Many improvements were planned, including the addition of missiles and total refits. These were never implemented and all US battleships were decommissioned in 1958.

In the 1960’s another conflict broke out in Asia. This time it was in Vietnam and the US Navy had no battleships. In 1967, the subject of reactivating one or two battleships was brought up once again. However, naval aviation officers were highly opposed to this. They considered battleships a threat to naval aviation. The US Marine Corps did support reactivation because they knew the value of heavy fire support to troops and how immensely useful they had been in World War II and Korea. The New Jersey was finally recommissioned on 6 April 1968, however President Johnson had ended all offensive combat operations in North Vietnam, which eliminated many targets. Before Johnson’s order, however, over 80% of the targets attacked by aircraft, with heavy losses to US forces, could have been hit and destroyed by a battleship’s huge 16 inch guns. During the war, 700 sorties were flown against the Thanh Hoa Bridge in North Vietnam and the Vietnamese shot down many US aircraft. The New Jersey could have destroyed the target within an hour with no losses to US forces (Sumrall 47-50). When peace talks finally opened up, the Vietnamese were so frightened of the New Jersey, that they ordered it decommissioned as a condition of the talks. The US had 4 aircraft carriers nearby, but it was the battleship they were afraid of. They could always shoot down US planes, but not destroy the New Jersey (Sumrall 50). By 1972, the US Navy was once again without a battleship.

After the Vietnam War ended proponents of battleships tried to bring them back several times
unsuccessfully. During the 1970's, all remaining ships with 8-inch guns were decommissioned. Ships with six-inch guns were scarce. Studies were done, and a strong interest in battleship recommissioning was shown in 1979. President Carter, however, was totally opposed to the idea, although reactivation would cost about $326 million per ship or about as much as a frigate (Sumrall 56). In 1980, Ronald Reagan became president and began a naval buildup, the “600-ship Navy.” The theory was that in threat areas, a Battleship Battlegroup, a three-ship force of two destroyers and the battleship, would reinforce a Carrier Vehicle Battlegroup. The Iowa's were all brought out of mothballs and updated with new missile systems and advanced radar, communications, and guidance systems. In 1989, however, tragedy struck when the Iowa's turret number two exploded, killing 47 sailors and wounding over a hundred. This was a terrible tragedy, but it was an isolated incident. There has never been an accident in a turret on a US battleship before or after. The Iowa was decommissioned in 1990. Battleships had not seen their last action, though, as Saddam Hussein, president of Iraq, was looking towards the rich oil fields of his neighbor, Kuwait.

In August 1990, Iraq invaded Kuwait. The US built up its military force in the Persian Gulf region. This included sending the USS Missouri and USS Wisconsin into the Persian Gulf to support ground forces and bombard enemy positions in Kuwait and Iraq. On 16 January 1991, the US launched Operation Desert Storm, the air war against Iraq. The Missouri and Wisconsin fired some of the first shots of the war when they launched Tomahawk cruise missiles into Iraq. The ships later supported the invasion of Iraq and Kuwait in February and helped win the ground war in an astounding 100 hours. This, however, was the last opportunity for battleships to prove themselves. They were decommissioned in 1992 along with the New Jersey. Today, the US fleet, which is the largest in the world, does not have a single battleship. This worries many experts and endangers the lives of many fine young soldiers who will have to fight without any strong fire support.

NSFS or Naval Surface Fire Support is the naval bombardment of enemy positions in preparation for a ground assault. The purpose is to allow Marine Corps amphibious assaults to be performed without unnecessary loss of life. Marine Corps units are mostly infantry-based formations that depend on the fire of supporting units. However, current systems and systems being developed are inadequate to support the needs of Marines.

The current largest naval gun is a five-inch gun. They have a range of approximately twenty miles and cannot kill a tank at maximum range, which is essential for fire support. Twenty miles is close enough for heavy minefields that would be deadly to current vessels (Morison, Navy News). Missile systems are looked on as alternatives for guns, however, in the 1998 attacks on Afghanistan and Sudan, 75 missiles were
fired. This cost over $75 million in ordinance alone. According to the US Navy, the reactivation for one battleship would also cost around $75 million (Selle, Navy Times). The future system to overcome this inability is the ERGM, or Extended Range Guided Munition. It has a range of 100 nautical miles and is fired from a five-inch gun. However, the warhead is only 19 pounds and it cannot kill a tank either. The Marine Corps said in a 6 August 1997 letter that ERGM could not meet its requirements for lethal high-volume, high explosive fires and timeliness (Ralphs, USNFSA Web Site). Air power cannot provide effective fire support either. On 9 April 1999, during the NATO bombing of Yugoslavia, the USS Theodore Roosevelt could not attack any enemy positions because her aircraft could not fly due to bad weather. A battleship would have had all the targets in Kosovo within range and the ships Unmanned Aerial Vehicle could have acquired the targets under cloud cover (Ralphs, Navy Times). Who says the enemy will not attack in bad weather? This demonstrates that air power is ineffective in supporting combat troops in bad weather. Also, bombers cannot deliver the tonnage that a battleship can. They also cannot sustain bombing for very long. A German military journal captured on 16 June 1944, after the invasion of Normandy, states that fleet bombardments were more effective than air power.

It may be that the part played by the fleet was more decisive than that of the air forces because the fire was better aimed and unlike the bomber formations, it had not to confine itself to short bursts of fire…Repeatedly, strong formations of warships and cruisers are used against single coastal batteries, thus bringing an extraordinarily superior firepower to bear on them. Moreover, time and again they put up and umbrella of fire over the defenders at the focal points of the fighting compared with which incessant air attacks have only a modest effect. (Ralphs and Welch, USNFSA web site.)

This lack of fire support worries many military experts and endangers the lives of many fine young Marines who will have to fight without proper support.

Marines are worried about this lack of fire support. Tom Clancy, respected author of military fiction and military books said about this lack of support in his book, Marine, “The US Navy has lost over half of their total fire support capability with the decommissioning of the Iowa-class (BB-61) battleships and the retirement of many support aircraft and artillery units.” (96). The fire from ships and supporting units must be accurate and lethal enough to allow lightly armed Marines to stand up to everything they have to fight. Without firepower, Marines trade lives for objectives and the American people will not accept excessive casualties. Many Marines miss the Iowa-class battleships. An unidentified Marine E-9 (Sergeant) commented about the necessity of battle-
Omaha. Within three hours, the 29th had suffered 60% casualties, including most of its armor and engineers, and was combat ineffective. By comparison, Utah was easy. The 4th Infantry Division suffered fewer than 200 men and easily accomplished all objectives after the long bombardment (Badsey 33). Most of the 4,649 casualties suffered by the Americans occurred at Omaha Beach (Keegan 388). Respected military author John Keegan commented about the horrors of Omaha Beach in The Second World War, “(The invasion went pretty well) for all except the Americans doomed to the agony of Omaha Beach...(the soldiers at) Omaha Beach had undergone most of the invasion ordeals.” (382-386). Although many opponents of the reactivation of battleships say that a Normandy or Iwo Jima type landing will never be done again, Sun Tzu in his still applicable Art of War said about the unpredictable nature of war, “One cannot always avoid a fight—One cannot always choose your battlefields.” (Ralphs and Welch, USNFSA Web Site)

The US Congress is also worried about the lack of fire support for troops. Congress has ordered the US Navy to at least keep the battleships ready to be reactivated and has repeatedly ordered the US Navy to correct the lack of fire support capability. However, the Navy has done nothing substantial to comply. They do have the Iowa-class battleships, sitting in mothballs (Morison, Navy News)

Battleships are well suited for providing NSFS as well as performing other necessary jobs. They are equipped with long-range Tomahawk cruise missiles, heavy 16-inch guns which can fire numerous types of ammunition long-ranges (in excess of 100 miles), and anti-aircraft missiles. The battleships huge 16-inch guns best perform NSFS. During the Persian Gulf War, Iraqis on Faylaka Island in the Persian Gulf surrendered to the Wisconsin’s Unmanned Aerial Vehicle (providing spotting for the ships guns) rather than face certain death from a salvo of 16-inch shells. A projectile that was being developed in the late 1980’s had a range of 100 miles and carried 200 lbs of high explosive at a cost of only $35,000 per round (Ralphs, Navy Times), compared to $400,000-$1,000,000 per round for missile based alternatives. Unlike guns, these missiles can also be jammed because they will not work without exact coordinates. Guns also have a higher capacity, only take about 90 seconds to two minutes, thirty seconds to travel maximum range (depending on the projectile). Missiles will require nearly five to seven minutes for flight, which is too long when Marines are being trapped by enemy tanks on a beach (Ralphs, “Joint Warfare”). A sixteen-inch projectile is also the most powerful penetrator short of a tactical nuclear warhead, and nobody wants to use those in combat (Ralphs and Welch, USNFSA Web Site). Their weaponry can also be upgraded and expanded very easily. They are also the most survivable ships in the fleet and can risk going into harm’s way when necessary. In March 1996, China threatened Taiwan by firing missiles into shipping lanes. However, the ships of the US Carrier Vehicle Battlegroups sent in response could not risk directly challenging China’s threats. A battleship could have, while making a dramatic impact (Stearman, “Military Advantage”). Also, the Navy’s resources are stretched in times of crises. During the NATO bombings of
Yugoslavia, the Carrier Vehicle Battlegroups (CVBG) of the USS Enterprise and the USS Theodore Roosevelt were used. The USS Kitty Hawk was moved to the Persian Gulf. However, this left the Pacific Ocean without a carrier presence. The US Navy can barely wage a small-scale conflict without significant strain. It would be seriously stretched in a full-scale war. Although costs for another CVBG are prohibitive (about $2 billion), a Battleship Battlegroup (BBG) could have provided a low cost (about $75 million for reactivation plus $40 million a year), effective military deterrent in the Pacific (Ralphs, Navy Times). Their powerful punch is not all they have over current vessels.

Battleships can also serve many other functions, including refueling a fleet. The Iowa-class can carry 2.5 million gallons of oil. They can also serve as a base for Special Forces. Special operations units can talk to a command unit via satellite. The ship can provide GPS coordinates to the troops and the forces can order fire support, all well the ship’s mere presence frightens the leaders, military, and inhabitants of the country. The Iowa-class can also launch up to company (250) sized infantry units. They can also provide repair shops, medical facilities, and command centers. They are also capable of transiting the Panama Canal, which no carrier can do. Although the were commissioned during World War II, they still have ten to twenty years of life without the Service Life Extension Program because they were in mothballs for most of that time (Selle, Proceedings). They also are capable of deterring an enemy by its mere presence.

The Iowa-class battleships have a psychological impact on the enemy as well. Russia’s latest warship, the Peter The Great was described in the 5 May 1996 Washington Post as a, “massive six-deck cruiser, bristling with weapons.” The Russians regard weaponry as instruments for waging politics and diplomacy but kept ready for war if necessary. The Russians make ships warlike and effective for a show of force. However, the US Navy has taken a technical, functional approach. The boxy, costly ships of today’s navy keep weapons hidden except for the tiny five-inch gun. The ships and carriers are vulnerable to enemy fire and look too “toy-like” to have a psychological impact. Warren Zimmerman, the last US Ambassador to Yugoslavia, commented on this psychological effect, “A battleship off Dubrovnik in October, 1991 might have discouraged Serb aggression.” (Stearman, “Military Advantage”). The former captain of the USS Iowa, Captain Larry Seaquist recalled the Iowa’s effect on the Iraqis and Iranians during its deployment to the Persian Gulf during the Iran-Iraq War. What the Navy does these days is try to influence events ashore, and that’s what a battleship does… When we would sail the Iowa down the Strait of Hormuz during the Iran-Iraq War, all southern Iran would go quiet. We were in an active tanker war and Iran’s Revolutionary Guard was steaming around in ships with rockets and shooting at ships. When we arrived, all of that stuff stopped. (Stearman, “Military Advantage”)

The Iowa-class is unequaled for a psychological display of force. However, the Navy depreciates the value of psychological force and wants to eliminate what they call “gunboat diplomacy.” (Stearman, “Military Advantage”) Senator John S. McCain III of Arizona, a former naval officer and son as well as grandson of naval admirals has commented about the psychological role of battleships in front of the Senate.

Missiles are not a substitute for the kind of impact well-directed artillery can have on the battlefield. The psychological role of battleships in dissuading hostile
regimes from acting against US interests is an intangible asset that is under-appreciated... The five-inch gun common to the surface combatants is largely ineffective in most contingencies... The very substantial attributes of these platforms remain more relevant than during the Cold War. The navy's emphasis on littoral (near the coast) operations has increased the value of battleships immeasurably... I can think of no compelling reason for mothballing the last of the battleships... and every reason for retaining them in the fleet. This is an issue of importance to US foreign policy and ground soldiers whose lives may depend on timely support from large guns off-shore (Ralphs, Navy Times).

Battleships are an absolute necessity to the current US fleet. Their versatility, ruggedness, and powerful weapon systems make them a perfect complement to the US Navy and another tool for today and tomorrow's military leaders. The US should not allow young men to die needlessly in combat due to inadequate weaponry. Although the Missouri and New Jersey are currently museums, the Iowa and Wisconsin are not doing anything valuable sitting in mothballs. The US Navy should reactivate the two remaining Iowa-class battleships now, before the inevitable, costly battle.

Bibliography


USS Missouri fires in support of troops during Desert Storm (USN)
The Debate for Naval Gunfire Support
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There is an ongoing debate among the United States Navy, Marine Corps, Congress, and independent groups like the United States Naval Gunfire Support Association over what role naval gunfire support and naval surface fire support (NSFS) should play within the navy and how such a role can best be provided. At the heart of the issue is the role that naval gunfire support—the use of naval artillery to provide fire support for amphibious assault and other troops operating within their range—should play in the U.S. Navy of the 21st century.

Although the debate at large traces its roots back to the end of World War II, the current debate began in 1992 with the retirement of the last active Iowa-class battleship, USS Missouri (BB-63), as a result of the reduced demand for naval artillery, the rise of ship and submarine-launched missiles and aircraft-launched precision guided munitions (such as laser-guided bombs, which can accurately strike and destroy an enemy target with a single strike). The most striking point of the debate in the United States centers on battleships: owing to the longtime maintenance and upkeep that the four completed Iowa-class battleships have undergone during their time in the navy's active and mothball fleets, many still view battleships as viable solutions for gunfire support, and these members have questioned if the navy can adequately replace the gunfire support provided by a battleship's main guns with the smaller guns on its current fleet of cruisers and destroyers.

The debate has played out across a wide spectrum of media, including newspapers, magazines, web blogs, and congressional research arms like the Government Accountability Office. Each side has presented different arguments on the best approach to the problem, but most of the participants favor the continuation of the DD(X) program or the reinstatement of the Iowa-class battleships to the Naval Vessel Register. The Iowa-class battleships, the Arleigh Burke-class destroyers, and Zumwalt-class destroyers have entered the debate as options put forward for naval gunfire support, while others advocate the use of specifically designed close air support planes and newer missile systems that can loiter in an area as a replacement for naval gunfire.

Within a few years of the end of World War II, the United States deactivated all of its remaining battleships and placed them in the United States
Navy reserve fleets. Most of these ships were eventually scrapped, but the four Iowa-class battleships were not, and on several occasions one or more of these four battleships were reactivated for naval gunfire support. The U.S. Navy has held onto the four Iowa-class battleships long after the upkeep and maintenance of operating and maintaining a battleship and the arrival of aircraft and precision guided munitions led other nations to scrap their big-gun fleets.[1] Congress was largely responsible for keeping the four Iowa-class battleships in the United States Navy reserve fleets and on the Naval Vessel Register as long as they did. The lawmakers argued that the battleships’ large-caliber guns had a useful destructive power that is lacking in the smaller, cheaper, and faster guns mounted by U.S. cruisers and destroyers.[2]

In the 1980s, President Ronald Reagan proposed creating a 600-ship navy as part of the overall defense department build-up to counter the threat of the armed forces of the Soviet Union; both the Soviet Army and Navy had grown in the aftermath of the unification of Vietnam in 1975 and the loss of faith that Americans had in their armed services.[3] As part of this, all four Iowa-class battleships were modernized and reactivated. However, when the Soviet Union collapsed in 1991, the 600-ship navy was seen as too costly to maintain, and so the navy made plans to return to its traditional 313-ship fleet.[4][5] This led to the deactivation of many ships in the navy’s fleet, including the four reactivated battleships; all were removed from service between 1990 and 1992.[6][7][8][9] Originally, the navy had struck all four ships and made plans to donate them, however Congress intervened in this plan with the passing of the National Defense Authorization Act of 1996. Section 1011 required the United States Navy to reinstate to the Naval Vessel Register two of the Iowa-class battleships that had been struck by the navy in 1995; these ships were to be maintained in the United States Navy Reserve Fleets. The Navy was to ensure that both of the reinstated battleships were in good condition and could be reactivated for use in the Marine Corps’ amphibious operations. Both battleships were to be maintained with the reserve fleet until such a time as the navy could certify that it had within its fleet the operational capacity to meet or exceed the gunfire support that both battleships could provide.[10] To comply with this requirement, the navy selected the battleships New Jersey and Wisconsin for reinstatement to the Naval Vessel Register.

New Jersey remained in the mothball fleet until the Strom Thurmond National Defense Authorization Act of 1999 passed through the United States Congress on 18 October 1998. Section 1011 required the United States Secretary of the Navy to list and maintain Iowa and Wisconsin on the Naval Vessel Register, while Section 1012 required the Secretary of the Navy to strike New Jersey from the Naval Vessel Register and transfer the battleship to a not-for-profit entity in accordance with section 7306 of Title 10, United States Code. Section 1012 also required the transferee to locate the battleship in the State of New Jersey. [11] The navy made the switch in January 1999. Iowa and Wisconsin were finally stricken from the Naval Vessel Register in 2006.

The navy sees the battleships as prohibitively expensive,[12] it is working to persuade Congress to allow it to remove Iowa and Wisconsin from the Naval Vessel Register by developing extended-range guided munitions and a new ship to fulfill marine corps requirements for naval surface fire support (NSFS) (as of 2012).

The navy plan originally called for the extension of the range of the 5-inch (127 mm) guns on the Flight I Arleigh Burke-class guided missile destroyers (USS Arleigh Burke to Ross) with Extended Range Guided Munitions (ERGMs) that would enable the ships to fire precision guided projectiles about 40 nautical miles (70 km) inland. The program was initiated in 1996 with a preliminary cost of US $78.6 million; however, the cost of the program increased 400%
during its research and development phase. The results of the program had been similarly disappointing: the original expected operational capability date was pushed from 2001 to 2011 before being cancelled by the navy in March 2008 for budget-related reasons and an apparent shift by the navy from the ERGM program to the Ballistic Trajectory Extended Range Munition (BTERM) program. These weapons are neither intended nor expected to satisfy the full range of the marine corps requirements.

The result of the latter effort to design and build a replacement ship for the two battleships was the Zumwalt-class destroyer program, also known either as the DD(X) or DDG-1000. The DD(X) was to mount a pair of Advanced Gun System turrets capable of firing specially designed Long Range Land Attack Projectiles some 60 miles (100 km) inland. Originally, the navy had planned to build a total of 32 of these destroyers, however the increasing cost of the program led the navy to reduce the overall number of destroyers built from 32 to 24. In 2007 the total procurement of Zumwalt-class destroyers was further reduced to a total of seven, before being discontinued at a total of two destroyers in July 2008 as a result of the high cost of building each of the two ships. In September 2008 the navy and the House of Representatives reached an agreement which will allow for the construction of a third DD(X) destroyer, bringing the total number of Zumwalt-class destroyers to three.

The discontinuation of the class is due in part to concerns that the Zumwalt ships may deprive other projects of needed funding, a concern that has been raised by the Congressional Budget Office (CBO), Congressional Research Service (CRS), and the Government Accountability Office, all of which have issued reports that suggest that total cost of each ship could be as high as $5 billion or more. In addition to the high cost, naval officials discussing the cancellation of the DD(X) program cited the inability of the DD(X) to fire the Standard missile or provide adequate air defense coverage, and a “classified threat” which the navy feels can be better handled by the current Arleigh Burke-class destroyers than by the Zumwalt-class destroyers. The article also reported that the Marine Corps no longer needs the long-range fire support from the Zumwals’ 155 mm Advanced Gun System because such fire support can be provided by Tactical Tomahawk cruise missiles and precision airstrikes.

On 17 March 2006, while the ERGM and DD(X) programs were under development, the Secretary of the Navy exercised his authority to strike Iowa and Wisconsin from the Naval Vessel Register, which cleared the way for both ships to be donated for use as museums. The United States Navy and the United States Marine Corps had both certified that battleships would not be needed in any future war, and have thus turned their attention to development and construction of the next generation Zumwalt-class guided missile destroyers.

However, this move has drawn fire from sources familiar with the subject; among them are dissenting members of the United States Marine Corps. These dissenters argue that battleships are still a viable solution to naval gunfire support, members of the United States Congress who remain “deeply concerned” over the loss of naval surface gunfire support that the battleships provided, and a number of independent groups such as the United States’ Naval Fire Support Association (USNFSA) whose ranks frequently include former members of the armed service and fans of the battleships. Although the arguments presented from each group differ, they all agree that the United States Navy has not in good faith considered the potential of reactivated battleships for use in the field, a position that is supported by a 1999 Government Accountability Office report regarding the United States Navy’s gunfire support program.

In response, the navy has pointed to the cost of reactivating the two Iowa-class battleships to their decommissioned capability. The navy estimates costs in excess of $500 million, but this does not include
an additional $110 million needed to replenish the
gunpowder for the 16-inch (406 mm) guns because
a survey found the powder to be unsafe. In terms of
schedule, the Navy’s program management office es-
timates that reactivation would take 20 to 40 months,
given the loss of corporate memory and the shipyard
industrial base.[2]

Reactivating the battleships would require a wide
range of battleship modernization improvements,
according to the navy’s program management office.
At a minimum, these modernization improvements
include command and control, communications,
computers, and intelligence equipment; environ-
mental protection (including ozone-depleting sub-
stances); a plastic-waste processor; pulper/shredder
and wastewater alterations; firefighting/fire safety and
women-at-sea alterations; a modernized sensor suite
(air and surface search radar); and new combat and
self-defense systems.[2] The navy’s program manage-
ment office also identified other issues that would
strongly discourage the Navy from reactivating and
modernizing the battleships. For example, personnel
needed to operate the battleships would be extensive,
and the skills needed may not be available or eas-
ily reconstituted.[28] Other issues include the age and
unreliability of the battleships’ propulsion systems
and the fact that the navy no longer maintains the ca-
pability to manufacture their 16-inch (410 mm) gun
system components and ordnance.[2]

Although the navy firmly believes in the capabili-
ties of the DD(X) destroyer program, members of the
United States Congress remain skeptical about the ef-
ficiency of the new destroyers when compared to the
battleships.[15] Partially as a consequence, Congress
passed Pub. L. 109-364, the National Defense Autho-
ration Act 2007, requiring the battleships be kept
and maintained in a state of readiness should they
ever be needed again.[29] Congress has ordered that
the following measures be implemented to ensure
that, if need be, Iowa and Wisconsin can be returned
to active duty:

1. Iowa and Wisconsin must not be altered in
any way that would impair their military utility;
2. The battleships must be pre-
served in their present condition
through the continued use of cathodic
protection, dehumidification systems,
and any other preservation methods as
needed;
3. Spare parts and unique equip-
ment such as the 16-inch (410 mm)
gun barrels and projectiles be preserved
in adequate numbers to support Iowa
and Wisconsin, if reactivated;
4. The navy must prepare plans
for the rapid reactivation of Iowa and
Wisconsin should they be returned
to the navy in the event of a national
emergency.[29]

These four conditions closely mirror the original
three conditions that the Nation Defense Authoriza-
tion Act of 1996 laid out for the maintenance of Iowa
and Wisconsin while they were in the Mothball Fleet.
[4][10]

During the period of time in which the battleships
were out of commission in the United States, several
technological updates and breakthroughs enabled
naval ships, submarines, and aircraft to compensate
for the absence of big guns within the fleet.

The earliest challenge to naval artillery was the
advent of aircraft and armor piercing/incendiary
bombs, which could be used against land based tar-
gets in support of troop formations ashore. Although
in its infancy during and after World War I, some saw
the potential for aircraft and sea based air support
and envisioned the role it would have in future con-
licts. Among the more notable individuals within the
United States was Brigadier General Billy Mitchell.
Mitchell had served in World War I, where he eventu-
ally commanded all U.S. aircraft in the war and was
responsible for leading Allied aircraft in support of the ground offensive during the Battle of Saint-Mihiel, one of the first coordinated air-ground offensives in history. Mitchell's experience in World War I led him to believe that battleships were out of date, and he became an increasingly vocal proponent of air power.\[30\]

In 1921, Mitchell first demonstrated to the world that battleships and other gun dependent vessels could be sunk by aircraft loaded with heavy bombs. In one of his most famous demonstrations, Mitchell convinced the Navy to allow bomb loaded aircraft to attack the German dreadnought Ostfriesland, a battleship taken as a prize of war by the United States in 1918. Although the Navy had placed strict rules on the bombing exercise, Mitchell and his men violated the rules and attacked the battleship head on, which caused the vessel to sink in a mere 22 minutes.\[31\] Although downplayed at the time this would have a dramatic effect on U.S. policy, leading to increased research and development for aircraft.\[32\]

By World War II naval aircraft had evolved to the point where they posed a threat to battleships and other naval vessels that lacked sufficient anti-aircraft defense. During WWII air raids accounted for the loss of warships and merchant vessels of all types, including the battleships Conte di Cavour, Arizona, Utah, Oklahoma, Prince of Wales, Roma, Musashi, Tirpitz, Yamato, Schleswig-Holstein, Impero, Lemnos, Kilkis, Ise and Hyūga. These losses were sustained even after the introduction of the “All or Nothing” armor scheme (armor belts intended to protect battleships from guns of an equal or lesser caliber than their own) and the recognition of the role of airpower and the rise of various ship based anti-aircraft guns meant to improve air defense aboard ships.\[33\][34]

In addition to their role in attacking ships, several aircraft like the P-47 Thunderbolt were employed for close air support for ground based troops in Europe and in the Pacific.\[35\]

By the time of the Korean War air power had been supplemented by the introduction of the jet engine, which allowed fighter and bomber aircraft to fly faster. As with their World War II predecessors, the newer jet aircraft proved capable of providing close air support for ground based troops, and were instrumental in aiding UN ground forces during the Battle of Chosin Reservoir.\[36\][37]

The Vietnam War saw the introduction of helicopter gunships which could be employed to support ground based forces, and the experience gained in Vietnam would spawn the creation of several aircraft designed specifically to aid ground forces, including the AC-47 Spooky, Fairchild AC-119, Lockheed AC-130, and A-10 Thunderbolt II, all of which are operated by the Air Force, and the F/A-18 Hornet which is operated by the navy. In addition, the army and marine corps operate UH-1 Iroquois, AH-1 Cobra, and AH-64 Apache helicopters for close air support, and these helicopters can be stationed onboard amphibious assault ships to pro-
vide ship-to-shore air support for ground forces. These aircraft would later prove instrumental in aiding ground forces from the 1980s onwards, and would be involved in the 1991 Gulf War, the 2001 invasion of Afghanistan, and the 2003 invasion of Iraq.

Starting after the invasion of Iraq, the air force began arming unmanned drone aircraft to perform strike missions. Originally designed for prolonged surveillance (and ironically to act as spotters for naval artillery), these aircraft typically have greater endurance than manned strike aircraft and some degree of automation to allow them to patrol for activity without requiring the constant attention of a pilot. This permitted the fielding of a less expensive aerial force which could maintain constant surveillance for enemy targets and conduct strikes on any targets encountered.

Towards the end of World War II Germany introduced the V-1 cruise missile and V-2 ballistic missiles in combat against the Allied forces. The missiles arrived too late to alter the course of the war, but after the fall of Nazi Germany the V-1 and V-2 rockets would form the foundations for the space race and for the policy of Mutually Assured Destruction by providing each superpower with Ballistic Missiles and Submarine Launched Ballistic Missiles that could carry nuclear warheads.

The rise of precision strike munitions in the 1970s and 1980s reduced the need for a massive naval bombardment against an enemy force, as missiles could now be used against such targets to support ground forces and to destroy targets in advance of the arrival of troops. Guided missiles can also fire much further than the guns of any destroyer, cruiser, frigate, or battleship, allowing for strikes deep into the heart of enemy territory without risking the lives of pilots or airplanes. This led to a major shift in naval thinking, and as a result ships became more dependent on missile magazines than on their guns for offensive and defensive capabilities. This was demonstrated in the 1980s, when all four recommissioned battleships were outfitted with missile magazines, and again in the 1991 Gulf War, when both Missouri and Wisconsin launched missile volleys against targets in Iraq before using their guns against Iraqi targets on the coast. The same conflict saw the first use of submarine-launched cruise missiles when the Los Angeles-class attack submarine Louisville fired Tomahawk Land Attack Missiles into Iraq from the Red Sea.\[38\]

Currently, the United States is looking into Non-Line-of-Sight Launch Systems, which would fire either Precision Attack Munitions or Loitering Attack Munitions;\[39\]\[40\] however the latter program has been cancelled due to rising costs and poor test performance,\[41\] while the Precision Attack Missile lacks the minimum range to meet the USMC requirement of 41.3 nautical miles (76.5 km).\[42\]

Although ship-fired missiles can provide support for shore-based units, they are susceptible to interception by anti-missile systems such as the Aegis Combat System and MIM-104 Patriot System developed by the United States and used by NATO nations. These systems were designed to track and destroy both artillery shells and missiles. The first widely reported instances of such systems working came in
1991 when the US Patriot and Royal Navy Sea Dart missile system successfully intercepted and destroyed Iraqi Scud and Silkworm missiles.\[38\][42][44][45]

Naval gunfire has been used intermittently since the end of the Second World War. By and large, the guns are small caliber guns found on modern frigates, cruisers, destroyers. The reason the Iowa-class battleships were maintained and used is because 16-inch (410 mm) guns were considered more effective.

In the 1960s, following a requirement established by Chief of Naval Operations (CNO) for a new gun capable of firing semi-active laser guided projectiles (SAL GP), the Naval Surface Warfare Center Dahlgren Division worked on the Major Caliber Lightweight Gun (MCLWG) Program, testing capability of destroyer-sized ships to provide shore bombardment support with the range previously available from decommissioned cruisers. The 8”/55 caliber Mark 71 gun, a single gun version of the 8”/55 Mark 16 caliber gun was mounted aboard the USS Hull (DD-945). However after at-sea technical evaluation in 1975 and operational testing that followed through 1976, The Operational Test and Evaluation Force determined inaccuracy made the gun operationally unsuitable. The lightweight 8”/55 was concluded to be no more effective than the 5”/54 with Rocket Assisted Projectiles. Program funding was terminated in 1978.\[46\]

In the 1980s, such guns were used by US destroyers during the Lebanese Civil War to shell positions for the Multinational Force in Lebanon operating on the ground. Guns were also used by the Royal Navy in the Falklands War to support British forces during the operations to recapture the islands from the Argentineans. For example, the Type 42 destroyer HMS Cardiff, was required to fire at enemy positions on the islands with her 4.5-inch gun. In one engagement she fired 277 high-explosive rounds,\[47\] although later problems with the gun prevented continual use. Ship-based gunfire was also used during Operation Praying Mantis in 1988 to neutralize Iranian gun emplacements on oil platforms in the Persian Gulf.\[48\] Although the smaller caliber guns are effective in combat, larger caliber guns can be employed for psychological warfare purposes, and have compelled the surrender of enemy combatants during combat operations due to a sense of overwhelming firepower. One of the most recent examples of this was the bombardment of Iraqi shore defenses by the battleships Missouri and Wisconsin in the Persian Gulf War.\[38\] The shelling proved to be so devastating that when the latter battleship returned to resume shelling the island, the enemy troops surrendered to her Pioneer UAV launched to spot for the battleships’ guns rather than face another round of heavy naval artillery support.\[49\][50]

The navy has looked into creating precision guided artillery rounds for use with the current fleet of cruisers and destroyers. The most recent attempt to modify the guns for longer range came with the Advanced Gun System mounts that were to be installed aboard.
the Zumwalt-class destroyers, although the navy has been involved in the Long Range Land Attack Projectile and Ballistic Trajectory Extended Range Munition projects for over 10 years in an effort to develop Extended Range Guided Munitions.[13][14]

In addition to funding research into various extended range munitions, the navy is also working on developing railguns for use with the fleet at some point in the future. The United States Naval Surface Warfare Center Dahlgren Division demonstrated an 8 MJ rail gun firing 3.2 kilogram (slightly more than 7 pounds) projectiles in October 2006 as a prototype of a 64 MJ weapon to be deployed aboard navy warships. The main problem the navy has had with implementing a railgun cannon system is that the guns wear out due to the immense heat produced by firing. Such weapons are expected to be powerful enough to do a little more damage than a BGM-109 Tomahawk missile at a fraction of the projectile cost. Since then, BAE Systems has delivered a 32 MJ prototype to the Navy.[52] On January 31, 2008, the US Navy tested a magnetic railgun; it fired a shell at 2520 m/s using 10.64 megajoules of energy.[53] Its expected performance is over 5800 m/s muzzle velocity, accurate enough to hit a 5 meter target from 200 nm (370 km) away while shooting at 10 shots per minute. It is expected to be ready between 2020 and 2025.

Apart from railguns, 16 inch scramjet rounds with ranges of up to 400 nautical miles that have a 9-minute time of flight are being proposed by Pratt and Whitney working with Dr. Dennis Reilly, a plasma physicist with extensive experience with munitions. Alliant Techniques is also developing a ram-jet projectile for 5-inch and 155mm gun. Unfortunately, the navy had no interested sponsor according to both Pratt and Whitney representatives and Dr. Reilly.[54]

Prior to the reduction of ships in the DD(X) destroyer program, it seemed unlikely that the above four conditions would have impeded the current plan to turn Iowa and Wisconsin into museum ships because the navy had expected a sufficient number of DD(X) destroyers to be ready to help fill the NSFS gap by 2018 at the earliest;[2] however, the July 2008 decision by the navy to cancel the DD(X) program would leave the navy without a ship class capable of replacing the two battleships removed from the Naval Vessel Register in March 2006. Although unlikely, the cancellation of the DD(X) destroyer program may result in a reinstatement of Iowa and Wisconsin to the Naval Vessel Register; by law, the navy is required to maintain two battleships on the register until the navy certifies that it has within its fleet the operation NSFS capability that can meet or exceed the amount provided by the battleships,[10] and with the Extended Range Guided Munitions program already cancelled in March 2008[14] and DD(X) destroyer program essentially cancelled in July 2008[17] the navy does not appear to have met its needed criteria for battleship removal.[10] James T. Conway, Commandant of the Marine Corps has said that missiles fired from the littoral combat ship could fulfill the USMC needs for NSFS.[55] This would not be the current NLOS-LS program as the range of the PAM missile at 22 miles (35 km) falls short of the threshold requirement for NSFS of 41 miles (66 km) and the number of CLUs the current LCS designs can carry in a ready to fire configuration is also short of the required volume of fire.[56] The Loitering Attack Missile could have matched the required range, but it was cancelled in 2011[41] and the LCS would still have fallen short in terms of rounds ready to fire.[57]

Notes:


26. This number is based on 1999 estimate with a 4% annual inflation rate. See: Government Accountability Office. Information on Options for Naval Surface Fire Support. 27. The U.S. Navy reported in the April 1987 edition of All Hands that the original cost of bringing the battleships back in the 1980s was $1.10 million per ship, but the actual cost after modernization and recommissioning was $455 million. See: Bureau of Naval Personnel, "Back on the battle line". 28. The U.S. Navy reported in the April 1987 edition of All Hands that while battleships have larger crews than other vessels the level of training required and the criticality of that training were less than that required of a crew aboard an Oliver Hazard Perry-class frigate. See: Bureau of Naval Personnel, "Back on the battle line".


36. National Museum of the USAF - Fact Sheet Media (F-86A/F/E Sabre)


45. The success of the MIM-104 Patriot Missile System in these engagements, and in particular how many of them were real targets is still controversial. Post war video analysis of presumed interceptions suggests that no Scud was actually hit. "Optical Evidence Indicating Patriot High Miss Rates During the Gulf War". Retrieved2008-01-29.


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Naval Surface Fire Support from Battleships -- THE Savior for Troops Ashore and a ‘Serious Reminder’ for Our Enemies Around the World

Rear Admiral [Ret.] Jim Carey
March 15, 2005

I remember well the days in Vietnam when Naval Surface Fire Support [NSFS] was known well to every ship at sea and even better to the Marines and Army troops ashore who called in that fire time after time. Indeed, those troops ashore remember it better than I do because more often than not, it saved their lives.

I also remember when John Lehman [then Secretary of the Navy Lehman] “brought back the battleships” during the Reagan Administration. He had to search for some of the older retired sailors who had manned those huge guns in earlier wars for the experience needed on how best to operate them, and he found them in the retired ranks and in the Naval Reserve and those gunners eagerly came back on ACDU and served superbly and with honor.

A foreign friend of mine who lived in the Middle East once related to me the reaction that rippled through the population of his troubled nation when an American battleship could be seen steaming up and down the coast offshore, since everyone, even nations with no battleships, knew the guns on those magnificent ships could drop a shell the equivalent of a small Volkswagen with pinpoint accuracy on any coordinate, and continue to do so for days and weeks. What an incredible impact these ships had on our nation’s ability to enforce foreign policy and to bring a visible sign to belligerents that “we mean business.”

So all’s well in the world, eh? The troops ashore have this great NSFS ship to bail them out of tough spots when they’re surrounded by the enemy and the Commander-In-Chief has these magnificent visible assets that can go anywhere in the world to make clear to all in the area that “we’re serious about our presence there.”

Well, not really.

At least not if you’re talking about having A battleship or THE battleships available to do the job. They’ve all been mothballed to save money.

But at least they’re mothballed, right, so that when we need them again we can scrub ‘em up and flush out the pipes, send the crews, and get these huge weapons platforms underway to do their jobs?

Well, not really.

Now there’s talk of the Navy’s “Striking from the Naval Register” these great one-of-a-kind assets that allows some in our nation to already be clamoring to convert these precious ships into museums. And once they’re gone, THEY ARE GONE! These ships and their guns and capabilities and presence are not something you pick up off-the-shelf at the local Sears store. They take years and years to build. And you’re talking billions of dollars to be able to replace these world’s finest NSFS platforms that we already have available to us today in the Navy’s mothball fleet.

Kinda makes you wonder, doesn’t it? Why are we doing this? Is this in our long-term best interests, or is it another one of those short-term cost-cutting efforts that often turns out NOT to be in the best interests of our Navy or our foreign policy enforcement abilities [one would think by now we’ve learned that depending upon the United Nations is a non-starter] or our ability to save the lives of troops ashore.

And you know what? We’re not alone in raising these questions. Turns out that there is a large and highly-respected segment of our own U.S. Government that thinks as we do, namely that striking from the register “or museuming” the mothballed battle-
ships is a BAD IDEA! And it’s not just a couple of old battleship sailors sharing a beer and reliving old times that are saying this. This is our federal government’s own Government Accounting Office in their report GAO-04-973 of Sept. 2004, less than 6 months ago. Just go to www.gao.gov and punch it up. Seems to me we ought to be listening to them.

Now don’t get me wrong. I’ve always considered myself a realist and mean to be in this argument as well. I don’t pretend to claim that there will never be a time when it won’t make good common sense to send the battleships the way that sail and coal went as sources of ship’s power. I’m just saying NOW IS NOT THE TIME.

There are ships on the drawing boards and already into the research and development and testing cycle, including DD[X] and CG[X], that may provide the NSFS rate of fire and on-station time needed, but we have yet to build a single one and probably won’t for the next 7-8 years. And when you look at the GAO report and the Navy’s own numbers, these are going to be VERY EXPENSIVE SHIPS. We may well need them for the future, as “the 21st Century alternative,” but my argument is “don’t get rid of the battleships until we have the battleship gunfire support capability replaced in the fleet.” And this is not just me talking. LTGEN Mike Williams, USMC said when testifying before the Congress in March 2000 “There is no existing Navy program of record that satisfies this [volume of fire] requirement.”

And here’s what some other “experts of note” have to say so you don’t think this is just something I dreamed up in my Navy Surface Warfare Officer brain:

- Former USMC Commandant General P. X. Kelley: “There is no weapon system in the world that comes even close to the visible symbol of enormous power represented by the battleship”
- Former CENTCOM Commanding General Tommy Franks in a letter to USNFSA Executive Director Dr. William Stearman: “… naval surface fire support will remain key to the success of future littoral operations … I found your discussion of the need to bring back two battleships to ‘bridge the gap’ between the absence of naval gunfire and organic fire-support intriguing. Battleships have served the American military well in previous conflicts. The importance of having sufficient naval artillery support to complement the long reach of our cruise missiles cannot be overstated”
- Congressional Research Service’s Ronald O’Rourke in Nov. 2004: “… reflects a need to replace the high volume, all weather naval surface fire support capability for supporting Marines and other friendly forces ashore that the Navy lost in 1990-1992 when it removed the four reactivated Iowa-class battleships from service”
- Former SECNAV John Lehman in a January 2000 article of Naval Institute Proceedings: “The law requires that the Navy maintain two battleships on the register until it can certify that it has surface fire-support capability that equals or surpasses that of the battleships”
- General Walt Boomer, USMC [Ret.] who commanded the I MEF during Operation DESERT STORM: “[Battleships] with their long-range guns, massive firepower, and ability to respond in any weather filled a niche that nothing else could”
- Captain Larry Seaquist, U. S. Navy [Ret.], Former Skipper of U. S. S. IOWA, writing in the American Legion Magazine: “What the Navy does these days is try to influence events ashore and that’s just what a battleship does … When we would sail the IOWA down the Straits of Hormuz during the Iran-Iraq War, all of southern Iran would go quiet”
- Senator John McCain wrote in 1997: “The very substantial attributes of these platforms [battleships] remain more relevant today than during the height of the Cold War. The Navy’s emphasis on littoral operations since the dissolution of the Soviet Union and subsequent atrophy of its fleet has increased the
value of battleships immeasurably ... I can think of no compelling reason for mothballing the last of the battleships ... and every reason for retaining them in the fleet”

- USMC Commandant General James Jones in a June 2000 interview with Armed Forces Journal International: “I regret we took them [battleships] out of service before we had actually fixed the naval surface fire support problem”

- Former House Armed Services Committee Chairman [now deceased] Cong. Bob Stump [R-AZ]: “Measured against their capabilities, they [battleships] are the most cost effective and least manpower intensive warships we have ... It is imperative that two battleships be returned to active service as soon as possible to close the dangerous NSFS gap”

- USMC Commandant Michael Hagee, on April 1, 2003: “Our nation’s expeditionary forces will remain at considerable risk for want of suitable seabased fire support”

- Senator Ted Kennedy [D-MA] on April 9, 2002 at Senate Sea Power Subcommittee: “[there appears to be] little hope that the Navy would be able to meet the Marine Corps fire support requirements in the foreseeable [future]”

- USMC Deputy Commandant, LTGEN Robert Mangus on 12 March 2005 [just 2 days ago as this is being written] in Pacific Stars and Stripes: “Quality is important, and we get the quality that we want” he told members of the House Armed Services Committee. “But the quantity itself is a problem. It’s a problem with having peacetime forward presence. It’s a problem for being able to rapidly surge the right number of ships. It’s a problem for major combat operations” And “Slipping or cutting the replacements is what concerns me. The trend over time goes down. When you need that capability in the future, it does concern me”

Trust me, I’ve done a lot of research on all this. And while I’m sure the Navy is under pressure to make choices and set priorities as to what they do with currently available scarce dollars, in my view they get too little in savings by scrapping the battleships for what they lose in capability to save the lives of troops ashore and to make it clear to belligerent nations that “America means business” when we park one of these giants in view of any nation’s civilian populace.

I’ve found a great source that says all this much better than I do in their Frequently Asked Questions page -- The Navy Surface Fire Support Association. Go to their FAQ section at http://www.usnfsa.org/FAQ/FAQ where you will find chapter and verse all the rationale for what I argue above.

And if you don’t want to believe me or the folks at USNFSA, surely the combined opinions of Former CENTCOM Commanding General Tommy Franks and Former SECNAV John Lehman and General Walt Boomer and Captain Larry Seaquist and Senator John McCain and Former Commandant of the Marine Corps General P. X. Kelley and Congressional Research’s Ronald O’Rourke and Former USMC Commandant James Jones and Former House Armed Services Committee Chairman Congressman Bob Stump and current USMC Commandant General Michael Hagee and Senate Sea Power Subcommittee Member Senator Ted Kennedy and current USMC Deputy Commandant LTGEN Robert Mangus can’t all be wrong.

I say bring back the battleships and keep them on duty till we have their replacements in the fleet.

Anything else available for use today does not keep faith with our troops in combat ashore and our ability to project our intentions with belligerent nations around the world.
Bruce McCandless was an officer of United States Navy who received the Medal of Honor during World War II for his heroism on board the USS San Francisco (CA-38), during the Naval Battle of Guadalcanal, November 13, 1942. He retired with the rank of Rear Admiral. Admiral McCandless was the great-grandson of David Colbert McCanles of the Rock Creek Station, famous for the Nebraska shootout with Wild Bill Hickok. After that, the McCanles family changed its name to McCandless and moved to Florence, Colorado.

The son of Commodore Byron McCandless (1881–1967), Bruce McCandless was born on August 12, 1911, in Washington, D.C. Following in his father’s footsteps, Bruce graduated from the United States Naval Academy in 1932.

McCandless married Sue Worthington Bradley, daughter of Captain Willis W. Bradley, USN. They had two sons and two daughters, including NASA astronaut Bruce McCandless II.

McCandless served on USS Indianapolis (CA-35) and USS Case (DD-370). He was serving as communications officer of San Francisco when the Empire of Japan attacked Pearl Harbor on December 7, 1941.

On November 13, 1942, during the Naval Battle of Guadalcanal, Japanese gunfire killed Rear Admiral Daniel J. Callaghan and his staff, including Captain Cassin Young and all other officers on the San Francisco’s bridge, except Lieutenant Commander McCandless, who took the conn for the rest of the battle. For his conduct, he was awarded the Medal of Honor, and promoted to full Commander. The San Francisco received the Presidential Unit Citation for this battle and, by the end of the war, was credited with 17 battle stars.

Cmdr. McCandless continued to serve on the San Francisco until 1944, when he took command of the newly commissioned destroyer USS Gregory (DD-802) on July 29 of the same year. On April 8, 1945, during the Battle of Okinawa, Gregory was attacked and damaged by four kamikazes and McCandless was awarded the Silver Star for conspicuous gallantry during the battle.

Captain McCandless retired on September 1, 1952, with a terminal promotion to the rank of Rear Admiral. He died in Washington, D.C., on January 24, 1968, and was buried at the Naval Academy in Annapolis, Md. On his tombstone, his last name is spelled “McCandles”.

In 1971, the frigate USS McCandless (FF-1084) was named in honor of RADM. McCandless and his father, Commodore Byron McCandless. There is also a street at the U.S. Naval Academy named after Admiral McCandless, as well as the Colorado State Veterans Nursing Home in Florence, Colorado. Commodore Byron McCandless has a street named after him at the US Naval Base, San Diego, CA.
Citation:

For conspicuous gallantry and exceptionally distinguished service above and beyond the call of duty as communication officer of the U.S.S. San Francisco in combat with enemy Japanese forces in the battle off Savo Island, 12–13 November 1942. In the midst of a violent night engagement, the fire of a determined and desperate enemy seriously wounded Lt. Comdr. McCandless and rendered him unconscious, killed or wounded the admiral in command, his staff, the captain of the ship, the navigator, and all other personnel on the navigating and signal bridges. Faced with the lack of superior command upon his recovery, and displaying superb initiative, he promptly assumed command of the ship and ordered her course and gunfire against an overwhelmingly powerful force. With his superiors in other vessels unaware of the loss of their admiral, and challenged by his great responsibility, Lt. Comdr. McCandless boldly continued to engage the enemy and to lead our column of following vessels to a great victory. Largely through his brilliant seamanship and great courage, the San Francisco was brought back to port, saved to fight again in the service of her country.

Unique to naval life, are the pipes that are made by the boatswain's call.

Piping is the Naval method of passing orders and every seaman should know how to use a “boatswain's call”. The use of the bosun's call goes as far back as the Crusades (1248).

In former days it was worn in English ships as a badge of rank, because it was always used for passing orders. For years it was even worn as a badge of office as the Lord High Admiral of England and his successors up to 1562. Thereafter it was used in the English fleet for passing all orders and since 1671 it became generally known as the “boatswain's call”.

Nowadays the boatswain's call and chain are the badge of office of the Chief Boatswain's Mate, the Quartermaster and Boatswain's Mates. The expression “To Pipe” means, to sound on the boatswain's call and the spoken order to qualify it. Some “Pipes” are even orders and do not require any verbal qualification.
near the shackle. The side of the buoy rests against the palm of the hand. The fingers close over the gun and buoy hole in such a position as to be able to throttle the exit of air from the buoy to the desired amount. Care must be taken that the fingers do not touch the edge of the hole in the buoy, or over the hole in the end of the gun, otherwise all sound will be completely choked.

Playing the Boatswain’s Call

The bosun’s call can be tuned by scraping away and enlarging the wind edge of the hole in the buoy and it will sound if the mouth of the gun is held directly into a moderate wind.

There are two main notes; the low and the high, and three tones; the plain, the warble and the trill.

- **Low Note**: The low note is produced by blowing steadily into the mouth of the gun with the hole of the buoy unobstructed by the fingers.
- **High Note**: The high note is produced by throttling the exit of air from the hole of the buoy. This is done by closing the fingers around the buoy, taking care not to touch the edge of the hole or the end of the gun.
- **Warble**: The warble is produced by repeatedly moving your hand quickly from the high to the low position, which results in a warble similar to that of a canary.
- **Trill**: The trill is produced by vibrating the tongue while blowing, as in rolling the letter R.

The following are the commands that are passed with the help of a bosun’s pipe:

- **Haul**: The most basic of calls. Crews of warships were not allowed to sing work songs or shanties, so the pipe coordinated the sailors. The low note was for the pause and preparatory; the high for pulling on the line.

- **The Side or Away Galley**: Descends from the tradition of hoisting officers aboard ship in a chair. It is a combination of haul, and then a command to lower. This call remains in use as an honour given to officers when embarking or disembarking.

- **Away Boats**: Used to order a ship’s boats to leave the ship’s side.

- **Call the Boatswain’s Mates**: The boatswain’s gang to report.

- **All Hands on Deck**: Crews were split into three rotating watches that stood for two to four hours at a time. This call signals the entire crew to assemble on deck.

- **Word to be Passed**: Command for silence, an order to follow.

- **Pipe Down**: Dismissal of all the crew not on watch.

- **Sweepers**: End of the work day. Ostensibly sailors would “sweep up” prior to departure in preparation for the following day.

- **Dinner or Supper**: Calls the crew to a meal.

- **Still**: Used to call the crew to attention. This would be done, for example, when two warships meet, the still being piped as the junior ship salutes the senior ship (the seniority of a warship is the seniority of her captain); a less common alternative to the still being piped is a bugle call.

- **Carry On**: Used after the still, to dismiss the crew back to their duties.

- **General Call**: Piped before an announcement.

- **Officer of the Day**: Call the Officer of the Day to the Gangway.
Establishment of the Navy, 13 October 1775

This resolution of the Continental Congress marked the establishment of what is now the United States Navy.

“Resolved, That a swift sailing vessel, to carry ten carriage guns, and a proportionable number of swivels, with eighty men, be fitted, with all possible despatch, for a cruise of three months, and that the commander be instructed to cruize eastward, for intercepting such transports as may be laden with warlike stores and other supplies for our enemies, and for such other purposes as the Congress shall direct.

That a Committee of three be appointed to prepare an estimate of the expence, and lay the same before the Congress, and to contract with proper persons to fit out the vessel.

Resolved, that another vessel be fitted out for the same purposes, and that the said committee report their opinion of a proper vessel, and also an estimate of the expence.”

Establishment of the Department of the Navy, 30 April 1798

This act established the Department of the Navy as a separate cabinet department. Previously, naval matters were under the cognizance of the War Department.

AN ACT (Chapter 35, Vol. I, page 553) to establish an executive department to be denominated the department of the navy.

SEC. 1. Be it enacted, &c., That there shall be an Executive Department under the denomination of the Department of the Navy, the chief officer of which shall be called the Secretary of the Navy, whose duty it shall be to execute such orders as he shall receive from the President of the United States, relative to the procurement of naval stores and materials, and the construction, armament, equipment, and employment of vessels of war, as well as all other matters connected with the naval establishment of the United States.

SEC. 2. And be it further enacted, That a principal clerk, and such other clerks as he shall think necessary, shall be appointed by the Secretary of the Navy, who shall be employed in such manner as he shall deem most expedient. In case of vacancy in the office of the Secretary, by removal or otherwise, it shall be the duty of the principal clerk to take the charge and custody of all the books, records, and documents of the said office.

SEC. 3. And be it further enacted, That the Secretary of the Navy be, and he is hereby, authorized and

USS Constitution (USN)
empowered, immediately after he shall be appointed, and shall enter upon the duties of his office, to take possession of all the records, books, and documents, and all other matters and things appertaining to this department, which are now deposited in the office of the Secretary of War.

SEC. 4. And be it further enacted, That there shall be allowed to the Secretary of the Navy an annual salary of three thousand dollars, payable quarter yearly at the Treasury of the United States; and the respective clerks in the office of the said department shall receive the same compensation, and be subject to the same regulations, as are provided by an act, supplemental to the act establishing the Treasury Department, and for a further compensation to certain officers in the offices of the other executive departments.

SEC. 5. And be it further enacted, That so much of an act, Entitled “An act to establish an executive department, to be denominated the department of war,” as vests any of the powers contemplated by the provisions of this act in the Secretary for the Department of War, shall be repealed, from and after the period when the Secretary of the Navy shall enter on the duties of his office.

Approved, April 30, 1798.

An Act for Establishing and Organizing a Marine Corps
11 July 1798

SEC 1. Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, That in addition to the present military establishment, there shall be raised and organized a corps of marines, which shall consist of one major, four captains, sixteen first lieutenants, twelve second lieutenants, forty-eight serjeants, forty-eight corporals, thirty-two drums and fifes, and seven hundred and twenty privates, including the marines who have been enlisted, or are authorized to be raised, for the naval armament, and the said corps may be formed into as many companies, or detachments, as the President of the United States shall direct, with a proper distribution of the commissioned and non-commissioned officers and musicians to each company or detachment.

SEC 2. And be it further enacted, That the pay and subsistence of the said officer, privates, and musicians, shall be as follows, to wit; to a major, fifty dollars per month, and four rations per day; to a captain, forty dollars per month, and three rations per day; to a first lieutenant, thirty dollars per month, and three rations per day; to a second lieutenant, twenty-five dollars per month, and two rations per day; and to the non-commissioned officers, privates, and musicians, conformably to the act, entitled “An act providing a naval armament,” as shall be fixed by the President of the United States: and the President of the United States shall be, and is hereby, authorized to continue the enlistment of marines, until the said corps shall be complete: and, of himself, to appoint the commissioned officers, whenever, in the recess of the Senate, an appointment shall be necessary. And the enlistments, which shall be made by virtue hereof, may be for the term of three years, subject to be discharged by the President of the United States, or by the ceasing or repeal of the laws providing for the naval armament. And if the marine corps, or any part of it, shall be ordered by the President to do duty on shore, and it shall become necessary to appoint an adjutant, paymaster, quartermaster, sergeant major, quartermaster sergeant, and drum and fife ma-
or officers, from the line of subalterns, sergeants, and
music, respectively, who shall be entitled, during the
time they shall do such duty, to the same extra pay
and emoluments which are allowed by law to officers
acting in the same capacities in the infantry.

SEC 3. And be it further enacted, That detach-
ment of the corps of marines hereby authorized, shall
be made in lieu of the respective quotas of marines
which have been established or authorized for the
frigates, and other armed vessels and galleys, which
shall be employed in the service of the United States:
and the President of the United States may detach
and appoint such of the officers of this marine corps
to act on board the frigates, and any of the armed
vessels of the United States, respectively, as he shall,
from time to time, judge necessary, any thing in the
act “providing a naval armament” to the contrary
hereof notwithstanding.

SEC 4. And be it further enacted, That the officers,
non-commissioned officers, privates, and music-
cians, aforesaid, shall take the same oath, and shall
be governed by the same rules and articles of war, as
are prescribed for the military establishment of the
United States, and by the rules for the regulation of
the navy, heretofore, or which shall be, established by
law, according to the nature of the service in which
they shall be employed, and shall be entitled to the
same allowance, in case of wounds or disabilities,
according to their respective ranks, as are granted by
the act “to ascertain and fix the military establish-
ment of the United States.”

SEC 5. And be it further enacted, That the non-
commissioned officers, musicians, seamen, and
marines, who are or shall be enlisted into the service
of the United States; and the non-commissioned of-
ficers and musicians, who are or shall be enlisted into
the army of the United States, shall be, and they are
hereby, exempted, during their term of service, from
all personal arrests, for any debt or contract.

SEC 6. And be it further
enacted, That the marine
corps, established by this act,
shall, at any time, be liable to
do duty in the forts and gar-
risons of the United States,
on the seacoast, or any other
duty on shore, as the Presi-
dent, at his discretion, shall
direct.

Letter from the Editor

I hope you all are enjoying the stories from today’s
Navy and a little history thrown in as well.
The next issue will have a look at the Iowa Re-
union, 2015, and more Medal of Honor recipients.
If you have anything you would like to share with
our shipmates and friends, please send it in. It may
take some time to get it in the newsletter, but we’ll
get it in for all to see.

Send your works to:
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