Ulithi

BY GEORGE SPANGLER

In March 1945, 15 battleships, 29 carriers, 23 cruisers, 106 destroyers, and a train of oilers and supply ships sailed from “a Pacific base.” What was this base? The mightiest force of naval Power ever assembled must have required a tremendous supporting establishment. Ulithi, the biggest and most active naval base in the world was indeed tremendous but it was unknown. Few civilians had heard of it at all. By the time security released the name, the remarkable base of Ulithi was a ghost. The war had moved on to the Japanese homeland, and the press was not printing ancient history about Ulithi.

Ulithi is 360 miles southwest of Guam, 850 miles east of the Philippines, 1300 miles South of Tokyo. It is a typical volcanic atoll with coral, white sand, and palm trees. The reef runs roughly twenty miles north and south by ten miles across enclosing a vast anchorage with an average depth of 80 to 100 feet - the only suitable anchorage within 800 miles. Three dozen little islands rise slightly above the sea, the largest only half a square mile in area.

The U.S. Navy arrived in September 1944 and found resident about 400 natives, and three Japanese soldiers. The natives on the four largest islands were moved to smaller Fassarai, and every inch of these four was quickly put to use. Asor had room for a headquarters: port director, radio station, evaporator (rain is the only freshwater supply), tents, small boat pier, cemetery. Sorlen was set up as a shop for maintaining and repairing the 105 LCVPs and 45 LCMs that became beasts of all work in the absence of small boats. Mogmog was assigned to recreation. The big island, Falalop, was just wide enough for a 3500-foot airstrip for handling the R4Ds (Douglas DC-3s) and R5C Commandos, which would presently fly in from Guam 1269 passengers, 4565 sacks of mail and 262,251 pounds of air freight a week. This took care of a few services - but where were they going to put the naval base?

Enter “the secret weapon,” as Admiral Nimitz called Service Squadron Ten. Commodore Worrall R. Carter survived Pearl Harbor to devise the miraculous mobile service force that made it possible for the Navy to move toward Japan in great jumps instead of taking the slow and costly alternative of capturing a whole series of islands on which to build a string of land bases.

Within a month of the occupation of Ulithi, a whole floating base was in operation. Six thousand ship fitters, artificers, welders, carpenters, and electricians arrived aboard repair ships, destroyer tenders, floating dry docks. USS AJAX had an air-conditioned optical shop, a supply of base metals from which she could
make any alloy to form any part needed. Many refrigerator and supply ships belonged to three-ship teams: the ship at Ulithi had cleaned out and relieved sister ship No. 2 which was on the way back to a rear base for more supplies while No. 3 was on the way out to relieve No. 1. Over half the ships were not self-propelled but were towed in. They then served as warehouses for a whole system of transports which unloaded stores on them for distribution. This kind of chain went all the way back to the United States. The paper and magazines showed England sinking under the stockpile of troops and material collected for the invasion of Normandy.

The Okinawa landings were not so well documented but they involved more men, ships, and supplies—including 600,000 gallons of fuel oil, 1500 freight cars of ammunition, and enough food to provide every person in Vermont and Wyoming with three meals a day for fifteen days. The smaller ships needed a multitude of services, the ice cream barge made 500 gallons a shift, and the USS ABATAN, which looked like a big tanker, really distilled fresh water and baked bread and pies. Fleet oilers sortied from Ulithi to refuel the combat ships a short distance from the strike areas. They added men, mail, and medical supplies, and began to take orders for spare parts.

When Leyte Gulf was secured, the floating base moved on, and Ulithi which had had a temporary population the size of Dallas and had been the master of half the world for seven months, shrank to little more than a tanker depot. Once again, it became a quiet, lonely atoll.
The Geedunk. Notice it closes at 1800. (USN)

Beach swimming (USN)

The officer’s hut on Mog Mog (USN)

Inside the officer’s hut (USN)

USS Iowa at Ulithi (USN)
Water Taxi to the beach (USN)

Local fishermen launch their boat (USN)

Falalop. Note the airstrip (USN)

All local boats were carved from whatever wood was available. (USN)

Top: Barrier reef and small islands (USN)
Bottom: Catching a ride on a native boat (USN)

Top: Island fishermen (USN)
Bottom: Transports shuttle supplies to ships in the anchorage (USN)
Sailors wait for transportation to Mog Mog, the recreation island (USN).

Islanders were all moved to Fassarai (USN).

The anchorage in 1944. Although it appears full, there is room for many more ships. The base operated until the Japanese surrender. It has now returned to a sleepy tourist attraction. (USN).
USS Mississinewa (AO-59) was the first of two United States Navy ships of the name. She was an auxiliary oiler of the US Navy, laid down on 5 October, 1943, by the Bethlehem Sparrows Point Shipyard, Inc., Sparrows Point, Maryland; launched on 28 March 1944; sponsored by Miss Margaret Pence; and commissioned on 18 May 1944. Mississinewa was commanded by Captain Philip G. Beck. Mississinewa began her brief but active wartime service on 18 May 1944. Having completed shakedown in the Chesapeake Bay, she sailed for Aruba, Netherland West Indies, to take on her first cargo. Filling her cargo tanks on 23–24 June, she continued on to the Pacific Ocean, arriving Pearl Harbor on 10 July. As a unit of Service Squadron 10 (ServRon 10), she then steamed to Eniwetok where she first fueled ships of the 3rd Fleet. On 25 August, she got underway for Manus where she supplied fuel and stores and delivered mail to ships of TF 38, the fast carrier force, 32 and 31 during the assault and occupation of the Palau Islands.

Returning to Manus on 30 September, she replenished her tanks and again headed north to refuel TF 38 as that force struck at Japanese shipping and shore installations in the Philippines, on Taiwan, and in the Ryukyus in preparation for the Philippine campaign. On 19 October, having emptied her tanks into ships scheduled to take part in the landings at Leyte, she sailed to Ulithi in the Caroline Islands, her new base. In early November, Mississinewa sailed her last fueling at sea assignment, returning on the 15th.

The next day, she replenished her cargo tanks, filling them almost to capacity with 404,000 US gallons of aviation gas, 9,000 barrels of diesel fuel, and 90,000 barrels of fuel oil. Four days later, 20 November, she was still anchored in berth No. 131. At 05:47, shortly after reveille, a heavy explosion rocked the oiler. Seconds later, fumes in an aviation gas cargo tank ignited, causing a second explosion. Massive flames immediately burst from midship forward. Bunker C oil immediately engulfed the ship, with aviation gas on top of that. The aviation gas acted like a wick. Fanned by a light wind, the fire spread aft quickly. A few minutes later the fires reached the after magazine and caused yet another explosion to tear through the ship. The ship was abandoned and soon enveloped in flames over 100 ft high. Fleet tugs were immediately brought in to try to extinguish the fire, but in spite of their efforts, at about 09:00 the ship slowly turned over and disappeared. Fifteen minutes later, the fire on the water was out and Ulithi anchorage was again quiet. This ship was the first to be hit by a Japanese Kaiten manned torpedo. The ship sank with a loss of 63 hands as well as the kaiten pilot.

Of the five kaiten sent against US ships, only one was successful, but the explosion and fire from Mississinewa was so great that the Japanese Naval Command back in Tokyo were erroneously informed that three aircraft carriers were hit. This resulted in an expansion of the kaiten program, even though it would not significantly affect the war. Mississinewa was hit in the front starboard bow area, the kaiten probably released by Japanese submarine I-47 just outside Ulithi lagoon.

Suicide Submarine Victim at Ulithi

USS Mississinewa burns in Ulithi anchorage (USN)

USS Mississinewa sinking at Ulithi (USN)
On 6 April 2001, after a search, the hulk of the ship was found again. It is now treated as a memorial for over 50 sailors whose remains are still there.

Later in 2001, in response to concerns voiced by the local government about oil being released from the site, the U.S. Navy led a survey dive to determine the status of the wreck and the potential for environmental damage from the deteriorating hulk. Divers confirmed that the potential for a large release of the tanker’s cargo fuel made a recovery attempt necessary.

In February 2003, a US Navy salvage team led an expedition to recover as much oil as possible. Divers used “hot taps” to drill into the oil tanks and removed all accessible oil, nearly 2 million US gallons (7,600 m³), rendering the wreck safer. The recovered oil was barged back to Singapore, where it was sold for $0.50/gallon to help cover the $11 million salvage costs.

Operational Summary

Installed 20 Hot Taps & Secured with Caps after Pumping
Cut Access into Two Tanks for Internal Tank Access (& Secured)
Removed All Accessible Oil from 21 Tanks, Engine Room, Pump Room, and Previously-Leaking Piping
Transferred Approximately 1.95 Million Gallons of Oil from Mississinewa to Barge, including approximately 7% Free Water
Successfully completed ahead of schedule
Est. less than 5 gallons of Oil Released – No Environmental Impact
Mississinewa Oil to be Sold in Singapore and Recycled
A Survey of the American “Standard Type” Battleship

by Joseph Czarnecki

Between 1912 and 1917, the United States Navy produced twelve battleships of five classes, referred to collectively as “the Standard Type.” Despite the implication of “cookie-cutter” production in the term, this remarkable series of ships was at once conservative and innovative. Each small class incorporated a progressive series of improvements while retaining enough commonality for the individual ships to operate successfully as a homogeneous whole in the line of battle.

The first “Standard Type” battleship represented a radical departure with the past. The Nevada (BB-36) class - a.k.a. “Battleship 1912” - introduced the single-sleeve triple turret and “all or nothing” armor protection to dreadnought battleships. She also set the physical pattern for later “Standard Type” ships with four turrets superimposed in pairs fore and aft, a 13.5” belt, an aggregate 4.5” of deck protection, massive turret faces (18” on the triples) and the adoption of oil fired boilers. Perhaps the USN had sated its appetite for revolution temporarily with Nevada and her sister ship Oklahoma. Certainly it bit off a large bite with these two vessels, although in a conservative holdover, USS Oklahoma (BB-37) received reciprocating triple expansion engines vice the turbines mounted in the Nevada. This proved a mistake and made the Oklahoma the first “Standard Type” battleship that the USN desired to replace.

The second “Standard Type” battleship design was the Pennsylvania (BB-38) class - a.k.a. “Battleship 1913 and Battleship 1914” - which actually represented a development of a scheme considered for “Battleship 1912.” The Pennsylvania sported four triple, single sleeve turrets, vice Nevada’s two triples and two twins. The increased displacement necessary to support the additional armament drove the ship’s size up from Nevada’s 575’ waterline length and 95’ beam, to 600’ at the waterline and 97’ in the beam, thus adding the last of the gross physical characteristics of the “Standard Type.” USS Arizona (BB-39) was fitted as a normal line ship, but Pennsylvania received a special two-level conning tower to serve as the fleet flagship. Both ships received turbines. Beyond the 20% increase in firepower and moderate increases displacement and physical dimensions and the final abandonment of the triple expansion engine, the Pennsylvania’s represented repeat Nevada’s.

The New Mexico (BB-40) class - a.k.a. “Battleship 1915” - was the third “Standard Type” design. New features of this class were an extra half inch of deck armor, the “clipper bow” (largely cosmetic to the ship’s fighting qualities), removal of the midships secondary guns to a higher, drier position on the forecastle deck, and the introduction of the 14”/50 caliber gun in triple turrets with individual sleeves, vice the 14”/45 caliber weapon in a single sleeve of the previous classes. USS Mississippi (BB-41) and USS Idaho (BB-42) represented repeat Pennsylvania’s beyond these features. The New Mexico featured a new
and radically different propulsion system, the turbo-electric drive (TED). However, the design of the New Mexico does not appear to have benefited from the improvements in the internal compartmentation arrangement that TED would have normally permitted. Later, during modernization, she was converted to conventional turbine propulsion similar to her sister ships.

The fourth “Standard Type” design was the Tennessee (BB-43) class - a.k.a. “Battleship 1916.” Externally, the Tennessee was nothing more than a repeat New Mexico with the bow and stern casemates deleted, a more built-up superstructure and new fire control equipment represented externally by the provision of “fighting tops” on the heavier cage masts. The only external clue to a significant internal change was the fitting of two thin funnels vice the normal single thick one. Below decks the decision to adopt turbo-electric drive permitted a wholesale rearrangement and fine subdivision of the machinery spaces, while simultaneously narrowing them and permitting more space outboard for a new torpedo defense system (TDS). This layered system of voids, liquid-filled tanks and thin armored bulkheads was the most significant improvement over the New Mexico design besides the improvement in fire control.

The fifth and last “Standard Type” design was the Colorado (BB-45) class - a.k.a. “Battleship 1917.” The Colorado was a duplicate of the previous design in every respect except for the adoption of twin 16”/45 caliber individual sleeve turrets in place of the triple 14”/50 caliber units. Sister ships USS Maryland (BB-46) and USS West Virginia (BB-48) were completed. USS Washington (BB-47) was sacrificed to meet the limitations imposed by the Washington Naval Limitation Treaty and was later expended in ordnance tests which largely confirmed the quality of the design.

How and why the “Standard Type” developed and how this differed from foreign practice?

Although the USN’s General Board of senior and retired admirals pressed for battleship classes of four ships each with improved characteristics each year, a pacifist Congress routinely authorized a maximum of two ships per year and sometimes only one. The only exception was in 1917, after war had been declared. Authorizations were as follows:

“Battleship 1912:” Two ships
“Battleship 1913:” One ship
“Battleship 1914:” One ship
“Battleship 1915:” Two ships
“Battleship 1916:” Two ships
“Battleship 1917:” Four ships

While only two ships were authorized for “Battleship 1915,” three were in fact built, with the last a result of a monetary windfall for the USN in the sale of two pre-dreadnoughts to Greece. The increased authorization in 1917 was the start of a build-up toward participation in World War I, an initial step which exploited the latest design without having yet passed the bounds that marked the Standard Type. In this authorization, the USN finally
had a four-ship Class - only to see one sacrificed to the Washington Treaty five years later. Certainly all navies operated under physical and fiscal constraints, but the US Navy was probably uniquely restricted compared to other powers during the dreadnought period. Where the British were most constrained by physical and the Japanese by economic limitations, the United States was essentially economically and physically unlimited with respect to battleship construction (outside the need to pass the Panama Canal and into Hampton Roads). All major constraints were actually exercised by the US Congress (through fiscal means) and the Executive Branch of the government through the Navy Secretary. In this case, the Navy Secretary was Josephus Daniels, a man of high ideals but possessing little naval knowledge or experience. Among those high ideals was temperance of habit, whether it was drinking alcohol, spending money or forms of aggrandizement - such as unrestrained growth of battleship designs. Thus the “Standard Type” was “artificially” constrained.

The problems for Britain and Japan were different. The British were severely limited by the size of their dockyards and by the depth of their ports. They were also locked into a naval race with Germany, so numbers were the order of the day, as was the desire to “trump” the enemy qualitatively. What resulted was a seven-ship run of essentially the original Dreadnought design, followed by three transition ships and then a run of twelve ships with a larger gun caliber but little real difference between the three classes (Orion, King George V and Iron Duke). The British then increased caliber again and ran off a series of ten ships, consisting of five fast and five not so fast ships. These ten ships of the Queen Elizabeth and Revenge classes formed the backbone of the Royal Navy’s battle line between the wars. They represented a fixed state of design that ended in 1912. The last class built, the Revenges, actually represented a slightly retrograde step when compared to the previous one.

Here truly was a “cookie-cutter” design approach, albeit with a reason; the need for numbers in the shortest possible time. As for the three battlecruisers retained between the wars, these were holdovers of a dangerously flawed concept and consequently of questionable value. The Japanese were handicapped by the low capacity of their economy and infrastructure which restricted their ability to support their ambitions. Japan's design philosophy was initially very haphazard and was based more on formula, tradition and “one-ups-manship” than a logical determination of needs and means. After Tsushima, Japan essentially maintained a core force of four battleships and four armored cruisers, a “4-4 Fleet.” So, the Kongo tetrad were intended as more powerful replacements for the four previous armored cruisers composing the IJN’s fast wing and the two Fuso’s and the two Ise’s replaced earlier predreadnoughts. In their particulars, all three classes represented incremental and largely insignificant “trumps” of contemporary foreign ships in regards to the main gun caliber and number of barrels. Only the follow-on and superb Nagato design represented a coherent design philosophy intended to overcome superior foreign numbers through qualitative superiority. Fortunately for the British and Americans, the rest of Japan’s ”8-8-8 Program” ships were cancelled in 1922 as a result of the Washington Treaty.

The French and Italian navies produced their dreadnoughts from a largely “also ran” perspective and less advanced state of the art, despite the occasional novel or innovative feature. The Italian ships were extensively rebuilt, but even so never rivaled the American, British or Japanese ships of the period. The French vessels never benefited from a thorough reconstruction and were relatively poor designs from the beginning.

These foreign patterns were not ones that the burgeoning and aggressively navalist USN wished to emulate. The USN did not wish to be saddled with long-term production of obsolete designs in order to achieve sufficient numbers (due to the low yearly Congressional appropriations), nor did it desire to produce a slew of potentially incompatible “uniques” to achieve qualitative improvement.
Instead, the USN sought a progressive, planned expansion to world-class status. Thus a practical solution evolved, spurred on by Daniels’ personal views and Congress’ parsimony. This solution involved a design series in which certain general Characteristics were largely frozen while progressive improvements in fire power and fire control were implemented. As a result, dimensions, speed and protection remained largely static throughout the run of the Standard series. This decision to hold certain characteristics static had several ramifications, some positive and some negative (at least in the crystal clarity of hindsight).

**The ramifications of the General Board’s pursuit of the “Standard Type” concept:**

Throughout its run, the “Standard Type” design concept produced a ship of 21 knots maximum speed with roughly a 700-yard tactical diameter at that speed. This made the “Standard Type” ships compatible with the earlier Wyoming and New York Classes and gave the US an interwar period battle line of completely homogeneous handling characteristics. By contrast, the battle lines of the other two large contracting powers of the Washington Treaty were something of a hodgepodge:

<table>
<thead>
<tr>
<th>Britain</th>
<th>Japan</th>
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<tbody>
<tr>
<td>Nelson (2) - 23 knots</td>
<td>Nagato (2) - 25 knots</td>
</tr>
<tr>
<td>Hood (1) - 31 knots</td>
<td>Ise (2) - 25.3 knots</td>
</tr>
<tr>
<td>Renown (2) - 30.7 knots</td>
<td>Fuso (2) - 22.5 knots</td>
</tr>
<tr>
<td>Revenge (5) - 23 knots</td>
<td>Kongo (4) - 30 knots</td>
</tr>
<tr>
<td>Queen Elizabeth (5) - 23.5 knots</td>
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While tactically coherent, the US battle line ended up being several knots slower than its chief rivals, a point of constant retrospective criticism. As a matter of individual performance, the US designs were certainly outclassed by individual foreign designs in speed, however, the US ships were never intended to operate singly or as separate formations by class. As a matter of the collective whole known as the battle line, the difference was not so great. A British or Japanese admiral had to operate his Line at its fastest common speed (23 or 22.5 knots respectively, assuming all ships are in good repair), or separate a portion of his line to allow it to exploit its superior speed. In doing so, he would violate the principle of Concentration of Force while potentially gaining a positional advantage. If he failed in his coordination or timing, he risked either the faster or slower wing being engaged separately and defeated in detail by a consolidated USN line. If a British or Japanese admiral chose keep his ships concentrated, the 1.5 to 2 knot speed advantage was hardly decisive nor even necessarily capable of allowing him to “dictate the range” given the other dynamics that influence maneuver in battle. In practice, any battle line could be slower than its theoretical maximum common speed. USS Oklahoma at times dragged the US battle line down to 19 knots, but the RN and IJN were hobbled by their “dogs” as well. The British “R” class ships in particular were badly maintained after their final refits in the mid-1930s and the Japanese Fuso class were perennially handicapped by their cramped machinery arrangement. Nothing could predict which fleet might be having a “bad machinery day” in battle, but...


...in that regard USN ships enjoyed an enviable reputation for reliable machinery. Although the General Board desired greater speed, it chose to forego speed in favor of commonality of protection and firepower when unable to accommodate it without negatively impacting those other factors. Why was the USN willing to accept this seemingly gross disadvantage? The answer lies in the major influence exerted by the writings of the USN’s homegrown naval strategy theorist, Alfred Thayer Mahan. Mahan contended that the opposing fleet is the center of gravity of the enemy’s sea power. If Mahan was correct, and sea power was best and most certainly secured by destruction of the opposing fleet, then the enemy had to seek an engagement with the US fleet and destroy it to achieve victory. As the USN had no desire to avoid an engagement, high speed was not seen as essential. The USN also had no need of speed to pursue an enemy and force an engagement. Advancing on and seizing objectives was expected to flush the enemy out and force him to come out, give battle and be destroyed. If he failed to do so, his position and that of his fleet would continue to erode to the advantage of the US. To this perspective, speed truly was a disposable asset. Sacrificing speed only became a “mistake” in hindsight. The interwar period produced unforeseen advances in propulsion technology and the Japanese attack on Pearl Harbor changed the initial calculus of force in the Pacific. In the new environment, small squadron actions and not major fleet clashes decided campaigns, making individual ship speed of more relative value.

A further criticism of the speed of the Standards is in regards to their suitability as carrier escorts. As aviation and carriers assumed the lead role in naval warfare, high speed became of value for battleships in order for them to accompany carriers. However, this retrospective complaint about escorting carriers is fallacious in regards to the era in which these battleships were designed. Carriers simply did not exist at that time and anticipating this sort of future need would have verged on clairvoyance. Furthermore, sacrificing protective and offensive qualities to achieve higher speeds with 1912-1917 technology would have demanded major design changes. Seeking speed for its own sake, or as its own form of “protection” in the 1912-1917 era would have most likely have proven as catastrophically foolish for the USN as it did for the RN. It would also, through the usual course of design compromise, have deprived this series of ships of their best characteristics.

**Armor and Underwater Protection:**

“Standard Type” armor protection was held virtually static during the long construction period of these ships. In the context of the period of their design, the “Standard Type” vessels were very advanced and defined the state of the art with their “all or nothing” scheme and “raft body” buoyancy standard. The USN had anticipated the need to design for long-range gunfire engagements eight years before Jutland made the need obvious to other nations’ designers. Thus it could afford to “rest on its laurels” during this period and invest the modest permitted tonnage increases in firepower and fire control rather than improved protection. However, this is not to say that improving protection was a neglected area. Regarding torpedo protection, the last two Classes of the series were certainly the most advanced in the world at the time of their introduction, and the older ships were comprehensively updated when reconstructed. The Nevada, Pennsylvania and New Mexico class ships all received an upgrade of their horizontal protection. In fact, only the USN’s decision not to rebuild the last two “Standard Type” classes before World War Two prevented the entire series from being brought up to contemporary standards.

Again, the series cannot be faulted for the advance of time and technology. Only the inexorable growth of torpedo warhead weight and explosive power compromised the outstanding torpedo defense system pioneered in the Tennessee Class. But against contemporary weapons, the Colorado Class USS Washington held up well when expended in ordnance tests in 1924, surviving three days in a seaway after two 400-pound torpedo warheads and three 1000-pound bomb warheads were detonated against the TDS. During these tests, the hulk suffered only a five degree list.

**Main Gun Armament:**

Although the General Board sought a ship armed with ten 16” guns as early as “Battleship 1913,” it was forced into a more gradual improvement in weight of fire over time. This statistical measure is often distorted by theoretical maximum rates of fire which disregard the leveling effect of flight time and spotting on long range gunfire. Taking these factors into account, a comparison between the two 15-ship interwar battle lines breaks out as follows:

**Royal Navy**

\[18 \times 16” + 100 \times 15” \quad 16,326 \text{ kg} + 87,500 \text{ kg} = 103,826 \text{ kg}\]
US Navy
24 x 16” + 124 x 14” + 12 x 12”  22,848 kg + 78,749 kg + 4,728 kg = 106,316 kg

The US and British lines are virtually equivalent, and the “Standard Type” ships alone weigh in with a broadside of 94,489 kg. This is despite the individual caliber advantage enjoyed by most of the British ships. The relative lightness of the US 14” guns versus the 15” carried by the contemporary British ships boils down to the similar debate about the number of barrels versus the broadside weight commonly encountered in arguments about the relative value of 8”- and 6”-gunned 10,000 ton cruisers. More barrels imply a theoretically greater likelihood of a hit, while heavier weapons theoretically promise more effective individual hits. In the case of cruisers, the actual performance in action between the two calibers appears to have been equivalent. This would imply that the same would hold true for battleships.

While the common elevating gear of the 14”/45 triple turret, and the reputed “dispersion problems” of the 14”/50 gun have received much retrospective attention, neither of these factors appears to have hampered the ships’ shooting in the slightest during World War Two, possibly but not certainly due to the introduction of later Marks of the gun in the 1930s. Less remarked upon and certainly not as obvious to external view were the two great and often overlooked strengths of the “Standard Type” ships’ fire control systems: Gyroscopic stabilization and the Ford Mark I analog fire control computer. A more readily apparent strength is the provision of two equal-height masthead fire control positions. Finally, nowhere is there any recorded complaint of these ships’ shooting in comparison to newer vessels beyond that attributed to the newer fire control equipment found in later ships.

As the US realized as early as the concept design work for “Battleship 1912,” increasingly long-range gunfire had become the standard of surface combat. Although some nations had begun to follow a gradual trend toward increasing gun elevations and longer ranges, most did not embrace the idea of hitting at ranges that would require increased deck protection until the Battle of Jutland made the necessity painfully obvious. The US began arming to meet this threat with “Battleship 1912” and by “Battleship 1916” had increased main gun elevation to 30 degrees, a feature comprehensively backfitted to earlier classes upon reconstruction despite Treaty misgivings. The British never did completely backfit their ships, although the Japanese embraced the concept in the Nagato class and backfitted their earlier ships when Nagato’s stablemates died on the conference table.

Without the abrupt and artificial disruption of the design process represented by the Washington Treaty of 1922, all nations’ designers would probably have pursued appropriate design goals in subsequent classes. However, the treaty froze the existing fleets in a status quo arrangement marred only by the British Nelsons. As a result, this treaty left the US with a distinct advantage in having a battle line which enjoyed 12 ships designed to a long range combat standard, vice two each for Britain and Japan and none for France or Italy. Moreover, the experience of designing the “Standard Type” ships to exacting standards, packing as much into the limited dimensions, tonnage and cost that Congress and Secretary Daniels would allow, left the USN designers ideally positioned to design ships in the tonnage-restricted post-treaty years.

How “Standard Type” war performance justified the General Board’s choices:

Evaluating the performance of the “Standard Type” is frustrating. None of these ships ever managed to take a
heavy shell hit in battle. Similarly, none of them suffered a heavy bomb hit or a torpedo hit in the heart of the torpedo defense system except while berthed in an unprepared peacetime condition at Pearl Harbor. Even then, unprepared in harbor, the ships displayed some grace. Maryland’s anti-aircraft gunners fought back early and well, the Tennessee held up to heavy bomb hits, the California sank only due to her unprepared condition, and the West Virginia sank in a salvageable condition due to her inherent design features and their prompt exploitation by a sharp damage control crew. Nevada managed to get underway and nearly sortie despite a considerable pounding.

Only Oklahoma and Arizona turned in truly unsatisfactory performances, but even these must be qualified. Oklahoma suffered between seven and nine torpedo hits in rapid succession in an unprepared state, something only (perhaps) Yamato and Musashi could have withstood. Arizona’s forward magazines exploded (exact cause not known with certainty to this day) but these may have been touched off by black powder for aircraft catapults unwisely stored in proximity to the forward main magazines. Was this a design failing, or procedural one? Vessels of similar vintage in foreign service fared much more poorly. Warspite was seriously damaged when struck by one German bomb and near-missed by a second one off Crete in 1941. She suffered extensive damage and flooding, causing her to be sent to the USA’s Puget Sound Naval Shipyard for repairs.

This damage could be considered similar to numerous Kamikaze hits sustained by “Standard Type” ships (including Nevada once, New Mexico twice, Mississippi twice, Idaho once, Tennessee once, California once, Colorado twice, Maryland twice and West Virginia once), all of which were largely shrugged off as all of the “Standards” remained in the battle zone for extended periods before departing for repairs. There was also Warspite’s subsequent encounter with a German guided missile-bomb (FX1400) which hit midships and left the ship drifting helplessly. Warspite was left permanently lamed and with X-turret inoperative. By contrast, Maryland’s Kamikaze hit in way of her forward magazines was thoroughly repaired and a second that dished the roof of Turret #3 did not affect the main armament, and the roof armor was easily replaced upon return to port.

The final insult to Warspite’s honored hull came in the form of an influence mine, which left her permanently “bent.” In this regard, Pennsylvania performed as badly when hit by a torpedo off Okinawa and was similarly written off with minimal repairs.

Both Barham and Malaya suffered single torpedo hits that put them out of action for three months at a time. In contrast, Maryland suffered a single torpedo hit in June 1944. After transiting from Saipan to Pearl Harbor before being repaired, Maryland was back in action in August 1944. The Barham suffered three torpedo hits in rapid order at sea in November 1941, capsized, exploded and sank. Oklahoma’s loss at Pearl Harbor was largely analogous, al-
condition. Resolution suffered a single torpedo hit and was left drifting and helpless in September 1940. This strike was in the widest part of the anti-torpedo blister, and not in way of the propeller shafts like the Pennsylvania, giving Resolution little excuse for having to be towed to port. Similarly, Ramillies was hit by a single Japanese mini-sub torpedo and suffered flooding of the forward magazines, as well as losing all electrical power. The ship required a month's worth of repairs for her condition to be sufficiently stabilized before she could leave Diego Suarez for more permanent repair work. By contrast, Maryland departed Saipan within hours of her torpedo hit, bound for Eniwetok for inspection of the damage and Pearl Harbor for repairs.

Repulse's battlecruiser speed proved inadequate to save her from torpedo attack, although the slow “Standard Type” ships dodged a number of torpedoes with their small tactical diameters (including Pennsylvania, Tennessee, and Maryland), a factor which is usually considered to be more important in regards to torpedo evasion than speed.

The theoretical weakness of “all or nothing” armor- ing to having “soft” (unarmored) areas torn up by light and medium caliber hits to a sufficient enough degree to reduce the ship’s combat efficiency was disproved by wartime experience. Several of the Standards sustained multiple hits from shore batteries, most particularly the Colorado off Tinian. She suffered 22 medium caliber hits from a shore battery, which peppered the starboard side forward from the superstructure to the bow. Minor fires were ignited and the blister holed, but no degradation occurred to the ship’s fighting efficiency. The armored box, barbettes, turrets, conning tower and critical buoyancy compartments remained inviolate. The “Standard Type” armor scheme of “all or nothing” thus proved its validity. In contrast, the theoretical weakness of an incremental ar- moring scheme to heavy shellfire was dramatically proven with Hood’s loss.

The Japanese record is worse. The redesignated former battlecruisers of the Kongo class performed miserably. The Kongo apparently sank from progressive fire or flooding due to two torpedo hits. Hiei was rendered sufficiently combat ineffective by medium and light caliber shells to be further assaulted by aircraft and eventually scuttled. Kirishima attempted to face a true battleship, was blasted into a blazing ruin by heavy and light caliber hits and sank off Savo Island. Haruna succumbed to a dozen bomb hits and/or near misses in harbor and settled to the bottom. The only real analog for her situation was Nevada which had also been torpedoed in the same region as three bombs struck and additionally suffered a aviation gasoline explosion in that area at Pearl Harbor.

Fuso broke in half, capsized and sank in a full battle-ready condition from only two torpedo hits. Even the unready Oklahoma required three hits to start her over, and the California went down from two only because she was prematurely abandoned and lacked any semblance of watertight integrity at Pearl Harbor. Yamashiro took four torpedoes and sustained bombardment from 14” and 16” shells to sink, but still lost the services of three turrets from a single one of those torpedo hits. In contrast, “Stan- dard Type” ships tended to remain in action with their fighting qualities unimpaired, Pearl Harbor and the Pennsyl- vania’s Okinawa episode aside. Both Ise and Hyuga
went the way of the Haruna.

The Nagato suffered bomb damage in the Sibuyan Sea, which casts some doubt on her protective scheme. Although her reconstruction beefed up protection over and around the magazines, the rest of her protection remained of the earlier incremental protective scheme. Two bombs struck the Nagato, one knocking out Turret #4 and the other penetrating a boiler room.

By comparison, the Tennessee at Pearl Harbor suffered a bomb hit to Turret #3’s roof, which broke up the weapon and prevented a detonation. Both Tennessee and Maryland suffered Kamikaze hits that penetrated the main deck in way of the machinery spaces and forward magazines respectively, but neither lost the services of engines or armament. A Kamikaze hit to Maryland’s Turret #3 roof off Okinawa dished the armor, but failed to penetrate.

Italian ships probably fared the worst. At Taranto, Conte di Cavour sank from a single torpedo hit abreast the forward magazines, which completely flooded the forward section of the ship. During this same action, Caio Duilio suffered an almost identical hit to Conte di Cavour with almost identical results, being returned to service only by virtue of sinking in shallower water than Conte di Cavour. Similarly hit at Pearl Harbor, the Nevada was in no danger of foundering until several bomb hits augmented the torpedo damage to her bow.

French ships of the “Standard Type” vintage also performed poorly. Paris suffered a single bomb hit forward at Le Havre and suffered to much the same extent as Nevada did from her torpedo hit at Pearl Harbor. Bretagne blew up after a mere four 15” hits at Mers el-Kebir. Provence caught fire, flooded and sank from similar punishment during this same engagement. The French ships can be forgiven for being caught in their unfortunate position by their erst-while ally, but not for any unpreparedness as the action occurred only after the tension had simmered for hours.

How the South Dakota (BB-49) Class design relates to the

“Standard Type”

The South Dakota (BB-49) design is often identified as a “Standard Type” ship and taken as proof of the ultimate folly of “Standard Type” conservatism. Although Norman Friedman properly describes this design as the ultimate development in the series beginning with Nevada to actually be committed to metal, I contend it is not, however, an example of the “Standard Type.” While its lineage is obvious when examining the external appearance and in various internal features, it departs seriously from the guiding principles that drove the “Standard Type;” Commonality and constrained size. From the Nevada to the Pennsylvania, the type increased in dimensions by 25’ of length at the waterline, 2’ of beam and 3,900 tons displacement. From the Pennsylvania to the New Mexico the increase was 600 tons but the dimensions remained fixed. From the New Mexico to the Tennessee, displacement increased 300 tons, and was the same from the Tennessee to the Colorado. However, from the Colorado to the South Dakota, displacement leapt 10,600 tons, length vaulted 60’ and beam expanded 9’. Where previously no class included both a change of gun and an increase in number of guns, the South Dakota did both. Furthermore, it incorporated an entirely new secondary gun. To top things off, the General Board wanted another two knots out of the design. Meeting all these requirements led to a perverse failure to increase the scale of protection. Moreover, the South Dakota was not designed within the same fiscal and dimensional constraints as imposed on the Nevada through Colorado designs by Secretary of the Navy Daniels and Congress. Designed to a different standard, under different conditions, and with far different results, the South Dakota class can be considered the ill-designed successors of the “Standard Type” and certainly kin, but not members of the immediate family any more so than would be the New Yorks.

Final reflections:

Although far from perfect, the “Standard Type” ships were neither a mistake nor a millstone to the USN and their war records hold up better than many of their foreign
contemporaries. Only a little slower than most of their rivals, they took their enemies' best shots, proved they could dish it out in return and were still standing at the end. Only Oklahoma, Pennsylvania and Arizona could be counted out of the “Standard Type” line-up at war's end. The first and last were sunk at Pearl Harbor and deemed unworthy of salvage, indeed in Arizona's case it was impossible. The Pennsylvania was damaged beyond worthwhile repair by a torpedo hit to the screws that wrecked three of four propeller shafts, something no ship of any era could contend with successfully.

Of Britain's interwar battle line, four ships were sunk (Barham, Royal Oak, Repulse and Hood), one was in foreign livery (Royal Sovereign as Archangelsk - August 1944), six were out of service (Warspite - February 1945, Valiant - February 1945, Malaya - October 1944, Revenge - June 1944, Resolution - October 1943, and Ramillies - January 1945), one was preparing to leave service (Queen Elizabeth - August 1945), one was so worn out she was virtually static in Scapa Flow (Rodney - November 1944) and only two remained active (Renown and Nelson).

Of Japan's interwar battle line, only Nagato survived, all others having perished to US fire except Nagato's sister ship Mutsu, which unexplainably suffered a magazine explosion in harbor in June 1943.

Of Italy's older ships, one had been sunk, salvaged and never successfully returned to service (Conte di Cavour), one had been removed from service (Guilio Cesare - December 1942) and two were immobilized and effectively removed from service for lack of fuel (Caio Duilio and Andrea Doria - March 1942).

France's ships suffered the most inglorious fates. One was scuttled as a seawall (Courbet - June 1944), one was removed from service (Paris - July 1940), one was sunk by an ally (Bretagne - July 1940), one was scuttled to prevent capture (Provence - November 1942) and only one was still in service (Lorraine).

Of the remaining “Standard Type” battleships, the Nevada, New Mexico, Mississippi, Idaho, Tennessee, California, Colorado, Maryland and West Virginia were still in service at war's end. Nevada was soon expended along with the ruined Pennsylvania as target ships. New Mexico and Idaho were quickly retired into reserve status and shortly thereafter scrapped while Mississippi was converted to a gunnery and missile test and training ship and actively served for another decade. The last five battleships were placed into reserve where they remained until disposed of in 1959, thus outlasting their every rival, including Nelson and Rodney as well as newer ships such as the Vittorio Veneto's and the King George V's.
Leo Sicard

A Shipmate’s Story

(Editor: I recently spoke to Leo Sicard, one of the founders of the Iowa Veterans Association, who wanted to tell his story about the Roosevelt trip to Casablanca in 1943. These are his words.)

I, Leo Sicard am 90 years old and want to tell my story about secret mission of the USS Iowa in November – December, 1943, taking the President, Franklin D. Roosevelt to the Teheran Conference in Africa and the Middle East. I have kept this secret for 72 years because I took an oath not to reveal anything that we heard or saw and the hernia that I received picking up the President.

I was an aide with another shipmate that picked the President from the little French ship La Gazelle, to the USS Iowa. The President was brought aboard by way of a special made Boatswain’s chair rigged between the ships. The President asked Captain McCrea, “permission to come aboard.” The Captain replied “Permission granted.” The President and Captain McCrea then talked while the President was being removed from the boatswain’s chair. We (the two aides) picked the President up with the President’s help.

President Roosevelt put his arms around our necks and we then placed him into his wheelchair. We then wheeled him to the elevator on the main deck. (Editor’s note: An elevator was installed on the Iowa’s starboard side to lift the President from the main deck to the O-1 level to access the Captain's cabin.)

The President was very heavy. It took both of us all our strength to carry him to that wheelchair. It was such an effort I wet my pants picking him up. I didn't realize I had hurt myself and got a hernia. A day or two later I went to sickbay when I couldn't get out of my sack. Doctor Coffey said it was going to be a “local” although I didn't realize what he meant. Dr. Coffey and Dr. McIntire operated right away and I was fixed. Later, I was asked to take an oath about my operation but didn’t know why. Dr. Coffey, Dr. McIntire and another Secret Service officer talked to me about the President's health. We talked about what I had seen and the job the President was doing and the hardship he was going through and how sick he looked. Over the month he was aboard he seemed to have aged a lot.

Later on, I filed for a claim about my hernia with the VA, and it was denied. The Senator from Pennsylvania was told there was no record of my operation onboard the Iowa. I still have the scar on my right side where I was operated on! So far, I cannot get any compensation. It seems my medical records or any logs which should be for December 10-12, 1943, never left the Iowa.

Leo Sicard

(Editor's Note: Leo was told that there was so much concern that people might use the President's health to try to remove him from office that the secrecy of such happenings was kept away from the public eye. Evidently the event was removed from all medical and service records, including the logs. Leo still resides in Ellwood City, PA.)

The Big Three (Stalin, Roosevelt, Churchill) in Tehran. (National Archives)

President Roosevelt addressing the crew of Iowa in December, 1943.
Navy Times, May 8, 1995

**BB ship 4-Sale: 1 ownr, lo miles**

Washington - Seen on the wall in the ship's history branch of the Center for Naval History: an 81/2 - by- 11 photograph with a five line caption, like an advertisement in the used car booklets sold in convenience stores.

The picture: a bow-first photograph of the mighty battleship USS Iowa, with her number “61” in plain view. She is lashed to a pier, resting quietly.

The caption: “BB-‘43 IOW A. 1 owner. Low miles. Taken out of the garage once in the last 30/40 years. A/C, AM/FM/UHF/HF/SAT/Stereo/Cass. Loaded with options. Pwr steering, no brakes. 16” guns. Like new. Very cherry. 4 at this price. Impress your neighbors. Be the first on your block. NAVSEASYSCOM USED SHIPS. NOBODY BEATS OUR PRICES OR SELECTION. BOGSAT’S need not respond.”

BOGSAT’s according to the source, are bunches of guys sitting around a table.

The author’s identity is unknown.

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USS Iowa in 1943. This photo was taken after the Navy had installed an elevator for President Franklin Roosevelt (see arrow). It was removed before Iowa went to the Pacific. (USN)

Some may not realize that Leo Sicard is a former President of the Iowa Veterans Association. He actually helped draw up the logo (above).
Richard Huff

A Shipmate's Story (2)

RE: Former “U.S.S. IOWA” Crew Member: Richard A. Huff; 1948-1950

I graduated from Marshalltown High School in the spring 1948 and joined the Navy that following September. I chose to enter the Navy due to the fact that we were primarily a Navy family. Although my father had been in Army reserves, I had two older brothers who served in the Navy during WWII, so I was pulled in that direction.

After finishing basic training, I was thrilled to find out that I had been assigned to the U.S.S. Iowa. I thought at the time that I had been assigned to sea duty and not to the decommissioning crew. It wasn’t until I reached Hunters Pt. Harbor in San Francisco, CA, that I found out I would not be headed to sea.

After I reported aboard, I noticed a carrier sitting along the side of the “Iowa” which was the “U.S.S. Hornet”. That was the carrier that General Jimmy Doolittle flew off when he bombed Japan in April of 1942. What an amazing thing to see, it gave me goose bumps.

During my tour of duty on the Iowa, I had several work stations. These included, below deck “Flood” voids, the #2 sixteen inch gun turret, and the captains quarters. These are the quarters where President Roosevelt met with Churchill, Stalin and Chiang Kai-shek. The fact that Roosevelt stayed in these quarters, when in route to the secret meeting in Tehran, made its bed and bathtub very famous.

After completing my tour of duty, I finished the rest of my Navy time on a destroyer named the “U.S.S. Ozborne” on the West Coast and South Pacific. I was then discharged and returned to civilian live & my family. I then joined the Veterans Association of the “U.S.S. Iowa”. The Veterans Association was a newsletter publication that was produced quarterly what was new and happening in regards to the “U.S.S. Iowa”.

In March of 2011, I received correspondence about a reception at the Iowa State Capital in Des Moines to save the “U.S.S. Iowa”. From that point on, the wheels were put into motion and plans for the “Iowa’s” final resting place began to come into focus. Thanks to all of the efforts of the Pacific Battleship Association, the U.S.S. Iowa would be saved for all to see and admire. Finally, after all the planning, fundraising, and moving of the “Iowa” to San Pedro, a celebration was in order.

On July 5th, 2012, 63 years since I was there last, I returned to the “U.S.S. Iowa. This time it was with my wife Marlys and our youngest son Todd and his wife Carol. We flew out to Los Angeles and drove to the port of San Pedro for the dedication and ceremonies of the “U.S.S. Iowa”. What a beautiful job they did and what a fun time we had! I also visited the same areas I worked in during 1949 and of course a lot of old memories flooded back.

I recommend to all Iowans, that if you are ever in the Los Angeles area, to go visit the “U.S.S. Iowa” floating museum and treat yourself to a piece of history at Pier #87, Port of Los Angeles, San Pedro, CA. All you need is a valid Iowa Drivers License, or current Iowa ID and you can tour this amazing ship at no charge.

Thought you might be interested.

Fair Winds & Following Seas

Richard A. Huff
Iowa Veterans Association Reunion, 2016

Photos by Brad Goforth and Bill Humienny
Letter from the Editor

I hope you all are enjoying the stories from this issue. I am now doing both this newsletter and the Iowa Veterans Association newsletter. I may occasionally share some of the stories of interest.

I hope you will consider sending more personal experiences to share with the crew. The next issue will include some of my own experiences and “sea stories.”

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:
Brad Goforth, 1200 Somersby Lane,
Matthews, NC  28105
or email it to:  bgoforth@thesamaritanhouse.org

Brad Goforth

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