Although often forgotten, USS Iowa, along with all other battleships and cruisers, had its own aircraft. Spotting for the big guns had always been done with the large optical rangefinders in the two spots high above the ship. But with increased range it was far more difficult to tell the fall of shot and accurately hit a target. In the late 1920s, aircraft were placed aboard capital ships to be launched prior to battle and call back targeting information to the ship while firing. For USS Iowa, the first aircraft aboard was the Vought OS2U Kingfisher.

Directing battleship fire was precisely the kind of mission for which Rex B. Beisel had designed the Kingfisher in 1938. A Vought-Sikorsky engineer who went on to design the F4U Corsair, Beisel incorporated innovations in the Kingfisher, would make it the U.S. Navy’s primary ship-based observation aircraft during the Second World War. It was the first mono-plane ever to be launched from a shipboard catapult, and the first to be assembled with spot-welding, a process Vought and the Naval Aircraft Factory jointly developed to create a smooth fuselage that resisted buckling and generated less drag.

For armament, the Kingfisher carried a .30-caliber machine gun, the breech of which, along with the ammunition can, was in the pilot’s compartment. Sitting behind the pilot, the radio operator/gunner manned another .30-caliber machine gun (or a pair) on a flexible ring mount. The airplane could also carry two 100-pound bombs or two 325-pound depth charges.

Within two years of the first prototype, Vought-Sikorsky delivered the first production Kingfisher, an OS2U-1, to the battleship USS Colorado. The OS2U-2 variant differed slightly from its predecessor, boasting additional fuel tanks and stronger armor. Navy pilots quickly christened it “the Bug” or, in mockery of the designation OS2U, “Old Slow and Ugly.”

It was a skilled pilot who could get speeds of more than 166 mph out of a Kingfisher. However, a pilot could make the Kingfisher’s slow speed an advantage. Joe McGuinness was flying a Kingfisher from the light cruiser USS Birmingham over Japanese-occupied Wake Island when a Zero jumped him. McGuinness immediately reduced his airspeed to just above stall speed. “We were almost falling out of the sky,” he recalled. He turned the Kingfisher toward the oncoming Japanese fighter in order to give his gunner a good shot at the enemy pilot. The Zero was going too fast, and just skidded right over them. The rear gunner was shooting at him, but neither the pilot nor gunner wanted to stick around to see if they hit him or not.

Even as the new aircraft were reaching the fleet,
Vought-Sikorsky continued to tinker with the Kingfisher’s design. On May 17, 1941, the first of the OS2U-3s flew, powered by a 450-horsepower Pratt & Whitney radial engine.

The Kingfisher’s tasks were legion. They included scouting, bombing, strafing, anti-submarine patrols, search and rescue, training, and even odd jobs such as towing aerial gunnery targets. Capable of remaining aloft for over five hours, the Kingfishers could range 400 miles from their ships to scour sky and sea for the enemy.

John Marocchi served aboard the USS Birmingham. During the invasion of Saipan and Tinian in June, 1944, he worked the cruiser’s main-battery fire-control computer, a massive machine of wheels and dials. For him, the Kingfishers were indispensable. “We used the reports from the plane spotters to correct aim points,” Marocchi explained. “During pre-landing bombardments, the plane spotters were very effective. And once our troops were ashore, the planes spotted for us beyond what could be observed from the ground.”

Al Oliver, a pilot stationed on the battleship North Carolina, remembers that the ship’s gun crews would begin a fire mission by firing a single round, then radioing the word “salvo.” Just before the shell was expected to land, Oliver recalls, the crew called “stand-by,” to alert the pilot to observe the shell land, then as the shell was expected to land, “splash.” “As the firing continued, the pilot would call out any corrections necessary to put the shells on target, at which time he would report ‘No change, no change.’”

For Kingfisher crews assigned to the Iowa, missions began literally with a bang. Aircraft were launched from the ship by a catapult operated by gunpowder. Battleships and cruisers were typically outfitted with two stern-mounted catapulta for such purposes.

“An eight-inch shell filled with black powder was fired into a chamber, and by the movement of a piston and a series of pulleys and cables, a cradle holding the plane was literally fired down the catapult track,” says Oliver. “This amounted to being fired from a cannon, since the plane accelerated from zero to 60 knots within a few feet. “It was a sturdy aircraft and could take a lot of punishment,” he added.

Prior to launch, the ship would turn to a heading that would place the relative wind about 30 degrees off the bow. The catapult would then be trained out-board to put the wind directly down the track. When crews wanted to launch two Kingfishers in rapid succession, they expedited the process by loading both
catapults, starboard and port sides. The ship would turn so that the starboard catapult was facing into the wind, and launch that Kingfisher first. Then they rotated the port-facing catapult 90 degrees so that it now also faced the starboard side, and launch that Kingfisher as well. This process avoided the labor-intensive maneuver of changing the ship's direction, and enabled us to launch quickly.

The pilot would clamp his hand down on the throttle, stick his elbow back in his stomach, and lock his head back in a headrest. In the back, the gunner would put his head down in his lap, cross his arms, and grasp a pair of handles with his hands. Anything that happened to be loose in the cockpit—in fact, just about anything in the cockpit—became a projectile when launched. For the first few seconds after launch, the crew was busy putting radios and spare ammunition cans back where they belonged so that those things weren’t jamming the controls.

Of course, getting into the air was only part of the battle. Even with experience, landing a Kingfisher in the ocean could be a challenge.

“Swells in the landing area are predictable,” Oliver explained. “Usually they can be judged by the pilot and pose no big problem to operations unless they are extremely high.” In the choppier waters, the ship created a “slick,” a wake of relatively calm water, by making a sweeping turn to one side. The airplane flew a pattern parallel to the ship’s course at 500 feet, with the ship flying a signal flag at half mast. A green flag on the starboard yardarm indicated to the pilot that recovery would be made on the ship’s starboard side, while a red flag on the port yardarm indicated a port-side landing. When the airplane was about a quarter-mile ahead of the ship, the “Charley” flag was waved to signal the pilot to begin the landing sequence.

Upon signal to execute, the airplane started a circling 360-degree approach and the ship executed a maximum-rate turn of 90 degrees,” says Oliver. “A crewman on the fantail threw a smoke flare overboard so that the pilot could align his approach and land into the wind, as close to the ship as possible.”

After landing, the pilot taxied to a “sled,” towed from a boom near the stern. The sled, which measured about 10 feet wide and 20 feet long, was more of a heavy rope tied into a series of one-foot squares. A spring-loaded hook attached to the bottom of the Kingfisher’s main float engaged the sled, and the plane was towed until a sling from the cockpit was attached to an aircraft crane on deck. The airplane was then hoisted on board and placed in a cradle atop the
catapult track.

Meandering over enemy lines for hours at a time to call in naval gunfire on obstinate enemy positions, the Kingfishers endeared themselves to the troops slugging it out with the Japanese below. But few men held the Kingfisher in higher esteem than the downed naval aviators who relied on the trusty plane to save them from capture or death. An incident related by Oliver from the last days of the war represents countless such episodes in the Pacific.

On August 10, 1945 - the day after the atomic bombing of Nagasaki - hurried orders scrambled Oliver off the North Carolina to rescue a Navy pilot who had ditched off the Japanese island of Honshu. Before he even had time to plot a decent course, Oliver blasted off the catapult. Another Kingfisher, piloted by Lieutenant Ralph Jacobs, linked up with him for the rescue.

To free up space, both men flew without backseat gunners. Instead, eight fighters flew escort overhead. Dodging friendly fire from a U.S. submarine, quickly followed by heavy anti-aircraft fire from Japanese shore positions, Oliver and Jacobs spotted the downed aviator, Lieutenant (jg) Vernon Coumbe. Shot down the day before, Coumbe had spent a tense night a scant two miles from a major Japanese naval base.

Ordering Oliver to remain airborne, Jacobs braved high winds and choppy surf to splash down near Coumbe. Immediately, automatic weapons fire streaked through the air while shells plunged into the water around the Kingfisher. As Oliver took evasive action overhead, Jacobs taxied near the beach. “The airplane started what appeared to be a takeoff run into the wind,” Oliver remembers. “I expected Jacobs’ takeoff might be rough due to the choppy water, but the high wind would be helpful. Yet as I watched the plane run into the wind longer than I felt necessary and begin to bounce and porpoise, I became concerned and flew down alongside the plane. To my amazement, both cockpits were empty.”

Turning back toward the beach, Oliver spotted both Jacobs and Coumbe struggling in the surf. While Jacobs had stood in the cockpit trying to help Coumbe on board, the blast from a nearby shell had dumped Jacobs out of the airplane. As he fell, he had inadvertently kicked the throttle wide open, and the aircraft took off unmanned, leaving him and Coumbe stranded on the hostile shore. “I landed and taxied back, then turned into the wind, flaps down, and sailed backwards through the surf with the main float touching the beach,” Oliver recounts. “Since the plane had only one seat in the rear cockpit, I yelled out to Jacobs that he should help the rescued pilot into the back seat and that I would send someone back for him.” Jacobs understandably disagreed with Oliver’s idea, and scrambled into the back seat along with Coumbe.

Within moments, Oliver’s Kingfisher labored aloft. With its center of gravity so far aft, his aircraft “flew like a pregnant duck.” It also burned fuel at an increased rate, so Oliver kept a careful eye on his fuel gauge. Some two and a half hours later, he landed alongside the North
Carolina with what he described as “one cup of fuel” in the tank. For the three pilots, it had been a remarkably close call, and both Oliver and Jacobs received Distinguished Flying Crosses for their bravery.

By 1942, it was determined that the Kingfishers needed to be replaced. Curtiss submitted a new design on August 1, 1942, with a contract for two prototypes and five service test aircraft awarded on 25 August. A production order for 500 SC-1 Seahawks followed in June 1943, prior to the first flight of the prototypes.

While only intended to seat the pilot, a bunk was provided in the aft fuselage for rescue or personnel transfer. Two 0.5 in M2 Browning machine guns were fitted in the wings, and two under wing hard points allowed carriage of 250 lb bombs or, on the right wing, surface-scan radar. The main float, designed to incorporate a bomb bay, suffered substantial leaks when used in that fashion, and was modified to carry an auxiliary fuel tank.

The first flight of a prototype XSC-1 took place 16 February 1944. Flight testing continued through 28 April, when the last of the seven pre-production aircraft took to the air.

USS Iowa received her Seahawks at the end of World War Two and they remained aboard into the late 1940s. But after the end of World War, the era of using catapults to launch aircraft from ships other than aircraft carriers had ended. Increasingly effective anti-aircraft weapons, improvements in radar-controlled gunfire, and the ascendancy of the helicopter conspired to edge the slow, vulnerable Kingfisher and Seahawks off the stage.

In 1984, when USS Iowa was being refitted for duty, the same problems came up regarding spotting for the big guns. Catapults and manned aircraft were simply not available. But Israel had something that would fit like a glove. After having been impressed by stories of Israeli successes with UAVs in the early 1980s, the Navy initiated an expedited procurement of UAV systems. Pioneer was procured starting in 1985 as an interim UAV capability to provide imagery intelligence (IMINT) for spotters for naval gunfire support from its battleships (originally launched from Navy Iowa-class battleships, today from LPD-class ships), as well as provide a UAV capability for the Marine Corps.

Essentially, the Pioneer is an upgraded Tadiran Mastiff which was re-engined to accommodate a greater payload by request of the US Navy. To accomplish this, the aircraft was fitted with a Fichtel & Sachs two-cylinder two-stroke gasoline engine. The Fichtel & Sachs motor was outfitted with a 29 inch propeller from the Sensenich Propeller Manufacturing Company of Lancaster, Pennsylvania.

Launched by rocket assist (shipboard), the Pioneer recovered into a net stretched across the fantail between two poles like a football goal, after flying up to 5 hours with a 75-pound payload. It flew day or night missions with a gimbaled EO/IR sensor, relaying analog video in real time via a C-band line-of-sight (LOS) data link. Since 1991, Pioneer has flown reconnaissance missions during the Persian Gulf, Somalia (UNOSOM II), Bosnia, Kosovo and Iraq conflicts. In 2005, the Navy operated two Pioneer systems (one for training) and the marines operated two, each with five or more aircraft. In 2007, Pioneer was retired by the US Navy and was replaced by the Shadow UAV.
Aboard USS Iowa, the Pioneer helped guide Iowa's guns at every shoot. Notably, they helped spot for the guns during weapons testing with Naval Weapons Test Center, Dahlgren and a variety of gunfire support missions during training. In 1989, when Iowa had to prepare for a possible engagement in Lebanon, the UAV sent back dramatic images as Iowa placed a 16" round through a 10' “killer tomato” on the third shot at a range of over 9 miles. It was later used to send back video of a number of possible Hezbollah targets while the Iowa remained well at sea.

Internationally, Pioneer drones are perhaps most remembered for their role in the 1991 Gulf War, when a Pioneer launched by the Iowa-class battleship USS Wisconsin (BB-64) observed Iraqi troops on Failaka Island surrendering shortly after USS Missouri’s attack on their trenchlines. When navy officials offered to transfer a Pioneer to the Smithsonian Institution, curators at the National Air and Space Museum specifically asked for the UAV that Iraqi troops surrendered to during the Gulf War.

Very often the surface navy forgets the long standing cooperation between the big guns and the wings of the fleet. Aboard USS Iowa and her sisters, that cooperation spanned 50 years and made the American battleship one of the most formidable weapons at sea.

Portions of this article ran in Air and Space Magazine in February, 2005.

The Iowa’s Silver Service

Jeff Morgan, Iowa State Historical Society

(DES MOINES) – A 40-piece silver service presented by Iowa to the U.S. Navy in 1896 for the then newly-commissioned USS Iowa battleship has a new, permanent display space at the State Historical Museum.

The gleaming, heavily ornamented silver service is now on display in a third-floor exhibit, “A Service to Silver: Tribute to the USS Iowa,” where it will enjoy greater visibility and accessibility to the public. The State Historical Museum is at 600 E. Locust Street in Des Moines. Hours are 9 a.m.-4:30 p.m. Monday-Saturday and Noon-4:30 p.m. Sunday. Call 515-281-5111 or visit www.iowahistory.org for more information.

“The United States Navy entrusted this silver service to our care in 1992,” said Cyndi Pederson, director of the Iowa Department of Cultural Affairs. “We have given it extensive conservation treatment over the past few years and have prepared it for a new display space that is more commensurate to its historical significance to Iowa. I encourage Iowans and others to take time to see these incredibly beautiful artifacts.”
In the late 1800s, the commissioning of a naval ship called for the presentation of a silver service to be used aboard ship on special occasions, and it was customary for states to provide a silver service to ships named after them.

When the United States named its first seagoing battleship the “USS Iowa” in 1896, Iowa’s 26th General Assembly contracted J. E. Caldwell and Co. in Philadelphia to provide a 40-piece silver service with Iowa as its inspiration.

The massive collection, presented to the Navy
Department and USS Iowa officers, is fashioned from 2,100 ounces of sterling silver. It includes common nautical and national symbols of dolphins, the Navy Department seal, sea shells and eagles with outstretched wings.

To make the service truly representative of Iowa, the Great Seal of the State of Iowa, corn and the wild rose were added as sculptured elements. Some pieces appear to have engraved images of the state capitol, Ft. Madison, the battleship Iowa, a pioneer wagon and the “Pioneer” statue from the capitol’s west steps.

The platters also contain the sayings: “Iowa, her affections like the rivers of her borders, flow to an inseparable union” and “In all that’s good, Iowa affords the best.”

The custom of presenting silver to ships and officers stretches back to the American Revolutionary War, when the city of Boston gave a tea service to the builder of the USS Boston and USS Constitution.

By 1896, the Navy had commissioned several battleships – the USS Texas, Maine, Indiana, Massachusetts and Oregon.

Although those floating fortresses protected U.S. shores, the USS Iowa became the nation’s first seagoing battleship because it carried an additional forward deck that provided more coal storage, which meant the ship could travel farther out to sea without refueling. The forward deck also raised a set of twelve-inch guns above storm waves and provided additional space for crew quarters.

The silver has served on the USS Iowa BB4 (1897-1923), the USS Iowa BB61 (1947-1949; 1953-1958; and 1984-1990), the cruiser USS Des Moines CA 134 (1948-1953).

From 1990-1992, the silver service was placed on the aircraft carrier USS Abraham Lincoln.

**Ships’ Bells**

Naval History and Heritage Command

Bells have a centuries-long tradition of varied use in the navies and merchant fleets of the world. Signaling, keeping time, and sounding alarms are important in a ship’s routine and readiness. Their functional and ceremonial uses have made them a symbol of considerable significance to the United States Navy.

Bells cast from metal were first developed in the Bronze Age, achieving a particularly high level of sophistication in China. During the European Middle Ages, they were used by Christians to signal divine services and make special announcements. Christian and Buddhist monasteries historically used them to regulate daily activity, conceptually similar to later timekeeping in the U.S. Navy. The Catholics consider bells a representation
of the voice of God and of paradise.

One of the earliest recorded mentions of the shipboard bell was on the British ship Grace Dieu about 1485. Some ten years later an inventory of the English ship Regent reveals that this ship carried two “wache bells.” Before the advent of the chronometer, time at sea was measured by the trickle of sand through a half hour glass. One of the ship’s boys had the duty of watching the glass and turning it when the sand had run out. When he turned the glass, he struck the bell as a signal that he had performed this vital function. From this ringing of the bell as the glass was turned evolved the tradition of striking the bell once at the end of the first half hour of a four hour watch, twice after the first hour, etc., until eight bells marked the end of the four hour watch. The process was repeated for the succeeding watches. This age-old practice of sounding the bell on the hour and half hour has its place in the nuclear and missile oriented United States Navy at the dawn of the Twenty-First Century, regulating daily routine, just as it did on our historic vessels under sail in the late Eighteenth Century.

Safety and Communication

The sounding of a ship’s bell found a natural application as a warning signal to other vessels in poor visibility and fog. In 1676 one Henry Teonage serving as a chaplain in the British Mediterranean Fleet recorded, “so great a fog that we were fain to ring our bells, beat drums, and fire muskets often to keep us from falling foul one upon another.” Ringing a ship’s bell in fog became customary. In 1858, British Naval Regulations made it mandatory in that function. Today, maritime law requires all ships to carry an efficient bell.

American ships of the Revolutionary War period and our early national years adopted many of the practices and traditions of the British Royal Navy, including the use of bells. In 1798, Paul Revere cast a bell weighing 242 pounds for the frigate Constitution, also known today by its nickname “Old Ironsides”.

It is of interest to note that the use of a ship’s bell contributed to the richest single prize captured by the American Navy during the War of Independence. While a Continental Squadron under Commodore Whipple lay-to, wrapped in Newfoundland fog in

![Half hour glass](image)

![Ship’s bell, USS Constitution (USN)](image)
a July morning in 1779, the sound of ships’ bells and an occasional signal gun could be heard a short distance off. When the fog lifted the Americans discovered that they had fallen in with the richly-laden enemy Jamaica Fleet. Ten ships were captured as prizes, which - together with their cargo - were valued at more than a million dollars.

The bell is an essential link in a ship's emergency alarm system. In the event of a fire, the bell is rung rapidly for at least five seconds, followed by one, two or three rings to indicate the location of a fire - Forward, amidships, or aft respectively.

The bell is used to signal the presence of important persons. When the ship's captain, a flag officer, or other important person arrives or departs, watch standers make an announcement to the ship and ring the bell. This tradition extends to major naval command transitions, often held aboard vessels associated with the command.

The bell's connection to religious origins continues. Originating in the British Royal Navy, it is a custom to baptize a child under the ship's bell; sometimes the bell is used as a christening bowl, filled with water for the ceremony. Once the baptism is completed, the child's name may be inscribed inside the bell. The bell remains with the ship while in service and with the Department of the Navy after decommissioning. In this way, an invisible tie is created between the country, the ship and its citizens.

Bells have been loaned or provided to churches as memorials to those vessels; this practice has been discontinued in favor of displaying bells with namesake states or municipalities, with museums, and with naval commands and newer namesake vessels.

Traditionally, the bell is maintained by the ship's cook, while the ship's whistle is maintained by the ship's bugler.

In actual practice, the bell is maintained by a person of the ship's division charged with the upkeep of that part of the ship where the bell is located. In such a case a deck seaman or quartermaster striker or signalman striker may have the bell-shining duty.

Disposition and continuing Navy use

In addition to its shipboard roles, the bell serves a ceremonial and memorial function after the ship has served its Navy career.

U.S. Navy bells are part of the many artifacts removed from decommissioned vessels preserved by the Naval History and Heritage Command. They may be provided on loan to new namesake ships; naval commands with an historical mission or functional connection; and to museums and other institutions that are interpreting specific historical themes and displays of naval history. Bells remain the permanent property of the US Government and the Department of the Navy. These serve to inspire and to remind our naval forces and personnel of their honor, courage, and commitment to the defense of our nation. Bells remain a powerful and tangible reminder of the history, heritage, and accomplishments of the naval service.
(Note: Some people have said being a Navy Cook is the best job in the world. Others, who were assigned duties as “Messcranks” when they first reported aboard a ship hated the job. The following is a part of the original 1902 manual. A lot has changed since then. Interesting the changes between now and then. More parts will follow.)

PART I. - THE GENERAL MESS.

ORGANIZATION AND ADMINISTRATION.

1. The general messing system is, by the regulations, obligatory on board of all vessels of the Navy. The mess must include all enlisted men of the Navy and Marine Corps, excepting chief petty officers and officers’ servants, and its members are to be divided into messes of about twenty men each, and as nearly as possible messed by divisions instead of by ratings, as has heretofore been the custom. By this method the petty officers will be scattered among the messes and there can be no complaint on account of discrimination - all faring alike.

2. A messman is to be detailed for each mess, and he is to receive the food from the cooks at the galley, serve it at the mess table, and is responsible for the care and the cleanliness of the mess gear and mess tables.

3. The chief commissary steward, or commissary steward, the cooks and bakers, together with the storekeeper (when a store is established on the ship), form the enlisted force of the commissary department. They are the assistants of the pay officer and belong to the pay division.

4. The responsibility of the commissary and his assistants ceases with the delivery of the food to the messmen at the galley.

5. The established rate of pay being sufficient to secure the services of competent and experienced men, the payment of any gratuity, either by the commissary or by the men themselves, to any person employed in the service of the general mess is forbidden by the regulations.

6. The commanding officer should see that proper facilities, including such boats and men as may be necessary, are afforded the commissary for getting mess stores on board and stowing them.

7. It should be thoroughly understood that the general mess is not an organization managed by its members, as was the “berth-deck mess.”

8. In addition to the pay provided for enlisted men, the Government undertakes to subsist them, and this it does at whatever expense may be necessary. The fixed value of commutation for one ration is, by law, 30 cents, but the commutation of rations is a privilege, not a right, and the idea prevalent among
enlisted men that they are entitled to receive just 30 cents’ worth of food each day, or 30 cents in money, is erroneous.

9. Under the general messing system the Government subsists the men entirely, and they have no more voice in the management of the commissary department than in any other department of the ship. The Government, through its authorized officer, provides them with the ration allowed by law. The food is purchased, cooked, and served entirely at the Government expense, and its value, whether it be more or less than 30 cents per diem per man, is a matter with which the men themselves have nothing to do.

10. In case any man considers that he is improperly subsisted, he has the right, which all persons in the Navy have, to state his grievance at the proper time and place to his commanding officer, who should then cause the commissary to investigate the matter, and, if the complaint is well founded, to take steps to place the responsibility and to prevent a recurrence of the fault complained of.

11. The men are entitled to the full benefit of the money and stores allowed for their subsistence, and no expenditure can be made from the general mess fund, except for the benefit of the mess; nor can any of this money, or these stores, be withheld (when they can be used to advantage) and allowed to accumulate as a surplus. In cases, however, where a surplus of either money or stores does unavoidably exist when a ship is placed out of commission, the members of the mess have no claim whatever to any part of it and it reverts to the Government, the stores being taken up as a gain on issues and the money being credited to the appropriation “Provisions, Navy.”

12. Subsistence of enlisted men absent from the ship on duty will, when practicable, be furnished by the general mess. When men are landed in large numbers for an expedition or for going into camp with the expectation of being absent from the ship for more than twenty-four hours, the commissary or the commissary steward, according to the proportion of the ship’s company landed and the importance of the expedition, together with such cooks and bakers as may be necessary, and a sufficient number of messmen, should constitute the commissary corps.

THE COMMISSARY.

13. The pay officer of the ship, or, in ships having no pay officer, an officer designated by the captain, is the commissary, and is solely responsible for the purchase and preparation of the food for the general mess, the care of the stores, and the judicious expenditure of mess funds, keeping the accounts of the mess and administering all its affairs except the serving of the food at the mess table.

14. His authority in the performance of these duties is commensurate with his responsibility, and all persons employed in the service of the general mess
are subject to his orders.

15. The commissary should frequently inspect the storerooms allotted to the general mess and see that the stores are properly stowed and that the rooms are dry and well ventilated. Any deterioration in the stores being a direct loss to the mess, great care should be exercised in their selection, and no greater quantity should be bought at one time than can be used within the period they may be expected to keep in good condition.

16. The commissary should not permit any stores to be purchased until a list of them has been submitted to him and carefully examined and approved. No stores should be received on board unless accompanied by a bill or memorandum by which they can be checked off; and before being stowed away all stores should be carefully inspected by the commissary or the commissary steward. No bills should be contracted that can not be paid from the funds in hand or by the ration money that will accrue to the mess during the current month. All bills should be settled at the end of each month, and always before the ship sails from port.

17. The commissary should keep the cash accounts of the mess so that they can be conveniently audited by the general inspector of the pay corps, the paymaster of the fleet, or by the board appointed for the purpose. All expenditures must be substantiated by vouchers, which are to be exhibited when the accounts are inspected.

18. He should cause the commissary steward to keep a stock account which should embrace all stores and all property of the general mess. The value of the balance shown upon this stock account should be taken into consideration in making up the statement of the financial condition of the mess.

19. The commissary should, when he deems it advisable, submit written reports and recommendations to the captain regarding the general mess, and he must do so whenever the interests of the mess require any change which he himself is not authorized to make.

20. The commissary should mark the enlisted men of his department in proficiency in rating and should immediately report any inefficiency or carelessness in their performance of duty.

21. He should frequently inspect the food before it is delivered to the mess men at the galley, and in case he finds it improperly prepared, should take steps to prevent any further occurrence of the kind. If cooks are not thoroughly competent, they should be made to follow strictly the recipes in this book, and flagrant cases of incompetency should be reported.

THE COMMISSARY STEWARDS.

22. The chief commissary steward or commissary steward is the chief petty officer in charge, under the commissary, of the general mess. He is entitled to respect and obedience from all persons of inferior rating while in the performance of his duties, and he is responsible for the proper execution of the orders of the commissary. The daily bill of fare should be made out by the commissary steward.
and submitted to the commissary, and the necessary stores issued to the cooks at the galley. He should direct the manner of its preparation and shall be in charge of the galley and the men employed at it, and should frequently inspect the food before it is delivered to the messmen to be served. He should see that the galley and all the galley utensils are kept in proper condition, giving particular attention to their cleanliness.

23. He should report to the commissary daily, in writing, all purchases made and debts contracted, and keep that officer advised of the needs of the mess. He is to draw from the pay department, at the appointed times, such Government stores as are due the mess, and must keep an account of these stores for the verification of the provision return at the end of each quarter. When fresh provisions are issued he should be on deck, when practicable, to receive them from the representative of the pay department as soon as they have been received on board and inspected. In case these fresh provisions, or any other stores issued to the mess by the pay department, are, in the opinion of the commissary steward, of inferior quality and unfit for issue, he should report the matter to the commissary, who shall make a personal investigation, and, in case he finds the objection well founded, should take the necessary steps to provide other stores, as prescribed by the regulations. An issuing book should be kept by the pay yeoman and signed daily by the commissary steward, in order that no question may arise at the end of the quarter as to the stores drawn by the general mess. The commissary steward may, with the authority of the commissary, draw from the pay department such Government stores as are required in excess of the allowance, and these stores shall be paid for from the mess fund at the end of each month.

THE COOKS.

24. The senior cook, or, if there are two or more of the same rating, one selected by the commissary, should be in immediate charge of the galley and act in the capacity of head cook. He should be held strictly responsible for the cleanliness of the galley and the utensils pertaining to it, for the maintenance of discipline among his assistants, for the proper preparation of the food, and for having the meals ready at the prescribed hours. He should personally superintend the cooking of all meals, and should carefully inspect all food before it is delivered to the messmen. It is his duty to report to the commissary any inefficiency or neglect on the part of his assistants; otherwise the entire blame for poor cooking or any other delinquency at the galley should rest upon him. The head cook should keep the commissary steward informed as to the requirements of the galley, and should from time to time prepare lists of articles required by him in his cooking, which are not included in the Navy ration. He is responsible for the galley utensils and will report immediately when any are lost, worn out, or damaged.

25. The other cooks should, as far as possible, be assigned specific duties at the galley in order that the responsibility for any neglect may readily be placed. One should be detailed as “meat cook,” another as “vegetable cook,” and one man should, in addition to other duties, be held responsible for the preparation of the coffee and tea.
26. The cooks in the lower ratings should be detailed for starting fires, cleaning the galley and utensils (regular cleaning stations being assigned them), and for preparing the food for cooking.

27. The organization of the force at the galley should be as complete and efficient as that of a gun division.

THE BAKERS.

28. The commissary steward should issue to the baker such quantities of flour and other ingredients as may be necessary for making bread for the mess and keep him advised of the amount of bread required from day to day.

29. The baker, or, in ships which are allowed two bakers, the baker first class, is to be held responsible for the proper baking of the bread and for its delivery to the messmen at the appointed times. He is also responsible for the condition of the bake ovens and the utensils used by him.

Roosevelt’s Armored Car

Provided by Earnest Rider

Hours after Pearl Harbor on December 7, 1941, the Secret Service found themselves in a bind. President Franklin D. Roosevelt was to give his “Day of Infamy” speech to Congress on Tuesday, and although the trip from the White House to Capitol Hill was short, agents were not sure how to transport him safely. At the time, Federal Law prohibited buying any cars that cost more than $750, so they would have to get clearance from Congress to do that, and nobody had time for that.

One of the Secret Service members, however, discovered that the US Treasury had seized the bulletproof car that mobster Al Capone owned when he was sent to jail in 1931. They cleaned it, made sure it was running fine and had it ready for the President the day after.

And run properly it did. Capone’s car was a sight to behold. It had been painted black and green so as to look identical to Chicago’s police cars at the time. It also had a specially installed siren and flashing lights hidden behind the grille, along with a police scanner radio.

To top it off, the gangster’s 1928 Cadillac 341A Town Sedan had 3,000 pounds of armor and inch-thick bulletproof glass. Mechanics are said to have cleaned and checked each feature of the caddy well into the night of to make sure that it would run properly the next day for the Commander in Chief.

The car was sold at an auction price of $341,000 in 2012.
What is a “Geedunk?”

Origin of Navy Terminology

To most sailors the word geedunk means ice cream, candy, potato chips and other assorted snacks, or even the place where they can be purchased. No one, however, knows for certain where the term originated; there are several plausible theories:

In the 1920s a comic strip character named Harold Teen and his friends spent a great amount of time at Pop’s candy store. The store’s name was the Sugar Bowl but Harold and company always called it the geedunk for reasons never explained.

The Chinese word meaning a place of idleness sounds something like “gee dung.”

“Geedunk” is sound made by a vending machine when it dispenses a soft drink in a cup.

It may be derived from the German word “tunk” meaning to dip or sop either in gravy or coffee. Dunking was a common practice in days when bread, not always obtained fresh, needed a bit of “tunking” to soften it. The “ge” is a German unaccented prefix denoting repetition. In time it may have changed from getunk to geedunk.

Whatever theory we use to explain geedunk’s origin, it doesn’t alter the fact that Navy people are glad it all got started!

Bread Recipe

From the 1902 Mess Manual and Cookbook

Remember, this will serve 100 people. (You need to multiply by 15 for the crew of Iowa. The Iowa measurement is in parentheses.)

BREAD

Sift 50 (750) pounds of flour into a large kneading pan and add about 2 (30) pounds of hot dripping. Break ten (150) cakes of yeast into small pieces and put into lukewarm water and stir until dissolved. Add this to the flour and dripping and also add 2 1/2 (37.5) gallons of fresh water and 2 1/2 (37.5) gallons of salt water, luke warm, mixing all thoroughly. Dust the dough with a thin coating of flour to prevent its crusting. Cover the pan with a cloth and stand in a warm place from four to six hours, then knead out well and make into loaves. Put in well-greased pans and bake in moderate oven for forty-five minutes.

Sailors line up at the Geedunk (USN)

Navy Baking School, 1917 (USN)

Baker aboard USS George Washington (CVN-73) USN
**SK-2, SK-3 SEARCH RADAR**

**Description:** A 138 cm. search radar for long-range aircraft detection for installation on battleships, cruisers, and carriers.

The SK-3 is the same as SK-2 but with antenna modifications to fill in vertical beam so that high-flying planes will not be lost as they approach. This parasitic array will afford better coverage on high-flying planes nearer than 50 miles.

The receiver has video balance, i-f rejection filter and back bias.

IFF provisions are Mark III and IV antenna and control circuits.

**Number of operators:** One.

**Weight installed:** 4,000 lb.

**Power supply:** SK-2: 4.75 kva, 440 v, 3 phase, 60 cycles. SK-3: 4.6 kw, 230 v d.e.

**Maximum reliable range (miles):**
- Bombers at 500 feet: 30
- Bombers at 30,000 feet: 130
- Bombers at 10,000 feet: 120
- Fighters at 10,000 feet: 80
- Battleships: 20
- Cruisers: 20
- Destroyers: 18
- Submarines (surfaced): 5

**Resolution:**
- Range (yd.): 500
- Bearing (deg.): 10

**Accuracy:**
- Range (yd.): ± 100
- Bearing (deg.): ± 3

**Minimum range (yd.):** 1,200

**Indication and data output:**
- Range: 5-inch A scope with range step.
- Ranges: 20, 80 and 400 miles.
- Bearing: True and relative bearing are shown on bearing indicator.
- PPI: 12-inch Master PPI and provisions for 16 radar repeaters.
- Ranges: 20, 80 and 200 miles.
- Other: Pulse monitor on transmitter.

**Transmitter specifications:**
- Frequency (Me): 215 to 220.
- R-f source: 4, 327A.
- R-f lines: 1/8" coax. or RG-18U.
- Pulser type: Self pulsed.
- R-f peak power (kw): 200.
- R-f average power: 0.06 (kw).
- Pulse rates (pps): 60.
- Pulse lengths (μs): 5.

**Receiver specifications:**
- Type: Superheterodyne.
- Stages: 2 r. f.; 5 i. f.; 1 video.
- Local oscillator: 446A.
- Intermediate frequency: 15 (Me).
- Band pass (Me): 0.5 i. f.; 0.5 video.
- Mixer: 446A.

**Antenna specifications:**
- Total weight (lb.): 1,650.
- Feed: Single radiating element and parasitic reflector.

**Reflector:**
- Type: Mesh dish.
- Shape: Parabola.
- Size: 17 ft. diameter.
- H. P. beam width:
  - Horizontal: 22°
  - Vertical: 17°
- Polarization: Horizontal.

**Scan:** Continuous rotation through 360° at 0 to 5 r. p. m. by motor, or it may be trained manually. The antenna has amplidyne control.

**Tube complement (SK-2):**
- 2 type 6L6, 1 type 6N7, 2 type 8020, 1 type 5R4GY, 4 type 327A, 1 type 902, 7 type 5U4G, 3 type 6H6, 6 type 6SN7GT, 1 type 6K6GT, 1 type 6SK7, 1 type 5CP1, 7 type 6AG7, 4
Morse Code first came into use in 1836 when the American artist Samuel F. B. Morse, the American physicist Joseph Henry, and Alfred Vail developed an electrical telegraph system. This system sent pulses of electric current along wires which controlled an electromagnet that was located at the receiving end of the telegraph system. A code was needed to transmit natural language using only these pulses, and the silence between them. Morse therefore developed the forerunner to modern International Morse code. Little did they know that their system of communication would remain in use even into the 21st Century.

Morse code was developed as a method of transmitting text information as a series of on-off tones, lights, or clicks that can be directly understood by a skilled listener or observer without special equipment. The International Morse Code encodes the ISO basic Latin alphabet, some extra Latin letters, the Arabic numerals and a small set of punctuation and procedural signals as standardized sequences of short and long signals called “dots” and “dashes”, or “dits” and “dahs”. Because many non-English natural languages use more than the 26 Roman letters, extensions to the Morse alphabet exist for those languages.

Each character (letter or numeral) is represented by a unique sequence of dots and dashes. The duration of a dash is three times the duration of a dot. Each dot or dash is followed by a short silence, equal to the dot duration. The letters of a word are separated by a space equal to three dots (one dash), and the words are separated by a space equal to seven dots. The dot duration is the basic unit of time measurement in code transmission. For efficiency, the length of each character in Morse is approximately inversely proportional to its frequency of occurrence in English. Thus, the most common letter in English, the letter “E,” has the shortest code, a single dot.

For both USS Iowas, Morse code was the primary means of communication between the ship and the world at large. In the 1950s, Morse was slowly being replaced by the “fleet broadcast” which was transmitted via teletype. By the 1980s reactivation, Morse code was gone from the radio world. People still needed to know it, but it was rarely used.

Morse code is now most popular among amateur radio operators, although it is no longer required for licensing in most countries. Pilots and air traffic controllers usually need only a cursory understanding. Aeronautical navigational aids, such as VORs and NDBs, constantly identify in Morse code. Compared to voice, Morse code is less sensitive to poor signal conditions, yet still comprehensible to humans without a decoding device. Morse is therefore a useful alternative to synthesized speech for sending automated data to skilled listeners on voice channels.
Many amateur radio repeaters, for example, identify with Morse, even though they are used for voice communications. SOS, the standard emergency signal, is a Morse code prosign.

For emergency signals, Morse code can be sent by way of improvised sources that can be easily “keyed” on and off, making it one of the simplest and most versatile methods of telecommunication. The most common distress signal is SOS or three dots, three dashes and three dots, internationally recognized by treaty. Its first use was aboard the RMS Titanic in 1912.

In 1837, William Cooke and Charles Wheatstone in England began using an electrical telegraph that also used electromagnets in its receivers. However, in contrast with any system of making sounds of clicks, their system used pointing needles that rotated above alphabetical charts to indicate the letters that were being sent. In 1841, Cooke and Wheatstone built a telegraph that printed the letters from a wheel of typefaces struck by a hammer. This machine was based on their 1840 telegraph and worked well; however, they failed to find customers for this system and only two examples were ever built.

On the other hand, the three Americans’ system for telegraphy, which was first used in about 1844, was designed to make indentations on a paper tape when electric currents were received. Morse’s original telegraph receiver used a mechanical clockwork to move a paper tape. When an electrical current was received, an electromagnet engaged an armature that pushed a stylus onto the moving paper tape, making an indentation on the tape. When the current was interrupted, a spring retracted the stylus, and that portion of the moving tape remained unmarked.

The Morse code was developed so that operators could translate the indentations marked on the paper tape into text messages. In his earliest code, Morse had planned to only transmit numerals, and use a dictionary to look up each word according to the number which had been sent. However, the code was soon expanded by Alfred Vail to include letters and special characters, so it could be used more generally. Vail determined the frequency of use of letters in the English language by counting the movable type he found in the type-cases of a local newspaper in Morristown. The shorter marks were called “dots”, and the longer ones “dashes”, and the letters most commonly used were assigned the shorter sequences of dots and dashes.

In the original Morse telegraphs, the receiver’s armature made a clicking noise as it moved in and out of position to mark the paper tape. The telegraph operators soon learned that they could translate the clicks directly into dots and dashes, and write these down by hand, thus making the paper tape unnecessary. When Morse code was adapted to radio com-
munication, the dots and dashes were sent as short and long pulses. It was later found that people became more proficient at receiving Morse code when it is taught as a language that is heard, instead of one read from a page.

To reflect the sounds of Morse code receivers, the operators began to vocalise a dot as “dit”, and a dash as “dah”. Dots which are not the final element of a character became vocalised as “di”. For example, the letter “c” was then vocalised as “dah-di-dah-dit”.

In the 1890s, Morse code began to be used extensively for early radio communication, before it was possible to transmit voice. In the late nineteenth and early twentieth century, most high-speed international communication used Morse code on telegraph lines, undersea cables and radio circuits. In aviation, Morse code in radio systems started to be used on a

regular basis in the 1920s. Although previous transmitters were bulky and the spark gap system of transmission was difficult to use, there had been some earlier attempts. In 1910 the U.S. Navy experimented with sending Morse from an airplane. That same year a radio on the airship America had been instrumental in coordinating the rescue of its crew. However, there was no aeronautical radio in use during World War I, and in the 1920s there was no radio system used by such important flights as that of Charles Lindbergh from New York to Paris in 1927. Once he and the Spirit of St. Louis were off the ground, Lindbergh was truly alone and incommunicado. On the other hand, when the first airplane flight was made from California to Australia in the 1930s on the Southern Cross, one of its four crewmen was its radio operator who communicated with ground stations via radio telegraph.

Beginning in the 1930s, both civilian and military pilots were required to be able to use Morse code, both for use with early communications systems and identification of navigational beacons which transmitted continuous two- or three-letter identifiers in Morse code. Aeronautical charts show the identifier of each navigational aid next to its location on the map.

Radio telegraphy using Morse code was vital during World War II, especially in carrying messages between the warships and the naval bases of the belligerents. Long-range ship-to-ship communications was by radio telegraphy, using encrypted messages, because the voice radio systems on ships then were quite limited in both their range, and their security. Radiotelegraphy was also extensively used by warplanes, especially by long-range patrol planes that were sent out by these navies to scout for enemy warships, cargo ships, and troop ships.
In addition, rapidly moving armies in the field could not have fought effectively without radiotelegraphy, because they moved more rapidly than telegraph and telephone lines could be erected. This was seen especially in the blitzkrieg offensives of the Nazi German Wehrmacht in Poland, Belgium, France (in 1940), the Soviet Union, and in North Africa; by the British Army in North Africa, Italy, and the Netherlands; and by the U.S. Army in France and Belgium (in 1944), and in southern Germany in 1945.

Morse code was used as an international standard for maritime distress until 1999, when it was replaced by the Global Maritime Distress Safety System. When the French Navy ceased using Morse code on January 31, 1997, the final message transmitted was “Calling all. This is our last cry before our eternal silence.” In the United States the final commercial Morse Code transmission was on July 12, 1999, signing off with Samuel Morse’s original 1844 message, “What hath God wrought”, and the prosign “SK”.

The United States Coast Guard has ceased all use of Morse code on the radio, and no longer monitors any radio frequencies for Morse code transmissions, including the international medium frequency (MF) distress frequency of 500 kHz. However the Federal Communications Commission still grants commercial radiotelegraph operator licenses to applicants who pass its code and written tests. Morse enthusiasts have reactivated the old California coastal Morse station KPH and regularly transmit from the site under either this Call sign or as KSM. Similarly, a few US Museum ship stations are operated by Morse enthusiasts.

Although the United States no longer uses Morse code in its day to day radio communications, it is still very much alive. Warships, including those of the U.S. Navy, have long used signal lamps to exchange messages in Morse code. Modern use continues, in part, as a way to communicate while maintaining radio silence. Submarine periscopes still include a signal lamp.

Remembrances

Gus Harris

From Dan Gullick

Gus had more than 27 years of dedicated and faithful service in the Military. He enlisted first in the Merchant Marines in 1939 where he served on a Norwegian Freighter and then with the United States Steamship Lines. Subsequent to that he enlisted in the United States Navy on September 12, 1940. His first assignment was on an Eagle boat which was a sea going tug that carried armament. Following that duty he was assigned as a fireman on the USS Blakely, a converted WWI Destroyer. His next assignment was on the Battleship USS Iowa. When the Iowa carried President Franklin D. Roosevelt to the Tehran conference in Iran, he was one of the few Americans who had the distinction of personally talking with the President during that voyage. Following this he was reassigned to the USS South Dakota as a Machinist Mate 1st Class, the second highest enlisted rank in the US Navy.
Medal of Honor

Ernest E. Evans

Ernest Edwin Evans (August 13, 1908 – October 25, 1944) was an officer of the United States Navy who posthumously received the Medal of Honor for his actions during the Battle of Samar in World War II.

Evans, of Native American ancestry (half Cherokee and one quarter Creek), was born in Pawnee, Oklahoma. He graduated from the United States Naval Academy in 1931. During World War II, he commanded the destroyer USS Alden (DD-211) and later became the only skipper of the Fletcher-class destroyer USS Johnston (DD-557). Commanding Johnston, he was awarded the Bronze Star for meritorious achievement in action against a Japanese submarine on May 16, 1944.

In the Battle of Samar, a part of the Battle of Leyte Gulf, Evans fought his ship gallantly until it was sunk on October 25, 1944, by the Japanese force that was superior in number, firepower, and armor. Johnston, together with the destroyers USS Hoel (DD-533) and USS Heermann (DD-532), four destroyer escorts and six escort carriers (CVEs) formed the task unit 77.4.3, known as Taffy 3. This group, together with planes of the Navy and what were his duties aboard the USS Iowa. They spoke only for 3 - 4 minutes but my father was so nervous he said it felt like an hour. It was a moment he would never forget and one he told his grandchildren many times. They never tired of hearing it.
from Taffy 2 (TU 77.4.2), ultimately forced a vastly superior Japanese battlegroup consisting of several battleships, heavy cruisers, light cruisers and destroyers to abort its original mission to attack the landing beaches at Leyte under the command of General Douglas MacArthur and retreat.

The fate of the Johnston's captain was never conclusively established, and remains the subject of continuing conjecture among the ship's survivors. Some claim that he was hit by Japanese naval shellfire; others that he was able to jump into a damaged motor whaleboat. What is known is that he was seriously wounded during the battle; that he lived long enough to give the abandon ship order; and that he was not among those rescued. Evans posthumously received the Medal of Honor for his material contribution to the decisive victory won in Leyte Gulf and shared in the Presidential Unit Citation awarded his group for this action in which he gave his life.

When the Japanese fleet during the Battle of Samar was first sighted, Evans did not hesitate and his ship immediately headed directly towards the far superior enemy. He is reported to have told his crew over the ship's intercom: “A large Japanese fleet has been contacted. They are fifteen miles away and headed in our direction. They are believed to have four battleships, eight cruisers, and a number of destroyers. This will be a fight against overwhelming odds from which survival cannot be expected. We will do what damage we can.” The last portion of the quote (“This will be ... damage we can.”) is usually credited to LCDR Robert W. Copeland of the USS Samuel B. Roberts (DE-413), who charged in with Evans.

In 1955, the destroyer escort USS Evans (DE-1023) was named in his honor. Decommissioned in 1968, no active ship carries the name of the Evans or the Johnston, although a number of active ships have been named for the Samuel B Roberts and her crew. On November 12, 2013, a petition was created to name a ship after Evans.

The Naval Station Newport, Newport, Rhode Island, Surface Warfare Officers School’s virtual simulator for shiphandling training was dedicated as the Evans Full Mission-2 Simulator in Evans’ honor 23 May 2013.

Citation:

For conspicuous gallantry and intrepidity at the risk of his life above and beyond the call of duty as commanding officer of the U.S.S. Johnston in action against major units of the enemy Japanese fleet during the battle off Samar on 25 October 1944. The first to lay a smoke-screen and to open fire as an enemy task force, vastly superior in number, firepower and armor, rapidly approached. Comdr. Evans gallantly diverted the powerful blasts of hostile guns from the lightly armed and armored carriers under his protection, launch-
ing the first torpedo attack when the Johnston came under straddling Japanese shellfire. Undaunted by damage sustained under the terrific volume of fire, he unhesitatingly joined others of his group to provide fire support during subsequent torpedo attacks against the Japanese and, outshooting and outmaneuvering the enemy as he consistently interposed his vessel between the hostile fleet units and our carriers despite the crippling loss of engine power and communications with steering aft, shifted command to the fantail, shouted steering orders through an open hatch to men turning the rudder by hand and battled furiously until the Johnston, burning and shuddering from a mortal blow, lay dead in the water after 3 hours of fierce combat. Seriously wounded early in the engagement, Comdr. Evans, by his indomitable courage and brilliant professional skill, aided materially in turning back the enemy during a critical phase of the action. His valiant fighting spirit throughout this historic battle will venture as an inspiration to all who served with him.

Photo # SC 278010  Rescue of Battle off Samar survivors, Oct. 1944

Letter from the Editor

Special thanks to everyone who sent things in for the newsletter. I hope you all are enjoying the stories from former shipmates and a little history thrown in as well.

Next issue I will detail how the Iowa was struck twice by Japanese shells during the bombardment of Milli Atoll in 1944. These are the only two times the ship was struck during the war.

Future articles include information about the man who helped design Iowa’s gunfire control computers, an article written by Admiral James Holloway, what has happened to our gun barrels, 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:
Brad Goforth, 1200 Somersby Lane,
Matthews, NC  28105
or email it to:  bgoforth@thesamaritanhouse.org

Also, if you have any comments or questions, pop me an email at the above address. I’d love to hear from you.

Without your help, we can’t make this letter happen! I look forward to reading about you.

Brad Goforth

Shameless Plug

Your editor also writes books under the name Hunter Goforth. He has written five books so far. Two of them involve USS Iowa and Iowa veterans. They are Tempered Steel and Sending Messages. All are being sold through Amazon Kindle.

Tempered Steel can be found at: http://www.amazon.com/dp/B004V9FYIY
Sending Messages can be found at: http://www.amazon.com/dp/B00H242ZGY
Recognize this guy?

When was it taken?
Who are some of the others?
Send the identities to the editor at the email above.
We’ll share unnamed photos periodically just to test your memories.

Disclaimer:

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