



The MidWatch

September 2012
Volume 18 - Issue 9

The Monthly Newsletter, Perch Base, USSVI Phoenix, Arizona



WWW.PERCH-BASE.ORG



Featured Article

Mark 14 Torpedo

The United States Navy's Standard Submarine-Launched Torpedo of World War II

USSVI CREED

Our organization's purpose is . . .

"To perpetuate the memory of our shipmates who gave their lives in the pursuit of their duties while serving their country. That their dedication, deeds and supreme sacrifice be a constant source of motivation toward greater accomplishments. Pledge loyalty and patriotism to the United States of America and its Constitution.

In addition to perpetuating the memory of departed shipmates, we shall provide a way for all Submariners to gather for the mutual benefit and enjoyment. Our common heritage as Submariners shall be strengthened by camaraderie. We support a strong U.S. Submarine Force.

The organization will engage in various projects and deeds that will bring about the perpetual remembrance of those shipmates who have given the supreme sacrifice. The organization will also endeavor to educate all third parties it comes in contact with about the services our submarine brothers performed and how their sacrifices made possible the freedom and lifestyle we enjoy today."



2012 Perch Base Foundation Supporters

These are the Base members and friends who donate monies or efforts to allow for Base operation while keeping our dues low and avoid raising money through member labor as most other organizations do.

Remember, if you contribute by check, it must be made out to the "Perch Base Foundation."

These are the 2012 Foundation Donors



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Sailing Orders



Next Base Meeting

Next meeting of Perch Base is:

Saturday, September 8

Dillon's Restaurant,

59th Ave just north of the Loop 101,

Glendale, AZ

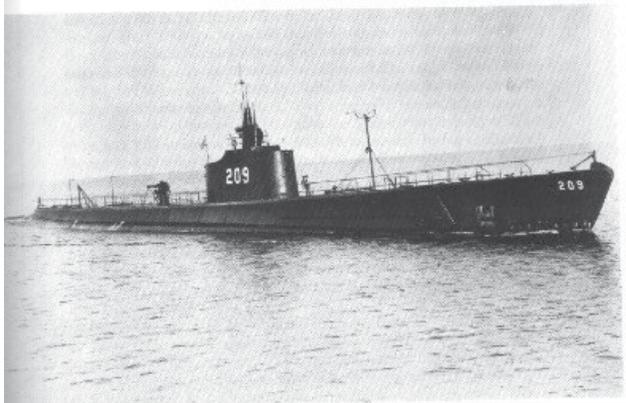
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Scan for the Perch Base Web Site

LEST WE FORGET THOSE STILL ON PATROL

SEPTEMBER ETERNAL PATROLS



USS GRAYLING (SS-209) 12 Sep 1943 76 lost
Unknown causes along approaches to Manila, P.I.



USS S51 (SS-162) 25 Sept 1925 33 Lost
Rammed off Block Island, Rhode Island



USS CISCO (SS-290) 28 Sep 1943 76 Lost
Japanese Air/Surface Attack in Sulu Sea

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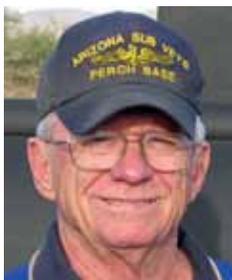
"Soundings"
Communications Officer's Message

Chuck Emmett - Comm. Officer
(It's just my thoughts in this section.)

Shipmates, you made me truly feel humble and honored by the phone calls I got from you guys during my recent rotator cuff surgery. It's really a warm feeling to know that I have such good friends and I thank you

A FEW DEEP THOUGHTS.....DON'T FIGHT THE DEEPNESS

- *Save the whales. Collect the whole set.*
- *A day without sunshine is like, night.*
- *On the other hand, you have different fingers.*
- *I just got lost in thought. It was unfamiliar territory.*
- *42.7 percent of all statistics are made up on the spot.*
- *99 percent of lawyers give the rest a bad name.*
- *I feel like I'm diagonally parked in a parallel universe.*
- *Honk if you love peace and quiet.*
- *Remember, half the people you know are below average.*
- *He who laughs last thinks slowest.*
- *Depression is merely anger without enthusiasm.*
- *The early bird may get the worm, but the second mouse gets the cheese.*
- *I drive way too fast to worry about cholesterol.*
- *Support bacteria. They're the only culture some people have.*
- *Monday is an awful way to spend 1/7 of your week.*
- *A clear conscience is usually the sign of a bad memory.*
- *Change is inevitable, except from vending machines.*
- *Get a new car for your spouse. It'll be a great trade!*
- *Plan to be spontaneous tomorrow.*
- *Always try to be modest, and be proud of it!*
- *If you think nobody cares, try missing a couple of payments.*
- *How many of you believe in telekinesis? Raise my hand...*
- *OK, so what's the speed of dark?*
- *How do you tell when you're out of invisible ink?*
- *If everything seems to be going well, you have obviously overlooked something.*
- *When everything is coming your way, you're in the wrong lane.*
- *Hard work pays off in the future. Laziness pays off now.*
- *Everyone has a photographic memory. Some just don't have film.*
- *If Barbie is so popular, why do you have to buy her friends?*
- *Eagles may soar, but weasels don't get sucked into jet engines.*
- *What happens if you get scared half to death twice?*
- *I used to have an open mind but my brains kept falling out.*
- *I couldn't repair your brakes, so I made your horn louder.*
- *Finally, why do psychics have to ask you for your name?*



From the Wardroom Base Commander's Message

Jim Denzien - Commander

Shipmates:

We are in the doldrums of our annual activities. Not a lot going on except trying to beat the heat. After we hit the first of September, we start getting busy again.

To date, we have over 27% of our membership that have voted in the National election. Time is getting short so if you intend to vote you should do it soon. The votes need to be in before the convention.

We have a few of our members on the binnacle list: Adrian Stuke, Joe Varese and now Chuck Emmett. Keep them all in your thoughts.

Our next meeting is on the 8th of September. Hope to see you there.

Fraternally,

Jim Denzien, Base Commander

Base Meeting Minutes August 2012 Meeting

The August meeting of Perch Base of the USSVI was called to order at 1200 hrs. by the Base Commander, Jim Denzien. The invocation was led by the Base chaplain, Walt Blomgren, followed by the Pledge of Allegiance. This was followed to the reading of the purpose of the organization and then the tolling of the bell for the boats lost during the month of August.

The Commander asked the assembled group if there were any new members or visitors at the meeting. There appeared to be none.

A motion was made and seconded to accept the minutes of the last meeting as published in the newsletter, the MidWatch. There were no objections and the motion was passed by voice vote.

The Treas.'s report was read by the Base Treas., Bob Warner. There was no discussion and a motion was made and seconded to approve the report. The motion was passed by voice vote.

Board of Directors Report

The Base Commander briefly discussed the events surrounding the capture of the Dolphins from Gudgeon Base. He also briefed the members on the presentation that will be given to the Naval Commandery group the end of September. This presentation will be the History of Submarines that has been prepared by Chuck Emmett.

The board had also discussed issues regarding the difficulties with voting and went into great length regarding sign covers for the float signs. These bag-like covers will themselves be signs and used while the float is in motion such as parades. Chuck Emmett has taken the lead for developing these sign covers.

Report from the Officers

None of the Base officers except the Chaplain had anything of operational significance to report. Walt Blomgren, the Chaplain, briefed the membership on those members on or on the sick list.

Old Business

There were no other items of old business.

New Business

The Commander reminded the members of the upcoming national convention and requested that if anyone was going he would like to know so that that individual could stand-in for the Base if needed for certain awards.

He also reminded the members that there are board vacancies either currently or upcoming, primarily the Secretary and the Chaplain. Both are seeking members to replace them in their duties as well as a reminder that his own, Base Command, term of office is over in March of next year and he cannot run for it again.

Good of the Order

The Commander informed the Base that the Navy is now issuing Meritorious Unit Citation to “Boomers” on both the East and West Coast. There was some discussion as to why this did not apply to older FBM's, especially during “hotter” periods of our history.

A special speaker/guest, Robert Flores was introduced to the group. Flores is a special assistant to the Arizona Secretary of State for military affairs and he briefed the Base of the guns project with single barrels from the USS Arizona and USS Missouri. There was a general discussion of related projects in which Mr. Flores could assist the Base.

50/50 Drawing

Chuck Emmett was the winner of the drawing.

Adjournment

A motion was made, seconded and approved by voice vote and — with a benediction by the Chaplain —the meeting was adjourned.



“Member Mogul” Membership Chairman’s Message

Rick Simmons - Membership

For all of you who knew about it, the USSVI database access problem is pretty much resolved through a lot of work by USSVI's Chief Information Officer Tim VeArd as well as several USSVI Officers and staff personnel. I regained access to the database on August 18th using greatly enhanced security measures and overall things are slowly returning to normal.

Access for the general membership to obtain new or change/retrieve existing passwords is still not available. Members can log in using existing passwords but if you don't remember it you are out of luck at this time. If you try and log in with an existing password and can't get in you can contact Fred Borgman in the USSVI Office at ussvi@telebyte.net for assistance.

Voting: Anyone who wants to cast a ballot in the current USSVI elections, but can't get into the USSVI system, can do so using the paper ballot in the back of the latest “American Submariner” and send it to USSVI per the instructions with the ballot.

On a more local note we would like to welcome Steve Leon as a new member. Steve qualified in 1992 on the USS Will Rogers SSBN 659. Steve retired as a FT1 (SS) and is still in the Fleet Reserve. Steve and his wife Beth reside in Phoenix. Welcome aboard Steve!

As always, if you have changed any of your contact information please let me know as soon as possible so I can update USSVI and our local databases.



September Base Birthdays



KIRBY ANDERSON	9/18
GARY BARTLETT	9/26
MICHAEL G. BENNETT	9/4
RON A. DUTCHER	9/12
HOWARD M. ENLOE	9/24
JOE ERRANTE	9/4
STEPHEN F. HOUGH	9/29
DARRELL LAMBERT	9/29
WILLAIM LUND	9/5
ALAN MILLER	9/4
DANIEL J. REEL	9/7
WAYNE KIRK SMITH	9/6
EUGENE B. VEEK	9/5
EDWARD J. WOLF	9/1



Need a Ride to a Base Meeting or Other Function?

Contact Base vice-Commander, [Howard Doyle \(602\) 228-2445](tel:6022282445) or any other Base Officer. All officers are listed near the front of every copy of the MidWatch.



"SAVE-OUR-SAIL" Update on Perch Base's Effort to Make the USS Phoenix (SS-702) Sail and Rudder a City Monument

Questions on Save-Our-Sail or to find out how you can help, contact one of our Project Co-Managers by clicking on their name:
Dan Moss
Layne Moss



Bethany Samaddar (our point of contact with the city) and Jim Burke (Director City Parks and Rec.) will be meeting on Monday, Aug. 27 to discuss our Memo of Understanding (MOU). We should have an answer/counter proposal within the week.



CHAPLAIN'S COLUMN

Base Chaplain - Walt Blomgren



SHIPMATES RUNNING ON LESS THAN A FULL BATTERY CHARGE

Although there have been no members departing on eternal patrol, we do have three members on the binnacle list. Joe "Wanderer" Varese, Adrian Stucke are facing serious challenges and should be in all our prayers. Chuck Emmett is doing a great and having a quick recovery from rotator cuff surgery.

Shipmates, if you have not already done so, print out the page immediately after this one and place it with your final instruction papers (i.e., will, power of attorney, living will, living trust, etc.) for your next of kin. Don't let them languish as to your Final Patrol desires.

**** IMPORTANT INSTRUCTIONS ****

Please PRINT THIS PAGE and attach this note to your will or final instructions.

In the case of my death, please immediately notify the **U.S. Submarine Veterans Inc., (USSVI)** at **877-542-3483** or **360-337-2978** and give the person on duty the information regarding my death, funeral, and burial arrangements, plus who they can contact for follow-up and support.

Please ask them to contact my local USSVI chapter, **Perch Base, Phoenix AZ** Chaplain at chaplain@perch-base.org or 602-309-4407 with this information as well.

This information can also be E-Mailed to the National Office at USSVI@telebyte.net.

Other Important Information:

Veterans Death and Burial Benefits

http://www1.va.gov/opa/publications/benefits_book/benefits_chap07.asp

Navy Burial at Sea Information

<http://usmilitary.about.com/cs/generalinfo/a/seaburial.htm>

Please PRINT THIS PAGE and attach this note to your will or final instructions.

**** IMPORTANT INSTRUCTIONS ****

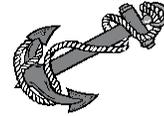
Eternal Patrol

September 28, 1943

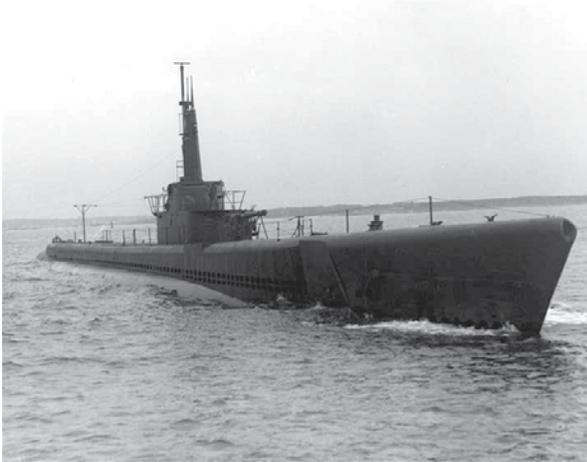
Editors Note: Less we forget, each month, one boat on eternal patrol will be highlighted in this newsletter. Sailors, rest your oars.

The Final Patrol

Lord, this departed shipmate with dolphins on his chest
Is part of an outfit known as the best.
Make him welcome and take him by the hand.
You'll find without a doubt he was the best in all the land.
So, heavenly Father add his name to the roll
Of our departed shipmates still on patrol
Let them know that we who survive
Will always keep their memories alive.



USS Cisco (SS-290) September 28, 1943 76 men lost



Balao-class Submarine
Displacement:
1,550 tons (surf), 2,424 (sub)
Length: 311' 10"; **Beam:** 27' 4"; **Draft:** 16' 10"
Propulsion:
4 × diesel engines driving electrical generators
2 × 126-cell Sargo batteries
4 × high-speed electric motors, two propellers
5,400 shp (surf), 2,740 shp (sub)
Speed: 20.25 kn (surf), 8.75 kn (sub)
Range: 11,000 nmi (surfaced at 10 kn)
Endurance:
48 hours at 2 kn (sub), 75 days on patrol
Test depth: 400 ft
Complement: 10 officers, 70-71 enlisted
Armament:
10 × 21" torpedo tubes
(six forward, four aft)
24 torpedoes
1 × 5-inch / 25 caliber deck gun
Bofors 40 mm and Oerlikon 20 mm cannon

From Wikipedia, the free encyclopedia

USS Cisco (SS-290), a Balao-class submarine, was the only ship of the United States Navy to be named for the cisco, a whitefish of the Great Lakes. Her keel was laid down by the Portsmouth Navy Yard in Kittery, Maine. She was launched on 24 December 1942 sponsored by Mrs. A. C. Bennett, through her proxy, Mrs. N. Robertson, and commissioned on 10 May 1943 with Commander James W. Coe in command.[5] She reported to the Pacific Fleet.

Cisco sailed from Panama 7 August 1943 for Brisbane, Australia, arriving 1 September to assume local patrol duties, until 18 September, when she docked at Darwin. She put out on her first war patrol 20 September, but never returned. Japanese records tell of sighting a submarine leaking oil on 28 September in an area where Cisco is known to have been the only submarine then operating. Japanese records state this submarine was sunk by bombs and depth charges. Cisco is thus presumed to have been lost in action 28 September 1943. The only survivor from the crew was Chief Radioman Howell B. Rice (USN ret.), who was taken sick in Darwin and sent ashore to the Navy hospital prior to Cisco's final voyage.

Japanese records state that the submarine was attacked by Type 97 "Kate" attack bombers of the 954 Naval Air Squadron and the riverboat Karatsu (originally a U.S. Navy gunboat, USS Luzon (PR-7), captured by Japanese



Mark 14 Torpedo

The United States Navy's Standard Submarine-Launched Torpedo of World War II



SPECIFICATIONS

Weight: 3,280 lb; **Length:** 20'6"; **Diameter:** 21"
Effective range: 4,500 yards at 46 knots, 9,000 yards at 31 knots
Warhead: Torpex; **Warhead weight:** 643 lb
Detonation Mechanism: Contact or Magnetic pistol
Engine: Wet-heater combustion/steam turbine with compressed air tank
Propellant: Methanol; **Speed:** 46 knots
Guidance System: Gyroscope
Service history: In service 1931–1980

This weapon was plagued with many problems which crippled its performance early in the war, and was supplemented by the Mark 18 electric torpedo in the last two years of the war. Nonetheless, the Mark 14 played a major role in the devastating blow US Navy submarines dealt to the Japanese naval and merchant marine forces during the Pacific War.

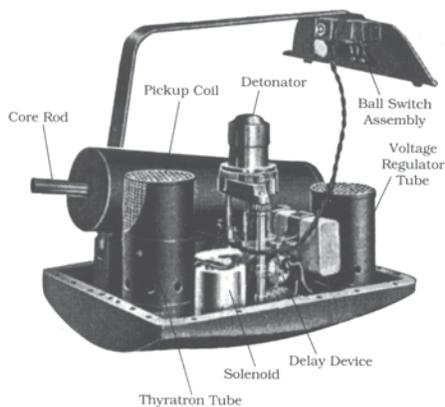
By the end of World War II, the Mark 14 torpedo was a reliable weapon which remained in service for almost 40 years in the US Navy, and even longer with other navies.

Development

The Mark 14 was designed in 1930 to serve in the new "fleet" submarines, replacing the Mark 10 which had been in service since World War I and was standard in the older S-boats. Although the same diameter, the Mark 14 was longer, at 20 ft 6 in (6.25 m), and therefore incompatible with older submarines' 15 ft 3 in torpedo tubes.

The Mark 14 was designed at the Newport Torpedo Station (NTS), Newport, beginning in 1922 under the direction of Lieutenant Ralph Waldo Christie. It had a fairly small warhead and was intended to explode beneath the keel where there was no armor. This required the sophisticated new Mark VI magnetic influence exploder, which was similar to the British Duplex and German models, all inspired by German magnetic mines of World War I. The Mark VI was intended to fire the warhead some distance below the ship, creating a huge gas bubble which would cause the keel to fail catastrophically.

The Mark VI exploder, designated Project G53 was developed "behind the tightest veil of secrecy the Navy had ever created." Small quantities were produced in extreme secrecy, and at a high cost of US\$10,000 per unit, by General Electric in Schenectady. The exploder was tested at the Newport lab and in a small field test aboard USS Raleigh. At Christie's urging, equatorial tests were later conducted with Indianapolis, which fired one hundred trial shots between 10°N and 10°S and collected 7000 readings. Inexplicably, no live fire trial was ever done. Chief of Naval Operations William V. Pratt offered the hulk of Cassin-class destroyer Ericsson, but prohibited the use of a live warhead, and insisted the Bureau of Ordnance (commonly called BuOrd) pay the cost of refloating her if she was hit in error. These were strange restrictions, as Ericsson was due to be scrapped. BuOrd declined. A service manual for the exploder "was written—but, for security reasons, not printed—and locked in a safe."



Mark VI magnetic exploder assembly: off-limits to service personnel until July, 1943

In 1923, Congress made NTS Newport the sole designer, developer, builder and tester of torpedoes in the United States. No independent or competing group was assigned to verify the results of Mark 14 tests. NTS produced only 1½ torpedoes a day in 1937, despite having three shifts of three thousand workers working around the clock. Production facilities were at capacity and there was no room

for expansion. Only two thousand submarine torpedoes were built by all three Navy factories in 1942. This exacerbated torpedo shortages; the Pacific Fleet Submarine Force had fired 1,442 torpedoes since war began.

Controversy

The Mark 14 was central to the torpedo scandal of the US Pacific Fleet Submarine Force during World War II. Due to inadequate Depression-era peacetime testing of this torpedo and its Mark VI exploder, it had defects that tended to mask each other. Indeed, much of the blame commonly attached to the Mark 14 correctly belongs to the Mark VI exploder. These defects, in the course of fully twenty months of war, were exposed, as torpedo after torpedo missed, prematurely exploded, or struck targets (sometimes with an audible clang) and failed to explode.

Responsibility lies with the BuOrd, which specified an unrealistically rigid magnetic exploder sensitivity setting and oversaw the feeble testing program. Additional responsibility must be assigned to the United States Congress, which cut critical funding to the Navy during the interwar years, and to NTS, which inadequately performed the very few tests made. BuOrd failed to assign a second naval facility for testing, and failed to give Newport adequate direction.

Early suspicions

On 24 December 1941, Commander Tyrell D. Jacobs in Sargo fired a total of eight torpedoes at two different ships, with no results, and had become very frustrated; when two additional merchantmen came in view, he took extra pains to get it right, pursuing for fifty-seven minutes and making certain TDC bearings matched perfectly before firing two torpedoes at each ship, at an average of 1,000 yd (910 m), very close range. All missed.

A few days after he discovered the torpedoes were running too deep, and corrected the problem, Jacobs detected a big, slow tanker. Again, his approach was meticulous, firing one torpedo at a close 1,200 yd (1,100 m). It missed. In exasperation, Jacobs signalled headquarters, questioning the Mark 14's reliability on an open radio circuit. In six attacks, he had fired thirteen torpedoes; all had failed to function correctly.

A similar experience was had by Pete Ferrall in Seadragon, who fired eight fish for only one hit, and began to suspect the Mark 14 was faulty.

Uniquely, Lieutenant Commander John A. Scott in Tunny on 9 April 1943 found himself in an ideal position to attack aircraft carriers Hiyo, Junyo, and Taiyo. From only 880 yd (800 m), he fired all ten tubes, hearing all four stern shots and three of the bow's six explode. No enemy carrier was seen to diminish its speed, though Taiyo was slightly damaged in the attack. Much later, intelligence reported each of the seven explosions had been premature; the torpedoes had run true but the magnetic feature had fired them too early.

Dan Daspit (in Tinoso) carefully documented his efforts to sink 19,000-ton whale factory ship Tonan Maru III on 24 July 1943. He fired four torpedoes from 4,000 yd (3,700 m); two hit, stopping the target dead in the water. Daspit immediately fired another two; these hit as well. With no enemy anti-submarine combatants in sight, Daspit then took time to carefully maneuver into a textbook firing position, 875 yd (800 m) square off the target's beam, where he fired nine more Mark 14s and observed all with his periscope (despite the Japanese firing at it). All were duds. Daspit, suspicious by now he was working with a faulty production run of Mark 14s, saved his last remaining torpedo to be analyzed by experts back at base. Nothing out of the ordinary was found.

At Pearl Harbor, despite nearly all his skippers' suspicions about the torpedoes, Admiral Thomas Withers refused to deactivate the Mark VI, arguing torpedo shortages stemming from inadequate production at NTS made it impossible. As a result, his men did it on their own, doctoring their patrol reports and overstating the size of ships to justify using more torpedoes. Only in May 1943, after the most famous skipper in the Sub Force, Dudley W. "Mush" Morton, turned in a dry patrol, did Admiral Charles A. Lockwood, Commander Submarine Force Pacific (COMSUBPAC), accept the Mark VI should be deactivated, but waited to see if Bureau of Ordnance commander Admiral William "Spike" Blandy might find a fix for the problem. The Bureau of Ordnance sent an expert to Surabaya to investigate, who actually sabotaged one of Sargo's trial torpedoes by turning the gyro backwards, causing it to run improperly. Though he found nothing wrong with maintenance or procedures, he submitted a report laying all the blame on the crew.

Problems

The Mark 14 had four major flaws.

1. It tended to run about 10 feet (3.0 m) deeper than set.
2. The magnetic exploder often caused premature firing.
3. The contact exploder often failed to fire the warhead.
4. It tended to run "circular", failing to straighten its run once set on its prescribed gyro-angle setting, and

instead, to run in a large circle, thus returning to strike the firing ship.

Flaw #1 - Running too deep

The torpedo tended to run some ten feet (3 meters) too deep for two reasons. The first was that it was never tested with the correct mass density in its warhead. A concrete dummy warhead was used to set the depth during development of the weapon. The dummy warhead was lighter than the wartime load. Additionally, the depth mechanism was designed prior to the warhead's charge being increased, making the torpedo heavier overall. Also, two depth testing devices used by NTS to verify results were both off by the same amount in the same direction, which compounded the problem. After hearing of the problem, most submarine skippers simply set their torpedoes running depth to zero, risking a broach. By August 1942, the faulty running depth situation was in hand and submarines were getting more hits with the Mark 14. Ironically, curing the deep-running problem caused more prematures and duds, now that hits were being achieved. The number of sinkings did not rise.

Flaw #2 - Premature explosions

Mark VI magnetic exploder assembly: off-limits to service personnel until July, 1943

Many submarine commanders in the first two years of the war reported explosions of the warhead with little to no damage of the enemy. The magnetic exploders were triggering prematurely, before getting close enough to the vessel to destroy it. Earth's magnetic field near NTS, where the trials (limited as they were) were conducted, differed from the areas where the fighting was taking place.

Flaw #3 - Duds

Early reports of torpedo action included some dud hits, heard as a dull clang. In a few instances, Mark 14s would strike a Japanese ship and lodge in its hull without exploding. The contact pistol appeared to be malfunctioning, though the conclusion was anything but clear until running depth and magnetic exploder problems were solved. Daspit's experience was exactly the sort of live-fire trial BuOrd had been prevented from doing in peacetime. It was now clear to all at Pearl Harbor the contact pistol was also defective.

Flaw #4 - Circulars

There were numerous reports of the Mark 14 running erratically and circling back on the firing boat. This sank at least one submarine, Tullibee, for certain. Likewise Sargo was almost sunk by a circular. The Mark 15 torpedo had collars to prevent circular runs, but the Mark 14 was never given this feature.

Solutions

Against orders, some submariners disabled the magnetic feature of the Mark VI, suspecting it was faulty. An increase in hits was reported. Shortly after replacing Wilkes in Fremantle, newly minted Rear Admiral Charles Lockwood ordered a historic net test at Frenchman Bay on 20 June 1942. Eight hundred torpedoes had already been fired in anger, more than a year's production from NTS.

Jim Coe's Skipjack did the honors, firing a single fish with an exercise head, set at 10 feet (3 m), from 850 yards (780 m). It hit the net at a depth of 25 ft (7.6 m). Not satisfied, James Fife, Jr. (formerly Chief of Staff to COMSUBAS John E. Wilkes, who Lockwood was replacing in Perth-Fremantle) followed up the next day with two more test shots; Fife concluded they ran an average 11 ft (3.4 m) deeper than the depth at which they were set. BuOrd was not amused. Neither was the CNO, Admiral Ernest J. King, who "lit a blowtorch under the Bureau of Ordnance". The fact that destroyers' Mark 15 torpedoes were suffering the same failures may have had something to do with it as well. On 1 August 1942, BuOrd finally conceded the Mark 14 ran deep, and six weeks later, "that its depth-control mechanism had been 'improperly designed and tested'". This satisfied Lockwood and Robert H. English (then COMSUBPAC), who refused to believe the Mark VI could also be defective.

Finally, in July 1943, Admiral Lockwood ordered his boats to deactivate the Mark VI magnetic influence exploder and use only its contact pistol.

Tests were carried out by COMSUBPAC's gunnery and torpedo officer, Art Taylor (ex-Haddock). Taylor, "Swede" Momsen, and others fired warshots from Muskallunge into the cliffs of Kahoolawe, beginning 31 August. Their third test shot was a dud. This revealed the firing pin had not been able to contact the detonator hard enough to fire the warhead.

To avoid "shaking hands with St. Peter" (as Lockwood put it), E.A. Johnson, USNR, supervised by Taylor, dropped dummy warheads filled with sand from a cherry picker raised to a height of 90 feet (27 m). In 7 out of 10 of these trials, firing mechanisms bent, jammed, and failed with the high inertia of a straight-on hit (the prewar ideal). A quick fix was to encourage "glancing" shots (which cut the number of duds in half), until a permanent solution could be

found. Lightweight aluminum alloy (from propellers of Japanese planes shot down during the attack on Pearl Harbor) was machined to take the place of the Mark VI's heavy pin block so inertial forces would be lower. Electrical switches, developed by Johnson, were tried as well. Both fixes worked and were relatively easy to implement. In September 1943, the first torpedoes with new contact pistols were sent to war. "After twenty-one months of war, the three major defects of the Mark 14 torpedo had at last been isolated. ... Each defect had been discovered and fixed in the field—always over the stubborn opposition of the Bureau of Ordnance."

Once remedied, sinkings of enemy ships rose noticeably. By the end of World War II the Mark 14 torpedo had become a much more reliable weapon. Lessons learned allowed surface ships such as destroyers to remedy the failings of the Mark 15; the two designs shared the same strengths and faults.

After the war, the best features of the improved Mark 14 were merged with the best features of captured German torpedoes to create the hydrogen peroxide-fueled Mark 16 with a pattern-running option. The Mark 16 became the standard United States post-war anti-shipping torpedo, despite the large remaining inventory of Mark 14 torpedoes.

Nomenclature

Official US Navy naming policy had settled on using Arabic instead of Roman numerals to designate torpedo models since the 1917 development of the Bliss-Leavitt Mark 4 torpedo.[45] However, many instances exist of the Mark 14 being referred to as the "Mark XIV" (Roman style) in official documentation and reports as well as accounts by historians and observers. This weapon was plagued with many problems which crippled its performance early in the war, and was supplemented by the Mark 18 electric torpedo in the last two years of the war. Nonetheless, the Mark 14 played a major role in the devastating blow US Navy submarines dealt to the Japanese naval and merchant marine forces during the Pacific War.

By the end of World War II, the Mark 14 torpedo was a reliable weapon which remained in service for almost 40 years in the US Navy, and even longer with other navies.



Two Mark 14 torpedoes stored in the after torpedo room of the museum ship USS Pampanito



Return To:

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<http://www.perch-base.org>

Next Meeting
Saturday, September 8, 2012
12 noon, 11 a.m. (no host bar)
Dillon's at Arrowhead
59th Ave just north of Loop 101

