

Arizona Sub Vets Perch Base



Midwatch

September 2000
Volume 6 - Issue 9

Arizona Sub Vets, Perch Base Officers

Base Commander & Chaplain
Roger J. Cousin
13754 W. Via Montoya
Sun City West, AZ 85375-2053
623-546-9980
Fax: 623-546-1152
rlcousin@aol.com

Base Vice Commander
Donald Wannamaker
17827 N. Conestoga Drive
Sun City, Arizona 85373
623-875-0545
DWannamake@aol.com

Base Secretary
Co-Chairs
Carl Scott & Jim Strassels
6955 E. Monte Ave.
Mesa, AZ 85208
480-654-1856
CScott6955@aol.com

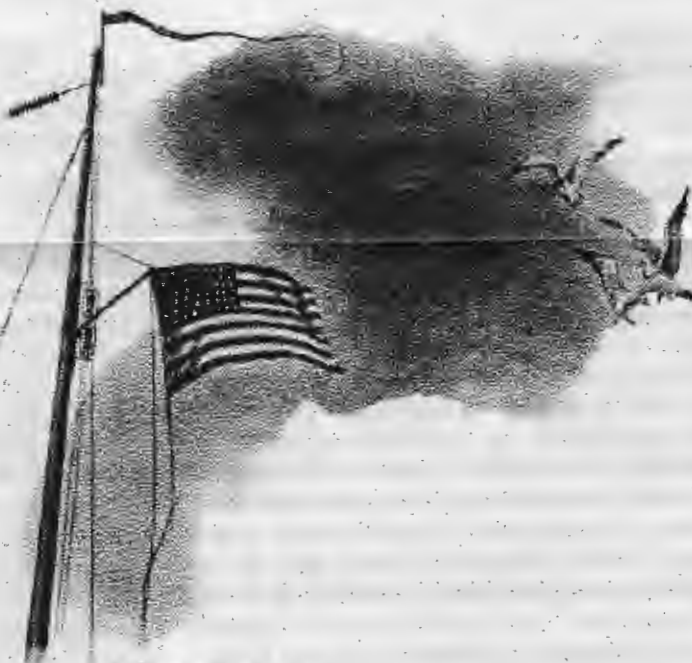
Base Treasurer
Memorial Committee Chair
Robert E. May
1902 E. Karen Dr.
Phoenix, AZ 85022
602-867-1445

Membership Committee Chair
Gary "Pat" Patterson
1399 Kelly Drive
Prescott, AZ 86305
520-445-1249
twodogs99@msn.com

Base Storekeeper
Dave Harnish
6509 W. Denoshire
Phoenix, AZ 85053
623-846-9245
broadcastreports@inficad.com

Public Relations Chair
John Redding
13031 South 44th Way
Phoenix, AZ 85044
602-893-0136
Fax 602-893-6744
markcomm@worldnet.att.net

Newsletter Editor
John Wilson
PO Box 31056
Flagstaff, AZ 86003
520-773-4946
flood_negative@usa.net



September Eternal Patrol Days

S5 (SS110)	01 Sep 1920	0 men lost
USS GRAYLING (SS209)	09 Sep 1943	76 men lost
S-19 (SS124)	11 Sep 1938	0 men lost
S-51 (SS162)	25 Sep 1925	34 men lost
USS CISCO (SS290)	28 Sep 1943	76 men lost

Let Us Not Forget Those Still On Patrol

September's Meeting will be held on September 11th, at the American Legion Post# 29, in Glendale

From the Ward Room:



Well, here it is September and within a few weeks the heat of the summer will become a memory and the pleasant days of autumn will be upon us. And along with it, all the excuses for not attending our monthly meetings will have evaporated with it. Just think, the kids are back in school and our vacation time will have followed them. Oh my God, now I have to attend those meetings again. Well, of course, you really don't have to. It sure would be nice if you at least made the effort to attend a few. Honestly, we do miss not seeing new and old faces. Please try to make the effort.

Immediately after September's meeting, there will be a part one showing of *DAS BOOT*, in English, on our TV. This is one of the best submarine movies ever made and gives an excellent account of what life was like aboard a U-boat during WW2. Why not plan to stick around. Subsequent parts are planned to be shown following other meetings depending on how it is received by the membership this time around.

Chaplain's Corner:

I realize that you are accustomed to seeing this column further back in the issue, but this is a special situation and geared toward a special human being...shipmate and close friend of mine and Perch Base, **Luis Tejera. Lou** passed away on August 3rd of acute respiratory failure. He will be sorely missed by all who knew him. Lou was an all-giving person who wanted so very little in return. His main reason for living seemed to be his family, his friends, his cats, being a Submariner, and Perch Base.

Born in New York in 1929, **Lou** joined the Navy at age 17 in 1946, in time to receive the World War II medal. After sub-school, he qualified on the **USS RONQUIL (SS396)** and was discharged as a Fireman in June 1949. He then joined the Navy Submarine Reserve at Brooklyn Navy Yard and was called back into active service in March 1951 during the Korean War. He re-qualified aboard the **USS SEA OWL (SS405)** attaining the rate of Engineman 3rd and finished his military service aboard the **USS IREX (SS482)** in August 1952. I believe **Lou** finally left the service as a Second Class Engineman.

In his civilian life **Lou** was an engineer at Republic Aviation on Long Island, working on such aircraft as the F-105 Thunderchief and the A-10 Hedgehog. Upon his retirement, **Lou** moved to Sun City, Arizona to be close to his son, Rick. He was extremely active in Perch Base and also was an Associate Member of the Arizona WWII Pigboaters. As funds were needed for our organization, **Lou** was always the first to come forward with fund-raisers and with his own dollars. Even just before his death, **Lou** donated a painting and book for the fund-raiser lottery for needy military personnel.

Lou was laid to rest with full military honors on August 10th at the Arizona National Memorial Cemetery in North Phoenix. **Wives** of some of our SUBVETS were

present and a special thanks to them. The pall bearers were **Dave Harnish, John Redding, Frank Rumbaugh, Carl Scott, Glenn Herold, Royce Pettit, Don Wannamaker** and, **Roger Cousin**.

I received the following letter of appreciation from Lou's son, Rick:

"Susan and I would like to express our thanks to all of my father's shipmates in Perch Base for the camaraderie and friendship you have all shown him. He was very proud of his service (as was I) and treasured his memories. His association with Perch Base was one of his favorite activities since he moved to Arizona. He would have asked no greater honor than having his shipmates carry him to his final rest. We honor your friendship and service and are very proud my father served with you. Your condolences have been of great comfort to us during this difficult time. You are in our prayers. Please keep him in your prayers and remember him fondly. May God bless and keep you all.

Rick, Susan & Lindsay Tejera"

I wish this were the only bad news this month. However, it's not. **Gary Patterson** is still fighting lung cancer and is undergoing almost daily testing and chemotherapy. This is really taking its toll on him, although he tries to maintain an "up" attitude throughout. Shipmate **Bobby Moore** is still fighting his cancer problems as well. He has lung cancer, which they are treating with chemo; and he also has brain tumors, which they're treating with radiation. Thanks to **Tom Foose**, who visits Bobby frequently, Bob is maintaining a positive attitude. **Joe Benard**, one of our National Life Members, and Chaplain of the WWII's, is having his own battles with prostate cancer and is also going through therapy. **Gayle Loftus**, wife of shipmate "**Bubba**" Loftus, is fighting her battles as well. She has had bouts with kidney stones and now has also contracted lung cancer. **Gayle's** attitude, as usual, is always "feisty" and refuses to give in to it. My prayers are with all these friends and a card from our members could sure help. **Gary Patterson's** address can be found on the front cover. **Bobby Moore's** is 4601 North 75th Lane, Phoenix, AZ 85033. **Joe Bernard's** address is 14010 N. 47th Avenue, Glendale, AZ 85306-4904. **Gayle's** is 7611 North 46th Avenue, Glendale, AZ 85301. Should there be any other members, or their wives that are experiencing health problems at this time, please notify me. A whole bunch of prayers and a greeting card can't hurt.

And now I would like to give my final thoughts for those of our comrades in arms who died aboard the Russian Submarine KURSK a couple of weeks ago. For years we have been enemies, prowling beneath the sea . . . always vigilant . . . always searching . . . and always aware of one another. And now we, the Submariners past and present of the United States Navy, mourn your loss as one of our very elite and close brothers.

*God Rest Your Souls.
Sailors Rest Your Oars.*

Welcome Aboard, New Members:

We can't bounce these men off the tanks and into the water for their initiation but we can list their names and welcome them aboard Perch Base.

Harry Ellis CDR(SS) Qualified on **USS Sea Devil (SS400)** in 1953.

Roger M. Miller EM1(SS) Qualified on **USS Daniel Boone SSBN627** in 1974

Douglas M. LaRock IC1(SS) Qualified on **USS Ethan Allen SSBN608** in 1962

Garry L. Shumann Associate Member

Thanks also go to sponsor's **Glenn Herold** and **Roger Cousin** for making our Base sound interesting enough to bring these gentlemen aboard.

"Hand Salute Two."

Meeting Place & Directions:

September's Meeting will be held on September 11th, at the American Legion Post# 29, 6822 No. 58th Ave., Glendale, one block south of Glendale Ave. Take I-17 to Glendale Ave. - west to 58th Ave., south 1 block. Legion is on the left. Park in lot behind Post. For West Valley, take Glendale Ave. and follow rest of the directions. Building is the one on the west side of the parking lot. Lunch served between 12:00 and 13:00 at nominal cost. Beer and soda will be available throughout the meeting.

Perch Base Lottery (Last Call):

As you all know, there was an insert in July's Midwatch with lottery tickets attached. Shipmate **Luis Tejera**, before passing away, donated a color, limited edition print of a fleet type submarine while underway on the surface. This painting is already matted, ready for framing and is signed by the artist, CDR Pete Bucher, former XO of **Lou's** boat, the **USS RONQUIL (SS396)**, and later Captain of the famous Pueblo. **Lou** has made this print plus a copy of the 577 page book, "Submarine Operations in World War II" available to Perch members through a raffle which will be drawn at the September meeting. Winner need not be present to win. If you wish to participate in **Lou's** drawing, as a tribute to him, merely fill out the information on the ticket stubs that were provided. Each ticket costs \$2.00 or 3 for \$5.00. Retain your half and send your check, payable to "Perch Base USSVI" to Roger Cousin, 13754 Via Montoya, Sun City West, AZ 85375-2053. Up to the present time, this lottery has not taken off as **Lou** had hoped. There have been very few entries, and all proceeds will go to either a destitute submariner or to a fund set up at Luke Air Force Base to benefit active AF military personnel

stationed there who do not have the means to give their families a holiday celebration. Remarkably, many active service personnel that face this situation. Please guys, get behind this one. Show your support for one of **Lou's** pet projects. Should you decide that you do not wish to support a lottery, but wish to support its cause, I will be accepting checks on behalf of this noble and worthwhile charitable fundraiser. If you wish additional tickets, contact me. Send your contribution in whatever amount you can possibly afford.

New 2001 Calendars Available:

The new 2001 Arizona Perch Base Submarine Calendar is now available through our Vice Commander, **Don Wannamaker** (address on front cover). In my opinion, it's even better than last year's - if that's possible. Don has come up with a fine mix of various submarine photos including Fleet, Guppy, and Nuke, which will spike everyone's imagination. Great for Holiday gift giving and priced to sell. Price is \$8.00 each plus \$2.00 each for postage. For 10 or more, \$7.00 each plus \$6.00 total for postage. Make checks payable to "Arizona Perch Base" and send to **Don Wannamaker**.

Lost Boats and Crews for September:

S-5 (SS110) Launched November 11, 1917, Sunk September 1, 1920 0 men lost.

World War I had an enormous effect upon American thinking with regard to submarines. Prior to the war, the undersea boats had been regarded as good only for harbor defense. As can readily be understood, whatever practice their crew underwent was conducted without any relation to the rest of the US Fleet. They were actually looked down upon by fleet sailors. But the war gave the submarine the chance to show what it could do. The change in status was demonstrated in the winter following the end of WWI, when the **O-Class** boats joined fleet maneuvers at Guantánamo. During the maneuvers the submarines justified their prestige by making several successful approaches on American battleships and torpedoing them. The battleships, aware of the exercise, never picked them up. Two years too late to be much of a factor in the victory over Germany, the United States Navy, by 1920, possessed 98 submarines with 50 far-more-modern models on the ways. America's underwater Navy, however, was to make headlines in the next 20 years not because of exploits in offense or defense nor in bold voyages of discovery. These were the decades of harrowing disaster. Woodrow Wilson was still President. On Thursday, September 1, 1920, **S-5**, a 231-foot submarine failed to return after a practice dive off the Delaware coast. Her bow was fast in the muddy sea bottom, 170 feet deep, while her stern and propeller barely broke the surface.

The **S-5's** commanding officer, realized that an intake valve had failed to close. But determining the cause was of small consolation. Chlorine gas, from the chemical reaction of seawater over the storage batteries,

was polluting the air. The water level in all habitable compartments was cold and rapidly rising. The men appeared doomed. Electric drills were used in a desperate attempt to make an escape through the aft compartment by drilling cluster holes only fractions of inches apart, through the hull, so that, with grinders and sledge hammers they could possibly break themselves through to the outside and to freedom. Their heroism was magnified by the added terror of salt water conducting electricity through the men's bodies by the electric tools. But they worked on, using grinders, hammers and chisels to supplement the small-diameter drills.

Soon, their efforts were being duplicated from outside the hull by rescuers. The Captain also improvised a distress signal consisting of a pole and a shirt, which had attracted the attention of the steamer *Alanthus*. This ship made a line fast to the stern of **S-5** and commenced pumping air into the hull. About the same time, the Army transport *Goethals* arrived at the scene. A handful of her crew, sitting in a lifeboat, worked without cessation for eight hours with hand drills to help the trapped sailors cut their way out. I felt repaid for my effort, one recalled, when I saw the men emerge one by one from what might have proved to be their tomb. Many of the men looked gaunt and ashen with blood-shot eyes and swollen lips. Yet they cried, smilingly, and hugged us one at a time. Not a life was lost. Later the **S-5**, taken in tow by the battleship *USS Ohio*, broke her hawser and sank beyond hope of salvage. The cause of her original mishap was never determined.

USS GRAYLING (SS-209) Launched 4 September, 1940
Sunk September 9, 1943. 76 men lost.

The Japanese imperial Navy lost Submarine I-182 on September 9, 1943. On the same day a US Submarine was seen in the area by a Japanese cargo-man who reported fighting a submarine action in the Philippine Area. More than likely, it was the **USS GRAYLING** on her 8th patrol, who was ordered to patrol the approaches to Manila on that day, that sank the Jap sub. On August 19th she reported damaging a 6,000 ton freighter near Balikpapan. A few days later, in the Sibutu Passage, she sank a tanker by gunfire, taking one survivor as prisoner. On August 23rd she completed her special mission off Panay, by delivering supplies to local guerrillas. She left Panay on the 25th and was on station September 3rd. Her last message was received on the 8th. She was not heard from again. At war's end, Japanese records revealed the sinking of a 5,480 ton passenger-cargo ship by an American submarine in the Tablas Strait area on August 27th. **USS GRAYLING** was due in the area at that time, and it seems likely, she sank that ship.

Apparently, **GRAYLING** herself went down some time between the 9th and 12th of September. Commander Task Force Seventy-One requested a transmission from her on the 12th. There was no answer.

S-51 (SS-162) Launched August 20, 1921 sunk September 25, 1925 46 men lost.

S-51 was cruising on the surface of Long Island Sound, 15 miles east of Block Island the night of September 25, 1925. There had been modifications made to her since her launching in 1921, including the latest in sound-gear, to make her one of the most modern submarines in the world. Her two 250-horsepower engines would supposedly allow **S-51** to dive at speeds of 20 knots. She also carried 14 torpedos. At 10:24 p.m., under clear skies, the lookout on the *City of Rome*, a 3,000 ton steamship, suddenly screamed out, Vessel dead ahead! It appeared to the *Rome's* Captain, that she just came out of the black sea, no lights showing. He ordered *Rome's* engines back full and the helm swung hard over. But it was too late. Her bow, in seconds, ground into the submarine, smashing her port side between the conning tower and stern. The Captain of the stricken sub raced to the bridge as the boat reeled under the blow, shouting, For God's sake throw us a line! The *City of Rome* had too much headway. By the time she had come to a full stop and launched a lifeboat, only three members of **S-51's** crew could be found, struggling in the darkened water. One of the survivors, still shivering, thought many others had escaped, but a search failed to locate them. The salvage tug *Falcon* soon arrived on the scene, but rescue attempts were abandoned in the face of a mounting northeast gale. Besides, no one really knew how to salvage a submarine in deep water. It was one thing to put a tow line to a boat that was half-protruding from the sea, like the **S-5**, but quite another to raise one from a 132 foot depth while flooded.

In the spring of 1926, the Navy set out to learn how to raise a submarine. Although 34 lives had been lost in her sinking, the **S-51** became an invaluable model on which to practice salvage operations, which as yet were imperfectly developed. Ultimately, divers attached huge chains and air hoses to her hull. The water inside her was pumped out by compressed air until she possessed enough buoyancy to allow her to float to the surface.

She was then towed in to Brooklyn Navy Yard, flying a flag at half-mast from her conning tower. It was the culmination of this feat of salvage that was attested to by silent crowds which lined the East River to watch her passage to the yard. There, when she was opened, 18 bodies lay helter skelter throughout the boat. The crewman who felt that others had escaped was correct. They had all drowned. In September of that year a US Inspection Board decided that the navigation of both the **S-51** and the *City of Rome* was to blame for the collision. The Navy Board of Inquiry, on the other hand, declared that the **S-51** had the right of way, and the steamer had not followed nautical rules of the road. In any event Captain Diehl of the *City of Rome* was ultimately cleared. But it did not much matter any more whose fault it was. Thirty-four submariners were dead. **S-19 (SS-124)** Launched June 21, 1920 Destroyed

September 1938 0 men lost.

Little information exists about this boat and why it was destroyed.

USS CISCO (SS-290) Launched December 24, 1942
sunk September 28, 1943 78 men lost.

Japan did not remain impervious to the increasing submarine activity in the Philippine waters and the adjacent South China Sea. Guerrilla endeavors and shipping losses in these areas were countered by tightened coastal patrols and ASW operations.

On September 28, patrolling Japanese aircraft spotted an oil slick west of Minanao. Submarine with leaking fuel tanks! The plane relayed to A/S surface craft and roared down on the attack with the Jap ships joining in the carnage. The Japanese A/S attack was persistent and deadly. Surface vessels joined the planes in the bombarding and the spot where the submarine lay was watched for twelve days. So was lost the **USS CISCO** with all hands, under LT J. W. Coe. There is little doubt about the submarine's identity. On September 18th 1943, heading out from Darwin, Australia on her first war patrol, **USS CISCO** returned to Darwin, reporting trouble with her hydraulic system. Repairs were made that night and she left again the following morning. Ominously enough, as **USS CISCO** made her second departure, a Japanese plane was reported over Darwin at 20,000 feet. The aircraft may have been more than an omen. Undoubtedly, it spotted the submarine and advised other Japanese planes in the area of **USS CISCO's** westerly course. Nothing was heard of **USS CISCO** after she left Port Darwin. On September 28, the day the Japanese onslaught on an oil-leaking submarine was taking place, **USS CISCO** was due to be patrolling that area. No other US submarine was scheduled in those waters at that time. In the submarine forces, "Red" Coe was one of the ablest and keenest submarine commanders of the war. As the captain of **S-39** and skipper of **USS SKIPJACK**, Coe personified the type of leader needed when the going was worst in the undersea war. The submarine war was moving west. **USS GRAYLING** and **USS CISCO** had been in the vanguard of a drive that was to break the Japanese grip on Singapore and the Philippines.

Cookbook Award:

I am pleased to announce that seven (7) of our *Dishes From the Deep Cookbook* recipes have been chosen by the Quail Ridge Press to appear in their upcoming book, *"Best of the Best From Arizona"*, which will be on sale early this fall. All the recipes selected were the products of one submariner and four of our former Perch Base Women's Auxiliary:

- (1) by **Maddie Braastad** (Peanut Butter Pie)
- (2) by **Muriel Grieves** (Pork Chop Skillet Dinner and Self Filled Cupcakes)
- (3) by **Frank Rumbaugh** (Frito Pie)

(4) by **Lee Cousin** (Stuffed Mushrooms, Cheesy Potato Sticks and Broccoli Puff)

"Thank you Master Chefs . . . you've made the "big time"."

Besides these winners, Perch Base also receives the honor of having its cookbook listed in the "Contributing Cookbook" category within the publication, with the following plug: *Dishes From the Deep* by Arizona Perch Base Submarine Veterans. The Submarine Veterans of Arizona Perch Base have come up with a unique 140 page cookbook entitled *Dishes from the Deep*. All of the recipes come directly from the submarine veterans or their wives who have been preparing them for years (including the famous "SOS"). The majority of these recipes are quick and easy. We believe that all those who purchase it will find it most interesting and delicious. The cost is \$7.00 per issue plus \$3.00 postage & handling Please make checks payable to "Arizona Perch Base". Hopefully this notoriety will rattle some branches and generate some new sales.

At this time, on behalf of Perch Base, I wish to thank all those ladies who worked so hard to make this book possible. Especially, **Gayle Loftus**, **Judy Patterson** and **Shannon Thomason**.

P.S. You SUBVETS out there can save some money by ordering your cookbook directly from the Perch Base Storekeeper, **Dave Harnish**. (Info on front cover). They make great house gifts and are wonderful for Holiday gift-giving.

Perch Base Calendar of Events for 2000:

- | | |
|--------|--|
| 11 Sep | Meeting @ American Legion, Glendale, 1300 |
| 14 Oct | Meeting @ American Legion, Glendale, 1300 |
| 11 Nov | Meeting @ American Legion, Glendale, 1300
(Veteran's Day) |
| ? Dec | Perch Base Christmas/Hanukkah
Date and location TBD. |

Things I've Always Pondered:

If one synchronized swimmer drowns, do the rest have to drown too?

FACT: Married submariners live longer than single submariners. But, married submariners are a lot more willing to go.

Here's a topic that I don't believe was broached by too many Bases over the years. I hope you find it as interesting as I did in bringing it to you.

Believe it or not, the Italian Navy was the first in the field with midget submarines in 1912, with two 18-foot boats designed for defense of Venice. Little more was heard of midgets until the mid-1930's, when the Japanese started to build them with eyes toward using them as offensive weapons. The result was their Series "A" boats, 78-foot battery driven crafts armed with two 18 inch diameter torpedoes. They were designed to be carried by seaplane tenders and submarines and were designed for penetration of

enemy harbors, especially Pearl. Although Midgets were not deemed very successful by the Americans, on the overall attack on Pearl Harbor, and while it has been told by Naval Officials that none actually entered the harbor, which is untrue, the information they radioed back to the attacking fleet proved very useful to the Japanese air offensive.

In May of 1942, the Jap midgets had greater success; two were launched from Japanese submarines off Madagascar sinking both a British battleship and a tanker. More midgets of the Type "A" and improved "B" and "C" were later built for Japan's harbor and coastal defense. It is argued in some circles that it may have been these submersibles that actually sank some American submarines in harbors around Japan rather than mines, which have been credited. It is also believed by some that other maritime and naval vessels were likewise victims of these midgets and not mines as customarily thought.

By 1944 the growing realization that the Empire of the Rising Sun was coming closer to defeat led to the construction of a new series, the type "D" or Koryee class. A total of 540 were planned, but by 1945, only 115 were in the fleet. As a counterpart to the Kamikaze tactics used by the Japanese Air Force, the Imperial Navy produced the Kaiten Class, basically the body of their Type 93, 24-inch diameter torpedo adapted for one-man control. This little baby could travel 26,000 yards at 30 knots, or as much as 85,000 yards at 12 knots, and had a massive 1-1/2 ton warhead. Later models used a hydrogen peroxide motor, developed and used by and in some German submarines in place of the gasoline/oxygen motor, giving the suicide weapon a speed in excess of 40 knots.

Another type was the Kairyu class which were similar to the Type "A" and carried torpedoes slung underneath the hull. Over 200 of these little pranksters were built and used by the Imperial Navy. The Italians also revived the midget submarines just before "the" war. Their most noteworthy achievement was the "Maiale" Type or "pig", a small midget, which had two straddle-positions for its two main crew. Although known as a "human torpedo", it bore no resemblance to the Japanese Kaiten, it merely looked like a torpedo and the warhead had to be detached by the submarines and clamped to an enemy ship's hull. In 1941, three of these little critters from the submarine Scire succeeded in penetrating Alexandria harbor in Egypt and sunk the British battleships Queen Elizabeth and Valiant. Other successes were also scored by these Italian "pigs" against shipping in and around Gibraltar.

In another elaborate undercover operation the Italian crews operated from the tanker OLTERRA in neutral ALGERIA harbor and attacked unsuspecting Allied shipping as they were leaving or entering the harbor. In a twist of fate, after Italy negotiated an armistice with the Allies in September 1943, several Italian warships fell into German hands and Italian

midget crews were used by the Allies to sink the cruisers GORIZIA and BOLZANO in LA SPEZIA in June 1944. That exploit led to the British Admiral pinning a decoration on the Italian officers who had led the attack.

After the Italian success in Alexandria in 1941, the British who showed no interest in midgets before, started production. All met with limited success. They even decided to build a straight copy of the Italian 2 man "pig", code-named "Chariot". A one-man midget was also designed called the "Welman Craft", leave it to the British to come up with such a purist name. This "craft" was designed to attach its 560-pound charge to the target using magnetic clamps (like the Limpet mine). The Welman was battery-driven, and was capable of being towed by torpedo boats, whereas the Chariots were transported in a tube like cylinder welded to the casing of a submarine, as in the Italian submarines Scire and Gondar. The larger British designed midgets were known as Xcraft. These differed from all other navys' midgets in not using torpedoes. Instead they were fitted with 2-ton side charges which were faired into the saddle tanks. Once under the target, the Xcraft could release the charges internally and merely drop them on the floor of the harbor. With the charges of such weight, there was no need for them to be exploded in contact with the hull to inflict serious damage. Not really all that different than the impact of a depth charge on a submarine. An enlarged version known as the XE series was built by the Brits later for pacific operations with air conditioning and other features to improve habitability. I'm sure a bottle of rum was also one of those improvements.

Chariots were used from late 1942 in a daring attempt to cripple the German battleship Tirpitz, which was hiding in a fjord north of Trondheim. A Norwegian trawler managed to tow two Chariots past the German outposts but a sudden squall made them unmanageable and they had to be abandoned. In September of 1943, six X-craft were used to attack the Tirpitz and the Scharnhorst in Kaafjord. One had to be scuttled on the way to Norway, a second one dove, but was never heard from again. The remaining four left their towing submarines to begin the 50 mile voyage through high-seas, minefields, and nets. One had to abandon the attack when only six miles from an anchored enemy battleship, leaving three to make the final attack. Two laid their charges underneath the giant hull of the Tirpitz before being scuttled by their crews; both were damaged and had no chance of escaping. When the charges went off, the Tirpitz was so heavily damaged that she was no longer seaworthy. The last Chariot planted her charges under a cruiser and is assumed to have been lost during the explosion. All during the war British Welman craft were active attacking shipping in Bergen and elsewhere but with limited success. The Chariots, however, met with greater success but both crewmen suffered from the extremely cold temperatures experienced in northern Atlantic waters, whereas the X-craft, although uncomfortable, afforded

reasonable protection to their crews. In April 1944 one of these was towed by a submarine to Bergen, where the midget attacked a floating dock and a transport. Both were sunk.

Chariots were also successfully employed in the Med. In January 1943 five penetrated Palermo harbor in Sicily, sinking a transport and a cruiser at their moorings. And in the Far East in 1945 Chariots sank a transport in Thailand and the Japanese heavy cruiser Takao in Singapore. Also in 1945, two Chariots hugged the ocean floor off Hong Kong, Singapore, and Saigon, cutting all telegraph and telephone cables between the cities.

The German Navy started work on midget submarines named K-boats as a countermeasure against invasion. As such, they were more effective than the Japanese midgets. There were several types. The Neger was a one-man torpedo with a torpedo slung underneath, which ran awash with the operator in an open cockpit. About 200 were built and later models had a Plexiglas dome over the cockpit. The Marder was similar, but could run submerged. Neger claimed two British patrol vessels off Anzio and a destroyer off Normandy, while Marders are credited with sinking a cruiser, four landing craft, and four mine sweepers off Normandy beaches. About 300 BIBER one man midgets were also built and saw service. These were 29 feet long and armed with two underslung torpedoes. They could be carried on deck by U-Boats and are "credited" with sinking 95,000 tons of shipping in the closing four months of the war.

The most successful German midgets were those of the Type XXVIIB, SEEHUND Class, which were developed from a previous model. These were 39 feet long, propelled by a single-shaft diesel/electric power plant, and had an operational radius of 500 miles at 7 knots. A swiveling rudder made these midgets extremely maneuverable and it was found that depth-charge attacks tended to throw them violently aside without sinking them . . . an experience which must have been extremely unpleasant for the two man crew. SEEHUNDS sank a number of British ships in the Thames River in early 1945 and are credited with destroying a number of transports between England and France. After the War they served in both the French and Soviet Navies. You can read more on *"Those One and Two Man Subs"*, by Bill Hagendom; Kangaroo Express.

Everyone knows that those Japanese subs that attacked shipping on December 7, 1941, were a waste of lives and money, right? Wrong! Those little subs were of immense value and their crews were superbly supplied with reconnaissance and intelligence reports about their targets. Shortly after midnight on December 6 all five subs were in position eight miles from the entrance of Pearl Harbor. The men of the parent submarines realized that they would probably never see these men again even

though they were not on a suicide mission, but their chances of survival were small. Every man had made out his will and left small parcels of hair-cuttings and nail-clippings, which were left for their relatives in case of their not returning.

What happened to the five midgets is unclear. Three were definitely attacked and sunk by USN but the fates of the other two are unknown. It was difficult to assess just what took place given the pandemonium that the air attacks were causing and it's best to conclude from what was found after the war. Weeks later a midget sub was raised and it had a 5-inch hole in the conning tower plus a deep gash inflicted by ramming by the USS Monaghan. The sub was buried in the foundation of a breakwater then under construction. A sleeve of a uniform jacket, laced in Japanese fashion for a Lieutenant's rank was recovered from the water. As the only officer of that rank of the attack group, it could have only belonged to Naoji Iwasa. His submarine successfully entered the anchorage and attacked the USS St. Louis. It was sunk by the USS Blue. The sleeve was returned to Japan in 1947 and is now at the Yasukuni Shrine. Fifteen years later divers found a fourth midget inside of Honolulu Harbor and still in good condition even though it was covered with marine growth. There was even power left in the sub's batteries but no sign of the crew. The hatch was open which would suggest that the sub had been abandoned and the crewmen probably were swept out to sea or committed suicide; an honorable act in the Japanese culture. That sub was also returned to Japan and is preserved at the Naval Academy at Etajima. Thus one of the five was sunk by the USS WARD and two had succeeded in entering the harbor, but both were sunk. The fourth was found off Honolulu but what of the fifth? After departing the parent sub, the midget had serious mechanical trouble and became unstable. The two men kept shifting ballast receiving electric shocks from the batteries along with chlorine gas. Both crewmembers became unconscious and drifted out to sea, but by nightfall the sub beached itself. There was nothing that the crew could do but scuttle the sub and abandon it. One of the crew was swept out to sea and drowned, while the other had the dubious distinction of becoming the first Japanese Prisoner of War.

Japanese postcards were later printed showing the nine submariners around a view of Pearl Harbor, but the unfortunate one taken prisoner was deemed not to have ever existed. Each of the dead was rewarded with a 2-rank promotion and dignified with the status of war-gods. So why were they successful? Actually they were the birth of a legend. Every Navy now has high regard for the midget subs and each guards it's own as top secret. One of the greatest fears today is the midget sub and their ability to enter a harbor, deposit a lethal atomic bomb, and escape undetected.

The Japanese were very successful with their midget submarines, even if the American Navy at the time refused to acknowledge their effect. Midget attacks

took place throughout the Pacific along many of the shipping lanes as well as harbors in and around the Aleutians and Australia. It was not until 1950 however, that the US Navy showed any interest in their own midget submarines. They had shown a brief interest after the successful attack by the X-craft but the innate conservatism of the US Naval establishment is the main reason that more attention was not given these craft. The attitude was that America did not have to resort to weapons of a weaker nation to achieve its aims.

The threat posed by the Soviet Navy was what pushed the Americans into midget submarine development. The Soviets had captured a number of German and Italian craft and by 1949 were incorporating these subs in their fleet exercises. With the development of nuclear weapons and the threat of a swarm of midgets attacking the US fleet at its bases, America was finally waking up. Previously, the defense of the harbors of America wasn't considered as needed as it was during the world war. Now these subs could be used to test the security as well as devise new ways to enter and attack any enemy harbors. The post-1945 years have seen a proliferation of midget subs and many countries possess and operate them. Many have the "teardrop" design hull with hydroplanes fitted into a small conning tower and a single propeller in the stern. They are now coated with a substance which significantly reduces radiated noise. Automation enables the boat to be handled by only one man but up to 16 people can be embarked. Some have an air-independent propulsion system with oxygen stored in the pressure hull for an anaerobic diesel. This system gives a submerged endurance (without snorkeling) of 14-days. An unbelievable number of weapons can be carried that include torpedoes, mines and swimmers that can be discharged without surfacing.

Pakistani midgets are probably the most capable midgets in service anywhere in the world today; and this is scary. They carry wire-guided torpedoes with a range of 12 Km at 35 knots and a positive homing capability to a range of 28 Km at 23 knots. They carry a 250-pound warhead. The most promising development is in the field of unmanned robotics craft which is like homing torpedoes but with a passive/active search of their own.

In 1990, American Defense Research Projects Agency began tests with unmanned undersea vehicles. **USS MEMPHIS (SSN691)** has been converted to act as an at-sea test bed for advanced submarine technology. These craft can be employed for such functions as mine detection, surveillance (ASW) and communications. The key to their usefulness is that they function the same way as a human thought process. To guard against computer failure the vehicle employs three computers, which will employ a "voting" approach to systems management, and all three computers must agree on how the craft is run. If only two agree then the craft will continue to operate but in a degraded mode. The sub would continue to operate even when completely flooded with seawater. Copper windings that carry power to the motor are impervious to wear. During

normal operations, the internal volume of the motor is filled with oil in order to equalize pressure between the inside and outside of the motor, which permits the use of a thinner and lighter housing. If these subs are to be successful, thorough and realistic training is required. However, the ability of a fanatic with hardly any training cannot be overlooked. One good hit even at the cost of his own life cannot be ignored.

Midget submarines can be built quickly and cheaply and in large numbers and they are easily hidden. Most any ship can be adapted to carry a midget sub and no defense, no matter how good, ever stopped every midget submarine attack. The defenses have deterred attackers but a small number have always gotten through. Modern bases are defenseless against this form of attack especially as wartime skills in the field of boom-defense have long since disappeared. Men best suited for midget submarine duty are those least likely to fit in with the routines of a peacetime Navy. It is interesting to note that Australians, New Zealanders and South Africans whose antipathy to Naval Discipline Acts are legendary are extremely competent X-craft personnel.

There is no doubt that midget submarines are a force to be reckoned with. The development of new technologies will make them even more effective. They are a proven weapon of war and it would be unwise of us to forget those lessons learned in Pearl Harbor, Australia and elsewhere in the world.

Membership Attendance:

Once again, we had a wonderful show of members at our August Meeting. I wish to thank the following men for attending: **Dave Harnish, Ray Samson, John Redding, Glenn Herold, Gary Shumann, Doug Eddy, Doug LaRock, Ed Brooks, Larry Krieger, Carl Scott, Frank Rumbaugh, Jim Nelson, Ben Acosta, Don Wannamaker, Davy Jones, Ron Kloch, Roger Miller, Warner Doyle, Bob May,** and me, **Roger Cousin.** By the way, we now have **two Roger Millers**. . . and a **Paul Miller.**

Look for our New Members List which will be appearing in the October issue. We had three new members at the August Meeting. Welcome Aboard!

Sub Stories:

Do you have a favorite submarine experience? Then why not come forward and let us hear from you? Send us your story in 450 words or less (may be anonymous) for insertion into *Midwatch*. Or better yet come forward and tell us about it at a meeting.

Small Stores:

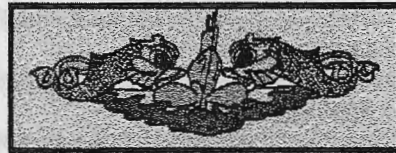
Perch Base has a truly unique array of Submarine Veteran small stores and one hell-of-a-Storekeeper who keeps it well stocked. You can contact **Dave Harnish** at the address shown on the front cover or can view it personally at any of our meetings.

On the Lighter Side:

At a crowded bus stop in New London, a beautiful young woman was waiting for the bus. She was decked out in a tight leather miniskirt with matching tight leather boots and jacket. As the bus rolled up and it was her turn to get on, she became aware that her skirt was too tight to allow her leg to come up to the height of the bus' first step. So, slightly embarrassed, she smiled to the bus driver, reached behind her, and unzipped her skirt a little thinking that this would give her enough slack to raise her leg. Again she tried to make the step onto the bus, only to discover she still could not make the step. A little more embarrassed, she once again reached behind her and unzipped her skirt a little more, and attempted the step once again. Much to her chagrin she found she still couldn't manage the step. With a coy little smile to the driver, she again unzipped the offending skirt to give yet more slack and again was unable to make the step. About this time a big torpedoman who was behind her in the line, picked her up easily from the waist and placed her lightly on the step of the bus. Well she went ballistic and turned on the would-be hero, screeching at him, How dare you touch my body! I don't even know who you are! At this the torpedoman drawled, Well, ma'am, normally I would agree with you, but after you unzipped my fly three times, I kinda figured we was at least friends.

New Submarines Tapes now Available:

John Clear (**SS315**), 2800 Applewood Lane #29, Eugene, Oregon 97408, e-mail: sealbtdt@continent.com, has now made available four new, totally viewable - not grainy, "Silent Service" episodes that weren't on our 1st run of the 13 grainy ones (last year) . . . these new stories are of the **TAUTOG**, **BERGALL**, **TINOSA**, and **ASPRO** . . . Two of these (the **TINOSA** and **ASPRO**) are being transferred from their original 16mm films. Also included is a unique 15-20 minute movie attached to the end of this new VHS tape that was made for the Navy Recruiting Office in 1940, entitled "Submarines at Sea". This one will definitely get your attention. Terrific footage including several boats that were later lost in WWII. Shots of the tender and nesting subs, underway, diving, inside, outside, topside, you name it, unbelievable scenes. This footage is also being transferred directly from a 16mm film. The cost of this 2-1/2 hour tape is only \$20.00 (including shipping). This is the actual cost, and not meant to be a moneymaker. These tapes are not being offered to the general public. These stories are for, and remain part of, our submarine heritage and therefore are only being offered within the sub community. So if you want to take advantage of this price, please send John Clear your payment in full for the quantity you wish.



Perch Base Booster Club for 2000:

I wish to thank the following members for their above and beyond financial assistance to our Base:
Jerry Allston, Ken Anderson, Joe Bernard, Jerry Becker, Wayne Breasted, Mike Brietner, Tom Burke, Jim Clewett, Roger Cousin, Earl Crowley, Steve Day, Jeff Duncan, Doug Eddy, Tom Foosee, Billy Grieves, Lee Graybeal, Warren Grossetta, Dave Harnish, Glenn Herold, Steve Hough, Jim Johns, Davy Jones, John Lang, Hubie Maxey, Bob May, Jim Michaud, Roger Miller, Bob Mitchell, Bob Moore, Joe Mullins, Jim Nelson, Jim Newman, Joe Otreba, Tom Patterson, Royce Pettit, Ray Perron, Scott Protero, Ray Samson, Frank Rumbaugh, Joe Schwartz (Deceased) Tyler Smith, Adrian Stuke, Lou Tejera (Deceased) Don Wannamaker, Don Whitehead, Bob Wonsley, George Woods, Jerry Yowell. Thanks to all of you who realize the financial burden of running this organization and for giving that extra financial support to help our Base.

Complaint Department:

Do you have any gripes pertaining to our Base? With me? Call me or e-mail me. Let's talk about it. What would you like to see in Midwatch that would improve it? Let me know. Phone number on front page.
Roger

Our Legislators at Work:

The Ten Commandments contain 297 words. The Bill of Rights is stated in 463 words. Lincoln's Gettysburg Address contains 266 words. A recent federal directive to regulate the price of cabbage contains 26,911 words. Atlanta Journal.

Your Car:

To Get Road Tar Off A Car, use a rag to spread mayonnaise on the tar. Let it sit for a few minutes, then wipe clean. Believe it or not, it works! But if not, you can always add it to a sandwich. When stopped in traffic in hot weather shift car into neutral. In neutral, the engine turns faster and less friction is created. This pumps more fluid through the transmission cooler, keeping the transmission cool. It also helps your air conditioner.

Interesting Dates in September:

09-01-1945 - WWII officially ends (2nd U.S. time)
09-03-1783 - Revolutionary War ends
09-04-1886 - Geronimo surrenders at Ft. Bowie, Arizona
09-05-1774 - 1st Continental Congress assembles
09-06-1901 - President McKinley shot
09-07-1901 - Boxer Rebellion ends

09-09-1942 - Jap planes bomb continental U.S. in Oregon
 09-10-1813 - Commodore Perry defeats British Fleet on Lake Erie
 09-19-1796 - George Washington gives farewell address as President
 09-21-1780 - Benedict Arnold becomes a traitor
 09-22-1776 - Nathan Hale executed as spy
 09-23-1779 - John Paul Jones defeats British Navy Task Force
 09-27-1864 - Jesse James attacks Union military train during Civil War, 150 killed.

A Sense of Smell:

Years ago, we heard Rear Admiral Roy Benson liven up a speech with this story: One night in New London in the early days of submarines before they had air conditioning, a young sailor attempted to come aboard his boat with a skunk. The Deck Watch couldn't talk him out of it, so he sent for the Duty Officer who, in turn told him that he could not bring the animal on board the boat. "Why not?" said the man. "Bill Barnes has a cat on board and Tom Owens a dog. Why can't I have my Skunk?" The Duty Officer tried to reason with him and pleaded, "Think of the odor!!!" The sailor sighed and said, "Oh, he'll get used to it, I did!!!"

From: *'Dolphin Tales with a dash of salt ...'*



Submarine Squadron 16

Submarine Squadron 16 was officially reactivated Aug. 7, 1997. This reactivation is part of a Navywide effort to improve submarine support. For the first time in the history of the SSBN force, a new model for supervising the operation, maintenance and training of the two-crewed submarine force has emerged. The current reorganization places five submarines in each Kings Bay squadron. Submarine Squadron 16 is the immediate superior in command of **USS Pennsylvania (SSBN735)**, **USS Kentucky (SSBN737)**, **USS**

Nebraska (SSBN739), **USS Maine (SSBN741)**, and **USS Louisiana (SSBN743)**. By reducing the span of control to five submarines and 10 crews, each squadron can dedicate more effort to monitoring and servicing the submarines under its control.

Additional new efficiencies were gained through specialization of the two squadrons. Squadron 20 remains the waterfront coordinator and principal squadron involved in planning and executing SSBN refits with the Trident Refit Facility. Squadron 16 has assumed the role of off-crew training coordinator and principal squadron involved in training and certifying that off-crews are ready to return to their ships. Squadron 16 also has the added benefit of more closely linking off-crew training to at-sea training. With this division of labor between the two squadrons, all 20 Trident submarine crews maintain the same fine refit work accomplishment they have grown accustomed to receiving, and find a more robust squadron at-sea presence. Additionally, they will experience a more responsive and insightful assist during their off-crew training periods from Squadron 16.

The Squadron 16 commander and his staff are located in the Kings Bay Off-Crew Building, located between the Trident Training Facility and the Submarine Group 10 staff/Subbase Administration Building.

Squadron History

Submarine Squadron 16 was established during World War II, and amassed more than 500,000 tons of enemy shipping sunk, earning both the Presidential Unit Citation and six Navy Unit Commendations before being decommissioned after the war. The squadron was formally recommissioned at Charleston, S.C., on Oct. 18, 1963, as the Navy's second Fleet Ballistic Missile (FBM) Submarine Squadron.

The Chief of Naval Operations deployed Submarine Squadron 16 to Rota, Spain, on Jan. 28, 1964, and embarked upon **USS Proteus (AS-19)**. **USS Lafayette (SSBN616)** completed its first FBM deterrent patrol with the Polaris missile and commenced the first refit and replenishment at Rota.

During the early 1970s, the submarines assigned to Squadron 16 were completing conversion to the Poseidon missile. That transition was completed when **USS Francis Scott Key (SSBN657)** returned to Rota on Jan. 14, 1974.

Treaty negotiations between Spain and the United States in 1975 resulted in a planned withdrawal of Squadron 16 from Spain, and the Chief of Naval Operations ordered studies to select a new refit site on the East Coast. The treaty with Spain was ratified by the U.S. Congress in June 1976 and called for the withdrawal of the squadron from Spain by July 1979. Kings Bay, Georgia, was selected as that new refit site, and the site selected was announced by the Secretary of the Navy in November 1976.

Commander, Submarine Squadron 16, embarked in **USS Simon Lake (AS-33)**, arrived at Kings Bay on July 2, 1979, and moored at the original Army wharf, approximately one half mile up-river from what is now Warrior Wharf. Four days later, **USS James Monroe (SSBN622)** entered Kings Bay and moored alongside to begin a routine refit in preparation for another deterrent patrol. Kings Bay has been an operating submarine base since that time.

Secretary of the Navy Edward Hidalgo announced in October 1980 that Kings Bay would become the home for the Ohio-class submarines. Concurrent with the preparations to base Trident II submarines in Kings Bay, Squadron 16 moved forward to conversion from Poseidon to Trident I missile capability. The completion of that transition was marked by the deployment of **USS Casimir Pulaski (SSBN633)** in June 1983.

Upon the completion of construction of Warrior Wharf in July 1979, Squadron 16 moved to that site and provided refit, logistics and training support to Trident I-equipped 627 and 640 class submarines until the last one of these submarines was ready for decommissioning. Gen. Colin Powell, then Chairman of the Joint Chiefs of Staff, recognized the silent services on the occasion of the 3,000 FBM patrol, "... as having done more to win the Cold War than any other part of the military." Squadron 16 had been involved in the Cold War effort for more than 30 years when she was decommissioned on June 25, 1994.

When Submarine Squadron 16 was reactivated on Aug. 7, 1997, and assumed command of five Trident II missile submarines, its rich history in providing support to the Navy's front line strategic platforms continued.

History of The Guppy Class Submarine

Following the Second World War, it was recognized that there was a need to improve the submerged speed, maneuverability, and endurance of our submarine force. The Greater Underwater Propulsion Power Program was instigated. Like all programs in the military, some sort of "name" needed to be applied that would attract and hold attention. Since GUPPP didn't sound quite right, the third P was dropped and a Y added. Thus the word GUPPY, which had a far better ring to it since it did in fact sound more like a fish. At this time all submarines were named after undersea life.

Jim Christley has conducted extensive research on the GUPPY program and most of the information contained here is the result of his tireless efforts. Jim writes that after the war the Navy obtained two German Type XXI boats. These were studied and tested exhaustively.

A history of events leading up to the Guppy conversions indicates the following: According to Christley's article, "Why is there a 'Y' in GUPPY?" the two German Boats studied were the U-2513 and U-3008. The lessons learned: increase the battery capacity, streamline the boat's structure, add a snorkel, and add a better fire control system. A new design was created called the **TANG** Class. The new boat was so much better that it made the existing fleet boat obsolete. The new boat was expensive. The Navy had to find a way to upgrade the existing fleet boats to match the **TANG** class's ability.

Included in this site is a section for each of the Guppy classes. You can check back on the opening page for a link to each class. There were seven major conversion types: The Guppy I, Guppy IA, Guppy IB, Guppy II, Guppy IIA, Guppy III, and the Fleet Snorkel.

The boats that were converted to Guppys were "rode hard." They had to support ASW training with US and NATO Task Groups, run barrier patrols in the GIUK GAP (Greenland, Iceland, UK, Gap, that narrow passage

through which the Soviet submarines would have to deploy to threaten the Atlantic sea lanes.) Such operations took place from the mid 1940's to the present day. "The US and allied Navies kept watch on the Soviet Naval entrance and exit points to track the deployment of the Soviet Fleet. The Med runs kept count of the Soviet boats training in the Dardenelles. The Brits, Danes, Dutch, and Norwegians watch the North Sea and Baltic exit points.

In the Pacific, boats from Pearl Harbor, San Diego and Yokosuka watched the exit points from the North Pacific ports such as Vladivostok. The US and other NATO boats watch the Kola Peninsula. Along with the watch on the Soviets, there was the tracking of operations and testing the abilities of all Warsaw Pact Navies. These operations and training exercises took place in what would become standard deployments. A WesPac (deployment) took a boat from its home port at Pearl Harbor or San Diego and attached it to the Seventh Fleet in Yokosuka, Japan for six to seven months of operations. A MED run took a New London, Norfolk, Charleston or Key West boat and attached it to the Sixth Fleet in the Med for six months. Each of these meant a long ocean transit of ten to seventeen days in Atlantic storms and Pacific typhoons. There were the UNITAS runs around South America, a trip that could last up to six months. Then there were the Northern Runs!

Operations on the Northern run, in Atlantic operations, and on WesPac deployments frequently found the Guppys in extremely rough weather. Boats on Northern runs operated in state five to six and higher seas constantly. Atlantic storms and typhoons in the Pacific found the boats in those areas frequently battling extremely foul weather as they fulfilled their missions. "The Guppy bow dug deeply into the waves and the step sail was little protection. Control during snorkeling was difficult at best and sometimes impossible. The snorkel induction, topped by the head valve, had to be kept out of the water. If it ducked to the surface or below, or a wave hit it, it would automatically slam shut. The diesel engines would keep running for a short time removing some sixteen thousand cubic feet of air from the boat's internal atmosphere per minute per engine. It would take from ten to thirty seconds for the engines to draw enough vacuum in the boat to shut down automatically after the snorkel induction head valve shut depending on whether the boat was running on one or two engines. This occurred at a vacuum of six inches of mercury below atmosphere. This equivalent to a 6000-foot altitude. Sometimes the head valve would shut for five or six seconds then reopen as the snorkel induction again cleared the surface. The atmospheric pressure would return to normal in the next few seconds, then the head valve would shut as another wave passed. This cycle would occur over and over for days and days."

The majority of the information about the operations of the Guppys during the Cold War remains classified to this day. However, without the conversion from the fleet boats of WWII to the Guppys of the Cold War era, the operations that the Guppys were responsible for would not have been possible. The success of submarine cold war operations is directly related to the crews and the Guppy conversions. These submarines, and their crews, certainly "Held the Line" during the Cold War until the SSNs and SSBMs took over to continue the high tradition of the United States Submarine Service.

**U.S. Submarine Veterans
Perch Base
13754 W. Via Montoya
Sun City West, AZ 85375**

stamps.com

\$0.55⁰

SEP 05 2000

US POSTAGE

FIRST-CLASS MAIL

FLAGSTAFF, AZ 86001

