

American Submariners  
Inc. 4370 Twain Ave.  
San Diego, CA 92120-3404



*The Silent Sentinel*  
NOVEMBER 2014

**ALL SAN DIEGO AREA  
SUBMARINE VETERANS**



*Our Creed and Purpose*

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.

*This Silent Sentinel is dedicated to  
the memory of shipmates AL  
STRUNK and BUTCH HUBBLE.  
May their lives perpetually inspire  
us and serve as a blessing.*

*Sailors, Rest Your Oar!*

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### The Silent Sentinel via Email

To all of my Shipmates and families who currently receive our Great newsletter via the mail who would like it sent via email or continue to receive it via mail, please fill out the form and mail it to the base or myself. We are trying to cut the cost of the newsletter down from \$3700 to about \$1900 a year. By receiving the Silent Sentinel via email will cut down the printing and mailing cost. The other plus to receiving it via email is you can save it on your computer and not have the paper lying around the house.

*A subscription to the Silent Sentinel newsletter will be available to surviving family members via internet email, at no charge, upon notification of the Membership Chairman. If a printed hard-copy is preferred, via US Post Office delivery, an annual donation of \$5.00 will be requested to cover costs.*

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**DUE TO LOGISTICS CONSTRAINTS, ALL INPUTS FOR THE SILENT SENTINEL MUST BE IN MY HAND NO LATER THAN ONE WEEK AFTER THE MONTHLY MEETING. IF I DO NOT RECEIVE IT BY THIS TIME, THE ITEM WILL NOT GET IN. NO EXCEPTIONS! MIKE**

### ***NOVEMBER Meeting***

**Our monthly meeting is held on the second Tuesday of the month at VFW Post 3787, 4370 Twain Ave., San Diego. Our next meeting will be on 11 NOVEMBER, 2014. The post is located one-half block West of Mission Gorge Road, just north of I-8. The meeting begins at 7 p.m. The E-Board meets one hour earlier at 6 p.m.**

***Check us out on the World Wide Web  
www.ussvisandiego.org***

### **BINNACLE LIST**

George Koury, Frank Walker, R.C. Thompson, John Grienberger, John Lester, and Judith Addington

## ***Submarine Losses in November***

Originally Compiled by C J Glassford



### **USS Albacore (SS-218)**

Lost on Nov 7, 1944 with the loss of 85 men when she was sunk off northern Hokkaido. Winner of two Presidential Unit Citations, Albacore was on her eleventh war patrol and struck a mine while running submerged near a Japanese patrol craft that had detected her.

### USS Growler (SS-215)

Lost on Nov 8, 1944 with the loss of 85 men when she was sunk in the South China Sea. Winner of two Navy Unit Commendations, Growler was on her 12th war patrol, and was lost while attacking a convoy, probably as a result of a depth charge attack or victim of a circular run by one of her own torpedoes.

### USS Scamp (SS-277)

Probably sunk on November 16, 1944 with the loss of 83 men near Tokyo Bay. On her 8th war patrol, she may have been damaged by a mine and was trailing oil, which helped Japanese coast defense vessels locate and destroy her with depth charges.

### USS Corvina (SS-226)

Lost on Nov 16, 1943 with the loss of 82 men when she was sunk just south of Truk. Corvina was on her 1st war patrol and appears she was lost to the torpedoes of a Japanese submarine.

### USS Sculpin (SS-191)

Lost on Nov 19, 1943 with the loss of 63 men near Truk. Severely damaged by depth charges after attacking an enemy convoy, Sculpin continued to fight on the surface. When the captain was killed, the crew abandoned ship and scuttled Sculpin. 41 men were taken prisoner; only 21 survived the war. Among those not abandoning ship was CAPT Cromwell, aboard as a potential wolfpack commander, he rode the Sculpin down, fearing that vital information in his possession might be compromised under torture. For this, CAPT Cromwell was posthumously awarded the Congressional Medal of Honor.



# CONSTANT BEARING, DECREASING RANGE

## Veterans Day November 11

 **All Flags at 52 Boat Memorial**  
\*

San Diego Veterans Day Parade  
San Diego Base USS Los Angeles SSN-688 Float  
November 11- start time 1100  
\*

San Diego Base Sunday Breakfast  
VFW Post 3787  
November 30 – 0800 to 1200  
\*

## Pearl Harbor Day December 7

 **All Flags at 52 Boat Memorial**  
\*

Scamp Base Christmas Party  
La Paloma Restaurant, Vista  
December 7 – 1430 to 1700  
\*

San Diego Base Christmas Party  
VFW Post 3787  
December 13 – 1330 to 1600



### \*\*\* Events in 2015 \*\*\*\*\* Events in 2015 \*\*\*\*\* Events in 2015 \*\*\*



\*  
King High School Remembers  
Veteran Interviews and Essays  
Riverside  
March 20, 2015  
\*

San Diego Base Sunday Breakfast  
VFW Post 3787  
March 29, 2015 – 0800 to 1200  
\*

## 115<sup>th</sup> US Submarine Force Birthday April 11

 **All Flags at 52 Boat Memorial**  
\*

Annual Submariner Caucus & Western Regional Meeting  
Aquarius Casino Resort, Laughlin, NV  
April 26 – May 1, 2015

# MONTHLY MINUTES (October Meeting)

*In fairness to our Base Secretary, I believe that the minutes were completed and sent to me. However, for the life of me, I can not find the blasted thing (and it's too close to press to wait for another copy). I will print them in next issue.*

## Current News

“Platagnet, I will; and like thee, Nero,  
Play on the lute, beholding the towns burn” (*Henry VI*, Shakespeare)

### **Navy Looking To Expand Range, Speed Of Unmanned Underwater Vehicles** **Valerie Insinna, National Defense, Nov 6**

The Navy wants unmanned underwater vehicles that are faster, with better target identification and data transmission capabilities, officials told industry Nov. 6.

The caveat: They have to be inexpensive enough for the service to afford in a constrained budget environment.

“If you’ve got a piece of kit out there right now, and you want to see if we like it and we’ll use it, give me what you’ve got now, and then we’ll work together” to modify it, Capt. Eric Wirstrom, director of Navy Expeditionary Combat Command’s maritime operation center, said in a speech at the Association for Unmanned Vehicle Systems International’s program review.

However, “I need it cheap,” he stressed

Rob Simmons, assistant program manager for PMS 408, the Navy’s program office for acquiring explosive ordnance disposal technologies, said the service wants to buy vessels that are “good enough,” not expensive developmental technologies.

“We want to field the 80 percent solution with ... open architecture hooks” that allow the service to upgrade systems with new software and sensors further down the road, he said. UUVs must be operationally available for use, reliable and transportable.

The Navy’s expeditionary force only recently begun to use UUVs to detect explosives under the water’s surface, Wirstrom said. “When it comes to requirements generation and development, we are figuring that out and we’re getting faster and better.”

The undersea environment ascribes limitations to UUVs that their airborne and terrestrial brethren do not have to deal with. For instance, pilots can remotely control a drone via a satellite link, but since that is impossible underwater, UUVs rely much more on autonomy. That also keeps many underwater vehicles from being able to transfer data in real time to human operators.

Wirstrom laid out a wishlist of capabilities he would like industry to bring him, including smaller, man-portable systems and UUVs that can be launched and recovered from aircraft, surface ships and submarines.

The Navy’s explosive ordnance disposal fleet has a “time problem” and needs technologies that will increase the speed in which crews can detect, identify and neutralize explosives, Wirstrom said. UUVs need to become faster at both getting to a location and then patrolling it.

The Navy wants a faster way to get data from the unmanned vehicle to the human operator who conducts in-depth analysis. Additionally, “We’ve got to get algorithms to the point where we have confidence in their ability to classify mines, point out to the operator the areas that merit further review,” he said.

Sensors are yet another area where there is a lot of room for improvement, he said.

“Not every column of water is the same. The clarity is going to differ,” Wirstrom said. Plug-and-play sensors that can be swapped out for different environments would give com-

manders more options.

The program office is already at work trying to develop some of these capabilities and integrate them into the existing fleet, Simmons said.

He implored industry to take advantage of the small business innovation research grants and defense acquisition challenge programs that can help companies rapidly put their products into the hands of sailors and Marines.

For example, a company is using SBIR funding to develop a hybrid lithium-ion battery fuel cell power system, while another is developing a module that can help existing UUVs to detect the presence of trace explosives while underwater.

These programs help the Navy understand what technology is already available, which in turn “helps us develop first generation requirements, first generation tactics, techniques and procedures,” Simmons said.

The Office of Naval Research and Naval Surface Warfare Center are also developing innovative technologies, such as a large diameter UUV that will be able to conduct surveillance and logistics missions for upwards of 60 days in the littorals, said Daniel Sternlicht, head of the center’s sensing sciences division.

Defense contractors at the event asked Wirstrom how they could be expected to provide inexpensive products when the Navy does not procure large volumes of unmanned underwater vehicles.

To that, he said, “Whatever we use, our coalition partners are going to be looking at also ... And, if it works for the expeditionary force, what’s the likelihood that it might work for the surface community or the aviation community?”

### **Energy Issues ‘Drive Everything about UUVs’**

**RICHARD R. BURGESS, SEAPOWER Magazine, Nov 6**

MCLEAN, Va. - The critical nexus of performance of unmanned underwater vehicles (UUVs) is an adequate supply of energy, a Navy official said.

Speaking to an audience Nov. 5 in McLean at the Unmanned Systems Program Review sponsored by the Association of Unmanned Vehicle Systems International, CAPT Dave Hornbach, the Navy’s program manager for unmanned maritime systems, emphasized the need for more powerful energy storage systems for UUVs, saying, “Energy drives everything about the UUV.”

Hornbach emphasized the need for safe, reliable, and powerful systems to power the service’s UUVs.

Citing the extensive use of lithium-ion batteries on UUVs, he said, “Safety associated with that is not where in needs to be.”

Hornbach said the issue is not just reducing overheating in the batteries themselves but with the need to isolate each battery so that an “exothermal event” in one battery can be contained and does not spread to the other batteries on the UUV.

The safety issue not only concerns the UUV but also the storage of the UUV on a mother ship so that it does not endanger the platform.

## **Sole Survivor of USS Tullibee Speaks About Being a POW** **The Sun Herald, Nov. 5**

OCEAN SPRINGS — The last thing Cliff Kuykendall remembers hearing before the explosion was a crewmate saying, “Well, there they go. We’ll see what happens now.”

“We found out about 20 seconds later,” Kuykendall said Monday. “Boom.”

When Kuykendall came to — possibly a few minutes later, he’s not sure — he watched helplessly as his submarine, the USS Tullibee (SS 284), slowly sank into the Pacific Ocean and out of sight.

“I thought, ‘Oh my God, I just lost my home,’” he said. “It was a long way from there to Wichita Falls, Texas.”

Kuykendall, the 2014 Gulf Coast Veterans Day Parade grand marshal, was a 19-year-old submariner in the early hours of March 26, 1944, when the Tullibee launched two torpedoes meant for a Japanese transport ship. Instead, the torpedoes ran a circular route and struck the submarine.

He was the lone survivor of a crew of 80.

“The concussion was terrific. I was on the starboard during lookout. It was a real dark night, drizzling. I was almost unconscious,” he recalled as he stood in front of the USS Tullibee memorial in Ocean Springs. “I remember looking down and I could see the stern of the submarine gradually go below the waves. Those World War II diesel submarines were 312 feet long and I must have been way up there in the air, I don’t know. When I came to, I was submerged in the ocean.

“I fought my way to the surface. I had swallowed so much water that I could taste salt and diesel fuel for at least a year after that.”

Kuykendall said he could hear voices for about 10 minutes after he regained consciousness. Then nothing.

He floated for several hours alone, except for an empty Sunkist orange crate that bumped into him.

He credited his shipmate, Louis Joseph Hieronimus, for saving his life. Hieronimus had forced him to take a lifebelt before going on lookout. The partially inflated lifebelt kept him afloat long enough to be spotted.

Unfortunately, it wasn’t by Americans.

About 10 a.m., he saw a destroyer coming in his direction, flying the rising sun flag.

“They made a circle around me, to my starboard, and opened up with a machine gun, firing at me,” he said. “Fortunately, they never got a lethal shot in, but bullets were flying all over the place.”

The Japanese brought him aboard, pulling him up with a net because he was too weak to climb aboard. That’s when he had his third brush with death in less than 24 hours.

A Japanese officer, holding a sword, called him a coward for not drowning himself rather than being captured. The officer swung the sword over Kuykendall’s head four times, missing each time.

“Each time he swung it — there were two Japanese sailors on either side of me holding me up — I collapsed and fell to the deck and the sword passed over my head,” he said. “I did that intentionally because I knew if that sword hit my neck it would chop my head off.”

A short time later, Kuykendall heard something in Japanese over the PA system and the



harassment stopped — for the time being.

He was dragged into a deck house and tossed onto a mat.

“Another Japanese sailor came in and he was carrying a small cup of sweet tea in his hand,” he said. “He lifted my head and was giving me this sweet tea. He said in English, ‘Don’t worry, everything will be all right.’ I said, ‘Well, they’re not all alike.’”

He was taken to a small seaplane base among the Palau Islands. Eventually, he was tied to a tree atop a hill while Americans bombed the island as part of Operation Desecrate. After three days of abuse tied to the tree, he was put into a foxhole behind a Japanese navy commander’s home.

“Two days later, the owner of the house came up and got me and they took me to the dock. I could see all of these hangars had been leveled and it made me feel good. He could speak English. Well, he saved my life. I know he did. They would have killed me if it hadn’t been for him,” Kuykendall said, reenacting several captors punching him while he was tied up. “He took me out on the dock. A Japanese navy plane landed and he told me, ‘There you go. Good luck.’ Just like that. I looked at him and said, ‘Sir, good luck to you. I hope you make it.’ He said, ‘I’ll need it.’”

The next 17 months or so, Kuykendall bounced among labor camps until World War II ended.

His final days as a captive, he worked in a copper mine in Ashio.

He recalled food rations increasing and American planes flying overhead.

“They were sending out fighters to locate all of the prison camps so they could drop them food because they knew we were probably starving,” he said.

When he returned to Texas, Kuykendall would stare at the ceiling at night and try to figure out how he survived so many brushes with death.

“I’d say, ‘I can’t figure this out. How did this happen?’ That went on for a couple of months, ‘Why little ole me?’ I suddenly realized that if I kept doing that I’d just worry myself to death. I had to stop. I never did figure it out. I’ve never been superstitious in my whole life — and I’m still not. What is, is.

“To this very day, like I have told many people, I’m just lucky.”

## **Easing Into Sub Building: Lessons For Future Proliferators nextnavy.com, Nov 2**

Let’s talk sub proliferation! It’s no secret that, for any “on-the-move” developing country, an operational indigenous submarine production capability is the “hot” “must-have” naval accessory.

And that’s great. Done right, sub production is an audacious industrial achievement—an exercise in manufacturing mastery, where precision, quality and engineering innovation come together to ensure the survival of humans hundreds of meters below surface.

It’s not entirely a win-win proposition, though. Aside from the prestige of joining a small-but-growing club of elite international manufacturers, sub production—if a country can’t export their products or maintain a steady production line—comes with surprisingly few lasting strategic or economic benefits. Unless fed, all that fancy infrastructure just crumbles.

But developing countries just don’t seem to care. I don’t know what it is, but, with subs,

rationality just seems to go out the window. Egged on by an eager array of sub salesmen (from France, Germany, Sweden, South Korea, Russia, Italy..even Spain), far too many countries underestimate the steep price of admission as they rush off down the “standard” developmental pathway-going from buying sophisticated foreign subs to building SSKs from kits/prefab modules and then moving to licensed production and beyond.

First Subs Are Usually Pricey, Decade-long Experiences in Pain:

It’s often a case of countries biting off too much complexity, too soon. Frankly, I am unaware of many countries whose initial experience in large-scale, sophisticated submarine manufacture ended happily, with a product delivered on-time, on-budget and trouble-free.

Many countries find their flirtation with submarine production to be too big of an investment to complete, and quit, mid-program. Argentina failed with the TR-1700. Greece’s court-encumbered effort to domestically produce the Papanikolis Class (German Type 214) is a festering sore that is likely not to be repeated soon.

Sustainment is a problem. Several countries produced good subs (and darn good subs at that), but found the investment too hard to sustain. Australia’s experiment with the Collins Class sub may well have driven that country out of the sub production business. Even the Netherlands may step out, and not replace their well-regarded (and home-produced) Walrus Class.

But, difficult as it is, sub production is here to stay, and, despite flailing in their initial efforts, other builders will stay in the game, building/developing subs outside they purvey of the the standard “legacy” sub designers/builders-Sweden, Germany, Russia and the U.S. But moving from kit-built to producing a foreign design and then to domestic production of a local design is not a fun process.

Pain just seems to be part of the agenda.

Listing the Trauma:

Rough starts are legion.

Brazil’s experiment with producing German Type 209/1400’s (the Tupi and Tikuna Class) was a mess-It took the first Brazilian-built Sub nine years to go from a keel authentication into naval service.

China-and we won’t belabor China’s evolution here as we are focusing primarily on the proliferation of Western designs-mass-produced shoddy knockoffs of Russian subs for decades, and then endured her share of issues and challenges as the country transitioned to home-grown designs.

India’s effort to kit-build two S-44 Shishumar Class (a German Type 209/1500) was a rough experience (years late and costing twice as much as the German-built subs), and their effort to build a French Scorpene (Project 75) is probably going to see the first hull enter service after an epic ten-year build cycle.

Spain’s experience producing the S-70 Agosta Class with French help was rough, and their subsequent independent effort has led to an overweight S-80 Class.

Pakistan’s first home-built Agosta-90B Class sub took more than ten years to build.

The outcome of Indonesia’s effort have South Korea’s Daewoo Corporation hand over enough knowhow to build a Type 209/1400 has yet to be determined.

(I’ll reserve a discussion of Iran and North Korea’s sub production efforts for later.)

Who Did Well and Why?

So.out of all the pain and suffering accumulated by our intrepid cadre of aspiring sub-builders, has anybody identified the markers of success? Surely some wizened old coots in

Langley (and in a host of similar institutions) have boxes full of half forgotten dissertations with anodyne titles like “Industrial indicators for favorable completion of pressure hull manufacture: A comparative study between states”?

If so, they’re not sharing. But, by now, us lowly open-source-dependent folks have a big enough of a data set to start teasing out some ideas as to why some countries have been more successful their first time producing than not. In my cursory survey, Italy, Turkey and South Korea stand out..(I might have elevated Pakistan to this list, but for their small program and their ugly experience with their first Agosta).

It’s not that these countries were hugely successful in their first attempts either, but Italy, Turkey and South Korea stand out in that their sub-building efforts have been relatively less trouble-free in comparison to all the rest.

What made them different?

Infrastructure: By and large, they all had a strong foundation in naval or commercial ship-building infrastructure.

Funding: All amply funded their programs, orienting themselves towards supplying either large operational sub fleets or the export market, or both.

Type: All started with a German design and German technical support (!)

Two of the countries had the benefit from being in, essentially, the same military/industrial bloc as their primary supplier, allowing for a relatively smooth and orderly progression as native suppliers replaced foreign-sourced kit.

I also suspect that all the countries had a good understanding of their national engineering and manufacturing capabilities, and they consciously didn’t over-reach or demand a higher percentage of locally-sourced sub-ready materials than their economies could readily supply.

But that’s not all.

Building ‘Em Trumps Reverse Engineering:

What is really interesting about the countries with more “successful” sub-building programs is that several of those countries had tinkered with mini-sub production. (Now, I’ll caveat this by saying that national minisub development/manufacture aren’t covered deeply by the usual open-source outlets (hint, hint guys) so take this observation with a big grain of salt, OK?).

Caveats aside, contributions from mini-sub production is something that, I suspect, is underestimated as a risk-reduction exercise. Mini-sub programs are easy to overlook and a little harder for host countries to justify-they’re not shining and dramatic examples of national manufacturing prowess, and, unless produced in numbers, they don’t turn the needle strategically. They’re often dismissed as curiosities-or low-status gear that only an impoverished, desperate country like North Korea or Iran would use (which, uh, they, um have actually used to, ah, sink stuff).

But that’s the point.

Mini-sub-successful or not-give the builder a taste for the complexities of sub manufacture, and allow the building country a low-pressure/low cost way to develop a small cadre of competent manufacturers, designers, operators, maintainers and suppliers before jumping into a “large-scale” SSK production program. A mini-sub failure is a lot less of a big deal than, say, screwing up your shaft alignment in your first full-scale SSK.

I’ll even wager that “learning-by-doing” with mini-sub offers more longer-term advantages to the host country than, say, a wholesale effort to reverse-engineer larger-scale projects or intel takings. China may have produced a ton of low-tech Russian knock-off subs, but all that pro-

duction-by-reverse-engineering didn't keep China from suffering in their transition to (cough) largely home-designed (cough cough) submarine production.

There's a world of difference in having a blueprint to follow and understanding, through first-hand experience, just why the sub you want to build is built the way that they are.

If pressed, I'd even suggest that mini-sub-builders do more for the host-country's basic sub-building infrastructure than, say, refits of existing submarines. Certainly, conducting successful refits of existing platforms should be interpreted as a potential indicator of future sub-building (I've written about that here), but, in itself, successful refits don't guarantee that an initial attempt at sub building will be pain-free. Lots of countries in the list of "pain" above had been successfully maintaining their boats for years and refitting 'em.

#### The Future:

Submarines will continue to proliferate, and countries will continue to try and build their own boats. But it'll be interesting to see if other countries learn from their predecessors-or if they continue to make the same mistakes everybody else has made-and end up spending, on average, a decade or more building their first home-brewed boat.

But by now, there's plenty of data to allow aspiring sub-builders to make more informed decisions. Given the importance-and greater appreciation of-unmanned or smaller subs, I'd expect quite a few other countries are out there right now, tinkering with their own "small boat" design (How is Chile's domestic-built Crocodile Class mini-sub-building effort doing anyway?).

If mini-sub-builders do actually serve as a positive indicator for successful initial prosecution of full-scale sub production, I'll also be quite interested to see how the nexus of South American sub-oriented smuggling hybridize and inform future sub-building efforts in South America. Plenty of U.S. naval innovations came from smugglers, and, well, at some point, somebody's gotta break that lock Sweden, Germany and France have on the export sub market!

