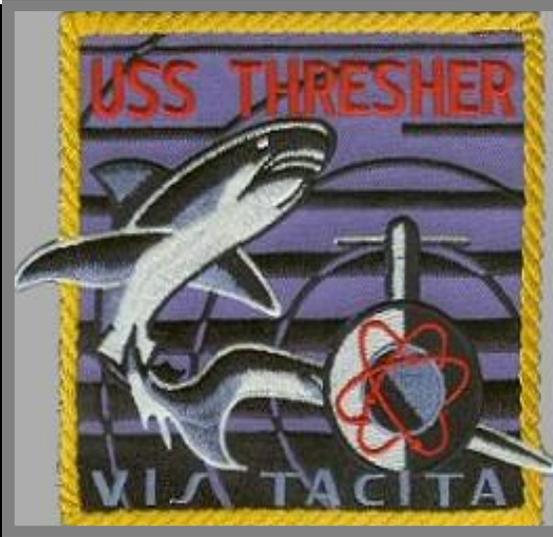
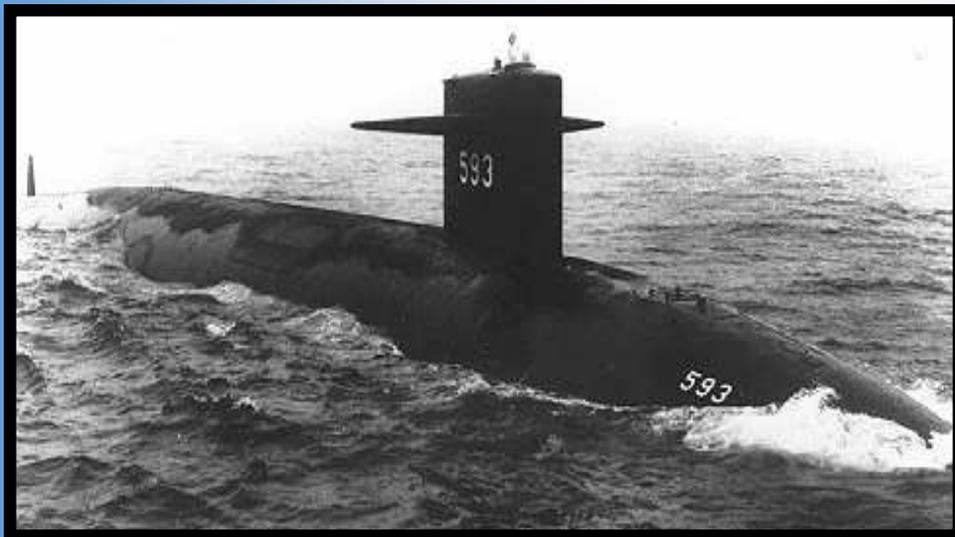


# THE MIDWATCH

USSVI Perch Base Phoenix, Arizona Quarterly Newsletter Second Quarter 2025



USS Holland (SS-1) Underway



USS Holland (SS-1) Construction



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"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."



# Perch Base Ward Room

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*Base Commander*

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Navy. Never Again Volunteer Yourself. Advice I have a hard time taking. Many of you also avoid following that advice.

Perch Base needs you to volunteer again. We have vacancies on our Board of Directors, which need to be filled in order for the workload to be shared. Dan Marks and Kevin Sheehan are ably acting as Secretary so that we can complete the tasks needed for the base to function in accordance with our Policies & Procedures and USSVI standards. Please consider stepping up.

We have one of our most solemn activities coming up that you should also attend, Memorial Day. We honor our shipmates who gave their lives in service to our country. We participate in the Wreath Ceremony during the Phoenix Memorial Day observance at the Phoenix National Cemetery.

After the main ceremony, we conduct the remembrance of "Tolling for the Boats" in its entirety. This is the only time each year that we conduct the full ceremony. This will be an experience that you want to share with family, friends, and neighbors.

I will be calling for volunteers to join some temporary committees. Call, email, or talk to me at the Picnic meeting in April or the General Meeting in May at Dillon's if you would be willing to step up for these efforts to help our base better able to serve our members.

### **You Can Make a Difference**

Long ago, a huge fire erupted in a forest, and all the animals fled in terror. A wolf spotted a hummingbird flying back and forth high overhead and asked what it was doing. "I am going to the lake," the hummingbird said, "I draw some water into my beak and then throw it on the fire to extinguish it". The wolf laughed and said, "Do you really think you can put this big fire out all by yourself." The hummingbird replied, "The forest is my home. It feeds and shelters me and my family. Maybe I can't put out the fire, but I can do my part." The forest spirits, hearing the hummingbird, were moved by its devotion to the forest and sent a downpour of rain, which put an end to the fire.

This story shows what can happen when everybody does their part. If everybody does a little, no one must do a lot. Everyone can make a difference. The Base needs the Secretary and Vice-Commander positions filled to keep the Base's wheels lubricated and turning. Both positions have duties and responsibilities which will require a meaningful commitment. If everybody does a little, no one must do a lot. Everyone can make a difference.

*Past Base Commander Message*

*George Woods*

*From the Wardroom*

The March 2025 meeting concluded with the election of a new Base Commander, David Heighway.

I am now the Past Commander of Perch Base and will be available to advise the Base Commander, if needed.

I am truly grateful for the board members of Perch Base BOD over the past four years served as base officers, Dave Heighway as Vice Commander. Don Robertson Chief of the Boat, now known as "Dewey Don." Chris Gahan Communications & Newsletter Editor who is always available for posting Flash Traffic. Joe Trotter & Kevin Sheehan, Treasurer. John Beckett, Storekeeper and our 2024 Sailor of the year. Don Unser, Dave Heighway & CC Clark Events Coordinators. Chuck Emmett, Historian. Charles Luna & Paul Miller Membership. Marcia Unser, Laura Luna & Kevin Sheehan as Secretary. Governor Joy & Jim Denzien as Chaplin. Dan Marks, the ever-available Webmaster and Howard Doyle Past Commander.

I am grateful that Perch Base, has been able to award several college scholarships over the years.

Perch Base will host our Annual Lunch Base Picnic meeting and conduct a Holland Club Induction on April 12<sup>th</sup> 2025 at Paloma Community Park in Peoria AZ info and food signup list can be found on Perch Base website.

We will have new wreaths to be placed on Memorial Day as we will honor those veterans that made the ultimate sacrifice, with our ceremony at the National Cemetery. We will display our float and conduct a tolling of the Boats.

I was overwhelmed and delighted to be able to see the float and trailer painted and as good as NEW.

A change of command is necessary for all organizations to be successful. New ideas and new challenges always have to be dealt with.

When anyone was in need, it was my pleasure to take a phone call, visit a hospital or home.

George Woods



*Webmaster*

Dan Marks

webmaster@perch-base.org

Congratulations to our new Base Commander David Heighway upon his election and induction at the March 8 meeting.

I have been posting updates for all our events. If you have not been a participant at our events, I hope you are at least checking the website to see what you missed. There has been a lot of activity with the website since the last Midwatch including photos of our guest speaker Retired Army Lieutenant Colonel Dana Allmond, Paul Miller awarding Longevity Pins, the visit by Capt. Dick Razz (USN, ret), our Base Commander election and induction, the Western Region Roundup at the Queen Mary in Long Beach, CA, the Don Remily, EM2(SS) Eternal Patrol Memorial Service, ASSM paver installation, posting a reminder about Honor Flights to Washington, DC, the Ron Perkins Holland Club Induction and Joseph J. Hawkins Eternal Patrol Notice. photos for the Laveen Parade, Anthem Veterans Memorial solar alignment, Annual Awards Banquet, and Paul Miller's travelling trophy.

Similar updates have been maintained on the Perch Base Facebook Page.

Don't forget that Friday, April 11, is the Submarine Force 125<sup>th</sup> Birthday. Holland VI was purchased by the U.S. government for the sum of \$150,000 on 11 April 1900 from John Phillip Holland's Holland Torpedo Boat Company. She was considered to be the first truly successful craft of her type. Holland VI was modified after her christening, and was renamed USS Holland (SS-1) when she was commissioned. The United States Government soon ordered more submarines from Holland's company, which became the Electric Boat company. These boats were to be known as the Plunger class. These became America's first fleet of underwater naval vessels. Some Submariners consider April 11 the "Wear Your Dolphins to Work Day." Since I retired in 2013, I don't go to work. (Eat your hearts out!)

If you have any suggestions or input for the website, send an email to [webmaster@perch-base.org](mailto:webmaster@perch-base.org).

Dan Marks



As the 15th of April is fast approaching, I would like to point out a way for shipmates to maybe reduce the amount you must sent to the federal and state governments. The Perch Base Foundation is a 501.c.3 registered foundation which was created to support Perch Base which it has done in the past. The Foundation has contributed funds for maintenance of the boat float, help in the construction of the memorial at the state capital, and money for the annual Perch Base scholarships. Perch Base and the USSVI are registered as a 501.c.19 veteran's organization which should win NO TAX deductions on federal and state income tax. Therefore, if you want to redirect some of your hard-earned money to a worthy cause, then make a contribution to the Perch Base Foundation ASAP.

On other matters, the annual base picnic will be held for the April meeting at Paloma Park (see Flash Traffic and/or Website for directions and additional information). This has been a great time for all who attended in the past, so I'm hoping to see shipmates and their families in April.

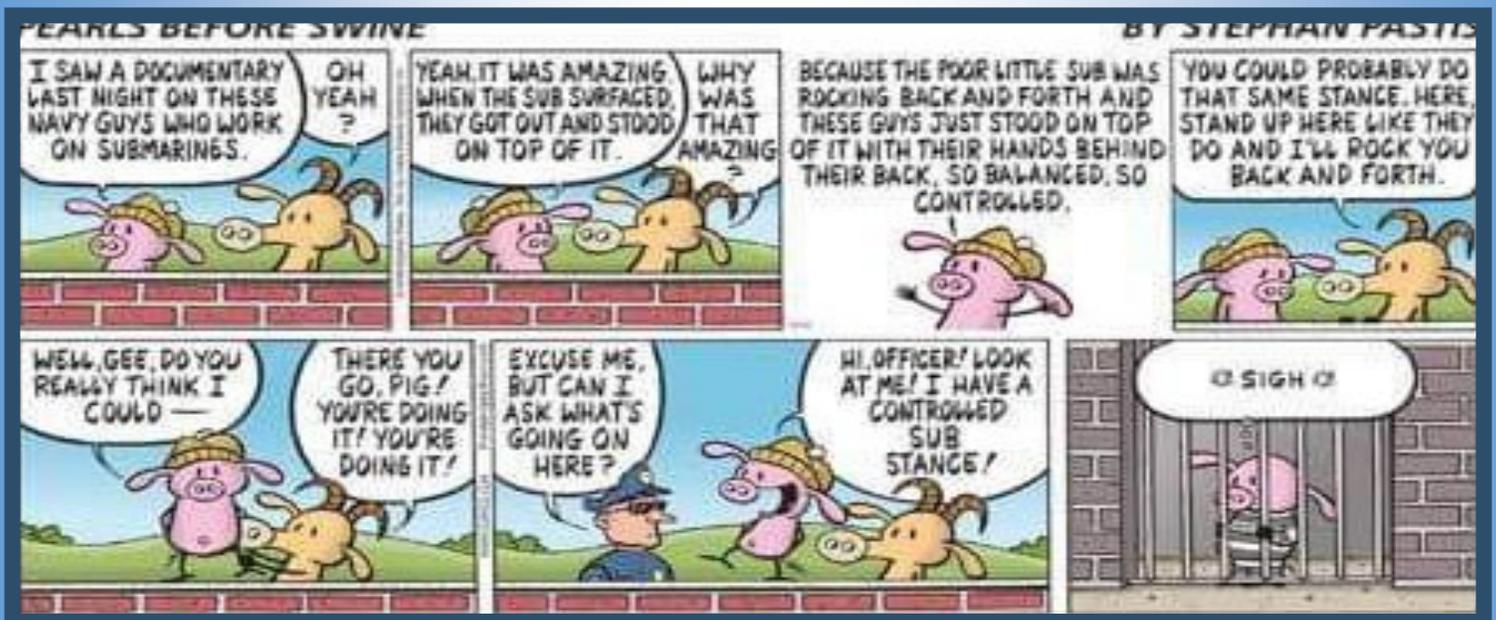
Please welcome the new Base Commander, Dave Heighway, and if anyone is interested in their position of Vice Commander, contact a BOD to let them know of your decision.

"Remember the Alamo" - FREEDOM IS NOT FREE!"

"Pride Runs Deep"

Howard Doyle

Past Base Commander





# Communications Chris Gahan

[communications@perch-base.org](mailto:communications@perch-base.org)

George Woods served as the Perch Base Commander the last four years with honor and distinction. His leadership kept Perch Base on track and moving forward. Dave Hieghway ascended to the Base's senior leadership position and will require our allegiance and teamwork in keeping Perch Base on the track and moving forward. A hearty "Bravo Zulu" to both of them.

## BEQ Inspection and a Racing Slick

After reported aboard the USS Sculpin (SSN-590) in early 1973, the boat had recently returned from a WestPac deployment. About a third of the crew were transferring off with replacements reporting aboard. The boat was tied up next to the USS McKee (AS-41), at the San Diego Sub Base, for an extended availability. The COB arranged for billets at the Sub Base BEQ. I was assigned a four-man room with other M-Division non-quals.

Of all us assigned to that room, Joe was by far the most irascible individual I ever met. While on board the boat, he performed his watch and maintenance duties with mediocre success. I have to give him credit, because he was a naturally gifted mechanic. He spent most of his off duty time at the base's auto hobby shop. As a shipmate, Joe's least favorable trait was his personal hygiene. The man radiated an odor that was a mix of rotting flesh and lube oil. Both the COB and M-LPO were at their wits end managing his personal hygiene. During weekly Ops out of San Diego, we would draw straws to see who would have to hot rack with him. Joe was eventually awarded the nickname "Deck Plate" which seemed appropriate.

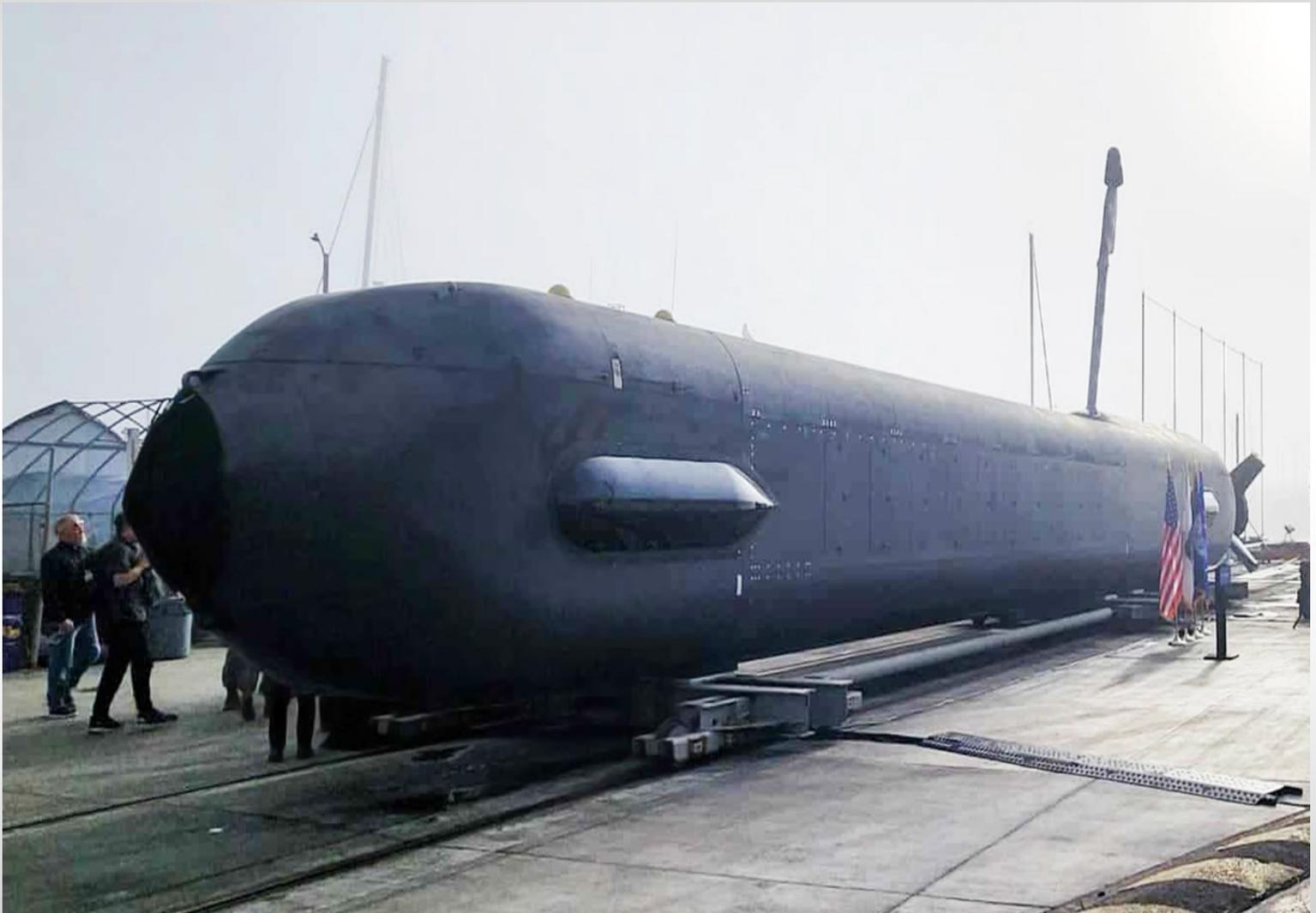
Sub Base required the Boat to periodically inspect the assigned rooms in BEQ. During one particular inspection "Deck Plate" managed to shock all of us. At the assigned time, the XO and COB appeared for the room inspection. We were at attention next to our assigned beds and lockers in our dress dungarees (remember dress dungarees?). The XO and COB started their inspection which included floors, horizontal surfaces, etc., then one by one the beds were checked for clean sheets and our lockers for contraband. As they approached Joe's bed and locker his version of dress dungarees and clean linen was below standards. He was ordered to open his locker. "Deck Plate" hesitated momentarily, with a panic look in his eyes. As he flung open the locker doors a large racing slick came bouncing out and rolled across the room to the opposite wall. The silence in room was deafening. The XO looked at the COB and without saying a word strode out of the room. Then the COB went ballistic, as his roommates, we were of course culpable. Failing a room inspection because of Joe was frustrating but not unexpected.

The following January, The Sculpin departed on a WestPac deployment. By then, Joe was transferred off the boat. For the rest of my time on Sculpin, I never had to deal with another personality like Joe's. Nonetheless, I am sure some of you have had similar experiences.

## What The Navy's Massive Orca Submarine Drone Is Actually Capable Of

We dive deep with the captain in charge of the Orca program on the drone's current abilities and what it could be capable of in the future.

Geoff Ziezulewicz / Posted on Jan 14, 2025 / The Warzone Website



The U.S. Navy's Orca drone, also known as the Extra-Large Unmanned Undersea Vehicle (XLUUV), has been in development for years, but will soon be in the hands of sailors as the sea service works to figure out how they will use the capability going forward. The Navy first ordered five of the semi-tractor trailer-sized submersible drones from Boeing Defense in 2019. But like other Navy acquisition programs, the Orca has been hit by [cost increases](#) and [delivery delays](#).

# UNDERSEA WARFARE NEWS

Still, 2025 is shaping up to be a big year for the Orca, which is based, at least in part, on lessons learned from [Boeing's Echo Voyager](#) demonstrator. While a so-called Orca "[test asset system](#)" drone was delivered to the Navy in late 2023, it's getting its first real Orca this year. That will be followed by the Navy's operational testing and evaluation of the platform in the coming months, which will allow the Navy to further test and refine the platform before eventually joining the fleet for real-world operations. The development comes as [unmanned underwater vehicles](#) of all sizes are increasingly viewed as potentially providing a [revolution in undersea warfare](#) among [friends](#) and [foes alike](#), [with China](#), in particular, [pursuing the technology aggressively](#).

To discuss where Orca stands, and where it could potentially go in a future that is trending more toward unmanned systems everyday, *TWZ* chatted with Capt. Matt Lewis, a submariner and program manager for the Navy's [Unmanned Maritime Systems](#) office. Lewis shared his thoughts on the service's premiere submarine drone, its present and future capabilities, and the unique challenges drones face operating in an undersea domain, among other topics.

This interview has been edited for grammar, length and clarity.

**TWZ:** When you think about Orca's capabilities and what you're aiming to have it add to the fleet, can you provide a potential future scenario in which you think Orca's capabilities would excel?

**Capt. Lewis:** Initially, as designed, the system is to deliver CDMs, [clandestine-delivered mines](#). So that's the initial purpose, in response to a fleet need that came out several years ago. And so that's the initial concept of how we would use Orca.

I don't know if you've ever seen any pictures, to give a sense of scale, but this is a pretty large vehicle, a large system, and so I'm pretty confident that the payload capacity, the carrying capacity, or the volume that the vehicle has probably outmatches anything out there, at least that I know of. And so, while designed to carry CDMs, if you took that kind of space and weight, that payload section, one could conceptualize how we use that for other devices, other missions, other payloads, and employ it in that way.

It's 84-feet-long. It's actually a little longer, I think, than a standard semi, you know, the 18-wheel tractor-trailer. So it's a pretty significant vehicle, and calling it a vehicle doesn't really feel like it gives it justice, right? Because it's pretty big.

**TWZ:** So it sounds like it's created to sneak into somewhere and lay some mines and then move on. But it also sounds like that capacity could be used for other things in the future as well, right?

**Capt. Lewis:** You're exactly right. It could be just carrying it from point A to point B. It could be leaving something somewhere. It could consider a kinetic or non-kinetic payload. I don't want to say it's endless because it's not that. It's not that easy. It's easy to think of things, but it's not necessarily that easy to design them and build them.

One of the things that makes this really challenging, though, is that operating in the undersea domain is a lot more complex than some of the other domains. One of the complexities of trying to do anything like this is water depths, and so whatever you need to bring in has to be built for that environment, right? So as you operate in the water column, I mean, we saw it in the news with the civilian [Titan submersible](#) that imploded in 2023, the system that went down to go see the Titanic, that's an extreme measure of the complexity of operating undersea. But those are the sorts of things that have to also be considered when we talk about payloads. So it's not as easy as, 'oh, I can bring this thing in, and I can go at 6,000 meters deep' ... That payload needs to be encapsulated, sustained, under that sort of pressure. And when we start talking about those cool, science-fiction ideas, it becomes a lot more challenging technically.

**TWZ:** When we talk about other [future Orca] payloads, are you talking about launching smaller undersea drones, surface drones, air drones? Is any of that definitively on or not on the table, as the Orca is getting ready to join the fleet?

**Capt. Lewis:** Some of the devices or payloads you mentioned, whether it's a UAV or a UUV or other things like that, I would say the Navy is open and considering those types of payloads. But we need to get the Orca capability, the Orca system, into the hands of the fleet, and there's a lot of learning that we have to do with these. There is a lot of learning that we have ahead of us, and so what I'm focused on is getting the vehicle out into the hands of the sailors, and go do that part.

**TWZ:** Just for our non-submariner readers out there, can you just walk me through in layman's terms what makes it harder to do drone operations in an undersea domain? Is it just a matter of transmitting signals to the Orca? What makes autonomous operations under the sea harder?

**Capt. Lewis:** One of the big things is communication. On the surface and in the air, you have the ability to have 24/7 connectivity with a device. You have that ability to do that in the surface and air domains.

# UNDERSEA WARFARE NEWS

Once you go underwater, you have that air-water interface to manage, and so with that comes a latency of command and control and information data flow from that system. So the submariners are used to going out and being in receive-only, where we communicate off the ship very little. And that has all the decision making and the power of the human brains all underway with it.

When you talk about a UUV, some of that decision making, some of that information that people or commanders may want now, has to break that air-water interface. And so that becomes both a technical challenge and an operational challenge to figure out how to resolve that or how to best execute that.

We joke as submariners that the ocean is always out there ready to kill you or trying to kill you. The pressures that the vehicles operate at are harsh. It's a harsh environment. It could be really cold, it could be really warm. You take metals and batteries and other electronics into salt water that you have to protect and make sure it is isolated there. So that adds additional technical complexity.



Boeing's Orca drone facility. (Boeing)

And then the last bit is in that void of communication and information, trying to manage that three dimensional domain, how you function there. It's a little bit like if I was to blindfold you and have you walk around somewhere and go upstairs and downstairs. How does it function in that space where you have limited sensors, limited sensory information coming in that it must collect, analyze and make decisions on, so it becomes a really complex environment to operate in.

**TWZ:** Can you explain what you did to mitigate those navigational and those sensing challenges, and those communications challenges? Is Orca going to have any kind of novel technology involved, or is it just working with what is already out there?

**Capt. Lewis:** I would say since this started out ... there was a sense of urgency to move on this. I would say that we did not go after novel technologies because we wanted/needed mature technologies that could be incorporated into this. One of the things that makes it challenging for operating in the environment is incorporating all those sensors, all that information. And Orca does have some situational awareness ability, some sensors on it, to execute that.

And as we put all those pieces/components together, another challenge that we have is you have to build out that industrial base. Some of it comes easier than others, some of it doesn't. But I think across the board, just like you hear about the submarine industrial base or other supply chain challenges across the defense industry, or even the commercial industry, those all have an impact for a system like Orca, especially the scale of it, the size of it.

# UNDERSEA WARFARE NEWS

And one thing I'll add about the industrial base is when I say that, I'm including the workforce, the quality of craftsmanship, workmanship that goes on, as well as the supply chain/material challenges that have come to the forefront of everybody's mind, especially during the COVID timeframe. So that has, I think, kind of infiltrated all aspects of industry, defense and otherwise.

**TWZ:** One last technical question. When Orca is deploying these CDMs, does something open on the bottom and the Orca will just drop them off?

**Capt. Lewis:** That's a great question. I think the best way I can describe this is it's gravity dropped. There's no impulse. There's no kinetic measure to shoot off or eject these payloads. Again, though, to just characterize operating in the undersea domain. Anything that you do, CDMs or not, the Orca has to manage buoyancy. I haven't mentioned that yet. So changes in salinity and temperature and depth all affect the buoyancy of a vehicle, and so it has to manage that in any payload that you drop.

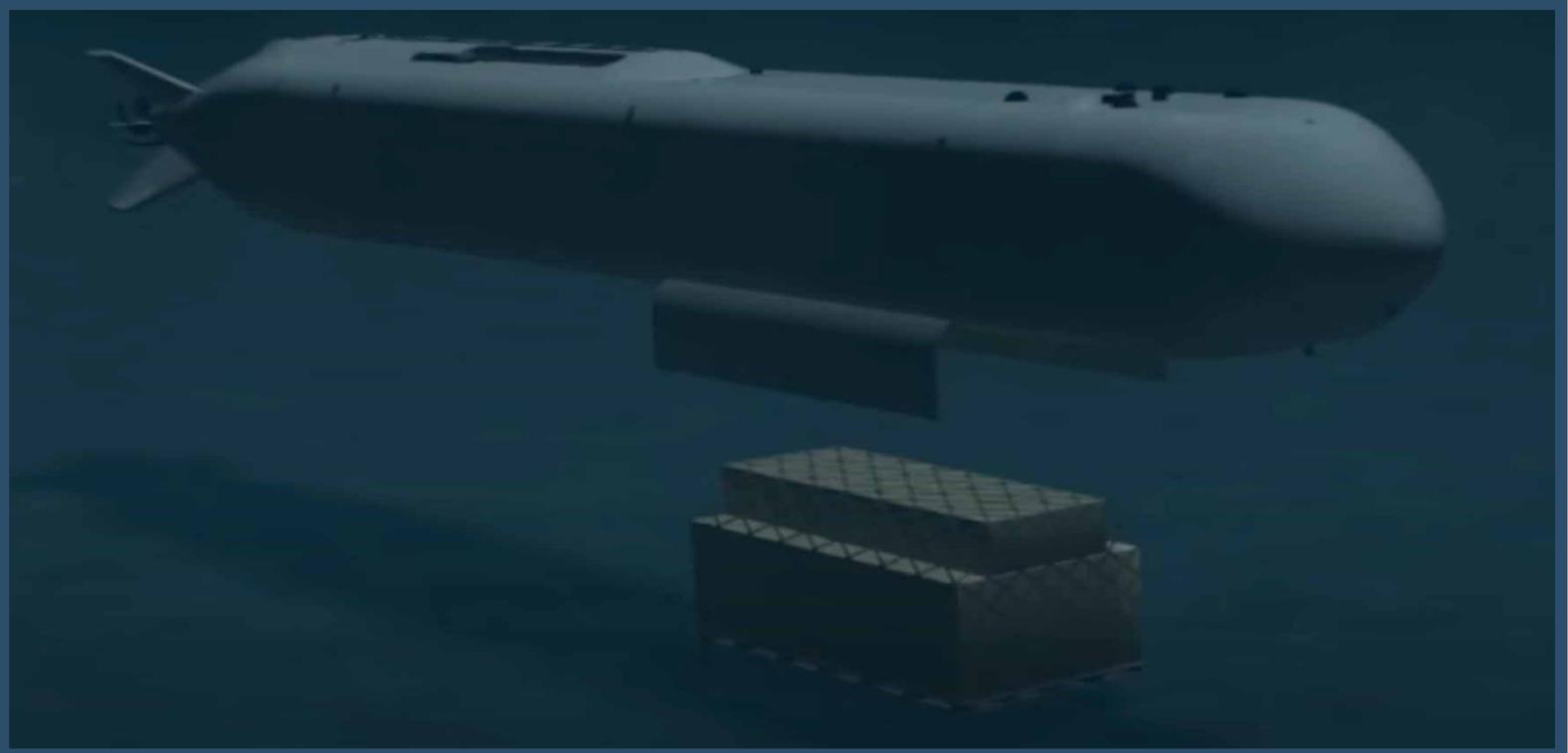
In this case, CDMs, you have to be able to compensate for that in the buoyancy aspect, so that adds complexity to these things. But to your specific question, yeah, I would say it's probably most akin to opening a door and having a payload drop out of it, slide out of it, fall out of it. Part of the payload system ingests water to manage the offset of the weight from the CDM for the buoyancy. When you talk about [navigation], or talking about nav accuracy, in this case with CDM, that's another element that makes this challenging, because a surface ship, or an aircraft have, I'll say in a non-contested peacetime environment, they have GPS that they continually know where they're at. And so in the undersea domain, you don't have that GPS signal that you can follow along in your journey, in your mission.

And so as it executes its mission, it needs to be able to precisely drop a CDM or any other payload along the way. And so that's, again, another complication. There's ways to tackle that, but it becomes a challenging problem, depending on the actual task.

**TWZ:** Can you walk us through what's coming up for Orca in this calendar year? What do you guys have planned?

**Capt. Lewis:** We anticipate taking delivery of what we call XLE-1. That's the first vehicle the Navy will receive from Boeing. Once we receive the vehicle following their testing, the Navy will conduct developmental and operational tests, and expect that to go through the third quarter of [2025]. So as we do that, we are also incorporating [the [Unmanned Undersea Vehicles Squadron 1](#) or UUVRON 1], so our sailors that will operate the vehicle, we're incorporating them in the training and testing to make sure that we're partnered up with the fleet, that they are ready to receive the vehicle and continue their operations and training as they take over the vehicle.

The second vehicle we expect to arrive to the Navy from Boeing in the summer of '25, and the follow-on vehicles, we're still assessing the schedules. Again, this is somewhat driven in response to industrial base challenges that the team is working through.



# UNDERSEA WARFARE NEWS

**TWZ:** What is the ballpark cost of these Orcas, and as it currently stands, how many does the Navy want to field eventually?

**Capt. Lewis:** It's on the order of \$450 million. Boeing has been, I'll say, a great partner in this ... And I'll say they are, from my perspective, equally committed as we are to get this capability out. With respect to the number of vehicles the Navy has or is interested in, right now, we have the five vehicles under contract, and that's what I can say with that right now.

**TWZ:** How long can you program [Orca] to act autonomously? Do they have a certain amount of time a mission can take? That is, they would launch, do their thing, and then return within a certain time frame? Or is that pretty flexible in terms of how long they can go out once they kind of know where they need to go and where they need to come home to?

**Capt. Lewis:** The requirements are 30 days, and the capability is roughly 6,000 nautical miles. And I'll go back to my previous comment about we have a lot of learning to do ... Obviously we would not take the vehicle and immediately launch her from day one for a 30-day, 6,000 mile journey. So with any new thing that we have, we're going to have our way to work up and baby steps learn along the way. I'm sure there's things that we'll learn operationally and functionally with the vehicles as we work our way towards those sorts of end states.

**TWZ:** Do you see the Orcas being — you mentioned they'd be under the [Unmanned Undersea Vehicles Squadron 1] — but would they be assigned to a given carrier strike group, depending on where they're going, or certain ships or units? And then tied to this, can they operate cooperatively? Or can they operate in any kind of "[hunter/killer](#)" capacity with manned submarines? Or do you see that kind of cooperation coming down the line eventually?

**Capt. Lewis:** Start with the cooperation piece. I think in any unmanned space, especially when you mentioned hunter/killer, sort of in cooperation with a submarine, the disadvantage that any UUV has is speed. Speed through the water takes a tremendous amount of power and energy, and what really affects UUVs is they just don't have that. The beauty of a [nuclear-powered submarine] is that nuclear power plant that gives us that unlimited, relatively speaking, propulsion, that we can go fast. UUVs, I think any time in the near future, anything reasonable, they will always be challenged by power. And so to get any vehicle to move at speed that could move with a battle ship or speed in comparison to an SSN or something like that, there's tremendous hurdles to somehow find the ability to do that.

You mentioned in capacity or in coordination with other assets. Broaching or going across that air-water interface is an operational capability that Orca has. But that's one of the challenges, if you send this vehicle, or any vehicle, if you submerge it, let it go for 20 days, if you don't break that air-water interface, then you can't have it. It's much harder to get it to interact and change the course of its mission.

That's another unique characteristic we talked about before, about operating in the undersea domain, is there's an element there that it needs to break that interface to communicate to another vessel, an operations center, if it needs to be reprioritized, re-commanded to do some other sort of tasking.

**TWZ:** So basically you're saying it needs to surface to get fresh orders, so to speak?

**Capt. Lewis:** Taking that interface could be done, sticking an antenna up. And there's other ways across the Navy we're looking at doing where we can minimize that. But right now, it's still a challenge to do that sort of across the board.

**TWZ:** Are there ways to command it to surface at certain times so it can check for new orders coming over the air?

**Capt. Lewis:** So one of the unique characteristics with Orca is that it's a diesel electric vehicle. And so in this case, the design of the vehicle does bring it up to the surface so it can have an induction mast that brings the air in for the diesel to operate and recharge the batteries. So I'll say that Orca inherently has opportunities to do that, to be able to communicate and receive different tasking, should a commander want to do that.

**TWZ:** How fast does the big guy go at this point?

**Capt. Lewis:** Transit is good to estimate at three knots. So that's the other thing. I remember when I was a young junior officer there was a video game, it was horrible to play, called [[688\(I\) Hunter/Killer](#), a submarine simulation game], and you had to put it on eight-times speed. You could speed it up because that's how slow submarine warfare is. So you would maneuver the submarine and then speed it up eight times to see what things look like 45 minutes later in the game.

Things go really slow underwater. And so if you're going three knots, four knots and transiting, it takes you a long time to go somewhere. If you need to get out of somewhere, you don't cover much ground either way. So that's just another element of operating in the undersea domain.

# UNDERSEA WARFARE NEWS

**TWZ:** As the Navy envisions it, could an Orca be launched over the side of a large ship or a well deck, or would they be setting out from wherever and just going it alone?

**Capt. Lewis:** Right now, for Orca, it would be the latter. It goes out on its own, not deployed from a strike group or anything like that. Could things be done like that from another type of platform, or UUV? I don't think that's out of the realm of possible, but that's not Orca, and there's a lot of integration and other things that would have to happen ... It would be out on their own, deployed from the pier type of concept.

**TWZ:** Circling back, you're basically in Block I of Orca right now. Given the platform, is it something that you think will be able to take on additional capabilities in the future as the Navy gains experience with the platform and technology matures?

**Capt. Lewis:** Absolutely. I think it's actually a really important platform for us to learn and operate and iterate off of. There's a number of capabilities that I think I can conceive being incorporated into a platform like this. Talking about how challenging the environment is, I think Orca has tried to tackle some of those hardest problems for the Navy. And compared to some other vehicles and systems out there, it is addressing those challenges, and we're going to learn a lot from it, doing things and operating in that three-dimensional space that some other vehicles are not operating in.

So there's a ton of things that we need to integrate across, I'll say the mission thread, of deployments, employment, what sort of command and control we envision, what sort of payloads could we employ from it. I think there's tremendous opportunity to investigate that and explore that with Orca and as well as other UUVs.

My perception of doing work like this is, we're at the initial stages ... similar to aviation back in the early 20th century. We're in that sort of realm of, what do we know? How do we know what we know? Know what we don't know, known unknowns, you don't know what you don't know, all that. I think we're at the early stages of figuring all that out. So, tremendous opportunity with Orca to go learn and expand what we can do and provide other new capabilities for the Navy.

**TWZ:** Is Orca the most advanced UUV that the Navy has developed? How does it compare to other UUV assets that are already operating in the fleet?

**Capt. Lewis:** I'll hesitate, I think, on the most advanced, because I think my caution would be, how do I slice and dice that? I think it definitely is the most challenging problem that the Navy has attacked, with undersea unmanned vehicles.

Like I was saying, it is a really hard problem to manage operating in that three dimensional space from shallow water to deeper water with contacts around you, to the air-water interface, let alone being able to do all the other parts of command and control, autonomy, sensing, payload, deployment, etc. So it is a very complex problem that the Orca program went after to go challenge. So yeah, in that sense, I think it is. It is probably the biggest or most complex one there. I don't know if I'd say the most advanced, because I'm not sure how I'd slice and dice that. But it is a significant challenge, operational capabilities that the Navy has tackled.

**TWZ:** You've been in the chair over there for a while now. What's your personal favorite part about Orca, or the coolest detail that you'd want people to know about? Anything you've enjoyed learning about the platform and what it can potentially do?

**Capt. Lewis:** I think when you see the size of it. So when you say it's like a school bus or a semi, I think that is impressive, and when you see pictures of it, you need something that you can get a sense of the scope, the size of it, the perspective of it.

It feels unjust calling it a UUV because it's so big. I sort of think of UUVs as something maybe two sailors can grab and throw over the side into the water, or something like that. So the scope or the size, the magnitude of it, is impressive.

I can appreciate the challenges of trying to operate across the undersea domain from shallow to deep, to do the mission set that's extremely challenging, to take all that in, all that information, all that decision making, and try and tear down 150 smart sailors and a highly technical machine in an environment that is looking to kill you. Boil that down into an unmanned system. It's pretty impressive.

**TWZ:** It sounds like you're pretty hopeful that Orca will help guide the Navy's future UUV efforts as well, when it comes to communication and range and stuff like that.

**Capt. Lewis:** I was really excited to see the CNO's NAV Plan that she just released, with [Project 33](#), and one of those pillars being robotic and autonomous systems, and her drive to pursue and execute the hybrid fleet. I think that just shows the importance of unmanned systems and incorporating them into what we do. As I heard the CNO say, going after the dull, dirty and dangerous items. And I think Orca and other unmanned systems really get after that, and let our sailors and also our more precious investments, like submarines or surface ships, be able to do other tasks for the Navy.

# UNDERSEA WARFARE NEWS



**TWZ:** Where are you guys going to be doing the operational testing and evaluation this year?

**Capt. Lewis:** That will be happening out in Southern California, [Port Hueneme](#), that's where the UUVRON detachment is.

**TWZ:** Anything else you'd like to add or share about the Orca?

**Capt. Lewis:** I guess what I would close or leave with is, going back to the CNO's drive to bring unmanned systems into the fleet. I think it's a really exciting time to be in our program office and in the Navy working on these sorts of challenges. There is a lot to learn. I think we're in this spot where we need to bring capability to the fleet, and then we need to be able to learn and iterate off of that, because we don't have enough of these things operating at scale to facilitate that learning, I think, at the scale we need.

I know I'm biased in the undersea domain. It's an extremely hard problem to do all this. The thing that you mentioned at the early part of this conversation, you know, if it's deploying other kinetic effects, or other systems like UAVs, or transporting some sort of logistics, maybe in support of SEALs, not necessarily the SEALs themselves. We started looking at all of that.

This really becomes a system of systems discussion, because on a submarine, they'll tell you, we operate out there, alone and unafraid. And we really do that. But when you start looking in the UUV space, I think we need to open the aperture and we have to look at the system of systems to go execute some of these potential missions, or investigate those mission areas.

Unfortunately, some of the world events have shown us the necessity, or some glimpse of the future, of being able to iterate and operate some less expensive systems that don't bring humans into harm's way. So I think we, as the Navy and the DOD, will continue to explore that path.

# Previous Quarter Highlights

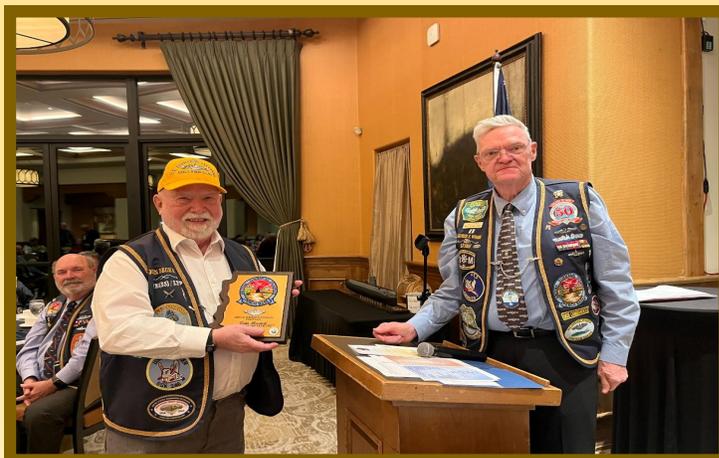


## Déjà vu all over again

"Déjà vu all over again" is a quote (a.k.a, "Yogi-ism") from the great philosopher and baseball player Yogi Berra. When was the last time you used a sextant? The Perch Base Life Member & Webmaster, Dan Marks, was frustrated that he never gets to see the Anthem Veterans Memorial when it is lined up with the Great Seal every November 11 at 11:11:11 AM because we are always participating in the Phoenix Veterans Day Parade when the solar alignment occurs. But have you ever considered that the same solar alignment repeats for any solar position twice a year, except the summer and winter solstices? So the Webmaster put on his Quartermaster hat (he happens to be a nuke ET) and determined the sun's azimuth and elevation at 11:11:11 AM on Veterans Day, then went to the astronomical tables at <https://gml.noaa.gov/grad/solcalc/> and determined the other date to achieve the same solar position is January 30th at approximately 11:40 AM (sometimes January 31 in a leap year). According to Jim Martin, the Anthem Veterans Memorial chief engineer, the Anthem Veterans Memorial was designed to align correctly within plus or minus 12 seconds to compensate for pole wandering and seasonal slowing of the earth's rotation. Learn more about Jim's engineering of the Memorial on the [Anthem Community Council website](#). Jim Martin was also the engineer for the Arizona Silent Service Memorial (ASSM) in Wesley Bolin Plaza. I then took a ride to the Anthem Veterans Memorial and took these pictures. Perch Base member CC Clarke was also present for the solar alignment. Did you miss it? Stop by next year at the Anthem Veterans Memorial on Friday, January 30, 2026 at 11:40:38 AM! (plus or minus 12 seconds).

## ANNUAL AWARDS BANQUET

Perch Base Submarine Veterans (USSVI) held its Annual Awards Banquet on 1/26/2025 at the Pebble Creek Clubhouse in Goodyear, AZ. Congratulations to our Storekeeper, John Beckett, who was awarded the 2024 "Sailor of the Year" Award. The Keynote Speaker was Vice Admiral Phillip Sawyer (ret). At the time of his retirement, Admiral Sawyer was the chief of staff for special activities for the Submarine Force Atlantic in the office of United States Strategic Command. Earlier in his career, he commanded the submarine USS LA JOLLA (SSN-701) Holland Club Inductions were performed for Kenneth Kennedy and Samuel Mecham, upon achieving 50 years as Qualified in Submarines. Mark McCreary and Ron Perkins were also recognized for induction into the Holland Club, but were not present at the Awards Banquet.



# Previous Quarter Highlights (cont.)

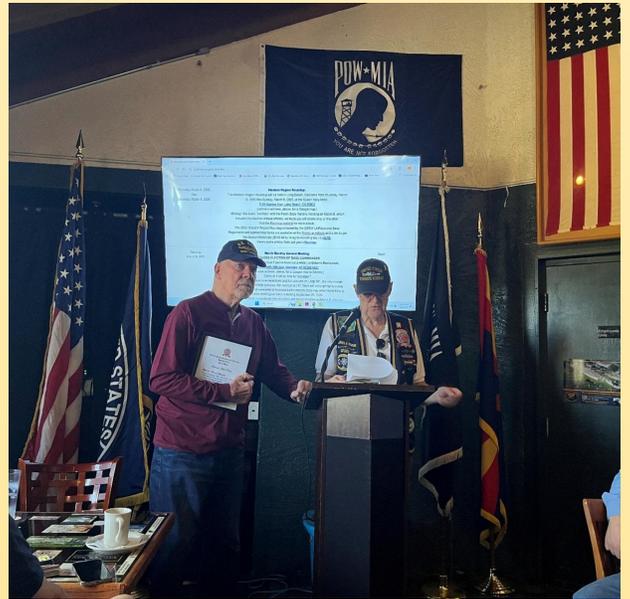


## LAVEEN COMMUNITY PARADE

(L-R) TJ McCoy (guest), Don Robinson, George Woods, Paul Miller, Chris Gahan, Howard Doyle, Carl Miner, Joe Trotter, & CC Clarke participated on February 1, 2025, in the 24th Annual Laveen Community Parade. This year's theme was "Laveen's Got Talent!" The crowds along the side of the parade route expressed their appreciation of our service as our float went by.

## BRAVO ZULU RON!

Perch Base Submarine Veterans (USSVI) Member Ron Perkins was inducted into the Holland Club at our monthly meeting on February 8, 2025, having been qualified in submarines for over 50 years. Ron Qualified in Submarines on USS Cusk (SS-348) in 1969. The photo shows the Perch Base Commander, George Woods, (right) awarding Ron Perkins (left) his Holland Club certificate, letter and coin during the monthly meeting on February 8, 2025.



## ASSM PAVER INSTALLATION

Perch Base USSVI member and Arizona Silent Service Memorial (ASSM) Chairman Joe Trotter & Dan Marks, Perch Base Webmaster installed a new paver at the ASSM in Wesley Bolin Plaza at the Arizona State Capital on February 17, 2025. Perch Base Life member John Brown donated to the ASSM to place an 8" x 8" paver. John qualified on the USS Pintado (SSN-672) in 1980 and also served on the USS Guitarro (SSN-665).

Thanks John!

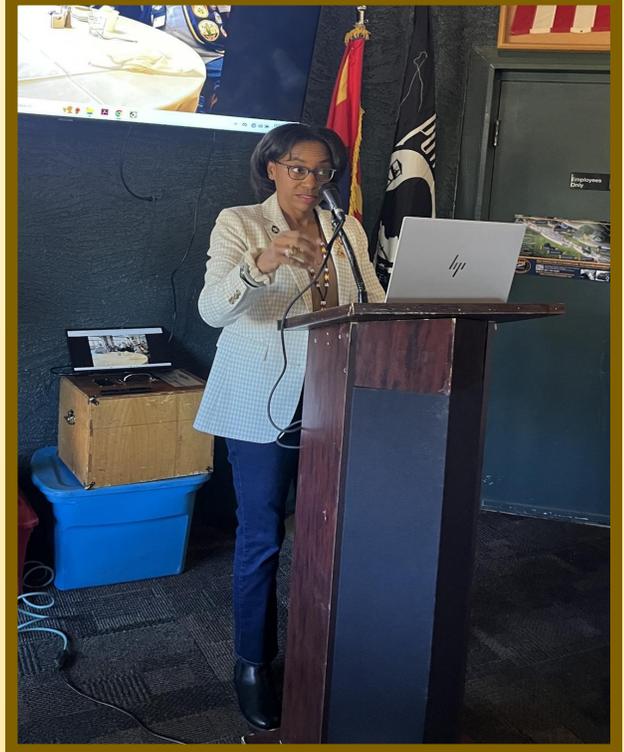
Contact Joe Trotter at (724) 854-0514 if you would like to place a paver. They are available in 8" x 8" and 4" x 8" sizes.



## Previous Quarter highlights (cont.)

### DANA ALLMOND, ARMY LtCol (ret) GUEST SPEAKER

Retired Army Lieutenant Colonel Dana Allmond, Chief of the Arizona Department of Veterans' Services Office of Veteran & Military Family Affairs within the Arizona Department of Economic Security was our guest speaker at the Perch Base monthly meeting on March 8, 2025. She was also accompanied by her Deputy Chief Marcus Trombetta. Dana discussed the services available from her organization and a theme of "No Veteran Left Behind."



### BASE COMMANDER INSTALLATION

Perch Base member David Heighway, who was our Vice-Commander since March 9, 2024, was elected and installed as our Base Commander at the March 8, 2025, Perch Base Meeting at Dillon's Restaurant. Congratulations to Dave, who was also previously our Event Coordinator, and thanks to George Woods for his service as the past Base Commander since March 13, 2021 (not to mention George's contribution as Vice-Commander from March 9, 2019 to March 13, 2021). David was sworn in by Perch Base member Vic Van Horn who was formerly our Western Region Director and also District Commander WD1.

# Previous Quarter Highlights (cont.)

## LONGEVITY PINS

Membership Chairman Paul Miller awarded Longevity Award pins to 3 Perch Base members at the March 8, 2025 base meeting.

- Chris Gahan received a 5-year longevity award pin.
- Caroleen Culbertson received a 5-year longevity award pin.
- W. Howard Doyle received a 25-year longevity award pin.

Congratulations to each recipient!



## CAPT. RAAZ VISIT

Hawkbill (Idaho) Base Life and Holland Club member Capt. Dick Razz (USN, ret) visited Perch Base at our March 8, 2025, meeting at Dillon's Restaurant. Captain Razz first served and qualified on the USS Pomfret (SS-391) in 1969. He also rode the USS Sculpin (SSN-590) from 1972 to 1974, and the USS Benjamin Franklin (SSBN-640) from 1974 to 1978. Captain Razz then served as Executive Officer on the USS George Washington (SSBN-598) from 1978 to 1981, Commanding Officer of USS Haddo (SSN-604) from 1983 to 1986 and finally Commanding Officer of USS Georgia (SSBN-729) from 1986 to 1989. Four others attending the meeting had served with him during his career.

# In the Spotlight



This year's Western Region Roundup held aboard the Queen Mary in Long Beach, California was a very successful event. While the prices were higher than years passed, and the accommodations were not the best even considering it was aboard a 90-year-old ship, the historical value of the venue was impressive. The ship has many displays of historical artifacts and most of the interior decor is of a vintage design with lots of brass. The original elevators were... well interesting. There was even a Soviet era Foxtrot class submarine tied up at the bow of the ship. Unfortunately, it was not open for tours.

The roundup kicked off with a welcome aboard luncheon with keynote speaker, Captain Jessica O'Brien, Commanding Officer of Naval Weapons Station Seal Beach. The Captain described the operations of the Weapons Station. Her command is also host to the U.S. Submarine Veterans of WWII National Memorial West. For those of you who have never been to the memorial, you should schedule some time to see it the next time you are in the Los Angeles area. It is accessible at the main gate of the weapons station without having to enter the base and there is plenty of free parking.



# In the Spotlight

The meet of the roundup included several workshops and presentations including:

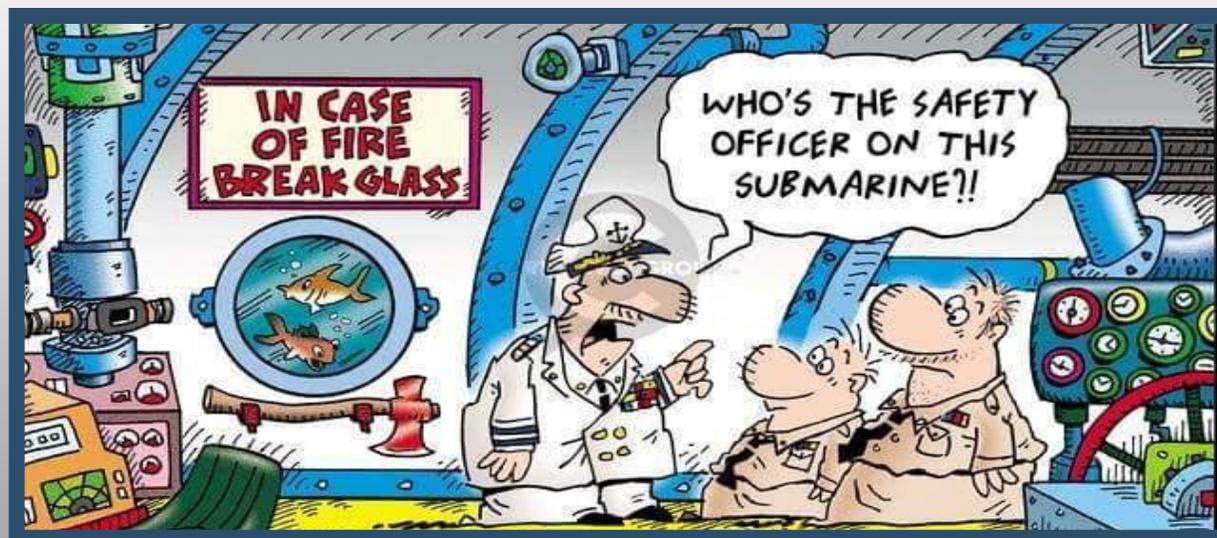
- ◆ New member recruitment
- ◆ National and Base awards
- ◆ Community outreach programs
- ◆ “41 for Freedom” program
- ◆ Communication - Local and social media
- ◆ Base websites
- ◆ Discovery of USS Grunion near Kiska Island
- ◆ USSVI National Operations

I have not included my notes from these events for brevity’s sake but will be happy to share my notes with anyone interested.

The traditional Tolling for the Boats ceremony was held on the after-sun deck on a beautiful day followed by the group photo.

The keynote speaker for the banquet was Captain Will Wiley, Commander Submarine Squadron 11. Dinner was preceded by a live auction of many submarine and nautical related items. The auctioneer had everyone in stitches and was assisted by a local Scouts of America Troop. The bidding was fast and fierce, making a good deal of money for the National Charitable Foundation.

This summary of the Western Regional Roundup was provided by Joe Trotter.



# In the Spotlight



## JOSEPH HAWKINS ETERNAL PATROL

Perch Base Holland Club Member and Life Member Joseph J. Hawkins, CSC(SS) (ret), 89, passed away November 14, 2017. Joseph joined the Navy in 1946 and honorably served in the US Navy during WWII, the Korean Conflict and the Vietnam War until 1966. He retired from the Navy as a Chief Culinary Specialist, CSC(SS). Perch Base officers had been trying unsuccessfully to make contact with Joseph, but it was not until 2025 that we discovered the location of his interment in the RI Veterans Memorial Cemetery in Exeter, RI, that we learned he had passed onto Eternal Patrol. Joseph's first submarine assignment was aboard EX-U-2513 as a Seaman after WWII, which included both evaluation tests of the U-boat's design and duty in conjunction with the development of submarine and antisubmarine tactics. The Greater Underwater Propulsion Power Program (GUPPY) would be initiated because of the results of these tests, where we learned about the *schmorchel* (a.k.a., snorkel.) Joseph then served on the USS Dogfish (SS-350) and subsequently Qualified in Submarines on the USS Becuna (SS-319). He also served on the USS Sculpin (SSN-590) and the USS Sailfish (SS-572).

**SAILOR, REST YOUR OAR! YOUR WATCH HAS ENDED.**

**Your Brothers of the 'Phin Have the Watch.**

**Fair Winds and Following Seas, Shipmate.**



# In the Spotlight



Bill Tebo in 1944

## BILL TEBO ETERNAL PATROL

WWII SubVet Bill Tebo from the east coast (Thresher Base) passed away here on February 17, 2025, while visiting his daughters. He was a TMSN(SS). He was a Past Base Commander with Thresher Base in Portsmouth, New Hampshire. Bill was born in Grafton, Massachusetts on 08/22/1927, and carried Submarine Veterans of World War II (SVWWII) card 02511. At the time of his passing, Bill was the Executive Director of the Portsmouth Naval Shipyard Museum and the SVWWII State Commander for Maine and New Hampshire. Bill joined the Navy in 1944 and left the Navy in 1948 as a Seaman Torpedoman Mate, TMSN (SS). He served on the USS Clamagore (SS-343) as a Torpedoman striker, lookout, and a bow & stern planesman. Bill Tebo Qualified in Submarines on the USS Sea Owl (SS-405) in 1945. Bill also qualified aboard the German Type XXI U-Boat EX-U-2513 after WWII, which included both evaluation tests of the U-boat's design and duty in conjunction with the development of submarine and antisubmarine tactics. The Greater Underwater Propulsion Power Program (GUPPY) would be initiated because of the results of these tests, where we learned about the *schnorchel* (a.k.a., snorkel.)

**SAILOR, REST YOUR OAR! YOUR  
WATCH HAS ENDED.  
Your Brothers of the 'Phin Have the  
Watch.  
Fair Winds and Following Seas,  
Shipmate.**



# In the Spotlight



A - Northeast Bird's Eye View



## MORE EXCITING PROGRESS!!!

Hello Monument Friends and Supporters!

Our Cold War Monument Project continues to make steady/exciting progress toward what we hope will be a construction start sometime this year. Recently, the City's contractor, Ardurra, reached the "30% Design Review" milestone in the monument's design process and in separate presentations, they previewed their initial design concepts to the City of Phoenix Parks Development managers, as well as to our Foundation and to the members of our "Content Advisory Group" (CAG). The presentation summarized the initial results of an ongoing, collaborative effort of the monument's Design Team, a team comprised of architects, interpretive sign specialists, engineers, landscape designers and City officials. The presentations were made specifically to elicit feedback and suggestions from the City, from our Foundation representatives (including Chairperson Carol Culbertson, submarine veteran Chris Gahan and myself), and from the specially selected members of our CAG. The Content Advisory Group is made up of six persons: an area expert in Eurasian/East European/Russian matters, a museum expert, a story-teller novelist, an historian, a submarine expert and a City/urban Parks expert.

There were many interesting, intriguing and impressive ideas presented by the Design Team, including a dramatic change created to present the USS Phoenix's full 362-foot length and 33-foot width by reorienting the monument's direction. Also included were renderings and plans for an impressive entranceway, a covered, museum-like, meeting/informational area, an imposing sail reconstruction, beautiful landscaping, accent lighting and a spectacular array of large and small signage relating to the Cold War and to submarine operations. At this point, the renderings are not final nor yet ready for public release; however, copied above is a preliminary "bird's eye" view of the proposed monument at this stage in the game, along with a view of the monument's entrance. We are very grateful for all the City and Contractor work involved in making this terrific progress possible! Stay tuned as the design evolves and over the coming months, we arrive at a final, approved, affordable monument plan!

**Pete Lumianski, Captain, USN (ret), Executive Director, USS Phoenix Cold War Monument Foundation.**

# Upcoming Events

Remember to check the [Perch Base website](#) and watch for **Flash Traffic** emails for the most up-to-date information.

## Monthly General Meetings:

**No meeting in April because of the Annual Picnic**

Saturday's, May 10th and Jun 14th.

At Dillion's KC BBQ restaurant

[20585 North 59th Avenue, Glendale, Arizona.](#)

(Left click above address for a Google map.)

The official meeting starts at Noon but come join us at 1100 for lunch!

50/50 Raffle drawing (Must be present to win).

## Annual April Base Picnic: April 12th from 9A—5P:

Where: Paloma Community Park, 29799 N. Lake Pleasant PKWY., Peoria, AZ, 85383. Check the website for details

## Submarine Force Birthday on April 11:

The USS Holland (SS-1) was commissioned on this date in 1900. Celebrate by proudly wearing your SubVet hat and/or your Dolphins.

## Memorial Day Celebration at the Phoenix National Cemetery on May 26th:

This event is the premier of the year for Perch Base. No specific details at this time, nevertheless, plan on arriving early as parking is a premium. The formal program starts at 8:00am and after the main program Perch Base performs a complete Tolling of the Boat at the submarines Memorial. Don't forget to bring a chair.

## Deadline for the Midwatch Newsletter third 2025 edition

Friday, August 8th, 2025

All input must be into Chris Gahan, Perch Base Newsletter Editor, to be included in the next Midwatch Newsletter to be published on Wednesday, September 8th, 2025.

**Please watch for updates on the [Perch Base website](#) and **Flash Traffic** emails as events may be updated, added or amended.**

# ***Second Quarter Birthdays***

## **APRIL**

1 Robert Faulkner  
12 Frank Hausen  
13 James Baker  
13 James Wall  
14 Richard Simmons  
16 James Edwards  
18 Thomas Farley  
20 Ed Sarlo  
22 Billy Johnson  
30 Davy Jones

## **MAY**

2 Don Schafer  
3 Doyle Egg III  
3 Bernie Jacques  
7 Stan Reinhold  
8 Ramon Samson  
11 George Woods  
12 James Tolsma  
13 Duane Kanitz  
17 Steven Balthazor  
18 Joseph Hawkins  
23 Randy Pirkle  
24 George Gillette  
25 Don Robertson  
26 Vic Van Horn  
29 Charles Tobias  
30 Carl Scott

## **JUNE**

3 James Newman  
4 Patrick Habel  
4 Steve Snyder  
5 Ralph Jennings  
7 Robert Hayball  
7 Dan Marks  
11 Glenn Posniack  
12 Gerald Maly  
17 John Brown  
17 Don Petty  
19 Mike Weeks  
20 David Fyock  
20 James Ratte  
22 Frank Elliot  
23 Kenneth Kennedy  
27 James Evans



# Binnacle List

Keep these shipmates in your prayers

**Howard Doyle Jr.**

**DeWayne Lober**

**Jim & Mary Denzien**

**Richard Simmons**

**Franklin Hausen**

**Chuck Emmett**

**Davy Jones**

**Chuck Luna**

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**GOOD OF THE ORDER**

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## Base Ride Share

In need of a ride to a base meeting or event? Like to help a shipmate in need of a lift? Please contact: Dan Marks at

[webmaster@perch-base.org](mailto:webmaster@perch-base.org)

# Tolling of the Boats



## Tolling of the Boats for April

3	USS Pickerel (SS-177)	1943	74 men lost
8	USS Snook (SS-279)	1945	84 men lost
10	USS Thresher (SSN-593)	1963	129 men lost
18	USS Gudgeon (SS-211)	1944	80 men lost
22	USS Grenadier (SS-210)	1943	No loss of life; 4 lost as POWs

## Tolling of the Boats for May

3	USS Lagarto (SS-371)	1945	86 men lost
22	USS Scorpion (SSN-589)	1968	99 men lost
23	USS Squalus (SS-192)	1939	26 men lost
29	USS Stickleback (SS-415)	1958	no loss of life

## Tolling of the Boats for June

1	USS Herring (SS-233)	1944	83 men lost
12	USS R-12 (SS-89)	1943	42 men lost
14	USS Golet (SS-361)	1944	82 men lost
18	USS Bonefish (SS-223)	1945	85 men lost
19	USS S-27 (SS-132)	1942	no loss of life
20	USS O-9 (SS-70)	1941	34 men lost
30	USS Runner (SS-275)	1943	78 men lost

# 2024 Perch Base Operations

These are the Base members and Friends who donate monies or efforts (1 October 2024 thru 30 September 2025) to allow for Base operations while keeping our dues low and avoid raising money through member labor as most other organizations do. The list reflects donation as of Apr 4th.

James Dahl	Frank Elliot	John Carpenter
Roger Cousin	Howard Enloe	Thomas Farley III
David Fyock	Chris Gahan	William Grissom
Robert Wright	David Heighway	Governor Joy
Douglas La Rock	DeWayne Lober	Billy Deshong
Dennis McComb	Dan Marks	Paul Miller
James Mills	James Newman	Stanley Reinhold
“Noisy Can”	James Paper	Steven Stanger
Raymond Villa Sr.	Donald Schafer	Richard Simmons
Joseph Trotter	Don Unser	Marcus Hensley
Glenn Posniak	Samuel Mecham	George Williams
George Woods	Don Robertson	Curt Morgan
Cynthia Morgan	Kirby Anderson	Gary Bartlett
John Beckett	Elbert Huber	Phillip Sawyer
Larry Ruggles	Kevin Sheehan	Wayne Smith
Lawrence Speight		

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Ad size limit: 300 characters, including spaces. Pictures may be included, and are encouraged. Please provide the picture as a separate file in one of the following formats: jpg or png. If you are not sure which one to use or the file is over 600kb, email the editor at [newsletter@perch-base.org](mailto:newsletter@perch-base.org) for assistance and to discuss options.

If your ad can not be formatted in Word, it will not run.

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# USS Arizona Legacy Foundation

The USS Arizona Legacy Foundation is dedicated to supporting the commissioning of the fourth U.S. Navy vessel to bear the name Arizona. Our vision is to honor the memory of the USS Arizona BB-39 while shaping the future legacy of the USS Arizona (SSN-803) Virginia-class fast attack submarine.

## OUR MISSION

### Celebrate

We are thrilled to celebrate the addition of the USS Arizona submarine to our Naval Fleet. Join us for a series of grand festivities and community events as we honor this monumental occasion.

### Educate

We strive to educate future generations about the history and significance of the Pearl Harbor, USS Arizona battleship, and the brave men who served aboard her. Through our educational programs and resources, we keep their legacy alive.

### Support

We are committed to supporting the crew of the USS Arizona submarine and fostering a lasting bond between them and the citizens of Arizona. Our initiatives ensure ongoing support throughout the life of the boat.

**Donate  
Today !**

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[Ussazlegacy.org](http://Ussazlegacy.org)

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