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PRIDE RUNS DEEP



"To perpetuate the memory of our shipmates who gave their lives in the pursuit of 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."

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Editor's Corner



Remember TV's Voyage to the Bottom of the Sea? This is a casting made from a

mold taken off the nose of the original filming miniature of the submarine *Seaview*—a childhood fave. Fun! (I run a smaller, full r/c version.)—*Jeff*

U.S. Navy Chose Not to Match Russia's Sierra II-Class Submarine

The U.S. Navy did not copy the titanium hill design of the Sierra Ilclass submarine for clear reasons. Washington just did not see a clear benefit in these types of subs.

(Reproduced from the National Interest website - Published January 19, 2024.) by Harrison Kass



Russia's Sierra II-class submarine.

Reserve II-Class Submarine Was a Titanium Wonder - During the Cold War, the two great powers, USA and the USSR, competed fervently with one another to develop a military edge. The result was a dazzling array of new technologies. As Neil deGrasse Tyson notes in his book *Space Chronicles*, nothing spurns technological development like war-inspired investment. Consider the new tech that both countries developed during the Cold War.

You have the entire Space Race, of course—an overt technological competition resulting in satellites, the *Saturn V* rocket, orbiting capsules, the *Apollo* program, the *Soyuz* program, the International Space Station, and perhaps the most complex machine humans have ever created: the space shuttle.

In the aerospace realm, Cold War competition drove ambitious innovation in jet engine, radar, stealth, missile, and aerodynamic technology. The results were increasingly impressive. From early jets like the MiG 15 and the F-86 Sabre to fourth-gen-

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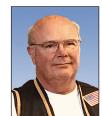
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From the Wardroom...



Dave Vanderveen, *Base Commander*

Shipmates and Ladies,

Glorious Springtime!

Our Memorial Day Ceremony preparation is well underway, and the sole uncertainty we have is, will a Squadron 11 submarine be in port whose commanding officer is available and willing to be our keynote speaker? Operational tempo is very high so we will remain flexible in our planning in case all the boats are committed to working at sea over Memorial Day.

We recently received some pleasant and encouraging news about our Memorial Bricks project started so long ago. You may recall about five years ago we had to go to "all stop" on the project. There are a lot of arms and legs in the reasons for that, but the root cause was related to the mess generated by the "Fat Leonard" scandal in the Far East. Essentially, a ship repair contractor was doing things which were ethically questionable, and some military folks got caught up in various ways. The Department of Defense did the sensible thing and applied tight constraints on any activity or business related to military installations and to personnel relations with non-federal entities. We are a non-federal entity, so our activity on and for the WWII Submarine Memorial – West drew increased attention from the Navy.

Early in March, I learned that we may proceed through a multi-step process for Navy approval to install our memorial bricks next to the USS *Thresher* and USS *Scorpion* monuments...where several dozen bricks were placed about ten years ago. Quiet persistence and a pleasant demeanor have served us well, because we are the beneficiaries of work by Captain Jessica O'Brien (Weapons Station CO) and her staff, who helped Navy leadership see that we want to do things correctly. The approval process followed by installation may take a while, so please continue to be patient and we will update you as we progress.

This year's meeting among submarine veterans in the western region of the U.S. will take place immediately after this issue is published, and soon afterward planning will begin to move faster on the meet we'll host in April of 2025. Discussions are underway with the folks who operate the *Queen Mary* to provide lodging, meeting space and catering. Additionally, planners are working with the folks who operate the Battleship *Iowa* as a museum ship in San Pedro for tours and the Tolling the Boats ceremony—perhaps to be closed by a ceremonial firing of a 5"/38 caliber gun mount. As we move through fall and winter this year, we'll keep you up to date with progress and opportunities for your participation.

I regret that I must remind you of a certain record with its needle stuck in one groove. (How is *that* for an old-people's reference?). I sincerely encourage you all to remain aware that there are things in the air which can hurt you, or worse. The Centers for Disease Control assure us that those things are not the colds of our youth. Please continue to use your own good sense and protect yourselves in crowds and pay attention when your body tells you to slack off your activity. Stay well!



Dave Vanderveen, Commander Los Angeles-Pasadena Base

(<u>Editor's P.S.</u>: Related to what Dave was kindly mentioning above, the CDC has recently approved and recommended the latest COVID booster round for anyone over 65 who hasn't had a shot in the last four months. MJ and I got ours the other day. Flu and RSV shots are still available too.)



March General Meeting Sailing List

Ramon Aguilar

Dennis Bott

Ken Dorn

Ron Jones

and guest Diane

Larry Lovett

John Lucio

Jack Mahan

Bill Moak

Greg Paulson

Chuck Senior

Mike Swanson

Ray Teare

Dave Vanderveen

Dennis Walsh

Pat Zilliacus

Mercedes Zilliacus





Minutes of March 16, 2024 General Meeting

Base Commander Dave Vanderveen called the General Meeting of the L.A.-Pasadena Base to order at the VFW Hall in Anaheim at 1100 hours. Dave then led the Pledge of Allegiance, following that with reciting the USSVI Purpose and adding a request for a Moment of Silence for our departed shipmates.

Dave explained that the Minutes of the February meetings had been reviewed during the E-Board meeting and accepted into the base record. They are published in the previous issue of *The Periscope* for members who wish to review them.

Treasurer's Report:

Dave advised that although the Treasurer's Report had been reviewed by the E-Board and accepted into the base record, our By-Laws require that a report be made to those present at General Meetings. Thus, the Treasurer's Report as of March 15, 2024 was read aloud by Base Treasurer Mike Swanson. (It appears in the E-Board Meeting Minutes elsewhere in this issue as usual.—ed.)

Memorial Report:

The Memorial remains in good condition. Dave Vanderveen met with the Seal Beach Chamber of Commerce on the 14th to accept their offer to assume responsibility for monthly placement of flowers on the monuments for boats lost in that month. Ray Barnes of F&M Bank will chair the group of merchants who'll participate. The table of boat losses has been provided to him, along with the video made by Ron Jones early this month as he performed the work. That video has also been circulated to USSVI's National Commander and to the Western Region Director. Our Board decided to work parallel with the chamber in April and May, then transition responsibility to them starting June 1st.

Memorial Day Ceremony Preparation:

Commitments to participate have been received from: Captain O'Brien, vocalist Ann Grennan, Chaplain Rudy Hedgren, the Oishi Buglers, Poet David Rosenfeld, and the Piper. The order has been placed for flowers. Richard Smith (Weps Station Public Works) has scheduled trimming of the podocarpus hedge and has been asked to repair the base around the flagstaff which had been broken by high winds against the flag and the staff. Additional work: Dennis will check the strap on the back of each monument and repair as needed. Dennis will also request checks from USSVCF-Memorial fund to pay stipends to our non-military presenters. Dave will ask Public Works to plant the potted geraniums around the Aleppo Pine.

Memorial Bricks Project:

The Navy's constraints placed on us five-plus years ago preventing placement of our Memorial Bricks have relaxed somewhat. We've been invited to submit a request through the District Command to allow us to install the bricks next to the *Thresher* and *Scorpion* monuments and to declare that work a gift to the Navy. We're engaged in the preparatory work now, and when approved by the Navy, we'll have a contractor perform the installation—to be paid for by the USSVCF-Memorial Fund. It's been a long wait, but patient persistence and pleasant demeanor have served us well, and we offer our thanks to Captain Jessica O'Brien (NWSSB CO) and her staff for their willingness to help us! Ron Jones asked if bricks can continue to be made, and Bill Moak noted that the manufacturer is no longer in business.

(concluded on next page)



Ad Still Here by Popular Demand!



Just the Place for Killer MidRats!

Hey, know anyone on boats out of New London? Or, planning a visit to Groton yourself?
Drop anchor at this local dive:
Wings'n'Pies at 924 Route 12, just down the road from the Base's Main Gate. Your editor enjoys firsthand knowledge that the pizzas here are some of the tastiest and sloppiest around. Forget those extra napkins—just wipe your greasy fingers on your shirt and they'll think you've been hanging out with the A-Gang!



General Meeting Minutes...

(concluded from previous page)

Membership Update:

Marilyn Senior reported that we presently remain at 92 members. Dave has requested a current list of Members at Large. Pat Zilliacus has offered to contact those MAL members in our area to invite them to participate with L.A.-Pasadena Base. (BZ, Pat!)

Memorabilia:

Dave outlined the Board's plan to evaluate our inventory and to begin to reduce the amount of our stored material by donating it to members, the Region, and/or the national organization, plus to submarine-related museums. More information to come. Larry Lovett, whose uncle EM3 (SS) C. M. Lovett died aboard USS *Tullibee* when she was struck by her own torpedo, donated a first edition (1946) of *U.S. Submarine Losses, World War II* to our base.

The Good of the Order:

After questions, Dave confirmed that Mike Swanson successfully reserved the Eagle's Nest for our Christmas Luncheon on the third Saturday of December, the 21st.

Dave welcomed guest John Lucio, BC of Bonefish Base.

There being no further business, Dennis Bott motioned for adjournment; this was seconded by Mike Swanson and approved by all present, adjourning the meeting at 1142 hours.

Ticket sales for the 50/50 raffle began, with the drawing taking place at the end of lunch. Ron Jones won \$32—which he donated back to the base treasury.

Respectfully submitted,

Dave Vanderveen

Filling in for *Darin Detwiler*, Secretary, L.A.-Pasadena Base, USSVI



April Meeting

April Meeting

Date: April. 20

This meeting

This month we're back at Anaheim's VFW Hall with our standard potluck arrangement. So please bring your own plates & utensils, plus your own drinks and a dish to share (see below). Parking's behind the building.

Location:

VFW Post 3173, Anaheim 805 East Sycamore Street Anaheim, CA 92805

Times:

- E-Board Meets: 10:00-11:00
- General Mtg.: 11:00-Noon
- Lunch: Noon

(must vacate premises at 1:00)

Lunch: Potluck. Assignments by last name as follows. Remember to bring needed serving utensil(s).

A-H —Main Dish

I-R — Salad or Vegetable

S-Z — Dessert



April Birthdays

We hereby extend the happiest of wishes to all our L.A.-Pasadena Base birthday celebrants!

Gary Krudwig 4	/1
Tom Peratt 4	1/7
Ken Chunn 4/	13
Ed Barwick 4/	28

Ship's Store



New Reduced Price on T-Shirts!

Our ever-popular L.A.-Pasadena Base "Submarine Service" tees are once again selling like fresh whites after a fall down the pump room hatch! Now a mere *ten bucks* apiece, there's no reason not to have a closetful. Contact Bill Moak for yours, or just bring a few extra bucks to the next meeting, you skinflint!



USSVI Logo Patch (93/4 x 63/4) \$11.00 ea.



L.A.-Pasadena Base Patch (3³/₄x5)

\$5.00 ea.



Holland Club Member Patch (3x3)

\$6.00 ea.

2024 Calendars Now Available!

Order at ussvinationalstorekeeper.com Or see details elsewhere in this issue. Don't miss out—they're selling fast!



LOS ANGELES/PASADI

Get in touch with our base Storekeeper, Bill Moak, at 805-660-4776 for more purchasing information.

LOS ANGELES - PASADENA BASE

2024 FLOWER FUND and BOOSTER CLUB

A special thank you to the following folks whose generous contributions this year have helped make our base activities and charitable functions possible:

Ken Dorn • Dennis Bott • Bill Moak • Sally Moran

Booster Club and Flower Fund donations are welcome in any amount and are often also popular with 50/50 Drawing winners at our base meetings. Contributions can be made in cash or by check payable to L.A.-Pasadena Base of USSVI. Checks may also be sent to Mike Swanson at 1149 W. Santa Cruz Street, San Pedro, CA 90731. To ensure proper credit, be sure to indicate Booster Club or Flower Fund on your check.

UNITED STATES SUBMARINE FORCE LOSSES ON ETERNAL PATROL

"I can assure you that they went down fighting and that their brothers who survived them took a grim toll of our savage enemy to avenge their deaths."

— Vice Admiral Charles A. Lockwood, USN

APRIL TOLLING OF THE BOATS



USS PICKEREL (SS-177)

Lost on April 3, 1943 *Pickerel* went down off Honshu on her seventh war patrol. The exact cause of her loss has never been determined, but her OP area was known to contain numerous minefields. Seventy-four officers and men were lost aboard *Pickerel*.



USS SNOOK (SS-279)

Lost on April 8, 1945 *Snook* ranks tenth among American submarines in total Japanese tonnage destroyed and is tied for ninth in number of enemy ships sunk. She was lost near Hainan Island, probably at the hands of a Japanese submarine. Eighty-four officers and men went down with her.



USS THRESHER (SSN-593)

Lost April 10, 1963 *Thresher* was America's first nuclear submarine casualty and an especially tragic loss given that seventeen civilian technicians went down along with her crew of 112—the largest number ever lost aboard a single U.S. submarine. *Thresher*, a brand new boat, had been participating in deep-dive exercises. Fifteen minutes after reaching test depth, she informed USS *Skylark* she was having problems. *Skylark* heard noises like "air rushing into an air tank"—then silence. Rescue ship *Recovery* (ARS-43) subsequently recovered bits of debris, including gloves and internal insulation. Photos later provided by *Trieste* proved *Thresher* had broken up, taking all hands to their deaths at 1,400 fathoms some 220 miles east of Boston. A combination of design flaws and poor workmanship were determined to have caused the disaster, errors fully corrected in all subsequent U.S. submarines in a program called SUBSAFE.



USS GUDGEON (SS-211)

Probably lost on April 18, 1944 southeast of Iwo Jima—but possibly lost instead on May 18, 1944, in a different attack on an unidentified boat heard by other American submarines in the area—USS *Gudgeon* went down with seventy-nine men aboard. A recipient of five Presidential Unit Citations, she was on her twelfth war patrol when she failed to return. *Gudgeon* was the first American submarine to sail out on a war patrol from Pearl Harbor after the Japanese attack. During that first patrol, she also became the first U.S. submarine to sink an enemy warship, picking off the Japanese submarine, *I-173*.



USS GRENADIER (SS-210)

Lost on April 22, 1943 near Penang, with no immediate loss of life, *Grenadier* had been stalking a convoy during her sixth war patrol when she was spotted by a plane and dove. Passing 130 feet, she suffered severe damage from a bomb. Now stuck on the bottom at 270 feet, her crew spent hours fighting fires and flooding. *Grenadier* later struggled to the surface, but was without propulsion and soon attacked by another plane, which she managed to shoot down. Once enemy ships arrived though, the CO was forced to abandon ship and scuttle the boat. Of *Grenadier*'s seventy-six crew members taken prisoner, seventy-two survived the war.

U.S. Navy's New *Columbia*-Class Submarine is Something No Nation Can Match

Highlighting the importance of submarines to modern naval operations, for more than a decade, the U.S. Navy has been identifying the Columbia-class shipbuilding program as its most important—ahead even of the Ford-class aircraft carrier.

(Reproduced from the National Interest website - Published February 1, 2024.)

by Stavros Atlamazoglou



Artist's rendering of new Columbia-class SSBN. (U.S. Navy image.)

ince World War One, when undersea warfare came of age, submarines have been playing a key part in military operations.

Today, submarines can take out other military and commercial shipping with torpedoes, deliver cruise and ballistic munitions against ground forces, and even destroy whole cities through nuclear warheads.

For example, Russian submarines in Ukraine are playing an integral part in Moscow's long-range strike campaign against Ukrainian cities and critical infrastructure.

Highlighting the importance of submarines to modern naval operations, for more than a decade, the U.S. Navy has been identifying the *Columbia*-class shipbuilding program as its most important, ahead even of the *Ford*-class aircraft carrier.

Columbia-class Submarine: The Best SSBN Ever

A highly-classified program, the exact capabilities of the new sub class are shrouded in secrecy. However, since the vessel will be replacing the aging *Ohio*-class SSBNs, we can make some inferences, and some details are known.

To begin with, the sub will include 16 tubes for ballistic missiles (down from the 24 in the *Ohio-c*lass ships). It will also include all the latest technology and stealth design to make it as quiet as possible. At around 560 feet, the *Columbia* class will be the largest submarine in the history of the Navy. In terms of lifetime, the Navy expects it to last 42 years, two 20-year operational periods with a two-year refueling break in between, or around 124 deterrent patrols.

The Navy has three types of submarines: nuclear-powered (concluded on page 8)

No Other Nation Can Match the New Columbia Class

(concluded from page 7)

attack submarines, nuclear-powered cruise missile submarines, and nuclear-powered ballistic missile submarines. Although all three are powered by a nuclear reactor and can sail anywhere in the world so long as they have food supples, only the last type, ballistic missile submarines, carry nuclear warheads and are part of the U.S. military's nuclear deterrence triad. As a ballistic missile ships, the *Columbia*-class subs will pack nukes.

The Navy plans to buy twelve subs of the type. Each submarine will come with a price tag of approximately \$8.5 billion. Overall, the Government Accountability Office (GAO) has estimated that the program, including research and development, will cost around \$115 billion.

Despite the cost, the Navy continues to spend big on its naval forces. Take, for example, fiscal year 2024. The Navy plans to build surface combatants and subs worth about \$33 billion, including one *Columbia*-class ballistic missile sub, two *Virginia*-class attack subs, two *Arleigh Burke*-class destroyers, and two *Constellation*-class frigates.

A Strong Navy

Why a strong navy? you might ask. In a word: China.

The possibility of a future conflict with China in the Indo-Pacific remains high. And the area of operations would mainly be its regional waters.

Beijing has repeatedly reiterated its goal of unifying with Taiwan through peaceful negotiations, if possible, or by warfare if not. Taiwan is an important U.S. partner in the region, and its independence is key. Besides upholding liberty and the rule of law, Taipei's independence is strategically important because of the system of alliances and partnerships that buttress U.S. interests in the region.

Submarines, including the upcoming *Columbia* class, are a key part of U.S. deterrence against China and other nearpeer adversaries.

Stavros Atlamazoglou is a seasoned defense journalist specializing in special operations and a Hellenic Army veteran (national service with the 575th Marine Battalion and Army HQ). He holds a BA from Johns Hopkins University and an MA from the Johns Hopkins School of Advanced International Studies (SAIS). His work has been featured in Business Insider, Sandboxx, and SOFREP. Email the author at: Editor@nationalinterest.org.



China's Type 094 Jin-Class Nuclear Missile Submarines Have Only One Mission

China needs ballistic missile submarines to threaten America with nuclear war in a crisis. However, the Jin-class Type 094 sub might not be up to the task due to many problems.

(Reproduced from the National Interest website - Published January 24, 2024.)

by Maya Carlin



Jin-class Type 094 submarine.

in-Class Type 094 Submarine Profile - China is rapidly modernizing and expanding its naval capabilities amidst an intensifying arms race with America.

From next-generation bombers and fighter jets to cuttingedge submarines, Beijing is striving to possess superior military forces.

On the submarine front, Western analysts are predicting that China's new Type 096 ballistic SSBNs will be operational before the end of the decade.

According to a discussion published by the U.S. Naval War College this summer, the upcoming Chinese submarine will be more difficult to keep tabs on.

Although the Type 096 is still in the works, Beijing routinely deploys its older Type 094 missile boats on fully armed nuclear deterrence patrols in the South China Sea.

Introducing the Type 094 Submarine or Jin-Class

Designated by the North Atlantic Treaty Organization (NATO) as *Jin* class, the Type 094 nuclear-powered ballistic missile submarine arrived back in the 1980s.

China's previous *Xia*-class submarine (also known as Type 092) was notoriously unreliable. When it became operational in 1983, it quickly endured a litany of issues including radiation leakage from its onboard nuclear reactor. The *Xia* was also very noisy, making it very easy for the U.S. and others to track underwater.

Specs and Capabilities of the Type 094

In terms of design, the *Jin*-class submarines appear very similar to the Soviet Union's Delta III-class boats developed one decade prior in the 1970s.

(concluded on page 10)

Jin-Class Chinese Missile Submarines

(concluded from page 9)

However, China's counterparts are smaller in size and can carry only a smaller number of armaments. Analysts have considered the possibility that Russia's Rubin Design Bureau contributed to the design phase of the Type 094 vessels, although this speculation has not been confirmed.

The hulls of the first *Jin*-class submarines were laid down in the early 2000s and commissioned a few years later in 2021. The introduction of the Type 094 coincided with a Type 075 landing helicopter deck and a Type 055 destroyer.

What About Firepower?

The Type 094 boats can sport a total of twelve JL-2 submarine-launched intercontinental ballistic missiles. These *Julang-2* (JL-2) SLBMs are believed to carry a single nuclear warhead each with a range of roughly 9,000 kilometers.

With this range in mind, the JL-2 would not be able to reach the continental U.S. although it could threaten Hawaii, Guam and Alaska if launched from the waters near China.

Last year, several sources reported that some of the *Jin*-class submarines had been refitted with more sophisticated JL-3 ballistic missiles. These formidable missiles have a longer range of up to 12,000 kilometers and could, therefore, threaten American territory more easily.

Since the first *Jin*-class submarine was introduced, electronics and other key components have advanced significantly. China's Type 094A boat was commissioned in 2018. Experts believe that only a total of two of these newer variants exist today.

According to *Military Today*, satellite images released in 2017 and 2018 indicate that Beijing has since launched 2 more ballistic missile submarines, bringing its total up to at least six. These additional boats are believed to incorporate even more advancements than the Type 094A submarines.

In 2001, the *Changzheng 10* Type 094 submarine was officially laid down. One year later, the *Changzheng 11* followed suit. In 2004, the *Changzheng 18* was laid down. Beijing has never publicly disclosed the exact number of ballistic missile submarines that were built. Additionally, there are no visible hull numbers on the submarines.

What Problems are Associated with the *Jin*-class Submarines?

The Type 094 boats may be far superior to their predecessors, but still suffer from many shortcomings.

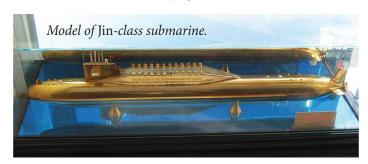
Perhaps most notably, the Chinese submarines are much louder than their American and Russian counterparts.

In fact, according to the U.S. Office of Naval Intelligence, the *Jin*-class submarines are even noisier than the Sovietera Delta III SSBN. In the early 2000s, a Chinese researcher revealed that the *Jin* submarines had an acoustic signature of 120 decibels—comparable to that of the *Los Angeles*-class submarine.

Since the *Jin*-class submarines have to travel farther away from the mainland to actually threaten adversarial targets, the Type 094 may really be a paper tiger. Considering the class' loud noise and easy detection, it would struggle to surpass U.S. submarines in the waters.

Additional details have been provided by the Center for Strategic and International Studies: "Doctrinal limitations also inhibit Chinese boomers from regularly performing deterrent patrols with nuclear warheads on board. The Chinese military has long been reluctant to deploy warheads in peacetime, choosing instead to keep them separated from their delivery systems until needed. Chinese military leaders must also wrestle with maintaining safe, secure, and reliable command and control technologies and procedures—a challenging feat even for militaries with decades of experience operating SSBNs."

Considering the issues surrounding the Type 094 submarines, the *Jin* class may not be cut out for the true global nuclear deterrence role Beijing would like to purport.



Maya Carlin, National Security Writer with The National Interest, is an analyst with the Center for Security Policy and a former Anna Sobol Levy Fellow at IDC Herzliya in Israel. She has bylines in many publications, including The National Interest, Jerusalem Post, and Times of Israel. You can follow her on Twitter: @MayaCarlin.

With More Than 30% of U.S. Attack Submarines Out of Service, U.S. is at a Loss Against China

(Reproduced from the gagadget.com website - published July 14, 2023.)

by Maksim Panasovskyi



Virginia-class attack submarine. (U.S. Navy photo.)

he large number of fighter jets that are not ready for combat is not the only problem for the U.S. military. The difficult situation with attack submarines is also a headache for the Ministry of Defense.

Here's What We Know

The U.S. Navy said that 18 out of 49 attack submarines have been taken out of service and are being repaired. This means the service is unable to use 37 per cent of its subs against a target of 20 percent.

The command later provided updated figures showing that maintenance work was still pending on 16 of the 49 submarines at the end of last month. 32% is still well above the target. This situation puts the U.S. at a severe disadvantage against China's numerically superior People's Liberation Army fleet.

The problems have significantly reduced the number of U.S. nuclear-powered submarines. This limits the U.S. Navy's ability to perform day-to-day missions and pre-

vents it from increasing the operational workload of the subs that are in service.

In 2017, the rate of submarines out of service was at 28 percent. Five years later, it has increased to 33 percent. In contrast, the best year in terms of combat readiness for the U.S. Navy was 2015, when only 19 percent of attack submarines (10 out of 53 units) were in repair.

The U.S. Department of Defense considers submarine forces as a key advantage over the Chinese Navy. It is important to note here that all *Ohio*-class submarines are in operational status.

These particular strategic missile cruisers are the carriers of Trident II intercontinental ballistic missiles with nuclear warheads. In addition, the *Ohio* class includes a quartet of nuclear-powered submarines carrying Tomahawk cruise missiles.

Source: Bloomberg

Sturgeon Class: The U.S. Navy's Ultimate Hunter-Killer Nuclear Submarine of Her Time

During the Cold War, the Sturgeon-class submarine represented the spine of the U.S. Navy's attack sub fleet. Around this time, American and Soviet ships prioritized tailing each other without being detected. When the U.S. Navy incorporated nuclear power into its submarines, the Sturgeon-class was the resulting product.

(Reproduced from the National Interest website - Published January 27, 2024.)

by Maya Carlin



USS Sea Devil (SSN-664) Sturgeon-class nuclear-powered attack ubmarine.

Sturgeon-Class Submarine: A Guide to a Legendary Group of U.S. Navy Nuclear Subs - During the Cold War, the *Sturgeon*-class submarine represented the spine of the U.S. Navy's attack sub fleet.

Around this time, American and Soviet subs prioritized tailing each other without being detected. When the U.S. Navy incorporated nuclear power into its submarines, the Sturgeon-class was the resulting product.

Introducing the Sturgeon-class submarines:

While the Soviets focused on producing submarines capable of launching both anti-ship missiles and torpedoes, the Americans concentrated on developing ships that were fitted with weapons launched by torpedo tubes.

The Navy developed the Sturgeons as a lengthened and

enhanced version of the preceding *Thresher/Permit* class. Each *Sturgeon* boat measured roughly 15-25 feet longer.

The last nine *Sturgeon*-class submarines were lengthened even more to allow for additional surveillance equipment and to permit the installation of dry dock shelters to deploy special operation forces. Otherwise, the ships in this class incorporate the same layout as the *Thresher/Permit* vessels. Engineers designed the *Sturgeons* with extra length so that more torpedoes could be stored in the operations compartment.

Another design difference incorporated on the *Sturgeons* was a longer sail, which allowed for important intelligence gathering equipment in addition to an extra periscope. Boats fitted with smaller sails had short periscopes requir-

(concluded on page 13)

Sturgeon Class: Ultimate Hunter-Killer of Her Time

(concluded from page 12)

ing them to remain closer to the surface to use them. With a larger sail, the *Sturgeon* boats had a reduced risk of broaching in heavy seas.

A Westinghouse S5W pressurized-water reactor powered two steam turbines that drove a single shaft on the *Sturgeon* submarines. This allowed them to travel at speeds in excess of 26 knots when surfaced. In terms of sonar, the ships in this class were quite sophisticated. The original electronics suite included a BOQ-sonar suite and later a

towed array, a BPS-15 surface-search radar, in addition to a Mk 117 torpedo fire control system and an underwater telephone.

As far as armament, the *Sturgeon* submarines were equipped to carry the Tomahawk missile, the Harpoon missile, the UUM-44 SUBROC, the MK-48 and ADCAP torpedoes and the Mark 67 SLMM and Mark 60 CAPTOR mines.

What happened to the *Thresher*?

In 1963, prior to the introduction of the *Sturgeons*, the USS *Thresher* was lost during routine testing following a maintenance period. The Navy established the Submarine Safety Program (SUBSAFE) after this incident occurred.





The new safety program sought to address issues surrounding the construction and maintenance of subs after the loss of the *Thresher* was investigated. The *Sturgeon* ships were being built during this time, and therefore received all the new standards required by SUBSAFE.

A total of thirty-seven submarines in the *Sturgeon* class were developed beginning in 1963. Multiple shipyards, including General Dynamics Electric Boat, Ingalls Shipbuilding, Portsmouth Naval Shipyard, Newport News Shipbuilding and Mare Island Naval Shipyard contributed to the construction of the *Sturgeon* submarines.

Following nearly three decades in service, the lead ship of the class, USS *Sturgeon*, was decommissioned in 1994, and she was dismantled at the Puget Sound Naval Shipyard in

Bremerton, Washington.

Maya Carlin, National Security Writer with The National Interest, is an analyst with the Center for Security Policy and a former Anna Sobol Levy Fellow at IDC Herzliya in Israel. She has bylines in The National Interest, Jerusalem Post, and Times of Israel. You can follow her on Twitter: @MayaCarlin.



U.S. Navy Wouldn't Match Russian Sierra II-Class Sub

(concluded from page 1)



eration staples like the MiG-29 and F-15 Eagle to fifthgeneration wizardry like the Su-57 and F-22 Raptor. Not to mention experimental aircraft like the X-1 and the X-15, or the surveillance gem, the SR-71 Blackbird.

Beneath the surface of the oceans, the Cold War superpowers also competed for dominance, through submarine development, in a tango that Tom Clancy addressed in *The Hunt for Red October*.

The result of Cold War submarine competition included development of well-known submarines like the *Akula* class, the *Los Angeles* class, and the *Seawolf* class.

And the competition led to some lesser-known but still important technological developments, too—including the Soviet use of titanium hulls in the Alfa class and the Sierra class, the most notable of which was likely the Sierra II. This nuclear attack submarine was an improved version of the Sierra I, and quite impressive.

Introducing the Sierra II Class

Known to the Soviets as Project 945A *Kondor*, the Sierra II was an improved version of the Sierra I (aka, the Project 945 *Barrakuda*).

The Sierra II wasn't commissioned until the 1990s when the Cold War had ended, but the designs are the result of Cold War labor and a Cold War mindset: the Sierra II was built to search out and destroy U.S. nuclear submarines.

Accordingly, the Sierra II was able to achieve speeds and diving depths that were superior to American submarines of the same time period.

How was the Sierra II able to achieve such impressive

speeds and diving depths? In large part, through the use of a titanium hull.

"Titanium alloy is usually stronger than steel but weighs half as [much]," Brent M. Eastwood wrote. "It is more expensive, up to three to five times more than steel. Titanium is also less corrosive in salt water. It can handle more pressure during deeper dives—all the way down to 2,200 feet."

The result of Soviet experimentation with titanium, the Sierra II, "promised to be more capable, longer-legged, and more lethal than the second-generation Victors, Charlies, and Alfas that populated the Soviet undersea fleet entering the 1980s," Robert Jensen wrote.

"Faster and deeper diving than the Victors and Charlies, with greater endurance and more—and better—weapons than Alfas, the Sierras had the makings of the ultimate Soviet attack boat. Yet today, [the Sierras] are only remembered by those interested in Soviet attack submarines."

Indeed, only two Sierra II submarines were ever built. The first, B-534, the *Nizhniy Novgorod* was commissioned in late 1990 and is still understood to be active in the Russian fleet. The second, B-336, the *Pskov*, was commissioned in late 1993, was overhauled in 2015, and is also still active in the Russian fleet. So, both Sierra IIs have been serving successfully for thirty years. But there is good reason why only two Serra IIs were made.

The Sierra's "fully titanium hull was labor and cost intensive," Jensen wrote. "Even more so than that of the high-performance [Lira]." While "titanium provided the necessary performance to get these hunters faster than anything they might have come across in the world's oceans," the material was notoriously finicky to build with and operate.

"Fashioning titanium to make a hull is no easy feat," Eastwood wrote. "Welding is difficult and the slightest mistake during the welding phase could make the titanium brittle and less strong." And that's one of the primary reasons why, despite engaging in compulsive development competition throughout the Cold War, the USA decided not to pursue the USSR down the path of titanium-hulled submarine development.

"The United States...took a close look at the titanium construction," Eastwood wrote. But "titanium is rare and costly compared to iron. Titanium is not easy to shape either." Ultimately, "any misstep by the welders would create a sub that would be dangerous to take on deep dives."

A Boatsailor's Angel

by Bob "Dex" Armstrong

er name is Joy. She is the "Tigerflower" of a previous tale in this endless, mindless linkage of nonsense. She married the other guy—smart move on her part, unbelievable luck on his.

Joy is the ideal of gentle womanhood. God blessed her with a radiant smile that lights up a room and instantly puts you at ease. She is happily married to a wonderful fellow who doesn't mind her staying in touch with an idiot sandbox pal of yesteryear. And she reads this ongoing stupidity on the installment plan.

Joy and her family regularly took in a stray dog boatsailor who turned up on her doorstep smelling like three weeks on the snorkel and hauling a bag of laundry that should have been burned or mailed to a sewage processing plant.

She fed this undeserving bum and provided a couch or even clean sheets. She never understood what that and a hot shower meant to a single after battery rat.

I know that God has a special designated place for the girls who took in orphans from the smokeboat service; fed them home cooking; let them run up their hot water bills and sleep in real "no bunk chains" beds. When you arrive in Heaven—that is, if God doesn't hold smokeboat service against us—Joy will be there: the beautiful angel parked on the fluffiest cloud.

First loves endure. The ones forged in the delightful innocence of youth. The ones where the girls were encased in multiple laminations of petticoats, smelled like flower gardens, and wore that "get the stuff all over you" bright red lipstick. You have your own vision of beauty of that period—and I have Tigerflower. I'd never trade.

She was the first (of what I consider to be close friends) to welcome my Norwegian bride to this country. That alone put me in her eternal debt.

I think she has long forgiven a twenty-year old idiot who stood an eight-hour maneuvering watch after a northern run and hitchhiked through the night to attend her wedding. The unsuspecting kid who got loaded at the reception—got knee-walking, commode-hugging blasted, actually—missed the tossed garter and called for her panties instead. Then, had to sober up enough to thumb rides back to the base in time to make underway quarters and load for sea on Monday morning. He was young, not too bright, and certainly needed a lot of forgiveness.

Thinking back, if that kid could have dropped down the after battery hatch and been able to toss a pair of lace panties on his bunk and say, "Had a *great* weekend!"—it would've eliminated a helluva lot of those inevitable, "Hey Dex, how

was your weekend?" poking queries.

Joy: In the shape that poor kid was in, he no doubt would actually have missed your underpants, as well!

Keep a zero bubble...





USSVI Western Region Roundup

Hosted by Bremerton Base April 11-13 in Silverdale, Washington www.wrroundup.com

A Gathering of Submariners



New Members

We proudly welcome aboard:

Susan Marie Bolton

(Associate; Daughter of Bo Bolton; sponsored by Ken Dorn) 13561 Iowa Street Westminster, CA 92683-2637 phone: 714-932-6222 email: sbolton714@gmail.com

John Michael Lucio

(RM1-SS E6; Petty Officer 1st.) Spouse: Monica 2039 Hibiscus Street Corona, CA 92282-5286 cell: 714-400-4230 email: john.m.lucio@gmail.com Qualified in 1984 on USS Buffalo (SSN-715). Dual Member/Bonefish Base

Mercedes Vivian "Ditas" Zilliacus (Associate Member) Spouse/Sponsor: Patrick Zilliacus 8180 Manitoba, Unit #323 Playa Del Rey, CA 90293-8668

cell: 310-740-7586 email: mvzilli@aol.com

Michael Anthony Polis

(Associate Member) 12321 Gamma Street Garden Grove, CA 92840-3548 cell: 714-504-2042 email: mikeapolis@gmail.com (Sponsored by Jack Mahan; great granddad Jack Salem Polis had been one of our WWII subvets.)

Patrick Zilliacus

(TM2-SS E5) Life Member, USSVI Spouse: Mercedes 8180 Manitoba, Unit #323 Playa Del Rey, CA 90293-8668 *cell*: 310-592-7047 *home*: 310-305-2884 *email*: pwzilli@aol.com (Qualified in 1944 on USS *Spot*, SS-413; also aboard *Toro*, SS-422)

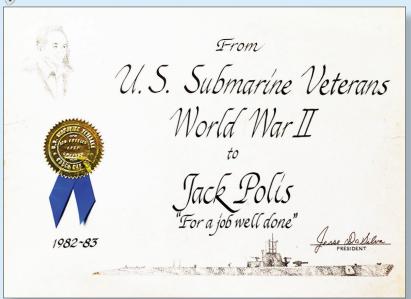
Scott Hultner

(MM1-SS E6; Petty Officer, 1st) Spouse: Geri 5341 Vangard Avenue Garden Grove, CA 92845-1512 cell: 714-325-7321 email: shultner@yahoo.com (Qualified in 1974 on John Adams, SSBN-620; aboard till '78)

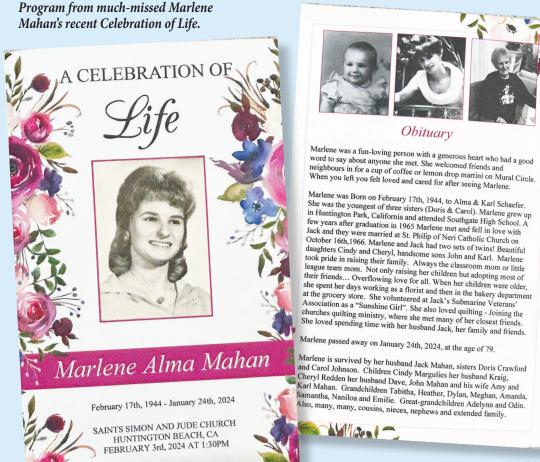


"Get'cher Chapter News Here — Read All About It!"—

When News Breaks, We Pick Up the Pieces...



Our new Associate Member Michael "Mikey" Polis sends in this reminder of his great grand-father's connection to the WWII submarine veterans group. Jack Polis had actually been a founding local member, and one of those responsible for creating and installing our beloved SubVet Memorial-West at NWSSB. Note the signature on the certificate: Jesse DaSilva had been another well-known early member of distinction... and a survivor of the loss of Tang.





John P. Holland

L.A.-Pasadena Base 50-Year **Holland Club**

(75-year members noted with *)
Ronald R. Jones2023
Gerard A. Krudwig 2022
Gregory M. Paulson 2022
Michael J. Swanson 2022
Ralph J. Hansen 2021
Robert F. Schive, Sr 2021
Larry D. Long2021
G. Judson "Jud" Scott, Jr 2021
Edward E. Kushins 2020
Bruce Evan Neighbors 2020
David H. Vanderveen 2019
Philip J. Jaskoviak 2019
Dennis Bott2018
Robert "Mike" Cailor 2018
Robert Miller2018
John A. Anderson 2017
Roger C. Dunham, MD 2017
Richard McPherson 2017
Harry "Bill" Moak 2017
Louis A. Myerson 2017
Elliot Rada 2017
Ronald G. Wagner2017
Dennis J. Walsh2017
Michael Kish 2016
Gary Wheaton2016
Lawrence R. Butler 2015
Samuel T. Higa 2015

(concluded next page)



Los Angeles-Pasadena Base 2024 Calendar of Upcoming Events

	1 3
January 20	Monthly Meeting - Marni's in Seal Beach (formerly Glory Days Beachside Grill)
February 17	Monthly Meeting - VFW Hall
March 16	Monthly Meeting - VFW Hall
April 20	Monthly Meeting - VFW Hall Call for Memorial Day Prep Volunteers
May 11	Field Day at the Memorial Site - 0900
May 18	Monthly Meeting - Site TBD Nominating Committee Appointed Call for participants in the Huntington Beach 4th of July Parade
May 25	Tarp Prep at the Memorial Site - 0900
May 27	Memorial Day Service - 1100 Submarine Memorial, West
June 15	Monthly Meeting - VFW Hall - Annual "Steakfest" Call for nominations for 2025 Base Officers
July 4	115th Annual Huntington Beach 4th of July Parade
July 20	LeRoy Stone Memorial Picnic (Location TBD)
August 17	Monthly Meeting - VFW Hall - "Hawaii" Theme 2025 Base Officer Candidates Announced
September 21	ANNUAL BUSINESS MEETING - VFW Hall Election of Officers
October 19	Monthly Meeting - VFW Hall Annual Officer Installation Luncheon
November 16	Monthly Meeting - VFW Hall - Thanksgiving Theme

December 21 Annual Christmas Luncheon

(Holland Club Roster, concluded) Harry P. Ross2015
Charles H. Senior
Larry E. Smith
Sam Aboulafia
David Palagyi
Earl Thomas Peratt, Jr 2014
David D. Semrau, DDS 2014
Ray Tracy Teare2014
Milton Harry Boudov 2013
Kenneth Jon Dorn 2013
M. Mark Hoffer2013
Michael P. Klein
Ronald L. Levenson 2013
Edward L. Arnold 2012
T. Michael Bircumshaw 2012
Raymond Cheesebrough . 2012
Bobby O. Mahaffey 2012
John V. Mahan
Lee Melody2012
Clyde Matthew Turner 2012
George R. Walrath 2012
John L. Weisenberger 2012
Edward A. Barwick 2011
Joseph W. Koch, Jr 2011
Stephen D. Diumenti 2009
David Whittlesey 2009
Dennis A. Yure2009
Armen Bagdasarian 2008
Paul A. Riggs
Rex L. Shields2008
Francis R. Traser2006
Ronald K. Thompson 2004
James Rogers
*James E. Carter1999
*William F. Long 1999
*Kenneth E. Chunn 1998
*Patrick Zilliacus 1994
*William J. Dillon 1993
*Harold Staggs 1992



E-Board Meeting Minutes of March 16, 2024

The Los Angeles-Pasadena Base, United States Submarine Veterans, Inc., Executive Board Meeting was conducted on the morning of Saturday, March 16, 2024.

In attendance:

- Dave Vanderveen, Base Commander
- Ray Teare, Base Vice Commander
- Mike Swanson, Treasurer
- Dennis Bott, Memorial Director
- Ken Dorn, Director
- Chuck Senior, Director
- Bill Moak, COB

Base Commander Dave Vanderveen called the meeting at the VFW Hall in Anaheim to order at 0955 hours with a quorum present. Minutes of both February 2024 meetings were reviewed with no revisions requested. Chuck Senior moved to approve and accept the Minutes into the base record; this was seconded by Mike Swanson and approved by voice vote.

Treasurer's Financial Report: Mike Swanson

The Treasurer's Report as of March 15, 2024 was read into the Minutes by Base Treasurer Mike Swanson:

Checking	\$21,703.35
Cash On Hand	\$50.00
Uncleared Checks:	\$0.00
Total	\$21,753.35

All vendors have been paid up-to-date.

Income:	\$515.00
Expenses:	\$121.00

Flower/Booster Club Additions:

Sally Moran \$50.00

Inkind Donations:

\$00.00

Mike was asked to correct the spelling/pronunciation of Sally Moran's name. (*See above—ed.*) There were no other questions nor corrections needed. Ray Teare moved to approve the Treasurer's Report and accept it into the base record; this was seconded by Bill Moak and approved by voice vote.

Memorial Report:

The Memorial remains in good condition. Dave Vanderveen met with the Seal Beach Chamber of Commerce on the 14th to accept their offer to assume responsibility for monthly placement of flowers on the monuments for boats lost in that month. Ray Barnes of F&M Bank will chair the group of merchants who'll participate. The table of boat losses has been provided to him, along with the video made by Ron Jones early this month as he performed the work. That video has also been circulated to USSVI's National Commander and to the Western Region Director. Our Board decided to work parallel with the chamber in April and May, then transition responsibility to them starting June 1st.

(concluded on next page)

"We Got Pinged..."

(Reproduced from the Aviation Geek Club website - published July 16, 2023.)

by Dario Leone

"I have been pinged once by a surface ship. We were entering port near dawn and our Officer of the Deck was doing his periscope sweeps before surfacing. He sighted a nearby ship and then announced they had launched a helo. We dove deep and went full ahead," explained James Clark, former U.S. Navy Chief Petty Officer.

"Within fifteen minutes this weird sound started emanating in our ship. It's not a ping. It sounds more like a blue whale has decided to open up an EDM club and is showing off its sick new beats. It's a wavering sound that goes up and down in pitch.

"The surface ship was a *Spruance*-class destroyer. It had sighted our periscope and decided to prosecute. We ran for a while, let them have some ASW training and then surfaced and went into port.

"When I'm saying pinged once, I'm referring to hearing the sonar through the hull," Clark concluded. "It could be heard on the mess decks over the TV burning a flick. The sonar operators heard plenty in sonar. Most of the time when we conducted PASSEX, the sonar was passive only or the active sonar was far enough away that it could only be picked up by our sensors."

The Navy retired *Spruance*-class destroyers earlier than planned, decommissioning the last ship in 2005; most were broken up or destroyed as targets.

The class was succeeded as the Navy's main destroyer by the *Arleigh Burke*-class destroyer.

E-Board Meeting Minutes...

(concluded from previous page)

Memorial Day Ceremony Preparation:

Commitments to participate have been received from: Captain O'Brien, vocalist Ann Grennan, Chaplain Rudy Hedgren, the Oishi Buglers, Poet David Rosenfeld, and the Piper. The order has been placed for flowers. Richard Smith (Weps Station Public Works) has scheduled trimming of the podocarpus hedge and has been asked to repair the base around the flagstaff which had been broken by high winds against the flag and the staff. Additional work: Dennis will check the strap on the back of each monument and repair as needed. Dennis will also request checks from USSVCF-Memorial fund to pay stipends to our non-military presenters. Dave will ask Public Works to plant the potted geraniums around the Aleppo Pine.

Memorial Bricks Project:

The Navy's constraints placed on us five-plus years ago preventing placement of our Memorial Bricks have relaxed somewhat. We've been invited to submit a request through the District Command to allow us to install the bricks next to the *Thresher* and *Scorpion* monuments and to declare that work a gift to the Navy. We're engaged in the preparatory work now, and when approved by the Navy, we'll have a contractor perform the installation—to be paid for by the USSVCF-Memorial Fund. It's been a long wait, but patient persistence and pleasant demeanor have served us well, and we offer our thanks to Captain Jessica O'Brien (NWSSB CO) and her staff for their willingness to help us!

Memorabilia in Storage:

Dave asked the E-Board to discuss the memorabilia we removed from Building 6 and now have stored. Their plan is to:

- 1. Send the catalog to E-Board members for review and comment.
- 2. Offer photographs and plaques to our own members FIRST.
- 3. Dave asked Greg Paulson to discuss with Vanessa when we could look at the material and make selections requested by members. (Greg will notify Dave.)
- 4. Offer some for sale at the Western Region Roundup in April (proceeds to WRR).
- 5. Contact *Bowfin* Museum (Pearl Harbor), WWII Museum (New Orleans), and Nimitz Museum to determine their interest in receiving any of this material.

The Good of the Order:

Dennis Bott confirmed that Barry Feinman (whose process was used to refurbish the monument plaques last year) has confirmed he'll provide the dolphin insignia and the narrative plaques for the blank side of the Memorial's main signage. Dennis will advise Barry NOT to proceed until the gift can be discussed with the Navy and formally accepted. Dennis also will get an approximate value, which Dave Vanderveen will use for discussion with staff at NWSSB and the District.

Chuck Senior reminded us to invite spouses and offspring of submariners, plus widows of lost shipmates, to attend our regular meetings plus the Memorial Day ceremony—and to welcome them and all veterans into our narrative.

There being no further business, Dennis Bott motioned for adjournment; this was seconded by Chuck Senior and approved by all present, adjourning the meeting at 1050 hours.

Respectfully submitted,



Filling in for *Darin Detwiler*, Secretary, L.A.-Pasadena Base, USSVI

L.A.-Pasadena Base Rogues Gallery

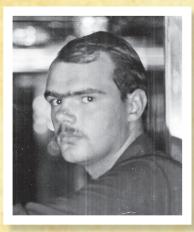
WAINLED

You seen these ornery varmints other than on the wall at the Post Office? Why not? They wanna be seen!

Get to know your base shipmates by sight—you'll become faster friends! And send in your own

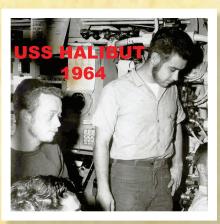
mugshots to be included here in future issues. Whatcha waitin' for, horsefly?

Vanderveen, then (so serious!)





David Palagyi, QM2 in 1964, and now





YOUR
PHOTO
BELONGS
HERE

YOUR
PHOTO
BELONGS
HERE



In memory
of the
fifty-two
submarines
lost in
World War II

S-36 **SCULPIN** S-26 **CAPELIN SHARK I SCORPION PERCH GRAYBACK TROUT** S-27 **GRUNION TULLIBEE** S-39 **GUDGEON ARGONAUT HERRING AMBERJACK GOLET GRAMPUS** S-28 **TRITON ROBALO PICKEREL FLIER GRENADIER HARDER RUNNER SEAWOLF DARTER** R-12 **SHARK II GRAYLING POMPANO TANG CISCO ESCOLAR** S-44 **ALBACORE DORADO GROWLER WAHOO**

CORVINA

SEALION

SCAMP
SWORDFISH
BARBEL
KETE
TRIGGER
SNOOK
LAGARTO
BONEFISH
BULLHEAD

