



April
2016

CORVINA BASE NEWS

Newsletter of the Year Awards

2014 Class 2 First Runner Up
2012 Western Region Class 2 Winner

2013 Western Region Class 2 Winner
2011 Class 1 Honorable Mention

Connecticut's Submarine Century

page 10

New London Submarine Base

1915-2015



Table of Contents

Commanders Log	pg.2
Secretary's Report	pg.3
Treasure's Report	pg4
Kaps4Kids	pg.5
Chaplain's Report	pg.6
Booster Club	pg.7
USSVI Convention	pg.8
Lost Boats in May	pg.8
Shipmates on Eternal Patrol	pg.9
Corn from the COB/CO_COB	pg.10
Cover Story	pg.11
Story of the car radio	pg.13
Book Review	

Denotes a Holland Club Member



Our Creed



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.

Shipmates and friends,

We are almost through one third of 2016. For Corvina Base, 2016 is a very important and busy year. Besides our regular business meetings at Denny's, we have a schedule of events that will occupy a lot of our time. We have several parades in which we will participate: Independence Day, Nevada Day, and Veterans Day. Next month, we will present our annual "Pride Runs Deep" medal and certificate to a worthy recipient at the Damonte High School NJROTC awards ceremony. Later on, in August, we will hold our annual picnic. In September, we will conduct our memorial Service at the Veterans Cemetery and USS Corvina memorial at Fernley. And, of course, we will celebrate the holidays in December with our luncheon and 2017 Corvina Base officers induction.

In August, Corvina Base will host the annual USSVI National Convention at the Grand Sierra. The convention committee has been diligently working in preparation for the convention. You would not believe all of the details and intricacies involved with setting up a convention. We want the convention to be fondly remembered as the best USSVI Convention ever. That said, I point out that the convention is a Corvina Base function, not just a function of the convention committee. We want Corvina Base to be seen as a "can do" base. A successful convention reflects upon all of us, not just the committee.

What can you do to help? First of all, get your registrations in. We have only a dozen or so signed up at the time of this writing. We can do better. As the time of the convention draws near, we will be asking for assistance from members to do some of the tasks at hand. We will need room checkers, ticket checkers and a few other positions. Not difficult and not requiring that you stay from dawn to dusk. We'll let you know real soon exactly what will be required. And you get to wear a bright orange hat to signify you are a member of the Corvina Base crew.

On to another subject. During the May 7th business meeting, Corvina Base will be conducting the Holland Club inductions for four of our shipmates who received their Dolphins 50 years ago. Please attend the meeting when our shipmates are honored for their service and dedication to the Submarine Force.

Pride Runs Deep,
Dennis Wiley



You too can be the proud wearer of one of these. Volunteer to help at the convention.



Base Officers
Base Commander
 Dennis Wiley
 972-0388
mdvwiley@sbcglobal.net

Vice Commander/POC
 Stephen Salzman
 703-887-8933
sdshs@earthlink.net

Secretary
 Pete Akerson
 856-2109
peteakerson@hotmail.com

Treasurer
 Dave Aunkst
 883-7276
dmaun.cc@outlook.com

COB
 Leif Larsen
 972-0583
rocco649@charter.net

Recruiting
 Don Brown
 853-5309
donbrownss322@sbcglobal.net

Chaplain
 Paul Allen
 882-7971
pmgjallen1@att.net

Newsletter/WEB
 Norm Peterson
 322-5193
1971tr6@charter.net

Ad Hoc
 Terry Bolen
 575-0289
tbolen2000@yahoo.com

Ad Hoc
 Mark Hogan
 867-3304
hogank@msn.com

Assistant COB
 Paul Young
 303-8482
sharky5155@gmail.com

Assistant Chaplain
 Mercedes Parsons
 626-0352
wp347@sbcglobal.net

K4K Chairman
 Bill Conklin
 423-1451
billcon@cccomm.net

Past Base Commander
 Dave Aunkst
 883-7276
dmaun.cc@outlook.com

April Meeting Minutes



The meeting was called to order at 1400 by Commander Wiley as co-COBS Young and Larsen sounded two blasts on the klaxon. After an invocation by Chaplain Paul Allen, the Pledge of allegiance, reading of the USSVI Creed, Tolling of the Bell for boats lost in April and moment of silent prayer for all departed friends, shipmates, submariners and family followed in their usual order. There were 28 members and guests present.

The members of Corvina Base present introduced themselves and stated their qual info after our Visitors/Guests introduced themselves

Vice Commander Salzman is traveling, and there was no XO report.

Secretary Pete Akerson reported no mail requiring Base action had been received, but that DMV had sent two titles to the Base Float.

Treasurer Dave Aunkst reported that the base was still in very sound financial condition.

Chaplain Paul Allen reported no new additions to the Binnacle List.

Newsletter Editor Norm Peterson was not present for an Editor/Webmaster report.

Co-COBS Young and Larsen had no report.

No location for the April Lunch-Bunch had been selected. The Lunch was held at Bamboo Garden in Carson City on April 15th.

Recruiter Don Brown reports he has sent packets to several local prospects.

There was no Ad Hoc BoD members report.

Convention Committee Chairman Terry Bolen announced the next meeting would be at the Grand Sierra on April 16th.

Kaps 4 Kids Chairman Bill Conklin gave a progress report and announced a visit to Saint Marys Hospital on April 15th.

Treasurer Dave Aunkst has volunteered to serve as Parade Chairman and organizer.

The annual base donation of \$500.00 to the Veterans Guest House has been made.

Holland Club Induction will be at the Saturday, May 7th Monthly meeting.

All hands are reminded to report any changes in address, phone number or E-mail address to XO Steve Salzman as soon as possible.

After a brief recess to sell raffle tickets, the monthly 50/50 raffle was held with the following results: Padlocks – Primo Quarisa Beer – Dave Chute – Wine Mary Lou Gibson Wine – Terry Bolen Beverage Dispenser – Frank Urbani Mug – Dave Aunkst Vodka – Frank Urbani Salami – Dale Poe Salami – Terry Bolen Salami – Frank Urbani Bumper Sticker – Terry Bolen Bumper Sticker – Wes Rece T-Shirt – Don Johnson Wine – Pete Akerson Bumper Sticker – Paul Young T-Shirt – Clyde Webber Salami – Wes Rece Salami – Dave Porras Salami - Pete Akerson Salami – Cindy Austen The \$74.00 cash prize was won by Leif Larsen who generously donated a portion of it to the Booster fund. We thank you, Leif!

After a Benediction by Chaplain Allen, the meeting ended at 1502 as Co-COBS Young and Larsen sounded three blasts on the klaxon.

Respectfully,
Pete Akerson, Secretary



Treasurers Report

1. All account balances are available at the Base meetings.
2. Deposits for April:

From April Base Meeting	\$145.00
(Raffle/Booster Club)	
3. Checks issued in April:

Norm Peterson/Website Domain name	\$33.98
-----------------------------------	---------

1941

No Patch

Del Schwichtenberg
CWO3 (SS)
USS O6
SS67

1960

Jon Schoenfeld
ET2 (SS)
USS Sea Cat
SS-399

1944

Herbert Starmer
HMC (SS)
USS Cobia
SS-245

1958

James Tiernan
QMC(SS)
USS Irex
SS-482

1954

Leonard Stefanelli
QM3 (SS)
USS Catfish
SS-339



APRIL WAS A SLOW MONTH FOR KAP(SS) 4 KID(SS)

Although two visits were scheduled, no children were visited during April. Our monthly visit to St. Mary's Pediatric Unit had to be rescheduled because all kids in the Unit were in Isolation, and Renown Children's Hospital visits are on hold while issues with Hospital Security are being resolved.

Kap(SS) 4 Kid(SS) efforts for the month were directed toward working on a new K4K Brochure and preparing for the K4K display at the 2016 National Convention.



**Meetings are held
on the first Saturday Of each month at Denny's
Coffee Shop,
205 E. Nugget Ave. Sparks NV
At 1400 hours.**



Chaplains Report

Memorial Day

We Americans enjoy a freedom on a level that citizens of most countries only dream about. Memorial Day and Independence Day are significant to our country in so many ways. The birth of this nation was not an accident of history but was birthed by sailors and soldiers and I believe divine providence. Most of those sailors and soldiers were farmers, along with a few city dwellers. Memorial Day was originally called Decoration Day and was started around 1866 after the Civil War ended in 1865. President Lyndon Johnson declared Waterloo, New York as the original site and was disputed by other localities. It just so happens that there was recently a 200 year anniversary of another Waterloo. In 1815 the Battle of Waterloo is where Napoleon was defeated by the armies of the United Kingdom, Russia, Austria, and Prussia where almost 30,000 troops were killed. If the coalition had not defeated Napoleon we could possibly be speaking French. I've included a photo of the Waterloo Memorial in Belgium called "The Mount of Waterloo" with the lion overlooking toward France.



Another anniversary that recently took place was the 50th year after the death of Fleet Admiral Chester W. Nimitz on February 20, 2016. He was the last surviving U.S. Navy Fleet Admiral Officer who at one point was considered the leading U.S. Navy authority on submarines. Since Fleet Admiral is a lifetime appointment, Nimitz received full pay and benefits from 1905 until he died in 1966, living in retirement at Quarters One on Yerba Buena Island, San Francisco. Admiral Nimitz was a proud submarine veteran who was considered the leading U.S. Navy authority on submarines and was involved in the conversion from gasoline engines to diesel and later to nuclear power. There is a note at the Nimitz Museum in Fredericksburg, TX "Nimitz's greatest legacy as CNO (after WWII) is arguably his support of Admiral Hyman Rickover's effort to convert the submarine fleet from diesel to nuclear propulsion." Before taking command of his first submarine the USS Plunger in 1909,





Nimitz was court-martialed for running aground the Destroyer Decatur in the Philippines and issued a letter of reprimand. Before WWI Nimitz, who spoke German, studied diesel engines at Nuremberg, Germany. His son, Chester Nimitz Jr., served on submarines and retired in 1957 as a rear-admiral.

One last note on Admiral Nimitz is that he chose the submarine USS Menhaden (SS-377) as his change of ceremony flagship on Nov. 24, 1945 at Pearl Harbor becoming CNO and Adm. Raymond A. Spruance taking over CINPAC. Nimitz and his wife, Catherine

Vance Freeman, are buried at the Golden Gate National Cemetery in San Bruno, CA alongside his long-term friends Admirals' Spruance, Turner, and a great submarine Admiral Charles A. Lockwood and their wives.



Quote by Fleet Admiral Chester W. Nimitz "God grant me the courage not to give up what I think is right even though I think it is hopeless"

As we celebrate Memorial Day this year let's not forget all military men and women who have served and are now gone but were very important to making the United States the country that it is. Let us not forget! Remember when the freeway from the Bay Bridge to San Jose was the Nimitz Freeway? Now it is just interstate 880.



Scripture: John 15:13 words from Jesus: "Greater love has no one than this, that he lay down his life for his friends."

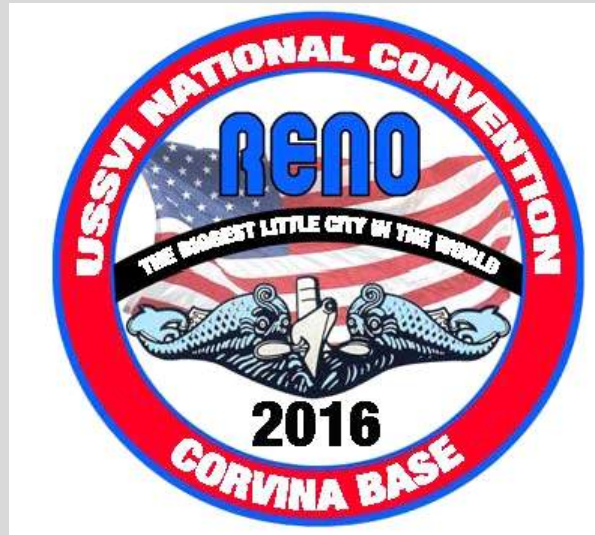
Prayer: Almighty God, first we want to be thankful for this wonderful country we live in and the opportunity to serve the people of this country as submarine veterans. Thank you Lord for the many thousands of men and women, including submarine sailors, who paid the ultimate price to keep America free. We pray also for families today that are losing loved ones as this is being written, whether in the middle-east wars or in a training accident. We pray for comfort and strength for these families and may they know that the Corvina Base family appreciates their sacrifices for our nation. Thank you Lord for hearing and answering our prayers! Amen!

Paul Allen, Corvina Base Chaplain

Corvina Base Booster Club

Terry Bolen (In memory of Bob Heaps)
 Steve & DeDe Salzman (K4K)
 Paul Young (K4K)
 Frank & Linda Ely (K4K)
 Dennis Wiley
 Diane Hogan
 Mercedes Parsons

Dave & Mia Aunkst (K4K)
 Primo Quarisa (K4K)
 Pete Akerson (K4K)
 Clyde Webber
 Don Brown
 Mark Hogan
 Leif Larsen



ATTENTION ALL HANDS TURN TO AND HELP SUPPORT THE 2016 CONVENTION:

CO-COB here, I am really disturbed about the lack of support and showing of attendance for the upcoming convention that Corvina Base is hosting.

Gentlemen we are the host base and to this date out of over 90 members only 14 have signed up from Corvina. It is embarrassing that the host base might not have the most members in attendance. Help can also be provided in many ways even if it is just collecting tickets for one event and if needed a chair will be provided or collecting raffle prizes or getting donations from the community or just plain signing up.

Let's make this a good convention and participate. Crew I hope you will prove me wrong and sign up and show loyalty to Corvina Base.

That is all:

Paul Young CO-COB



Lost Boats in May

[USS Squalus \(SS-192\)](#) was lost on **23-May-1939** with a loss of **26 crew, 33 rescued** when it flooded and sank off Portsmouth, NH

[USS Lagarto \(SS-371\)](#) was lost on or shortly after **4-May-1945** with the loss of **88 crew** when it was sunk in off Malay Coast in or near the Gulf of Siam

[USS Stickleback \(SS-415\)](#) was lost on **30-May-1958** when it sank off Hawaii while being towed, after collision with *USS Silverstein (DE-534)*

[USS Scorpion \(SSN-589\)](#) was lost on **27-May-1968** with the loss of **99 crew** when it was sunk while in transit from Med, West of Azores

SHIPMATES ON ETERNAL PATROL

Harry Wellman CS1 (SS)	Harry Sembagh EN3 (SS)
Melvin Phillips ET1 (SS)	Boyd Tieslau TM3 (SS)
Russel Scofield TMCS (SS)	Robert Rich EN1 (SS)
Donald Campbell TM2 (SS)	Francis Signore CSC (SS)
Harold Lister EN3 (SS)	Stanley Blair ICC (SS)
James Avitt RM1 (SS)	Richard Burdette LT. (SS)
Charles H. Massie TM1 (SS)	Wayne F. Garrett ET2 (SS)
Elvin L. Morrison FTC (SS)	Larry Garrelts ETCS(SS)
Erick Bjorum CWO(SS)	Melvin Schreckengost ET2
Norm Snyder EM1(SS)	Charles Hyman MM2(SS)
James T. Wright III	Gordon Lane RMC(SS)
Chester E. MacDowell TMI (SS)	Edwin V. Schalbert TMC (SS)
Jerry D. Noma MM2(SS)	Richard Ekenberg , ETC(SS)
Gerald Stratton ENC(SS)	Richard C. Barringer SOSN(SS)
Lowell Wapelhorst MOMM2(SS)	Jack Quade SMSN(SS)
Bert Skidmore YN2(SS)	Walter Lewis IC1(SS)
Frank Kenyon EM3 (SS)	Bob Heaps IC2 (SS)

The Corvina Base News is published monthly for the use of the Corvina Base Members. Distribution is by E-mail along with 11 copies sent by the USPS. Submission of articles must be received by the 25th of the month. Holland Club Members are denoted in the newsletter with the symbol: Each member will show up about every fourth month.

For any questions or corrections contact:
Norm Peterson
Editor
775-322-5193
1971tr6@charter.net



How a \$2.7 Billion Submarine Was Crippled by Defective Parts

A \$2.7 billion attack submarine, the USS Minnesota, has been out of commission for more than a year because of a defective pipe joint near the ship's nuclear-powered engine.

The defective part, which is worth about \$10,000, was installed near the ship's nuclear power plant. Engineers discovered the poorly welded steam pipe in early 2015, and ongoing repairs have led to the ship being stuck in overhaul ever since, according to Navy Times.

The submarine was considered a great success just a few years ago. It was delivered to the Navy 11 months ahead of schedule and commissioned in September 2013. But the ship has spent only a few days at sea, and its crew has been waiting for more than two years to get underway. Repairs are supposed to be completed this summer, but the process has taken so long that some of the current crew, who typically serve in three-year rotations, may never sail on it.

The Minnesota isn't alone, either: Navy officials say two other subs have been affected by the same shoddy pipe joints, and engineers are now scouring aircraft carriers and other ships for similar problems. Justice Department investigators are gathering evidence for possible criminal charges against the contractors responsible for the work.

The news comes at a critical time for the Navy. On Monday the service released a "Submarine Unified Build Strategy" (SUBS) for concurrent production of its Ohio-class replacement ballistic missile submarine and Virginia-class attack submarine through at least 2023.

The Navy wants to buy 12 boats to replace the existing force of 14 Trident Ohio-class ballistic missile submarines, which entered into service in the early 1980s. Service officials have pegged the cost of the Ohio replacement program, also known as the SSBN(X), at around \$139 billion dollars. The effort's lifetime cost will come in at roughly \$347 billion.

With so much taxpayer money at stake, the SUBS plan is meant to show that the Navy is serious about keeping the SSBN(X) effort and the ongoing program to build 48 Virginia-class vessels like the Minnesota on cost and on schedule.

The strategy calls for defense giant General Dynamics to lead design and delivery of the 12 SSBN(X) vessels, while Huntington Ingalls designs and builds major assemblies and modules.

General Dynamics will also remain the prime contractor for work on the Virginia-class subs, which are also built by both companies. But since the Ohio-class successor is a top priority, the Navy plan states that Huntington Ingalls will assume responsibility for building additional Virginia-class submarines as needed, though it doesn't give an exact number.

Both firms agreed to the Navy's plan.

Rep. Joe Courtney of Connecticut, the top Democrat on the House Armed Services Subcommittee on Seapower and Projection Forces, said he was glad that the plan stipulates keeping up the present pace of building two Virginia-class subs a year through at least 2023. Connecticut is home to Electric Boat, a subsidiary of General Dynamics.

The Navy previously said it would construct just one sub in 2021, the first year the service is supposed to buy an SSBN(X). The service is facing a submarine shortfall starting in about 2025, and building a second attack sub in 2021 could help ease the burden on the underwater fleet.

A very cranky old woman was arrested for shoplifting at a grocery store. She gave everyone a hard time, from the store manager to the security guard to the arresting officer who took her away, complaining and criticizing throughout the process. When she appeared before the judge, the judge asked what she had stolen from the store.

The lady defiantly replied, "Just a stupid can of peaches."

The judge then asked why she had done it. She replied, "I was hungry and forgot to bring any cash to the store."

The judge asked how many peaches were in the can. She replied, "Nine, but what do you care about that?"

The judge patiently said, "Well, ma'am, because I'm going to give you nine days in jail -- one day for each peach."

As the judge was about to drop his gavel, the lady's long-suffering husband raised his hand and asked if he might speak. The judge said, "Yes, what do you have to add?"

The husband said, "Your Honor, she also stole a can of peas."



Corn from the COB / CO-COB

"If You Want To Be Your Best You
Must Surround Yourself With
The Best."

When I was a young man I was
surrounded by the best and they
all had Dolphins on their uniforms.



This was more than just pride. It was
a brotherhood, comaraderie, and a
lifestyle. Most people never have a
chance to experience anything
like this in their life! Thank you to the
men who made this possible.



Can you believe it! We were chosen for
submarine Duty Ollie



OH CRAP!!!
BOMB GUY SAID "OOOPS!"

Connecticut's Submarine Century

By [Vice Adm. Joseph E. Tofalo](#)

Commander, Submarine Forces

October 20, 2015

This weekend we reached an important milestone in United States submarine history – the centennial of the first submarines to be assigned homeport in Groton and the beginning of what would become Naval Submarine Base New London and the Naval Submarine School. Groton, known to many as “The Submarine Capital of the World,” holds a special place in the heart of U.S. submariners, as it is the professional birthplace of our submarine officers and most of the submarine crews.

For years, Naval Submarine Base New London maintained its status as the first and only submarine base in the United States, and today about one-quarter of our sub fleet still call it “home.” It’s also where nearly one-third of all U.S. submarines were built, starting with USS Holland VI in 1900. Furthermore, since the dawn of nuclear-powered submarines with the building of USS Nautilus in 1954, half of our nuclear powered submarines were built in Groton. Now home to the Undersea Warfighting Development Center, Submarine Squadron Four, Submarine Development Squadron Twelve, 19 of the world’s best submarines, and several supporting commands, Connecticut’s support of the Navy is as strong as ever.



Yesterday [Oct. 18], in particular, is of historic importance. The U.S. Navy received 86 acres of land along the eastern shore of the Thames River in 1868 but it was not until 1915 that the installation, then a Navy Yard, became home to the Submarine Force. On October 18, 1915, 100 years ago this weekend, submarines G-1, G-2 and G-4 arrived at the Navy Yard in Groton under the care of the tender USS Ozark. Just eight months later in June 1916, the Navy Yard changed forever when Commander Yeates Stirling assumed command of the newly designated Submarine Base, the newly established Submarine School and the New London Submarine Flotilla.

Governor Dannel P. Malloy recently designated October 2015 through October 2016 as a year-long observance of “Connecticut’s Submarine Century,” celebrating 100 years of submarine activity in Connecticut. I am proud of our historic ties to Connecticut and the constant support we receive from its residents. Because of that support, our families feel welcomed in their communities, allowing our submariners to focus on the serious nature of their work and maintaining undersea superiority.

Congratulations to Groton and the state for “Connecticut’s Submarine Century!”



THE STORY OF THE CAR RADIO

Seems like cars have always had radios, but they didn't.

Here's the story:

One evening, in 1929, two young men named William Lear and Elmer Wavering drove their girlfriends to a look-out point high above the Mississippi River town of Quincy, Illinois, to watch the sunset. It was a romantic night to be sure, but one of the women observed that it would be even nicer if they could listen to music in the car.

Lear and Wavering liked the idea. Both men had tinkered with radios (Lear served as a radio operator in the U.S. Navy during World War I) and it wasn't long before they were taking apart a home radio and trying to get it to work in a car. But it wasn't easy: automobiles have ignition switches, generators, spark plugs, and other electrical equipment that generate noisy static interference, making it nearly impossible to listen to the radio when the engine was running. One by one, Lear and Wavering identified and eliminated each source of electrical interference. When they finally got their radio to work, they took it to a radio convention in Chicago.

There they met Paul Galvin, owner of Galvin Manufacturing Corporation. He made a product called a "battery eliminator", a device that allowed battery-powered radios to run on household AC current. But as more homes were wired for electricity, more radio manufacturers made AC-powered radios. Galvin needed a new product to manufacture. When he met Lear and Wavering at the radio convention, he found it.

He believed that mass-produced, affordable car radios had the potential to become a huge business.

Lear and Wavering set up shop in Galvin's factory, and when they perfected their first radio, they installed it in his Studebaker.

Then Galvin went to a local banker to apply for a loan.

Thinking it might sweeten the deal, he had his men install a radio in the banker's Packard.

Good idea, but it didn't work.

Half an hour after the installation, the banker's Packard caught on fire. (They didn't get the loan.)

Galvin didn't give up. He drove his Studebaker nearly 800 miles to Atlantic City to show off the radio at the 1930 Radio Manufacturers Association convention. Too broke to afford a booth, he parked the car outside the convention hall and cranked up the radio so that passing conventioners could hear it.

That idea worked -- He got enough orders to put the radio into production.

WHAT'S IN A NAME

That first production model was called the 5T71. Galvin decided he needed to come up with something a little catchier. In those days many companies in the phonograph and radio businesses used the suffix "ola" for their names - Radiola, Columbiola, and Victrola were three of the biggest. Galvin decided to do the same thing, and since his radio was intended for use in a motor vehicle, he decided to call it the Motorola.

But even with the name change, the radio still had problems: When Motorola went on sale in 1930, it cost about \$110 uninstalled, at a time when you could buy a brand-new car for \$650, and the country was sliding into the Great Depression. (By that measure, a radio for a new car would cost about \$3,000 today.)

In 1930, it took two men several days to put in a car radio -- The dashboard had to be taken apart so that the receiver and a single speaker could be installed, and the ceiling had to be cut open to install the antenna. These early radios ran on their own batteries, not on the car battery, so holes had to be cut into the floorboard to accommodate them. The installation manual had eight complete diagrams and 28 pages of instructions.

Selling complicated car radios that cost 20 percent of the price of a brand-new car wouldn't have been easy in the best of times, let alone during the Great Depression. Galvin lost money in 1930 and struggled for a couple of years after that. But things picked up in 1933 when Ford began offering Motorola's pre-installed at the factory.

In 1934 they got another boost when Galvin struck a deal with B.F. Goodrich tire company to sell and install them in its chain of tire stores. By then the price of the radio, with installation included, had dropped to \$55.

The Motorola car radio was off and running. (The name of the company would be officially changed from Galvin Manufacturing to "Motorola" in 1947.) In the meantime, Galvin continued to develop new uses for car radios. In 1936, the same year that it introduced push-button tuning, it also introduced the Motorola Police Cruiser, a standard car radio that was factory preset to a single frequency to pick up police broadcasts.

In 1940 he developed the first handheld two-way radio -- The Handy-Talkie for the U. S. Army. A lot of the communications technologies that we take for granted today were born in Motorola labs in the years that followed World War II.

In 1947 they came out with the first television for under \$200. In 1956 the company introduced the world's first pager; in 1969 came the radio and television equipment that was used to televise Neil Armstrong's first steps on the Moon. In 1973 it invented the world's first handheld cellular phone.

Today Motorola is one of the largest cell phone manufacturers in the world.
And it all started with the car radio.

WHATEVER HAPPENED TO the two men who installed the first radio in Paul Galvin's car? Elmer Wavering and William Lear, ended up taking very different paths in life. Wavering stayed with Motorola. In the 1950's he helped change the automobile experience again when he developed the first automotive alternator, replacing inefficient and unreliable generators. The invention led to such luxuries as power windows, power seats, and, eventually, air-conditioning.

Lear also continued inventing. He holds more than 150 patents. Remember eight-track tape players? Lear invented that. But what he's really famous for are his contributions to the field of aviation. He invented radio direction finders for planes, aided in the invention of the autopilot, designed the first fully automatic aircraft landing system, and in 1963 introduced his most famous invention of all, the Lear Jet, the world's first mass-produced, affordable business jet.

(Not bad for a guy who dropped out of school after the eighth grade.)

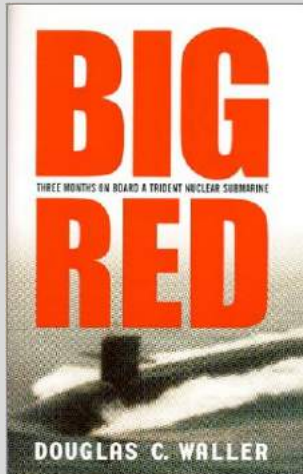
Sometimes it is fun to find out how some of the many things that we take for granted actually came into being!

AND

It all started with a woman's suggestion!!
You got to be kidding!



Book Review



The Trident nuclear submarine is the most complex war machine the United States Navy has ever produced, a \$1.8 billion marvel crammed with more modern military technology than any other vessel in the world. It is an 18,750-ton steel monster, taller in length than the Washington Monument and wider than a three-lane highway at its center. Deep beneath the ocean, it can sail silently for months, practically impossible to detect by the enemy. And the twenty-four ballistic missiles on board just one of these subs have enough strategic nuclear warheads to unleash twice the explosive energy detonated by all the conventional weapons in World War II.

Now, for the first time, veteran *Time* magazine correspondent Douglas C. Waller takes you on a tension-packed, three-month patrol deep in the Atlantic Ocean and inside one of these Tridents, the U.S.S. *Nebraska*. Granted more access to these awesome submarines than any journalist before, Waller penetrates one of the most secretive worlds in the U.S. Military.

The Cold War may be over, but the U.S. Navy still has Tridents lurking the oceans, always ready at a moment's notice to unleash a nuclear holocaust. In chilling detail, *Big Red* reveals the top-secret procedures for starting World War II -- the secret codes, the elaborate fail-safe mechanisms, the highly classified battle tactics for nuclear combat.

This book takes you into this closed society as a witness to secret rituals and life experience where submarines, underwater for months, hope never to unleash the destructive power they command.

1958

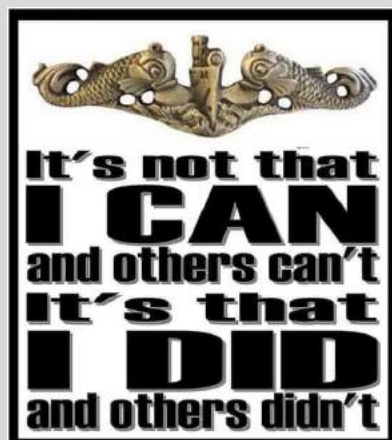


Frank Urbani
EN2 (SS)
USS Gudgeon
SS-567

1954



Clyde Webber
ETNSN (SS)
USS Trumpefish
SS-425



1963



Dennis Wiley
E9 MMCM
(MDV/SS/SW)
USS Medregal
SS-480

1960



Phillip Zeddies
ENFN (SS)
USS Caiman
SS-323