

NM NAUTICAL NEWS

OFFICIAL NEWSLETTER OF THE
NEW MEXICO COUNCIL
NAVY LEAGUE OF THE UNITED STATES



NAVY LEAGUE | **NEW MEXICO**
of the United States | **Council**
"Citizens in Support of the Sea Services."



www.nmnavyleague.com

April, 2022

Spring 2022 Issue

Page 1

- USS Albuquerque Sail

Page 2

- President's Message:
NM Council Updates

Page 3

- Local New Mexico News
- Nautical Items of Interest
Rubin MacNiel Raiford

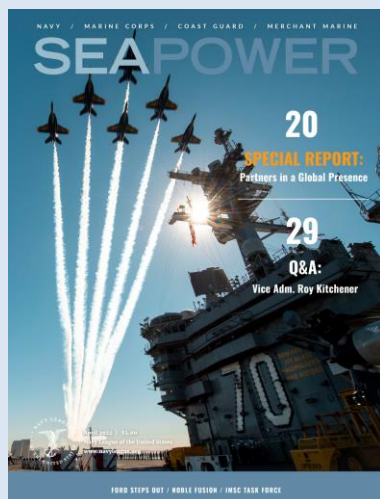
Pages 4-7

- Namesake Ships
BB-40 Changed the World
USS Santa Fe Out of the Yards
Albuquerque's Sail Memorial

Page 8

- Upcoming Events

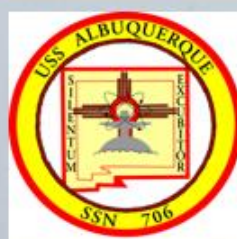
Visit Sea Power magazine,
the official Publication of the
Navy League of the United States.



Bringing Home a Piece of USS Albuquerque

Story by Greg Trapp, JD and Mark Schaefer, newsletter editor; Photos courtesy of Dick Brown

USS Albuquerque SSN 706



The New Mexico Council of the Navy League has long supported USS Albuquerque (SSN-706), and is now leading the effort to bring its sail back home to the city of Albuquerque where it would serve as a memorial.

As a result of the Council's efforts, Albuquerque Mayor Keller is enthusiastically on board, and has submitted a "initial request letter" to the Naval Sea Systems Command (NAVSEA) asking for the sail. There is much work yet to be done, but the critical first task of the city requesting the sail to create a memorial has been completed. More of this story is found on pages 6 and 7.

Thank You! When you keep your dues up to date with the Navy League national office, our New Mexico council receives a stipend for each active member. This makes a big difference in our ability to support our namesake ships, our youth, our Sea Cadets, and the local active and reserve. Join or renew at

<https://www.navyleague.org/membership>

2022 COUNCIL OFFICERS

John L Jones
President

Dave Williams
Vice President

Chuck Vaughan
Treasurer

Tom Gutierrez
Secretary

COMMITTEE CHAIRS

Damon Runyan
USS New Mexico SSN-779

Ron Oleksak
USS Santa Fe SSN-763

Greg Trapp
*Historian and Chair of the
Interim 706 Sail Committee*

tbd
USS Los Alamos Commissioning

Rebecca Vigil
Public Affairs

Ed Nava
Website Editor

NAVY LEAGUE
NEW MEXICO COUNCIL
P.O. Box 91554
Albuquerque, NM 87199

Mark Schaefer
Newsletter Editor



President's Message



John Jones
President, New Mexico Council

AHOY!

As we welcome Spring, the snow and mild weather, to 2022, we wish you good health, and the opportunity to be with family and friends, as well as spending some time with the New Mexico Council!

The Council Board continues to meet via Zoom on a monthly basis – normally the 2nd Monday at 530 pm (April 11th). We welcome your attendance – let us know and we'll get you the link and code for the month.

A goal of the Council this year is to increase our membership – if you have a friend interested in the maritime support mission of the League, or is a former sea service member, please refer them to the Council or the National web site ... there is PLENTY to do, especially with the potential for the 706 Sail coming to Albuquerque.

Please consider a tax-deductible donation to the New Mexico Council in support our educational efforts with the Sea Services, our scholarship program for men and women on

active duty and in the reserves, our work with crews on our namesake New Mexico ships, and our recognition programs with the Navy ROTC and Junior Navy and Marine Corps ROTC programs around the State and El Paso.

We've recently set up a new Facebook page, to expand upon the newsletter and our web page. Search for "NavyLeagueNM" and help with our outreach.

On April 9th, there will be a Blessing of Fleet at the Navy Memorial in Washington DC – you can watch at "NavyMemorial.org"

The Navy recently announced that it would return to Albuquerque and New Mexico with a Navy Week, in September, during the State Fair. We'll have more information in our next issue.

Hope you enjoy this issue, with information on the Blue Star Mothers; some evolving success in our six year effort to bring the sail of the former ALBUQUERQUE (SSN 706) home to rest; a bit of WWII history; an article addressing the high tech nature of BB40 (USS NEW MEXICO) in 1918 when she was commissioned.

Stay in touch, tell us what you think.

Contact me any time at
JohnLJonesNM@gmail.com
or by mail at the Council's P.O. Box.

Not for Self, but Country.
Semper Fortis.

John L Jones, CDR SC USN (ret)

Navy Tidbits



March 27th commemorated the 12th Anniversary of the Commissioning of the USS New Mexico (SSN-779).



To contact the editor, write to Mark Schaefer at usnanm@comcast.net.

Local New Mexico News



Blue Star Mothers, Rio Grande Chapter, Care Package Support

by John Jones and Marilyn Smith; photos courtesy of Marilyn Smith



The New Mexico Council was represented at the Blue Star Mothers care package packing event on Saturday, March 19th. Marilyn Smith helped the Moms and Dads get care packages together for our New Mexico troops who are stationed at sea and on land around the world.

Blue Star Mothers is a support and service group joining together to share concerns, worries, pride, and devotion to loved ones serving in all branches of the Armed Forces of the United States.



NM Council board member, Marilyn Smith (right) helps the Blue Star Mothers)

Please consider sending this great organization a donation at
<http://rgvnmbsm.org/donations.htm>

Nautical Items of Interest

NEW MEXICO
Council



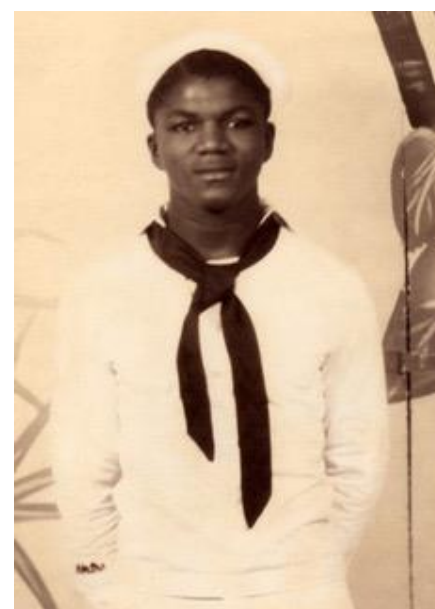
The United States Navy's Youngest World War II Fatality

By Dan Moss, submarine veteran and council member

Think about where you were and what you were doing when you were thirteen years old. Now picture Rubin MacNiel Raiford, of Georgetown, South Carolina at the age of 13 enlisting in the United States Navy on October 13, 1942. Five months later, Rubin was a crew member on the World War II submarine USS Saury (SS-198). Rubin made war patrols number 6 and 7 and secretly celebrated his 14th birthday while serving as a steward aboard the Saury.

Around August 25, 1943, 14 year old Rubin, now a Steward's Mate 1st Class, reported aboard the USS Spearfish (SS-190). While aboard Spearfish, Rubin relinquished two stripes and changed his rate from SD1 to CS3 and also celebrated birthday number 15. Rubin made four war patrols (#8,9,10, and 11) while attached to the Spearfish.

After leaving Spearfish, Rubin became a crew member on the USS Tang (SS-306) for her 5th war patrol, which was conducted in the China straits between Taiwan and the Chinese mainland. On the night of October 23-24, Tang attacked an enemy convoy. With only one torpedo left, Tang fired it at a crippled tanker and much to their astonishment, the torpedo malfunctioned and made a circular run that struck them at their stern. Tang sank in 180 feet of water. Of the 78 crew members, only 8 managed to survive, leaving the majority of the crew to face an agonizing end. Among them was the youngest Naval combatant fatality of World War II, Rubin MacNiel Raiford, age 15 years 5 months.



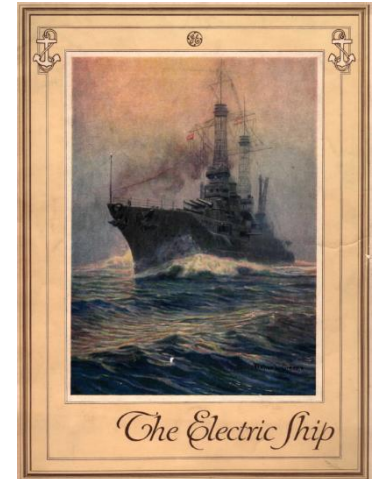
Editor's note: To see a short story about USS Spearfish rescuing nurses off Corregidor, type the following into your computer or smart TV browser → <https://www.youtube.com/watch?v=oA7cTL6O3Zg>
The Commanding Officer is De Forest Kelley (Dr. Leonard "Bones" McCoy on Star Trek)

Namesake Ships



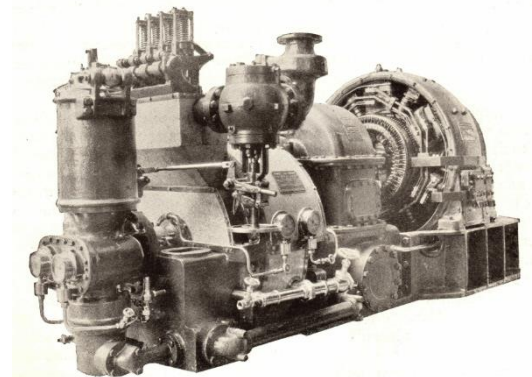
How USS New Mexico Changed the World *by Greg Trapp, JD*

USS New Mexico (BB-40) was launched on April 23, 1917. The battleship was at the confluence of some of the most important scientific, political, and cultural developments of the 20th century. The revolutionary new battleship incorporated the very latest technological advances in gunnery, aviation, radio, boilers, steam turbines, and electrification, so much so that New Mexico was known as “The Wonder Ship.” The building of USS New Mexico also helped to establish a strong relationship between the military and private industry. The primary industrial partner was General Electric. USS New Mexico was also known as “The Electric Ship,” and the photos and illustrations accompanying this article are from a free booklet that General Electric distributed as a way of advertising their revolutionary turbo-electric drive. This turbine technology and the resulting mass generation of electricity would soon dramatically transform the American way of life. At the same time, the United States Navy was being reshaped by the need to address increasingly complex engineering challenges, especially how to incorporate steam turbine propulsion into the designs of the Navy’s latest battleships.



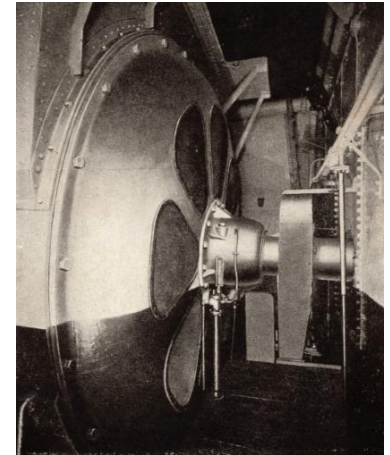
The first battleship powered by a steam turbine was HMS Dreadnought, which was launched by Great Britain in 1906. The “all-big-gun” HMS Dreadnought made all other battleships obsolete, including all of the “pre-dreadnought” battleships of the British fleet. This meant that Britain no longer had an insurmountable superiority in battleships, and it sparked a naval arms race as other naval powers saw an opportunity to match the strength of the British navy by building their own all-big-gun battleships. What is less well known is the revolution in turbine technology that HMS Dreadnought helped create.

The steam turbine was invented by Charles Parsons in 1884. Steam turbines had the potential to propel warships faster and more economically, but they had the disadvantage of being most efficient when run at high speeds. Conversely, propellers can become less efficient at high speed, so a method had to be developed to allow the turbine to run at high speed while turning propellers at a slower speed. The simplest way to achieve this was to switch from direct-drive turbines to turbines using mechanical reduction gear. However, steam turbines required reduction gear machined with very precise tolerances from high-strength metals, and the United States lacked the capacity to manufacture such precise reduction gear. This meant that the United States Navy could either continue to use reciprocating steam engines, find a way to build better reduction gear, or develop some other way to resolve the turbine challenge.



The issue of economical propulsion was critical for the United States Navy. Unlike Britain, the United States did not have a global empire with strategically located coaling stations. These coaling stations enabled the British navy to be less concerned about range and instead build faster but less fuel-efficient warships. The acquisition by the United States of Pacific territories in the wake of the Spanish American War and the rise of Japan as a naval power meant that the United States needed warships that could cruise the great distances of the Pacific. One solution was to use steam turbines and boilers heated with more energy-efficient oil instead of coal. This solution offered more economical propulsion and increased cruising range. Compared to a reciprocating steam engine, a steam turbine of the same power was half the length and height, and two-thirds the weight of a reciprocating steam engine. The smaller size of the turbine also meant that warships could carry more fuel and be built with additional armor.

The first United States battleship equipped with a turbine drive was the USS North Dakota, which was built in response to HMS Dreadnought. USS North Dakota was launched in 1908, and used a General Electric Turbine designed by Charles Curtis. The Curtis turbine perform poorly, so Parsons Turbines were used for the succeeding USS Florida, USS Utah, USS Wyoming, and USS Arkansas. Unfortunately, the lack of reduction gear meant that these battleships could not take full advantage of the potential of steam turbines, and the Navy returned to reciprocating steam engines for USS New York and USS Texas. It was General Electric that provided the solution to the reduction gear problem. General Electric had been making turbines for civilian electrical generation, but GE wanted a larger market for its turbines. The Navy beckoned as the ideal customer. The solution proposed by GE was the turbo-electric drive. The turbo-electric drive used a combination of steam turbines, electric generators, and electric motors. The turbo-electric drive could enable turbines to run at the higher speeds needed for maximum efficiency, while the electric motors could be used to run the propellers at the slower speeds needed for effective propulsion.



The Navy had considered the potential of turbo-electric propulsion as early as 1908, but was reluctant to embrace such a novel technology. The Navy eventually agreed to build three new colliers to test the available propulsion systems. The collier USS Jupiter was commissioned on April 7, 1913, and it utilized a turbo-electric drive built by General Electric. Jupiter's turbo-electric drive used a Curtis turbine, and it greatly exceeded the economy results that General Electric had predicted. The results won over the Navy, and in April of 1915, Navy Secretary Josephus Daniels announced that the superdreadnought battleship USS California would use a turbo-electric drive built by General Electric. The battleship was to be built by the Brooklyn Navy Yard, but the state of California wanted its namesake battleship to be built in California. As a result, **the first battleship to be built with turbo-electric drive was renamed USS New Mexico**. The New Mexico-class included two other battleships, USS Mississippi and USS Idaho. USS Mississippi and USS Idaho were to be built with conventional geared turbines, but the Navy later announced that subsequent classes of battleships would be built with turbo-electric propulsion. This announcement resulted in protests from shipyards that would suffer reduced profits because the new turbo-electric ships could be built quicker and more cheaply.

The benefits of turbo-electric propulsion resonate to this day. The turbo-electrically driven USS Jupiter was converted from a collier and renamed USS Langley (CV-1), becoming the nation's first aircraft carrier. The succeeding carriers USS Lexington (CV-2) and USS Saratoga (CV-3) were also powered by turbo-electric drive. The design and manufacturing of reduction gear would eventually be improved, and by the 1930s turbines using reduction gears were as fuel-efficient as turbines using turbo-electric drive. As a result, New Mexico's turbo-electric drive was removed when the battleship was modernized in the early 1930s. However, turbo-electric propulsion had other advantages, and turbo-electric drive is today found in a range of modern warships from Zumwalt-class destroyers to the planned Columbia-class of nuclear ballistic missile submarines. The successful development of turbo-electric propulsion also helped strengthen companies such as General Electric and Westinghouse. General Electric used mass marketing to highlight the advantages of turbo-electric drive and the many benefits of electricity. The turbines that they developed to drive Navy ships helped General Electric and Westinghouse electrify rural America and turn the United States into a nation powered by electricity. The ensuing labor-saving electrical appliances transformed households and reshaped the American way of life. The development of turbo-electric propulsion also forced the Navy to recognize the need to strengthen its engineering

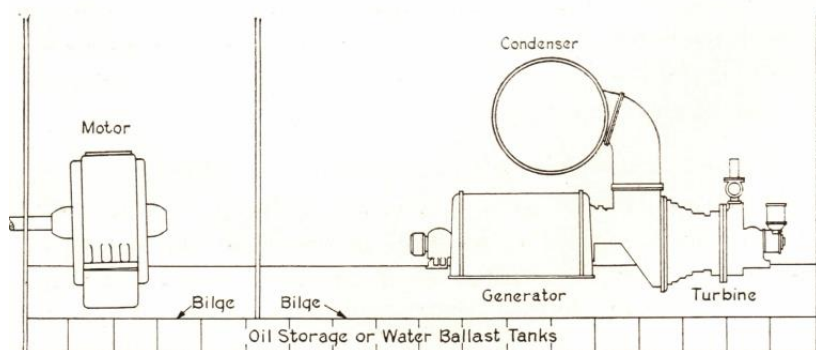


FIG. 2. ELEVATION OF THE ENGINE ROOM ARRANGEMENT

capabilities. The Navy ultimately established dozens of NROTC programs at colleges across the nation based largely on the strength of the host college's engineering program. These colleges were motivated to continue to improve their engineering programs, and graduates from these programs have helped transform America in countless ways. The turbo-electric drive that powered USS New Mexico, along with its many other innovative technologies, did indeed change the world.

Namesake Ships



Portsmouth Naval Shipyard Delivers USS Santa Fe (SSN-763) Back to the Fleet

by PNS Public Affairs March 1, 2022

PORTSMOUTH NAVAL SHIPYARD – Portsmouth Naval Shipyard successfully delivered USS *Santa Fe* (SSN 763) back to the fleet February 25 following an extensive two-year availability.

Santa Fe and her crew of 16 officers and 127 enlisted personnel arrived at the shipyard on Aug. 15, 2019. Project Superintendent Gabe Griego, along with the project team and Ship's Force, collaborated to overcome late stage hurdles on the project. "This was a challenging availability," said Griego. "The pandemic struck about six months after *Santa Fe* was put into Dry Dock #1. In order to keep construction of the Dry Dock #1 super flood basin on schedule, *Santa Fe* had to undock on time. The project team, Ship's Force, and PNS workforce showed up and worked together as a team to accomplish this goal, and continued their efforts to get us where we are today."

Santa Fe is one of the remaining 29 *Los Angeles*-class submarines still in service, including a Moored Training Ship, one of the original 62 commissioned. "The *Santa Fe* team showed true grit and tenacity to reach the end game of this availability," said Shipyard Commander, Capt. Michael Oberdorf. "The team worked tenaciously through sea trials and delivered *Santa Fe* back to the fleet knowing every submarine is vital to protecting U.S. interests worldwide. I'm proud of this workforce, as their quality work protects those who put themselves in harm's way for the greater good."

Two more submarines will be delivered from major maintenance periods in the coming weeks. Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility is completing an overhaul on USS *Charlotte* (SSN 766) while Puget Sound Naval Shipyard and Intermediate Maintenance Facility is wrapping up the overhaul of guided missile submarine USS *Michigan* (SSGN 727).



USS *Santa Fe* (SSN-763) gets underway from shipyard
Feb 25, 2022

Bringing Home a Piece of USS Albuquerque (continued from front page)

Story by Greg Trapp, JD and Mark Schaefer, newsletter editor; Logistics Comments and all Photos courtesy of Dick Brown



Two U.S. Navy ships have been named after the city of Albuquerque. The first USS Albuquerque, PF-7, was a patrol frigate that served in World War II and in Korea. The second USS Albuquerque, SSN-706, is a *Los Angeles*-class nuclear submarine that was commissioned on May 21, 1983. USS Albuquerque became known as "Sure Shooter" after quickly and accurately firing 10 Tomahawk cruise missiles as a part of Operation Noble Anvil during the Kosovo War. USS Albuquerque was decommissioned on February 27, 2017, and the now ex-USS Albuquerque is at the Puget Sound Naval Shipyard awaiting dismantling.

Ship's Sponsor Nancy Domenici and U.S. Senator Pete V. Domenici on board USS Albuquerque

There is much work yet to be done to retrieve the sail of the USS Albuquerque, but the critical first task of the City of Albuquerque requesting the sail to create a memorial has been completed.

Logistics Comments from Dick Brown:

Transportation: There are only two ways of overland heavy hauling - railway and highway. Puget Sound Naval Shipyard in Bremerton is about 1,500 truck-miles from Albuquerque and it is a fairly straight route (WA-OR-ID-UT-NM). BNSF serves both Bremerton and Albuquerque but I have no idea what that route would look like. I'm sure there would be more track-miles than road-miles. The Polk sail was transported by rail and then truck. There were needs for cranes, one at the railyard for the rail-truck transfer and one for unloading at the nuclear museum. Nevertheless, these are oversize, overweight loads, riding through train tunnels and across narrow bridges or on two and four-lane highways.



USS Albuquerque crew and sail pictured while underway.

Cost Estimates: Joel Howell (trucker and former submariner) estimates \$25K for transport by three big rigs using open-deck, double-drop trailers. Joe Jaap, Cincinnati sail memorial project leader, reports that Joel also helped transport the USS Indianapolis sail. That foundation slab (50 tons on a small footprint) plus rewelding three sections back together cost about \$80K. Other concrete work and amenities in their Indy memorial raised the total project cost to about \$250K. The USS Cinci sail project is much more elaborate and includes a plaza with pavilion and park features for kids. Joe reports his design firm will have three levels of design (Yugo, Ford & Cadillac) in about three weeks. Then they'll seek construction estimates and are thinking their project may cost upwards of \$1M. Besides benefactors they plan to tap local defense contractors and other local corporations. And like us, they are involving the chamber, the community, veterans and local government.

The sail weighs approximately 50 tons, is 26 feet long, 19 feet high, 6 feet wide, and has fairwater planes with a wingspan of 33 feet.



"Ex-Albuquerque was an exceptional submarine with an exceptional crew. There was a love affair between the submarine and her namesake that endured throughout her 33-year life". – Dick Brown, retired Chair of the USS Albuquerque Committee of the New Mexico Council of the Navy League of the United States.

NAVY LEAGUE OF THE UNITED STATES
NEW MEXICO COUNCIL
P.O. BOX 91554
ALBUQUERQUE, NM 87199

Return Service Requested

The Navy League New Mexico Council thanks

ABQ Grafix

*for more than 5 years of discounted printing and great service
in the printing of the NM Nautical News!
send 'em your business!*



Navy League of the United States New Mexico Council, P.O. Box 91554, Albuquerque, New Mexico 87199-1554. The Navy League is classified by the IRS as a 501(c)(3) non-profit organization and your donation is tax-deductible.

2022 Upcoming Events for Navy League, New Mexico Council

April 11	Navy League, New Mexico Council board meeting
May 9	Navy League, New Mexico Council board meeting
June 13	Navy League, New Mexico Council board meeting

Please volunteer to present awards to JROTC units in your area → contact Ron Oleksak at Ron.O.NMNLUS@outlook.com