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THE CHINA LAKER

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Newsletter of the China Lake Museum Foundation

Summer 2012

USS Ranger (CV-4) Aircraft Carrier

The USS Ranger (CV-4) was the first aircraft carrier for the US Navy to be specifically designed and built from the keel up. The previous three carriers were converted from existing ship designs and constituted the USS Langley, the USS Lexington and the USS Saratoga - the Langley (CV-1) being a converted collier while the Lexington (CV-2) and Saratoga (CV-3) were built from cancelled battle cruiser keels. In 1922, designs were requested by the United States Navy for an aircraft carrier having more speed and expanded storage for more aircraft than existing carriers in the fleet at the time. The USS Ranger had been planned to have a flat, unobstructed flight deck with no island superstructure and six smoke stacks (funnels) - three to each side - that were hinged to fold horizontally during air operations. An island superstructure was eventually added during construction. A pair of service cranes would facilitate the recovery of seaplanes. Construction was started in 1931 at the Norfolk Navy Yard with work being handled by the Newport News Shipbuilding & Dry Dock Company for \$2,160,000.

The USS Ranger was named for the American colonial fighting men who knew the habits of the enemy and could serve effectively as scouts and combatants behind enemy lines. Ranger was smaller than the USS Saratoga and USS Lexington but, having been constructed from scratch as a dedicated aircraft carrier, she was allowed engineering for maximum aircraft stowage. She displaced about 1/3 the tonnage of the larger ships but was able to carry almost the same complement of planes - 86 against 91 aircraft on the Saratoga and Lexington. She was 769 ft long (234.39m) and, from port to starboard, she measured 109.6ft (33.41m) while her draught would draw 22.5ft (6.86m) of water. She was slower than the Lexington-class, with a surface speed of 29.3kts (34mph), and had a range of 12,000 miles (19,312km). For air and sea defense she fielded 8 x 5-inch (130mm)/25 caliber Dual-Purpose (DP) cannons in single mountings and 40 x .50-inch (13mm) anti-aircraft machine guns placed in various positions around the flight deck. Her normal complement was 2,461 officers and men and, fully loaded, she weighed 17,859 tons. Ranger had six oil-fed boilers driving two steam turbines that delivered 53,500 shaft horsepower equating to 39,000kW connected to 2 shafts.

The smaller carrier concept, as outlined by the Navy's General Board, included a speed of 29.4 knots and having a clear flight deck. The navigation and signal bridge was planned under the flight deck, well forward, with extensions beyond the ships side located at port and starboard.

(cont'd on page 4)



Larry V. Zabel (1930—2012)

The nation lost a great American, the Navy lost one of its greatest supporters, China Lake lost an icon, and we all lost a good friend.

Obituary

Renowned artist Larry V. Zabel lost his valiant battle with C.M. Leukemia and has gone home to be with his lord. Larry passed away September 11, 2012 at his home up North Meadow Creek near McAllister, Montana. Larry was born on January 19, 1930 at Deer Creek, Minnesota, to Esther (Peterson) and X.Y. Zabel. His early years were spent happily on a farm near Deer Creek where he and his sister Beverly attended a one room country school. Larry and Bev's mother was an accomplished artist and encouraged the obviously gifted Larry to draw and paint from the age of 3 years.

In 1938, the family moved to California where Larry attended schools, graduating from Anaheim Union High School in 1947. (He was inducted into that high school's Hall of Fame for distinguished graduates in 2010.) Larry joined the United States Navy and Served for over three years. He then furthered his education at U.C. Santa Barbara, the University of the Americas in Mexico City and graduated from Long Beach State.

Larry went to work for Douglas Aircraft Corp in Oklahoma and California as an illustrator and writer, and later for the Gene Corp., eventually moving to a Civil Service position at the China Lake Naval Weapons Test Facility as Director of Technical information. During those years he continued to paint. He was sent to Vietnam several times to film the use of Naval weapons and to gain reference material to produce a series of combat art paintings for the Navy, which can be seen at the Naval Archives Center in Washington D.C. After completing his 20 years of government service, he decided to retire and pursue another career as a western "cowboy" artist. Larry and his wife, Sharon moved to Montana where they purchased property on North Meadow Creek about 25 years ago. Eventually some of their family and a number of friends followed them here, including his life-long friends, Bob and Dixie Gates.

Before long, Larry was making a name for himself producing paintings of Montana scenery, its ranchers, their ranches, the native peoples, and the wildlife. His paintings now hang in many public and private collections all the way from government offices in Washington, to the West Coast. Larry was extremely generous with his acknowledged God-given talent and contributed to countless worthy causes and fundraising efforts including the Rocky Mountain Elk Foundation, Madison Valley Ranchlands Group, The Madison River Foundation and The Madison Valley Medical Center.

Larry was preceded in death by his ex-wife, Marie Nichols Zabel Hanning; his dear wife, Sharon J. Zabel and his beloved daughter, Christi Rivers Fisher. He leaves daughter, Becca Zabel of Bozeman and her four sons —Neal Preston (Amiee) children Bradlee, Kaeden, and Quincie; Cody Preston (Jenna) children Ethan and Quinton; all of Lake Isabella, California, Lane Grahm of M.S.U. Bozeman and Logan Grahm (Alex of Alpine, California, son, Steve Zabel (Maria) and their son Jack of Bozeman; son, Jon Zabel of Las Vegas and son-in-law, Todd Fisher, children Vanessa, James, and Brandon Rivers of Creston, California. He is also survived by his siter, Beverly Z. Claassen, her daughters Karen Claassen and Kathy Carpenter of Ennis and Kathy's sons Ken and Josh or Norman, Oklahoma, and his companion, Maureen van Emmerik of Georgetown, Washington D.C. as was as scores of very dear friends.

In recent years Larry and Maureen have enjoyed a life split between Montana, Washington D.C., and Morro Bay, California. They enjoyed a couple of marvelous trips to Kenya, Tanzania, and recently South Africa.

In lieu of flowers, the family suggests contributions be made to the Madison Valley Medical Center Foundation. The family is very grateful for the support and care provided by the staffs and Deaconess Hospital in Bozeman, The Madison Valley Medical Center, Hospice lovingly provided by Mary Carlson, and especially the amazing personal care by Dr. Robert Marks.

As Larry would proclaim to everyone: It has been a Truly Great Ride!!

Cremation has taken place with K & L Mortuaries in charge. There will be a memorial service at Journey Church in Bozeman on Friday, October 26, 2012 at 1 p.m.

Published in Bozeman Daily Chronicle on September 16, 2012.

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Building Committee and Fundraising Report

The process to obtain a lease between Kern County and the China Lake Museum Foundation (CLMF), which is the first step toward building a new museum facility in the City of Ridgecrest, is underway. The CLMF has requested a 50-year lease with first rights to extend. Several parties are involved in the process, including the County of Kern, The City of Ridgecrest, The Maturango Museum, and the China Lake Museum Foundation. There are current leases in place between the county and both the City of Ridgecrest and the Maturango Museum. The China Lake Museum Foundation has requested a parcel of land that includes property, the majority which is currently under the Maturango lease, plus a small portion which is on the City of Ridgecrest's lease. The CLMF parcel will also include a portion of the corner lot adjacent to the county offices and courthouse and just west of the library.

All parties, including the county, have met numerous times and are in agreement to the current layout and splitting of the property. Revisions to the City of Ridgecrest and Maturango leases are required, as well as the creation of the CLMF lease. The preliminary China Lake Museum Foundation site plan has been submitted to the County of Kern for review by the departments involved, which include Land and Development, Parks and Recreation, legal staff and supervisors, and to date the CLMF has received conditional approval on the proposed site layout. A preliminary survey has been done by the county to establish the new split parcel lines and the lease efforts are underway. We expect that completion of the leases will take 4-6 months if unexpected delays are not encountered. The China Lake Museum Foundation has been given permission by the county to proceed with the development of an armament display park on the corner lot prior to completion of the lease. The CLMF will be initiating a fundraising effort to bring in \$50,000 to support the building of the park.

Any questions or comments regarding these efforts may be emailed to chinalakemuseum@yahoo.com. If you are interested in contributing a gift toward the outdoor armament park, there are naming opportunities available for donations that are lead gifts in this effort. The China Lake Museum Foundation is looking forward to updating you on our progress as these efforts proceed toward completion.

Thank You,

Beth Summers, Building Committee Co-Chair
Pat Connell, VP Fundraising

Membership Application Form (New/Renewal)

<input type="checkbox"/> Individual/Family Member - \$35 annually <input type="checkbox"/> Contributor Member - \$100 annually <input type="checkbox"/> Benefactor Member - \$500 annually Lifetime Member - \$1000 once, or <input type="checkbox"/> \$500 twice consecutively per annum, or \$250 four times consecutively per annum	<input type="checkbox"/> Business Contributor Member - \$100 annually <input type="checkbox"/> Business Sponsor Member - \$500 annually <input type="checkbox"/> Business Member - \$1,000 annually	Volunteer Work (Area of Interest) _____ _____ <hr/> <p style="text-align: center;">METHOD OF PAYMENT</p> <input type="checkbox"/> Check or money order enclosed (Please No Cash or COD) Payable to: China Lake Museum Foundation Charge My: <input type="checkbox"/> VISA <input type="checkbox"/> Master Card <input type="checkbox"/> Discover* <input type="checkbox"/> American Express CREDIT CARD NUMBER: _____ * 3 DIGIT CARD VERIFICATION CODE: _____ Expiration Date: _____ Issuing Bank: _____ Signature: _____
Name _____ Spouse's Name _____ <small>(Name or Business Name)</small> Point of Contact (Business Only) _____ Address _____ City _____ State _____ Zip _____ E-mail Address _____ Telephone () _____ Date _____		

China Lake Museum Foundation
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President's Report by Bob Campbell

We lost a great friend in Larry Zabel. He has always been there for us and believed in our vision. I am in the process of arranging for the loan of his combat art from the Navy Museum archives in Washington for a special showing in the near future. We will attempt to include many of his originals that reside here on the base and in the valley.

By now many of you have received our Fall Campaign letter. We appreciate your consideration and support as we move forward with our vision to relocate the Museum to become part of the "museum complex" adjacent to the Maturango Museum in the Kern County Park.

You have seen the articles regarding our successful summer science camp series in the local papers. The camp was performed jointly with NAWCWD and the Sierra Sands School District support. This was our third year and we plan to expand our education outreach activities next year.

I hope to see many of you at our Annual membership meeting, October 17th at the Springhill Suites. I will briefly summarize our status at the meeting before introducing Dale Knutsen as our special speaker. He will share his book "Strike Warfare in the 21st Century". The book will be available at the event.

(USS Ranger (CV-4) Aircraft Carrier continued)

Secondary conning stations were to be located on the starboard side of the upper deck along with the aviation control station. The plotting station consisting of flag plot and the aviation intelligence offices and was to be installed on the island superstructure. During the planning stage consideration was given to aircraft elevators and an aft elevator would be used to expedite the re-spotting of aircraft. After the aircraft had landed on the flight deck, it sometimes became necessary to send it below deck from the aft (or stern) section of the deck.

Speed was most desirable in aircraft carriers to and from battle hotspots but speed also maintained its inherent drawbacks. The location of the general workshops aft was not practical and was recommended they be relocated forward. Experience on CV-2 and CV-3 had shown that it was impossible to do any precision work in these shops when a vessel was steaming full ahead at 22 knots. Night landings were also reviewed for Navy aircraft in attempts to make safe landings on carriers and broaden their reach in battle. Adequate illumination was the issue of the day to help enable pilots to make controlled landings while the ship maintained enough darkened conditions that would prevent disclosure of the carrier's location to patrolling enemy aircraft, submarines or surface ships. The technical difficulties of this project started a series of experiments consisting of several lighting arrangements aboard US carriers. These trials provided safe illumination for night landing but were less successful in maintaining darkened ship conditions. Different lights were tried - incandescent lights of low wattage were tested in different arrangements. Neon tubes that were colored white, green, red, blue or amber were tried but none were found to be a solution. As such, the problem of carrier night deck illumination was not satisfied at this time.

The final planning decisions required Ranger's fire control system be cut down, ammunition storage space reduced, and torpedo planes would be eliminated along with their torpedoes due to the lack of room for their storage. Dive bomber aircraft would be used instead and on-deck catapults were to be cancelled as were aircraft booms and safety nets. The arresting gear system was reduced. Ranger was originally planned as a 13,800-ton aircraft carrier under the Washington Naval Treaty but she exceeded this by some 700 tons with her final displacement being 17,500 tons at full load. A major change to the design was made in 1932 that added the island superstructure along the starboard side of the deck forward of the three hinged smoke stacks. The hull was 730 feet in length and her flight deck extended her overall length to 769 feet.

On September 26, 1931, Ranger's keel was officially laid. Seventeen months later, the ship was launched and she was subsequently commissioned on June 4th, 1934. The first aircraft landed on her deck - this on June 21st, 1934 - was a SBU-1 Biplane fighter piloted by LtCdr A.C. Davis. The Ranger also received Grumman J2F Duck Bi-Seaplanes. Ranger was more or less an experiment for the debate within the Navy Department as to whether carriers should be small or large based on the limitations of the Washington Naval Treaty. The US Navy saw that the Japanese Navy had produced small carriers and thoughts were that smaller US carriers could be used for anti-submarine warfare (ASW), airborne reconnaissance and destruction of enemy shore strong points. However, during operations throughout the 1930s, the outcome prevailed that the US Navy should focus on larger, faster carriers. (cont'd on page 5)

Share the Dream

The U.S. Naval Museum of Armament and Technology, located aboard the Naval Air Weapons Station in China Lake, California, has become a great success. Every year, between 12,000 and 15,000 military and civilian visitors come to learn about the unique history and outstanding accomplishments of China Lake NAWCWD. The current Museum, however, is hindered in realizing its full potential.



The Museum is housed in the Naval base's former Officer's Club, a 12,000 square foot 64-year-old building in need of extensive renovation. The inadequate space prevents the proper display of many artifacts, the addition of new artifacts presently in storage, and the expansion of the Foundation's educational outreach programs. Some exhibits, especially those developed 20 years ago, require repair and updating. Additionally, the time-intensive process for obtaining the security badge required for Naval base entrance dissuades many potential patrons of the Museum.

The China Lake Museum Foundation has proposed to remedy these problems by building a new Museum in the nearby city of Ridgecrest. The increased space, renovated exhibits, and publically accessible location will enable the Museum to better fulfill its mission to preserve the legacy of Naval armament and technology. This dream, however, will not be possible without the generous help of people like you. Please consider contributing to our campaign to better our Museum and pass the legacy of China Lake NAWCWD to the future.



Educational Tours

Adults of all ages love the docent-led tours of the Museum. Our expert docent team is comprised of retired NAWCWD workers who know the weapons so well that some hold patents on weapon components or managed the development of the weapons during their career. Tours are free and may be scheduled by calling the Museum.

Educational Tours for Kids

We at China Lake NAWCWD know rocket science, and we want future generations to continue the legacy of technological innovation and excellence we have created. To foster interest in Science, Technology, Engineering and Mathematics (STEM) subjects, the Museum offers children of all ages an educational tour that brings the exhibits to life while reinforcing California State Science Standards. A series of rocket science educational booklets allow the kids to track what they have learned.



Education

Interactive Science Center

The Foundation seeks to not only inspire the next generation, but to impart the STEM knowledge and skills needed to actually become rocket scientists. We regularly hold hands-on workshops for kids that explore rocket subsystems and their technical requirements at their level. Participants in the "So You Want to Be a Rocket Scientist" program may work with a mentor from China Lake NAWCWD on group or individual projects. The Museum also provides science kits that may be taken home for further exploration and study.



The Secret City

China Lake Naval Air Weapons Center - Weapons Division



From WWII through Vietnam to the deserts of Iraq, China Lake has provided our warfighters with the most reliable and effective weapons systems ever built. These developments were made possible through the unique partnership of uniformed military personnel, civilian scientists and the private industry workforce that together have designed, developed, produced, fielded and supported these state-of-the-art weapons and weapon systems for more than 67 years.

This 'China Lake Model' for weapons development identified naval require-

ments and operational needs, developed feasible advanced technological developments and conceptual designs and the engineering support necessary to equip the Navy (and other services) with weapon systems that have proven to be extremely reliable and effective in combat. So successful was this approach to weapon development that this Navy team developed 70 percent of the US weapons used in Vietnam and 80 percent of the weapons used in Desert Storm. Museum displays highlight these team efforts and the many contributions made by our industry partners.

Innovations and "Firsts"

The China Lake Naval Air Warfare Center – Weapons Division was the birthplace of countless advances in science and engineering, many of which have since seen commercial application. Here are some re-

- ◆ First U.S. aircraft rockets
- ◆ First air-to-air guided missile to kill an airborne target
- ◆ First chemiluminescent light sticks ("glow sticks")
- ◆ First body scanning and facial recognition technology
- ◆ First anti-radiation missile
- ◆ First UAV search and rescue
- ◆ First subject search using a digital



Check us out on Facebook: www.facebook.com/ChinaLakeMuseum

(USS Ranger (CV-4) Aircraft Carrier continued)

USS Ranger left Norfolk on June 21st, 1934 for her "shakedown" training cruise with her new crew and air wings. She cruised off the United States Virginia Capes and conducted standard drills for the crew and flight operations for her new squadrons. She continued south to Rio de Janeiro, Buenos Aires, and Montevideo, South America. Here she showed the flag and continued training and drills. On October 4th, 1934, she steamed back to Norfolk for the standard dry dock repairs. On April 1st, 1935 she sailed for the Pacific through the Panama Canal and, six days later, and arrived in port at San Diego, California on 15th. San Diego was her first assigned port and, for the next four years, she patrolled up and down the West Coast as far north as Alaska, as far south as Callao, Peru and as far west as Hawaii.

USS Ranger departed San Diego on January 4th, 1939 for Guantanamo Bay, Cuba for fleet operations in the Caribbean. After the exercises were completed, she steamed back to Norfolk, arriving on April 20th, 1939. Ranger was then assigned to cruise the eastern seaboard out of Norfolk and into the Caribbean Sea as her normal patrol station. In the fall of 1939, after total war in Europe had broken out, she commenced Neutrality Patrol operations out of Bermuda along the trade routes of the middle Atlantic and up the eastern seaboard to Newfoundland. She was found to be lacking in sea keeping ability for she could not operate aircraft along her decks in heavy weather conditions.

On December 7th, 1941, Ranger was returning to Norfolk from a patrol around Trinidad and Tobago when the Japanese Navy attacked Pearl Harbor. Ranger arrived at Norfolk on December 8th where she was resupplied and took on normal scheduled personnel replacements. She sailed on the 21st for patrol in the South Atlantic and re-entered the Norfolk Navy Yard for repairs on March 21st, 1942. Ranger was one of fourteen US Navy ships to receive the early RCA CXAM-1 radar system and also took on the new Grumman Wildcat fighter squadrons to replace her outmoded SBD-1 biplanes. Ranger served as flagship of Rear Admiral A. B. Cook, Commander, Carriers, Atlantic Fleet. She was ordered to Quonset Point, Rhode Island and was loaded with sixty-eight US Army Curtiss P-40 Warhawk pursuit fighters along with their pilots and ground crews of the Army's 33d Pursuit Squadron. Ranger put to sea on April 22nd and made landfall on May 10th at Aerea on the Gold Coast of Africa where she launched the Army P-40 squadron. This was the first time US Army planes were launched from a carrier flight deck. She returned to Quonset Point, Rhode Island on May 28th, 1942, and was loaded with seventy-two more Army P-40 pursuit planes, again destined for Aerea, Africa, finally arriving there and launching aircraft on the 19th.

Upon returning to Norfolk, she trained with four escort carriers that had been converted from exiting tankers. The escorts had new crews and Ranger gave valuable training on all phases of carrier operations. The escorts were brought online to help in convoy protection in the Atlantic crossing from German Navy attacks. Ranger was the biggest aircraft carrier in Atlantic waters and was assigned four Sangamon-class escort carriers for defense - each fielding 25 to 34 aircraft. This task force was to provide air cover for the upcoming amphibious invasion of German-controlled French Morocco on November 8th, 1942. Ranger and her task force was 30 miles north of Casablanca and launched her aircraft at 0615 hours, attacking Rabat airdromes and destroying 21 enemy aircraft on the ground and strafing the French headquarters without any losses. (cont'd on page 6)

(USS Ranger (CV-4) Aircraft Carrier continued)

Additional planes from Ranger's force destroyed another seven enemy planes on the Port Lyautey airfield while others strafed four French destroyers in Casablanca Harbor.

The operation lasted three days and Ranger's task force launched a total of 496 sorties in support of the three-pronged landing. The French destroyer Albatros was bombed twice on her forward deck area causing 300 casualties. The French cruiser Primaugut was attacked and damaged as she sorted from Casablanca Harbor. Aircraft dropped depth charges on two submarines and destroyed coastal defenses and anti-aircraft batteries. Ranger's pilots reported 21 light enemy tanks were attacked with many destroyed along with 86 military vehicles. Overall, Allied planes destroyed 70+ enemy planes on the ground and shot down 15 in aerial combat. Ranger's task force lost 16 aircraft. Casablanca surrendered to the Allied Forces on November 11th, 1942 to which Ranger departed the Moroccan coast the next day and steamed into Norfolk, Virginia on the 23rd.

Ranger stayed in the Norfolk Navy Yard for needed repairs and aircraft replacement from December 16th, 1942 to February 7th, 1943. Returning to her ferrying role, she was loaded with seventy-five P-40-L Army pursuit planes headed to Casablanca, Africa, arriving there on February 23th, 1943. Returning to Norfolk, she patrolled the East Coast of America and steamed with the British Home Fleet at Scapa Flow, Scotland on August 19th, helping to patrol the sea approaches to the British Isles. The new mission was to attack German shipping in Norwegian waters. On October 2nd, she sailed and attacked a small convoy, sinking two ships and damaging a pair of merchantmen in the process. Further combat sorties destroyed a freighter and damaged another two ships. Air combat shot down two German planes with three Ranger Wildcats lost. Ranger and her squadron returned to Scapa Flow on October 6th, 1943 and she patrolled with the Home Fleet once more before reaching Boston on December 4th, 1943.

Soon after her return she began training but soon was ordered to Staten Island, New York to pick up seventy-six P-38 fighter aircraft along with US Army and Navy and French Naval personnel. Casablanca, again, was the destination to which she arrived there on May 4th, 1944. After Ranger unloaded her inventory, damaged US Army aircraft were loaded aboard for stateside repairs. Also, a number of military passengers were taken aboard for their return to New York. Arriving at New York on May 16th, Ranger returned to the Norfolk Navy Yard for repairs and new equipment. The flight deck was strengthened for installation of a new catapult and the radar was upgraded. Arresting gear was installed that provided her with a capacity for night fighter interceptor training.

On July 11th, 1944 Ranger departed Norfolk for San Diego, arriving there July 25th. She received the men and aircraft of Night Fighting Squadron 102 and a thousand US Marines. Ranger trained in Hawaiian waters for the next three months, conducting night carrier training operations. On October 18th, Ranger departed Pearl Harbor for San Diego to train air groups and squadrons along the California coast until the end of the war. On September 30th, 1945 she steamed for New Orleans for Navy Day scheduled for October 19th to which she then headed for the Philadelphia Naval Shipyard on November 18th for an overhaul. She was decommissioned at the Norfolk Naval Shipyard on October 18th, 1946, struck from the Navy Register on October 29th, 1946 and sold for (cont'd on page 7)

So you want to be a
Rocket Scientist?





So you want to be a Rocket Scientist?

The China Lake Museum Foundation (CLMF) hosted its third annual rocket science camp for middle school students at-

tending Murray Middle School this summer. The annual event is growing due to the strong support received from CLMF volunteer efforts, base employees and the Naval Air Warfare Center Weapons Division Educational Outreach Program.

These rocket science camp participants were exposed to a variety of hands-on activities that supported education in science, technology, engineering and mathematics (STEM) disciplines. The kids were able to hang out with pilots, engineers, scientists, and perform some very cool experiments that involved programming TI (Texas Instruments) robots to deliver a payload, rocket launching including modifications to enhance performance, parachute recovery systems that they designed, and flying a plane using a simulator.

We are seeking exciting new project ideas and volunteers to expand this program next year. If you have ideas, and a willingness to volunteer your time, please contact the China Lake Museum Foundation at (760) 939-3530.



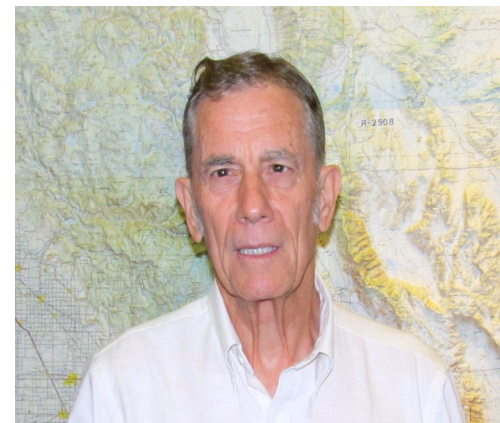
(USS Ranger (CV-4) Aircraft Carrier continued)

scrap to Sun Shipbuilding & Dry Dock Company of Chester, Pennsylvania on January 28th, 1947.

During World War 2, US Ranger served mostly in escort carrier roles for convoy escort, aircraft transport and amphibious support for she lacked sufficient speed or capacity to operate as a fleet carrier during her tenure. Of the eight pre-war U.S. aircraft carriers, these being CV-1 through CV-8, USS Ranger was one of only three to survive all of World War 2. The others became the USS Enterprise and the USS Saratoga. The USS Ranger received two battle stars for her service in the grand conflict and most of her operations were centered in the Atlantic.

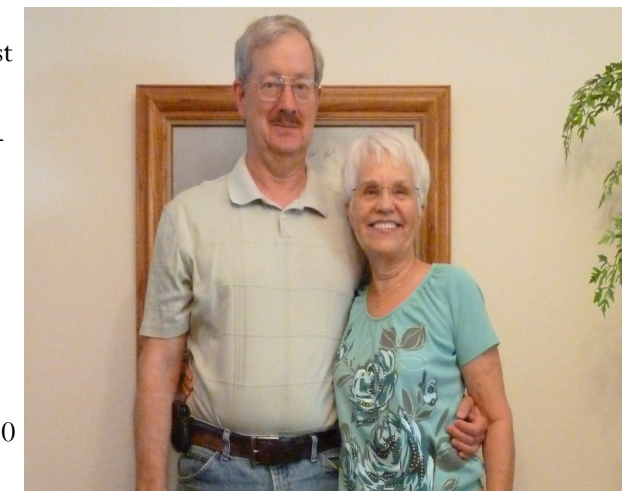
Volunteers!

Moyle Braithwaite has been a Docent for the Museum since 2009. His history with China Lake is amazing! Moyle graced China Lake with his presence in 1960; fresh out of college as a mechanical engineer. While at China Lake he has been in-



involved in many projects that keep our country safe. He has worked on the Rockeye Subunit, Skipper II; he has also worked as a Branch Head for the Deadeye, a Program Manager for the Gator, and part of a subdivision of the Tomahawk for a light weight cruise missile. After retiring as a DP4, Moyle was asked by another of our Docents, Dick DeMarco, to educate our visitors on all the things he worked on here at China Lake. He can be found in the Museum on Tuesdays from 10-1. Please come aboard to learn from this knowledgeable man. He is a complete joy to have around!

Bo and Laureen Shaw wear many hats in the Museum. Bo has been a host since 2000 and Laureen has been working in the gift shop since 2001. Both husband and wife feel they should be giving back to their community, thus they volunteer at the Museum. Bo not only hosts at the front desk, but also fixes exhibits, builds models and helps with general maintenance around the museum. Laureen felt that she was needed in the gift shop most. She has been a huge help to us from inventory, straightening, as well as keeping things clean. She is a wonderful self-starter. They both feel needed here. We certainly enjoy having them. Come check out our wonderful dynamic duo, Bo on Flex Fridays from 10-1 and Laureen on Tuesdays from 1-4.



To join our wonderful volunteers in serving at the Museum please call (760) 939-3530 or (760) 793-2082



Events

Congratulations to the

Maturango Museum on Your 50th Anniversary!

Saturday, October 6, we will be having a booth set up from 10am—6pm.

Sidewinder



Simply the Best Heat Seeking Missile Ever!

Lecture by Dr. Bob Smith

Thursday, October 11 at 6:30pm in the USO building

2012 Non-Profit Community Showcase

October 13th at the Kerr McGee Center/Freedom Park from 11am to 5pm.

Members Meeting

Annual Members Meeting will be held Wednesday, October 17th at 5 pm. Located at the Springhill Suites in the Maturango Room. 113 E. Sydnor St. Ridgecrest, CA 93555.

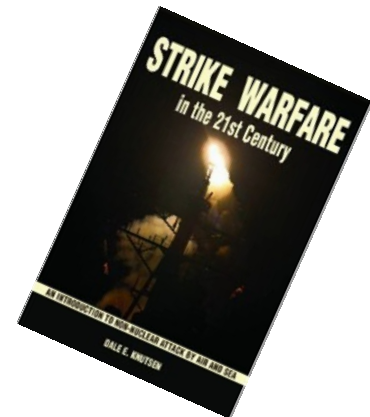
Light Hors D Oeuvres and Cash bar available. Please RSVP by October 15th. Book signing to follow.

Book Signing

Presenting Special guest Dale E Knutsen

Author of **Strike Warfare in the 21st Century**

Book signing with special guest!



Located at
The Springhill Suites
Maturango Room
113 E. Sydnor St.

Wednesday, October 17th at 6pm

\$12 to general public

Foundation members Free

Please RSVP by October 15th

Excitement in the Gift Shop?

Drawings by Pete Feigal – T-Shirts

"USN F-4 Phantom vs. MIG-21" "P-40 Flying Tigers"

"Tuskegee Red Tails vs. ME-262"

"F/A-18 Hornet" vs. MIG-29"



VX-9 Bat Mess



Vampire

VX-31



Dust Devils



Cheer Shorts / Boxers



We have so many **NEW** and **EXCITING** items in the gift shop. Please come check it out! New t-shirts, Hats, Patches, Coins, and fun cheer shorts/boxers.

Operating hours:

10am-4pm Monday-Saturday

(760) 939-3530