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Special points of interest:

- Who was VADM John T. "Chick" Hayward
- President Richard M Nixon
- Public Relations Corner

Newsletter Editor - Bettye Moody

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WHO WAS: VADM JOHN T "CHICK" HAYWARD

by Jack Latimer

Many people now working at China Lake may know that VADM John T. Hayward was a navy admiral with a distinguished

World War II combat record. Fewer people are probably aware of his contributions to the history of China Lake. Also, little remembered, there is a street, Hayward Avenue, at China Lake named for him, located in the nowdemolished Site B Capehart housing



area near Burroughs High School.

Early Years. Hayward was born in New York City in November 1908. Growing up there, he became a batboy for the New York Yankees. He attended Loyola High School, but dropped out, lied about his age, forged his father's signature on enlistment papers and joined the Navy at age 15. He was given the nickname "Chick" by a bosun who asked how a chick like him got into the Navy. The name stuck throughout his career. He

was encouraged by a navy Chaplain to apply for admission to the Naval Academy and sent to the Naval Academy Preparatory School in Norfolk to study for the entrance exams. Of 119 sailors who sat for the exams, Hayward was one of only 19 that passed the exams. He entered Annapolis in 1926 and graduated 51st in his class of 1930.

Early Naval Career. Hayward applied for naval aviation and received his wings in October 1932. He served in a scout bombing squadron on the aircraft carriers USS Langley and USS Saratoga. He flew patrol aircraft in the Panama Canal Zone, served on the USS Philadelphia, then on the USS Phoenix in 1938. He also served at the Naval Aircraft Factory in Philadelphia, attended the University of Pennsylvania Moore School of Electrical Engineering, and studied nuclear physics. In 1941 he assumed command of a new patrol squadron, VB-106. As a pilot in World War II, he fought in campaigns in the Solomon Islands and New Guinea, and led a raid on Japanese held Wake Island. The squadron he (cont page 2)

President's Message



We are sorry to say Mary Lattig had to step down as our Gift Shop Manager and Bookkeeper due to health reasons, so please keep her in your thoughts

and prayers. We are so appreciative of her training Chris McKinley to do the buying and for mentoring Chris with her gifted experience. We are blessed that Celese Sanders stepped up as our new Bookkeeper just in time, giving us a special rate considering her level of experience. Some of you met her at the recent Dinner Auction, singing the National Anthem in her beautiful soprano voice. The Dinner Auction was another big success this year, with lots of fun as usual! Many thanks to all who participated (cont on page 8)

WHO WAS: VADM JOHNT "CHICK" HAYWARD (Con't from page 1)

commanded destroyed 43 Japanese ships, including three submarines, and damaged 54 other ships. He was called to Washington D.C. to brief Admiral King, the Chief of Naval Operations, on his experience in combat. Although he desired to return to the Pacific war, King ordered Commander Hayward to a new 2,500 square-mile Naval Ordnance Test Station (NOTS) at Inyokern, California because of his combat experience flying aircraft and his degree in nuclear physics.

NOTS Inyokern. Hayward arrived at Inyokern in August 1944. In his own words: "I pulled up over Red Rock Canyon, and . . . there was nothing . . . I mean, literally nothing. There was Harvey Field, and there was a lot of dust in the middle of where people were building things. Oh, it was grim." He described "Inyokern" as a derivation of an ancient Indian word meaning. "Place to pass by; don't stop here." Commander Hayward's assignment was as NOTS' first Experimental Officer. While Captain Burroughs was commander of the base, Hayward reported directly to Dr. "Willie" Fowler and Dr. Charles Lauritsen of CalTech. Hayward made all the arrangments for whatever was required in test firing rockets from aircraft. Once his top secret clearance was completed, Hayward met with Brigadier General Leslie Groves, head of the Atomic Bomb project. Hayward became the project pilot for China Lake's Project Camel atomic bomb work. Responsibilities for assembling test units, instrumentation of ranges for all other operations in connection with scheduling of bomb drops, loading bomb units into test aircraft, and operating the airplanes was delegated to Hayward. Groves had a small fleet of fifty-passenger C-54 transports, known as Green Hornets, located at China Lake. Hayward used these to fly Manhattan personnel when they had business at the various locations involved, such as Los Alamos, NM, Hanford, WA, Pasadena, CA and Oak Ridge, TN. Much of the development and testing of the Fat Man version of the atomic bomb was done by CalTech and testing and component development was done at China Lake. After the war, Hayward was sent to Hiroshima and Nagasaki as part of the Manhattan Project team investigating the bomb damage. Hayward was active in the China Lake community. He was president of the Parent Teachers Association and served on the board of the Concert Series and Orchestra organization. As the Base's first Experimental Officer he set the example for a distinguished list of successors including J. P. Monroe, Thomas H. Moorer, Thomas F. Connolly, and T.J. Walker. Hayward was promoted to Captain in December 1945. During Operation Crossroads, he led the effort to photograph the nuclear explosion at Bikini Atoll.

New Assignments. In 1947 Hayward left China Lake and became the Director for Plans and Operations for Armed Forces Special Weapons Project at Sandia National Laboratories. The Navy was seeking to develop a nuclear

strike capability, and Hayward suggested modifying P2V Neptunes for carrier operations. The new Midway Class Aircraft carriers were planned to have a nuclear attack capability. The first nuclear strike squadron, Composite (Heavy Attack) Squadron 5 (VC-5) was formed at Moffett Field, California, and Hayward was assigned as Commander. In March 1949 Hayward took off from the USS *Coral Sea* in the Atlantic in a P2V carrying a dummy Little Boy nuclear weapon, flew across the U.S. to make a simulated attack near the Salton Sea in California. He then flew back and landed at Patuxent River, after a 23-hour flight.

From June 1951 to May 1953 Hayward headed the Military Applications Division of the Atomic Energy Commission, conducting atomic weapon laboratory work at Los Alamos. He worked on the foundation of the Lawrence Livermore National Laboratory program in 1952 with Dr. Edward Teller. In June 1953 Hayward took command of the escort carrier USS *Point Cruz*.

In 1954 he became the first naval aviator to command the Naval Ordnance Laboratory at White Oak where he helped develop the Mark 52 naval mine, and the Mark 90 nuclear depth charge. In 1957, he was assigned to the office of the Assistant Chief of Naval Operations for Plans and Operations and, in October, he became Assistant Chief of Naval Operations for Research and Development. Then the post was upgraded to Deputy Chief of Naval Operations for Development in 1959, and he was promoted to vice admiral. He pushed for development of a number of new weapon systems, including the P-3 Orion and the nuclear powered aircraft carrier USS *Enterprise*.

In 1962, President John F. Kennedy offered Hayward four stars and the job of Deputy Director of the Central Intelligence Agency. Hayward turned it down, accepting a demotion to rear admiral in March 1962 to take command of Carrier Division 2, which included the nuclear-powered ships *Enterprise*, *Long Beach*, and *Truxtun*. The task force participated in the Cuban Missile Crisis. In June 1963 he was restored to vice admiral and took command of the Antisubmarine Warfare Force, Pacific Fleet from June 1963 to January 1966.

From 1966 until 1968 he was President of the Naval War College in Newport Rhode Island. He retired in 1968, but returned to serve duty as a rear admiral from November 1970 to December 1971 as Commander, 14th Naval District, Commander, Fleet Air Hawaii and Commander, Naval Base Pearl Harbor.

After retiring from the Navy, Hayward was Vice President for International Programs for General Dynamics until 1973, and then as a (cont page 5)

PUBLIC RELATIONS CORNER

by Dr. Anthony (Tony) Damiano

The Public Relations Team of Tony, Lynn, and Forrest traveled to 29 Palms, California on May 13-14-15 to show the contributions to the Marine Corps Aviation and Ground Forces. I spoke to two Marines that were stationed here in 1943 and 1944. One was responsible for clearing ranges before tests and the other guarded Salt Wells operations. Both Marines are in their nineties, but still getting along and staying active.

We are continuing television, newspaper, and special events like Give Big Kern County wide non-profit fund raiser. We received \$2,560 from the RAZOO Foundation for donations. We received another \$1,300 from the Kern County Foundation for meeting fund raising goals during the 24 Hour event. At 6 AM, I and sixty other non-profit representatives were on all major channels in Bakersfield. Next year's event will be better as the China Lake Museum Foundation pushes forward into Ridgecrest. It is time for everyone that has not visited the web site lately to look at a beautiful video created by Ray Hocker with Mark Storch narrating https://vimeo.com/157082309. I ask you all to send this link to your children, grandchildren, great-grandchildren, and anyone else that has an interest in what you did for our Nation and National Defense. I wish you all the Best until the next newsletter.

Semper Fidelis,

Dr. Anthony (Tony) Damiano



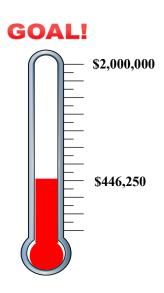
Join the China Lake Family! Build Yourself a Legacy



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Questions? Call Bob Campbell (760) 377-0056

Phase 2- Museum Building





COMMANDAR - IN - CHIEF SUPPORT FOR

RICHARD M NIXON

1970 - 1974



Conflicts Cold War, Vietnam War

Major Contributions of Naval Weapons Center (NWC) China Lake, (formerly NOTS):

Problem: The Navy and Marines needed a method to quickly apply the resources of its RDT&E laboratories to real-time problems of their forces deployed to Vietnam.

Solution: The Navy established the Vietnam Laboratory Assistance Program (VLAP) and assigned scientists and engineers to forces in Vietnam to support the war effort. China Lake became the West Coast Laboratory coordinator. Examples of support included providing map illuminators for downed pilots, an interim light-weight gun pod, hand emplaced fuel-air explosives for mine clearance, and beacons to identify ground troops as friendlies to attack aircraft. Many China Lake scientists and engineers served in Vietnam under this program (initiated in 1966 under President Johnson, and continued under President Nixon).

Problem. The Army needed a surface-to-air weapon to attack enemy aircraft that were attacking their troops.

Solution: China Lake modified Sidewinder air-to-air missiles so they could be fired from a ground launcher at enemy aircraft. This became the **Chaparral** system.

Problem: A method to attack soft targets in protected areas, such as troops in buildings, bunkers and trenches as well as to clear helicopter landing zones and minefields was required for jungle warfare in Vietnam.

Solutions: The Fuel-Air Explosive (FAE) weapon system created an aerosol cloud which when mixed with air and then detonated created very high overpressure that would destroy soft targets, clear foliage, or detonate mines in designated helicopter landing areas. It was successfully used in Vietnam in 1971 and was last used in the Gulf War some 20 years later in 1991. Several variants were developed and could be delivered from a variety of platforms.

Problem: In 1973 two explosions occurred in trains transporting Air Force weapons filled with Navy explosives. Public confidence in rail transportation of weapons declined and lawsuits were filed against the government.

Solution: Explosive experts from China Lake conducted a vigorous investigation into the entire process of the design, manufacture, and quality control of the weapons involved and solidly demonstrated the safety of the weapons. Investigation of the explosion sites and laboratory analysis of the evidence isolated the cause of the disasters to faulty train brake shoes that set fire to the wooden boxcars transporting the weapons. China Lake experts assisted the defense lawyers in developing their case, and thereby saved the government between \$50 million and \$90 million in damages.

Problem: Aircraft and weapons systems were becoming increasingly dependent on computer/display systems. Each new weapons system had to work in concert with an aircraft's targeting display and communications and navigation sub-systems. It was important to integrate the weapons with the Navy's attack aircraft.

Solution: China Lake established the A-7C/D Software Support Activity (SSA) in 1971 to support software development and integration of weapons systems on the A-7C/D. The A-7C/D SSA was assigned responsibility for Software integration/test with updated avionics subsystems.

WHO WAS: VADM JOHN T "CHICK" HAYWARD

(cont from page 2)

consultant until 1979. He worked for Draper Laboratory and the Hertz Foundation. He became an American Institute of Aeronautics and Astronautics fellow in 1998. He died in May 1999. He was inducted into the Naval Aviation Hall of Honor in 2004.

Hayward achieved the record for the most flight hours (13,200) for a Navy flag officer. His Navy decorations include two awards of the Distinguished Service Medal and the Silver Star, the Legion of Merit, the Distinguished Flying Cross and the Air Medal.

HELP WANTED HELP WANTED

Do you have time on your hands? Want to volunteer? Can you spare 3 - 6 hours a month?

Areas requiring volunteers:

Greeter: No specific skills required. Just be your friendly self. One day (or two) a month on a Friday or Saturday afternoon from 1:00 pm - 4: pm. What ever fits your schedule. We will train you.

Artifact Inventory Updating: Must have a working knowledge of Microsoft Excel. Database already exists, but must be kept up to date. May take 2-3 hours per month.

Your Museum needs YOU! Please call either Nancy Kiren, CLMF Office Manager, at (760) 939-3530 or Pat Doucette at (760) 384-8443.

Spotlight: Business Founders and Members in CLMF

BUSINESS FOUNDER \$5000

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ANNUAL BUSINESS Member \$1000

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The Boeing Company
Coldwell Banker Best Realty
Raytheon Company
Jacobs Naval Systems Group

ANNUAL BUSINESS SPONSOR \$500

The Swap Sheet Warren's Automotive

ANNUAL BUSINESS CONTRIBUTOR \$100

Ashley Furniture Homestore Cosner-Neipp Corporation Daily Independent Desert Valley Federal Credit Union
Electric Motor Works, Inc
IWV Insurance Agency
Lone Star Aerospace
McDonald's
Ridgecrest Area Convention & Visitor Bureau
Ridgecrest Automotive, LLC
SpringHill Suites and Hampton Inn
Tax Time Services, Inc





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If you wish to receive the quarterly newsletter via email, please call (760)939-3530 or email us at chinalakemuseum@mediacombb.net. Place "Electronic Newsletter" in the subject line.

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AUCTION PHOTOGRAPHS



Auctioneer Wallace Martin with board member Pat Doucette and Piper Faust (granddaughter of Wayne and Pat Doucette)



Dr. Anthony Damiano

Molly Cummins, granddaughter of John and Delores Di Pol







Auctioneer Wallace Martin

GIFT SHOP NEWS

By Mary Lattig



The Gift Shop is having a bodacious sale! Please come by to view the items we have for sale.

On the Clearance Rack we have the following items:

T-Shirts of various sizes and designs

Ornaments

Novelty and Collectible Items

There is something new every week. Drop by to see what might 'tickle' your fancy for yourself or someone else you know. Some of these items make great gifts to remind someone of their time at China Lake or a memory they wish to cherish. Drop by and have a look around, you never know what you will see.

The 16th Annual Dinner and Auction

By Paul Homer, Chairman

The Dinner and Auction held 4 June 2016 as a great success, and special thanks go to Pat and Wayne Doucette, Trish Boyd, Tony Damiano, Bob and Julie Smith, Chris and Maureen Toftner, Charlie White, Steve and Terri Crawford, Alice and Bob Campbell, Art and Laura Hickle, Megan Rawson, Nancy Kiren, Molly Cummins, Piper Faust, Mark Storch (served as Master of Ceremonies), and the team that planned and executed the event. Over \$100,000 was accounted for the Museum Operating Fund, and more thanks go to the Foundation membership, corporate sponsors, local businesses, and other supporters donating items for auction and sponsorships.

All in attendance conducted spirited bidding for the items auctioned, and the auctioneer, Wallace Martin, kept a lively pace for a large number of quality items. A rare copy of Larry Zabel's last painting, *The Centennial of Naval Aviation*, sold for \$1900, and, as usual, the highlight of the live auction was Scott O'Neil's fantastic engineering wood art, which went for \$3,000. The Live Auction, Silent Auction, and the raffles all together had over 300 items of interest, so almost everyone won something.

If you missed the event, you missed a really good party, so plan now to attend next year's function, which is scheduled for 13 May 2017.



Scott O'Neil's "woodwork of art" highlight of the live Auction

President's Message

(con't from page 1)

in one way or another, to Paul Homer who was the Chair, and a special thanks to Pat Doucette who went above and beyond handling all the details, some saying it was the best ever!

One of the treats of being a docent and/or a greeter is meeting interesting visitors. Recently the granddaughter of LCdr. Warren Harvey came by the Museum and was excited to find a bit of history of her grandfather and "Harvey Field" of early NOTS Inyokern, which was named after him. From an article entitled "Naval Air Facility, Inyokern" by M.L. Shetle "The airfield at Inyokern was dedicated as Harvey Field on May 10, 1944, in honor of LCdr. Warren Harvey for his contribution to the development of aviation ordnance and fighter tactics."



Terry Garcia, Granddaughter of LCdr. Warren Harvey, namesake of NOTS Inyokern's Harvey Field

ARTIFACTS

by Bob Campbell



The China Lake Museum Foundation recently received a sequence of photos from the daughter of Dr Willie Fowler (CALTECH Noble Laureate and early pioneer at China Lake). Framed photo of Tiny Tim launch that hung in his office. It is now hiding in the Development Office. An excellent addition to our artifact collection and will be integrated into the Early NOTS exhibit John Freeman developed.

Former board president Bob Campbell standing next to donation

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Ridgecrest Move and Building Status by Director Wayne Doucette and Laura Hickle

Your China Lake Museum Foundation recently was awarded a \$250,000 California Cultural and Historical Endowment grant through the California Natural Resources Agency. The Museum Grant Program is funded by Proposition 40 California Clean Water, Clean Air, Safe Neighborhood Parks, and Costal Protection Act of 2002. Sixty-seven museum applicants applied for the capital asset grant program. The China Lake Museum Foundation hosted three state representatives for a site visit on May 3, 2016. Twenty finalists were visited and 18 museums around the state were selected to receive funding ranging from \$50,000 to the maximum of \$250,000. The grant was written by Laura Hickle, CLMF's volunteer

These grant funds will be used in conjunction with existing China Lake Museum Foundation funds gathered through the Founders Program, capital assets fundraisers, memberships and special events such as the annual CLMF Dinner Auction to move our building project ahead. The China Lake Museum, highlighting the great accomplishments to defense by our local base, will be making its first phased move off the base and into Ridgecrest this fall. The museum will be situated on Kern County leased land next to Maturango Museum. Infrastructure, including parking lot and utilities, will be completed along with a 2,880 s.f. building which will house an information center and expanded gift shop. Some of the displays will be relocated to the new facility and others will remain in the base awaiting completion of Phase 2.

We would like to acknowledge the efforts of Denny Kline, Kern County Supervisor Mick Gleason's field representative, and Bob LaRude, Director of Kern County Parks and Recreation for their diligence in the relocation of the Dog Park off of the museum's leased land. Building plans for Phase 1 have been completed by Russel Tyner, Architect, and submitted to both Kern County and City of Ridgecrest Planning Departments for review and approval. Over the next few weeks we will release the plans for bid by building contractors with anticipated completion in late Fall, 2016.

Phase 2 will be a 10,000 s.f. building located on the same land. This will form a museum complex including outside exhibit areas. The China Lake Museum Foundation invites all interested parties to become members, work on the building committee or other subcommittees, become a building Founder for \$5,000, or contribute what they can to make this museum in Ridgecrest a reality. For more information please contact Alice Campbell, President or Wayne Doucette, V.P. of Building at the China Lake Museum (760) 939-3530.



AUCTION PHOTOGRAPHS (con't)







Yummy dessert donated by Cheryl Roquemore

Bob and Alice Campbell



Master of Ceremony Mark Storch



Chaplain Brian Kimball offering Invocation



National Anthem being sung by Celese Sanders

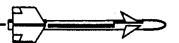


Board President Alice Campbell



Auctioneer Wallace Martin

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