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China Lake: A formal history

FROM COMMANDER, NAVY IN-**STALLATIONS COMMAND**

In the midst of World War II, adequate facilities were needed by the California Institute of Technology for test and evaluation of rockets. At the same time, the Navy needed a new proving ground for aviation ordnance. Cal Tech's Dr. Charles C. Lauritsen and then Cmdr. Sherman E. Burroughs met and formed a pact to find a site that would meet both their needs. The Navy established China Lake as the

Naval Ordnance Test Station (NOTS) in November 1943. Its mission was defined in a letter by the Secretary of the Navy, ".... a station having for its primary function the research, development and testing of weapons, and having additional function of furnishing primary training in the use of such weapons." Testing began within a month of the Station's formal establishment. The vast and sparsely populated desert with near perfect flying weather and practically unlimited visibility, proved an ideal location not only for test and evaluation activities, but also for a complete research and development establishment.

The early Navy-Cal Tech partnership established a pattern of cooperation and interaction between civilian scientists and engineers, experienced military personnel and defense contractors that has made China Lake one of the preeminent research, development, test and evaluation institutions in the world.



U.S. NAVY PHOTO

A look of China Lake from the air.

In 1950. NOTS scientists and engineers developed the air-intercept missile (AIM) 9 Sidewinder, which has become the world's most used and most copied airto-air missile. A few of the other rockets and missiles developed or tested at China Lake have included the Mighty Mouse, Zuni, Sidewinder, Shrike, Joint Stand-off Weapon (JSOW) and Joint Direct-Attack Munition (JDAM).

In July 1967, NOTS China Lake and the Naval Ordnance Laboratory in Corona, California, became the Naval Weapons Center. The Corona facilities were closed and their functions transferred to the desert in 1971. In July 1979, the mission and functions of the National Parachute Test Range in El Centro were transferred to China Lake.

The Naval Weapons Center and the Pacific Missile Test Center Point Mugu were disestablished in January 1992 and joined with naval units at Albuquerque and White Sands, N.M. as a single command - the Naval Air Warfare Center Weapons Division. At the same time, the physical plant at China Lake was designated as a Naval Air Weapons Station currently NAWS - and became host of the Weapons Division, performing the basekeeping functions.

The Station's role in the community has evolved from that of primary landlord and provider of services to that of being primarily a good neighbor. The present NAWS housing area, much smaller than that of the 1960s, is sufficient to support the Station's military. The community area of China Lake was annexed by the City of Ridgecrest in 1982 and today the spirit of community extends to residents both on and off the base.

The pioneering spirit and can-do attitude that helped early residents through China Lake's formative years have not disappeared. The direction and focus have changed during the years, but the China Lake community - military, civilian and contract personnel - remains active, interested and a vital part of the continued success of the United States Navy.

Naval Air Weapons Station (NAWS) China Lake's mission is to support the Navy's research, testing and evaluation missions to provide cutting-edge weapons systems to the warfighter.

To support the Fleet, fighter and family fighting the Global War on Terror with consistent, standardized and reliable performance at China Lake by providing the right service, at the right time, at the right cost, and to be ready to defend the installation should the war come to our

www.cnic.navy.mil/regions/cnrsw/installations/naws_china_lake.html

OPENING WORDS | NAWCWD

China Lake maintains warfighter-first spirit after 75 years

By Joan Johnson NÁWCWD Executive

or 75 years, the Navy at China Lake has delivered state-of-the-art weapon systems to the warfighter. Throughout the years, our name and logo, and even our bosses have changed. The one thing, however, that has never changed nor waivered is the warfighter-first culture that built China Lake and persists to this day.

The military value at Naval Air Warfare Center Weapons Division has never been higher or more relevant than it is right now. That's because the civilian-military team effort that stood up China Lake in 1943 still exists, and is even stronger and more connected to the fleet through our timely and innovative technical advancements.

Looking to the future, the Navy at China Lake is well-positioned to continsupporting warfighter for decades to come. The demand for the work we do at NAWCWD is increasing, and we're aggressively hiring the best and brightest young professionals to help us meet that demand. It's exciting to think about what the next 75 years of work at China Lake will contribute to the defense of our coun-

Personally, I made a career decision in 2000 to leave the private sector to support the Navy at China Lake because I believed so strongly in its mission. I still do. I'm proud to say that my family's connection to the military and its work here goes even further back. My husband, Stu, the F-35 Integrated Product Team lead at NAWCWD, was born and raised in Ridgecrest. His father and grandfather were Marines who served at China Lake, and his mother was a civil servant here. Our son is now an officer in flight training,



Joan Johnson

serving in the Marine Corps, and two of our daughters work for the Navy at Space and Naval Warfare Systems Command and China Lake. The Johnsons, however, are just one of many multi-generational families who still support China

I'm looking forward to celebrating our diamond anniversary with family, friends, current and former China Lakers as well as the entire Indian Wells Valley community. Watch for announcements about a variety of events that are being planned throughout this year; I hope to see many of you there.

NAWS CHINA LAKE

Editor's note: This is taken from previous interviews with Capt. Paul Dale.

Back in Sept. 2017, Capt. Paul M. Dale, Naval Air Weapons Station's Commanding Officer, provided some insight into the significance of the installation's importance. His take away: its team work and "little victories" that makes the place go. He reiterated those lessons in a follow-up interview in December 2017, a little more than one year into his command.

While most people look at the projects for which China Lake has become known for i.e. things that go boom, other things are just as important.

"A large emphasis has and continues to be placed on Armitage airfield. Runway, taxiway, parking and ramp, fire station house refurbishment, consolidated demolition project involving seven dilapidated structures, Hangar One roofing, and aircraft shade structures are either in-progress or in some stage of contracting, planning, or funding authorization," Dale said in a Sept. 2017 response to questions. "All the projects have the longterm viability, i.e. 70 plus years, of the airfield in mind given what is projected for the RDAT&E and other missions of the future."

"The little victories, aka 'small' projects, can go unnoticed, but either individually or in culmination generate benefit to those that live and work on the installation. Pot-holes filled, street light fixtures mended, parking stops removed or reconditioned, parking lots surfaced or resurfaced, road shoulders cleared and graded, vegetation removed from paths and parks, building central air restoration, roofing replaced or fixed, building restrooms revamped, athletic field light bulbs restored, patio shade structures installed, a dedicated motorcycle course asphalt lot put in, or locker room shower stalls modernized are but a few illustrations which when added up produce a safer and more desirable work or recreation

A concerted effort has been made to reduce blight as time and resources permit. For instance, the Public Works sign shop has and continues to remain productive in designing, generating, and installing new or replacement building and street signs. Additionally, a Main Gate frontage enhancement included a larger specifically designated commercial vehicle parking area involving tremendous collaboration between Public Works, the Sea Bees, and a very dedicated group of volunteers to restore historical military aircraft to show level quality, and ultimately resulted in the removal of historical safety and security concerns.

A plan for what was Murray Middle School on the installation is in-progress involving the campus being split into three activities; NAWCWD intends to fill vacant buildings with members of the workforce, the athletic field area and associated buildings will undergo demolition to make the land available for possible future development, and Sierra Sands Unified School District will retain an easement and thus use of bus and maintenance facilities. The Murray Middle School move off-installation has not slowed down the demand for Child Youth Programs, and fortunately a much needed Child Development Center renovation project wrapped up in the spring, and a construction project for a new purpose-



DAILY INDEPENDENT FILE PHOTO

Capt. Paul Dale in December 2017.

built student age care facility continues to make its way through decision-making and funding processes."

He noted also that the installation continues its trend in water conservation. A past fiscal year cost saw an investment of \$1.2 million in xeriscaping projects that reduced water use on landscaping. n extensive overhaul of the installation's electrical grid continues and fiber projects that began in 2016 continues to enhance com-

Dale also noted the tight relationship China Lake and the local communities share with one another:

The NAWSCL official Honor Guard performs duties on a regular basis for a good number of veteran burial services and civic events. In fact, so many requests for civic events are received, that unfortunately the Sailors occasionally need to refer the event organizers to another option. Also, the Commanding Officer, Executive Officer, and/or Command Senior Chief to the maximum extent possible reply in the affirmative to invitations to attend community events, either in an official or unofficial capacity.

The installation has six mutual aid agreements between the Federal Fire Department and other agencies that authorize emergency services support to the Community; for instance Federal Fire has the only ladder truck in East Kern County, in addition to a brush fire truck and HAZMAT response vehicle. Federal Fire typically responds to six requests for mutual aid from the Community per month. The capabilities provided differ for each mutual aid request and by what is in each agreement, but usually involves a fire engine and ambulance with a corresponding amount of firefighters.

'Morale Welfare and Recreation (MWR), which [in summer 2017] achieved successful re-accreditation, provided facilities to the Burroughs High School golf and swimming teams, as well as supported a few varsity volleyball practices within the bounds of applicable rules and regulations. Additionally, two local youth swim clubs continue to make use of the pool due to a historical agree-

'The China Lake Golf Course, which is open to the

public, is healthy and most importantly has dug out from debt and returned to financial sustainability going into the fall and winter seasons. The golf course is projected to be off of Commander Navy Installation Command's "Red Flag" list, and thus removed from near term risk of closure for financial reasons. A shade structure project for the golf range is done, and other projects are inwork - Mulligan's Grill renovation, Club House exterior restoration, golf range netting repair, and 6th/14th tee restroom replacement.

That said, the number of Non Federal Entities (NFE) interacting with and making use of installation facilities or land has remained steady at over twenty; China Lake Mountain Rescue Group, China Lake Museum Foundation, Sea Cadet Corps, Desert Valley Vultures, Sierra Sands Unified School District, Viewfinders MC Grand Prix, and Indian Wells Youth Softball to name a few.

"In terms of [Sierra Sands Unified School District], the School Liaison Officer, Sarah Dastrup, has been significantly engaged and as a consequence of tremendous assistance with a lot of topics. Plus, Sarah along with Lee Johnson, Future Plans, are integral to the installation's participation in the East Kern Education Community Collaborative.

"In addition, the Public Works Officer for the installation conducts Liaison Officer duties on the IWV Groundwater Authority Board, and personnel from the Environmental Management Division provide contributions as liaisons on the Policy Advisory Committee and Technical Advisory Committee. The installation is very pleased to have welcomed, and now have available, John Kersey as a very experienced and capable Community Plans Liaison Officer (CPLO). John as the CPLO is the installations primary mechanism for engagement with

"The historical precedent of vibrant Religious Ministries at the All Faiths Chapel complex continues with strong weekly attendance, generous giving this year in offerings that provide support to local organizations or charities, hosting of wonderful social events, performance of 4 funeral services on average per month, as well as the occasional marriage ceremony."

In December 2017, Dale noted the efforts that make

"Adults like to say it takes a village to raise a child," he said. "It takes a village just to run a base."

He noted that everyone from China Lake Police Department to the China Lake public works and administrative teams contributes to the ongoing operations in order to make it run smoothly.

And then there are the assessments that come on a reg-

"We talk about describing the last year and we've had any number of inspections or assessments or audits," Dale said. "It seems never-ending but you have to trust your team — you have to give a little bit of rudder and set some high expectations."

Another example might be the regular evaluations the

installation goes through.

"You take our final evaluation in September, which we did exceptionally well," Dale said. "The installation training officer, the emergency officer, the China Lake Police Department, fed fire, our Physical Security — the whole team did great."

China Lake celebrates 75th year with community day

NAWS China Lake is hosting a Community Day event presented by Ridgecrest Regional Hospital and Operation Family Fund Saturday, April 28, from 10 a.m. to 2 p.m. on Blandy Avenue.

The event is free to attend and open to the public.

The Main Gate of the Installation, located at China Lake Boulevard and Inyokern Road, will open to the public beginning at 9:30 a.m. and will remain open to the public through 1:30 p.m. The NAWS China Lake Police Department will be directing traffic and conducting random security searches during these hours, so ensure you comply with CLPD personnel and have your current driver's license, registration, and insurance with you.

This year's event celebrates 75 years of Research, Development, Acquisition, Test and Development. The festivities will kick off at 10 a.m. with a welcome ceremony at Solar Park.

The event will feature military static displays of aircraft and weapons systems, historical displays, a car display "Show and Shine", activities for the kids, music, food for purchase, inflatable obstacle course and more. An event map will be available on

This event promotes goodwill among our military, veterans, local community and those currently serving in support of NAWS

"We take pride in the significant, ongoing relationship we share with the surrounding communities in the Indian Wells Valley. This community event is one small way of saying 'thank you' for your constant support of the base and our personnel. We are privileged to have called Ridgecrest and the Indian Wells Valley home for 75 years and we look forward to being here for many more," said NAWS Commanding Officer Capt. Paul Dale.

RESTRICTED ITEMS LIST for the 2018 China Lake Commu-

-Recreational Vehicles, Trucks with Campers, 5th Wheel & Camp Trailers, etc.

-Semi-Trucks or Big Rigs (Towing or Bob-tailed)

-Any multi-axle vehicle (3 or

-Any towed vehicles, trailers or

-Any Firearms, Ammunition or

(CCW permits are not author-

-Mace, OC, CS or any type of Chemical Weapon or Defensive

- Any other Weapons (knives, batons, Martial Arts gear, etc.)

-Drugs, narcotics, marijuana or

any related paraphernalia -Glass jars, bottles or contain-

-Flammable liquids or sub-

-Fireworks, flares or pyrotech-

-Propane or Natural Gas bottles --Bags, backpacks, equipment

cases, containers, suitcases or luggage of any size (Designated medical & diaper bags excepted-subject to search

and verification) -Ice Chests or coolers

-Any Pets, except for "Official Service Animals," which must be on a leash at all times and the

must be able to Poop Scoop and clean-up after the animal

-Alcoholic Beverages (Beer, Wine or Liquor)

-Bicycles, Scooters, Skateboards, Roller Skates, Inlines, Hide-aways, Roller Blades, Hov-

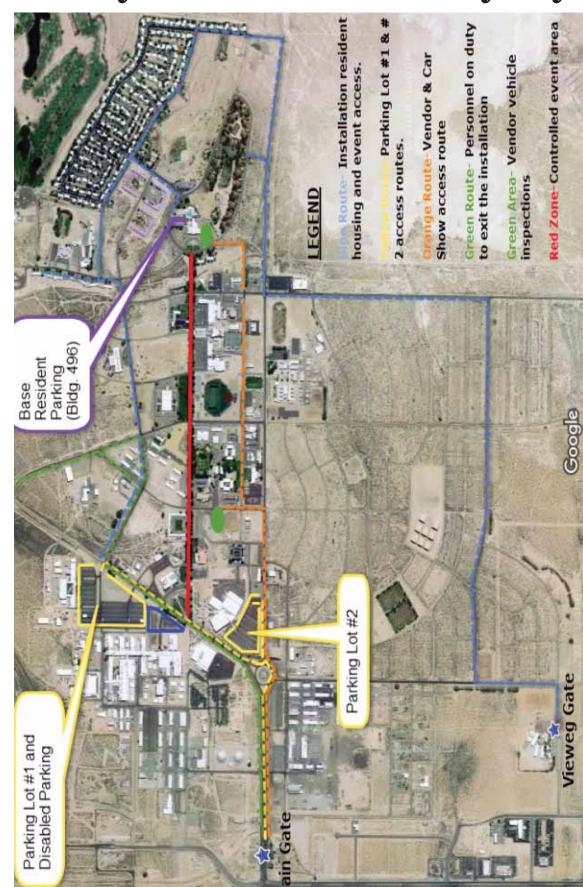
-Drones or any other remotely controlled aircraft, vehicles or

-Laser Pointers or other laser

-Motorcycle or Street Gang related clothing or attire, colors, patches, symbols or emblems or any display of inappropriate materials or items. Includes anything which depicts or supports Hatred, Racism, Prejudice, vio-

-Food or beverages (Except Baby Food, formula, etc.)

-CB, SSB, FM, FRS or GMRS radios (two-way) and scanners.



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To become a part of our team, search "China Lake/Ridgecrest" at www.jacobs.com/join-us#apply-for-a-job

JACOBS

Roll Call: China Lake Commanding Officers

NOTS CHINA LAKE AND NAVAL WEAPONS CENTER



Capt. Sherman E. **Burroughs** Dec. 1943-Aug. 1945



Capt. James B. **Sykes** Aug. 1945-Nov. 1947



Rear Adm. W.G. **Switzer** Nov. 1947-Sept. 1949



Capt. Walter V.R. **Vieweg** Sept. 1949 Oct. 1952



Capt. Paul D. Stroop Oct. 1952-Aug. 1953



Capt. R.H. Solier 8-28-53 9-20-53



Capt. David B. Young Sept. 1953-June 1955



Sellars June 1955 - Aug. 1955



Capt. Frederick L. **Ashworth** Aug. 1955-Sept. 1957



Capt. William W. Hollister Sept. 1957- June 1961



Capt. Charles Blenman, Jr. June 1961- June 1964



Capt. Leon Grabowsky June 1964-Aug. 1964



Capt. John I. Hardy Aug. 1964-Feb. 1967



Capt. Grady H. Lowe Feb. 1967-Sept. 1967



Capt. Melvin R. **Etheridge** Sept. 1967 - Oct. 1970



RAdm. William J. Moran

Oct. 1970-Oct. 1972



RAdm. Henry Suerstedt, Jr. Oct. 1972-May 1973



RAdm. Paul E. **Pugh**



RAdm. Rowland G. Freeman III June 1974-May 1977



Capt. Frederick H.M. Kinley May 1977-Sept. 1977

Congratulations

To Our Great

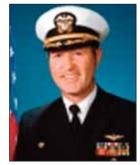


RAdm. William L. Harris Sept. 1977-June 1979



Capt. William B. Haff

June 1979-June 1981



Capt. John Jude Lahr

June 1981-June 1983



Capt. Kenneth A. **Dickerson** June 1983-June 1986



Capt. John W. **Patterson** June 1986-Aug. 1986



Capt. John A. Burt

Aug. 1986-June 1989



Capt. Douglas W. Cook

Aug. 1989-Jan. 1992



NAVAL AIR WARFARE CENTER

The Naval Weapons Center and the Pacific Missile Test Center Point Mugu were disestablished in January 1992 and joined with naval units at Albuquerque and White Sands, N.M. as a single command - the Naval Air Warfare Center Weapons Division. At the same time, the physical plant at China Lake was designated as a Naval Air Weapons Station - currently NAWS - and became host of the Weapons Division, performing the base-keeping functions.

Under the new structure, NAWS China Lake's commanding officer oversaw the operations of the installation, while NAWCWD took on the role of its largest tenneant command, with its commander in charge of its mission at both China Lake and Point Mugu.

NAWS CHINA LAKE

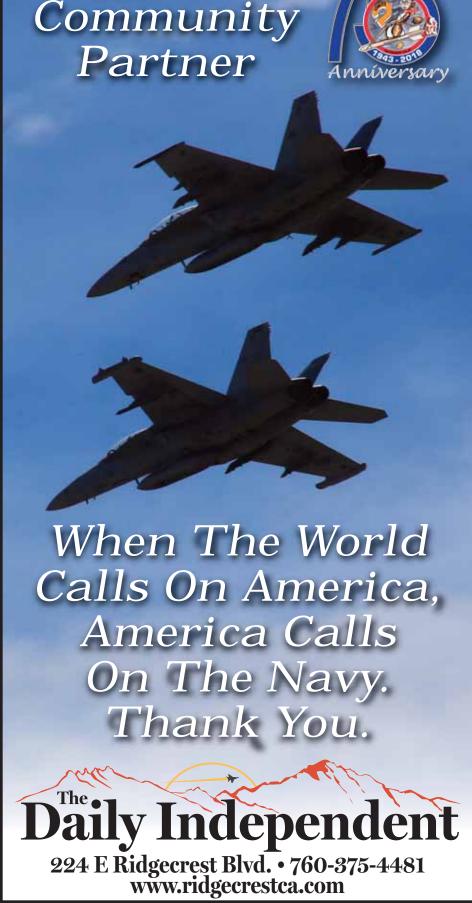


Capt. Billy J. Craig Jan. 1 1992-July 1993



RAdm. W.E. Newman Jan. 1992-Dec. 1993

ROLL CALL CONTINUED D6



Be part of something bigger than yourself.

Ridgecrest Regional Hospital thanks
the men and women of
Naval Air Weapons Station China Lake
for their service to our nation
and
for being an integral part
of our community.



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Roll Call, continued from D4

NAWS CHINA LAKE COMMANDING OFFICERS



Capt. Charles A. **Stevenson** Aug. 1993-July 1996



Douglass July 1996-June 1998



Capt. John D. Langford, Jr.



June 1998-July 2000



NAWCWD COMMANDERS

Dec. 1993-July 1996



Rear Adm. Jack V. Chenevey July 1996-Aug. 1997



Rear Adm. Rand H. **Fisher**

Aug. 1997-Jan. 1999



Capt. James R. Seaman, Jr. July 2000-March 2002



Capt. Alexander B. **Hnarakis** March 2002-March 2004



Capt. Mark G. Storch



April 2004—April 2006



Rear Adm. Charles

H. Johnston

Jan. 1999-Sept. 2001

Rear Adm. Mark Skinner Sept. 2004-Sept. 2007



Rear Adm. Michael

C. Bachmann

Sept. 2001-Jan. 2003

Rear Amd. David **Dunaway**



Sept. 2007-Jan 2009



Vice Adm. David

Venlet

Jan. 2003-Sept. 2004

Capt. Mark Storch Jan. 2009-May 2010



April 2006-April 2008



Peterson March 2008-Oct. 2009



Dodson March 2009-Feb. 2012



Rear Adm. Mat Winter May 2010-June 2012



June 2012-Aug. 2013



Oct. 2015-Apr. 2018 **Rear Adm. Scott Dillon**

April 2018 - Present



Rear Adm. Mike Moran

Photos from U.S. Navy and archives



Feb. 2012-Feb. 2014



Feb. 2014-Dec. 2016



Capt. Paul Dale Dec. 2016-present





Breakfast • Lunch • Dinner • Dessert



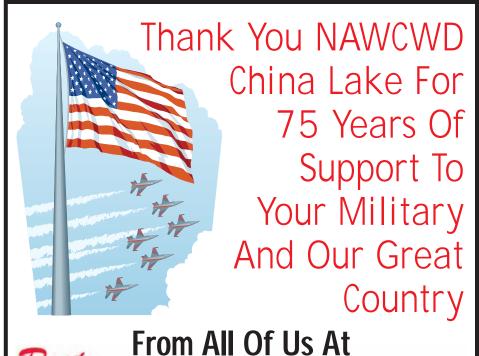
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China Lake's two squadrons

As a naval air station, China Lake has been home to one or more squadrons over its 75 years.

Today, it's home to two: Air Test and Evaluation Squadron Nine, the Vampires" and Air Test and Evaluation Squadron 31, the "Dust Devils." Both squadrons have their role at China Lake.



JACK BARNWELL/DAILY INDEPENDENT FILE PHOTO

Two of VX-9's F-18s fly in formation during the 2017 China Lake Airshow at Armitage Airfield on March 18, 2017.

VX-9, 'Vampires'

VX-9 conducts operational test and evaluation of all air-to-ground weapons, air-to-air weapons, sensors, electronic warfare systems and mission software upgrades to aircraft and weapon systems. The naval aviators and ground crew accomplish this by flying an assortment of fighter jets including the FA-18 Super Hornet, the FA-18 Hornet, the Harrier and Prowler. The aircraft are "used in the demanding and dynamic role of operational flight test, supporting both Navy and Marine Corps tactical aviation."VX-9 was born from the 1995 merger of VX-5, (already stationed at China Lake since 1956) and VX-4 from Point Mugu. The squadron carries the on the legacy name of its predecessor squadron VX-5 as the ''Vampires.'



VX-31, 'Dust Devils'

VX-31 fills an odd niche at China Lake: It's both test and evaluation (fixed-wing planes) and search and rescue (SAR) operations (helicopters). VX-31 flies approximately 4,000 flight hours per year with unique test assets. It also houses airborne the test bed, a T-39 Saberliner meant for employing sensor/seeker prototypicn, target presentation and range calibration. Its mission is simple: Test and evaluate current and future manned and unmanned aircraft, weapons and weapons systems, operate the Airborne Test Bed Program and conduct successful inland search and rescue operations in the high desert and surrounding area. Over



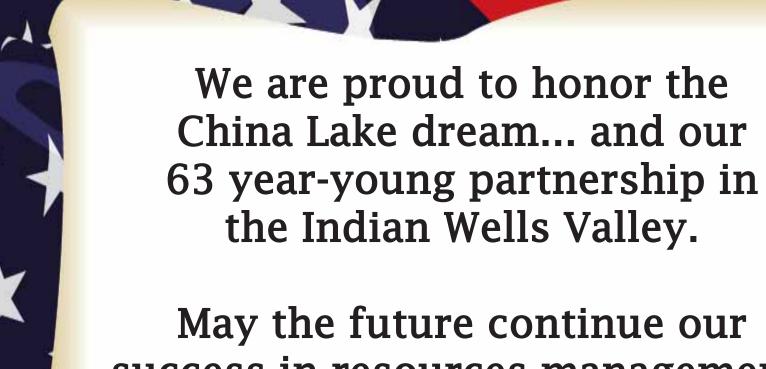
the years, VX-31's SAR crews have conducted successful operations or assissted local agencies in search operations.



U.S. NAVY PHOTO **VX-31's** COSO 201 is seen flying in 2011 over the snow-covered Sierra Nevada Mountain range, escorting COSO 101, the CoNA retropainted jet.

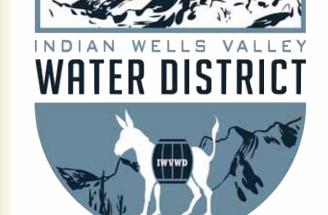


A MH-60S assigned to VX-31 as for search and rescue operations.



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Pruitt family roots run deep in China Lake

LAWRENCE

NAWCWD Public Affairs

As Naval Air Warfare Center Weapons Division gears up to celebrate China Lake's 75th anniversary, the Pruitt family is recognized as one of many multi-generational families that have helped develop and shape what China Lake is today.

From first generation family member, David Pruitt, who worked in the Michelson Laboratory machine shop in the 1950s, to fourth generation member, Tyler Pruitt, who will be returning to NAW-CWD this year to work as a summer hire for the third time, the Pruitt family has nearly 100 years of combined service at China

"I remember being a kid in elementary school coming on base during the open house events and my dad showing me around the machine shop," said Tyler who is studying mechanical engineering at California State Polytechnic University, Pomona. "I feel prideful knowing that I get to carry on a long tradition of working at China Lake. I like Ridgecrest, it's my home. It'd be really nice to continue working on base."

Tyler's great, great uncle and World War II Army veteran, David, worked at the Long Beach Shipyard before becoming an apprentice machinist at Naval Ordnance Test Station Pasadena. When the station at Pasadena started to transfer personnel to China Lake, David came to work in the machine shop before transitioning to work at the NOTS Morris Dam facility. His brother, George Pruitt Sr., made "I remember being a kid in elementary school coming on base during the open house events and my dad showing me around the machine shop."

Tvler Pruitt

a very similar journey to China Lake, working at the Long Beach Shipyard, then NOTS Pasadena. While in Pasadena, George was involved in producing hardware for Supersonic Naval Ordnance Research Track operations at China Lake. When NOTS Pasadena closed, George Sr. transferred to China

"I had just started seventh grade when my parents moved to China Lake," said George's son, George Jr. "I lived on base and I went to junior and high school there. After I graduated from the apprentice program, my wife and I could live on base and our kids were raised there. There's no better place in the world to

George Jr. worked as a machinist in the machine shop in addition to taking a position as a technician with the liquid propellant group and working on various programs within the China Lake Propulsion Labs. He left China Lake in 1984 to start his own business teaching geometric dimensioning and tolerancing before returning to the machine shop where he spearheaded the restructuring of the apprentice program.

"The apprentice program is important to me because that's how I got my training," George Jr. said, "that opened doors

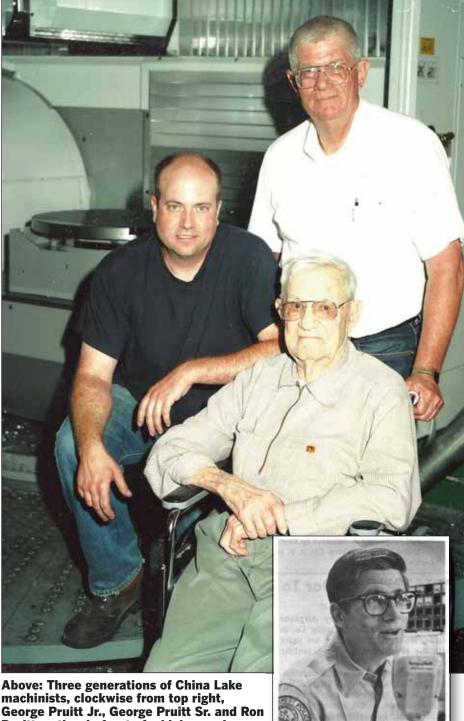
Two of George Jr's children, Mike and Ron Pruitt, are still actively working at China Lake. Older brother, Mike, start-

ed working in the machine shop as a junior in high school through the Community Education Program until he was able to work as a summer hire. Mike worked at the machine shop full time until 2000 and now works as a flight test engineer. Prior to working at China Lake, Ron worked for Arrowsmith as a machinist. He graduated from the base's pre-journeyman program in 1992 and has worked in the machine shop ever since. He now serves as head of the Model Shop Branch, the same position his grandfather held when he retired.

"Some significant and interesting projects I've been involved in over the years include supporting automated machining processes, the introduction of high speed machining and automated assembly processes in the division," Ron said. "Another thing that I am proud to be part of is the past and continued efforts of the apprentice program.

Ron's father, George Jr., said that China Lake is a wonderful place to work and that the sound of flying jets is music to his

"I'm extremely proud of that shop," George Jr. said. "I'm extremely proud of China Lake. The most important person in my family's life is my employer; we have nothing without that. My whole family had a great life and that's because of China Lake.'



machinists, clockwise from top right, George Pruitt Jr., George Pruitt Sr. and Ron Pruitt, gather in front of a high speed milling machine on the corner of "Hollywood and Vine" in the Michelson Laboratory machine shop. (Submitted)

Right: As printed in the July 5, 1974 edition of the Rocketeer newspaper, George Pruitt Jr. operates a two-way radio in the Ridgecrest Police Department headquarters. (U.S. Navy photo)

squadrons

for the Pacific Fleet.

He saw

the assign-

ment as a

necessity. It

was a six-

month de-

tour before

he could

return to

But the

sea.

Shapers and molders: the inspiration behind China Lake retrain air

Charles Lauritsen

When Charles Lauritsen took a leave of absence in 1940 to join a growing group of scientists in Washington, D.C., his boss at the California Institute of Technology gave him simple instructions: Bring back a significant military research program.

It wasn't until the 50-year-old physicist traveled to England in spring 1941 that he found the right project that would give CalTech its prestigious program and the U.S. military a distinctive technological edge.

The English were far ahead of the Americans in the field of rockets, already using them as anti-aircraft weapons against German bombers.

During his stay in London, Lauritsen saw the ineffective display of early rockets chasing German planes, but the firings were effective enough to persuade him to push for an · aggressive rocket program upon his return to the United States.

The U.S. had its own proximity fuze that Lauritsen believed would be perfect for air-to-air and air-to-ground weapons. Such weapons would greatly increase the firepower capabilities of aircraft and make aviation warfare a key aspect of the war.

He sold the idea to the National Defense Research Committee, which was a scientific board overseeing wartime research projects. The Army and Navy were also excited by the prospects of rocket weapons.

The Army wanted to keep its rocket development inhouse, so Lauritsen pursued the Navy to get the program for CalTech. He contacted everyone he thought would help at the Bureau of Ordnance and brought the school one of the most important research efforts of the war.

"Charlie was really quite a fantastic person," said Emory Ellis, a researcher in the CalTech rocket program and a close friend to Lauritsen. "He was the father of the rocket program."

Under Lauritsen's leadership, a talented CalTech team, which included his son Thomas, achieved more and in less time than any other rocket re-



Charles Lauritsen

search program in the world.

"He didn't do details, but he'd tell Tommy, 'Why don't you do a 5-inch rocket," Ellis, now 87, said. "He kept getting things going.'

After Lauritsen scouted the Inyokern Airfield and China Lake, and after the Naval Ordnance Test Station was established, he continued to guide how the station would function.

Rear Admiral Marc Mitscher

With a suitable site found, the team of California Institute of Technology scientists and Navy officials needed to secure the land and the Inyokern air-

The stumbling block was that the airfield, originally built in 1933 as a Kern County emergency landing field, had been designated as a training field for

the Army Air Force in September 1942. The claim had to be settled before the Navy-CalTech team could move in with its burgeoning rocket program. Cmdr. Jack Renard, head of the rocket team,

turned to Rear Adm. Marc Mitscher for results. Mitscher had just reported from duty in the Pacific as the new Commander Fleet Air, West Coast The battle-weary admiral didn't relish his re-

turn to land · and his responsibilities to



Rear Admiral Marc

West Coast Mitscher rocket program, which was under his auspices at the time, did catch his interest, and when Renard told him of the China Lake site and the Air Force claim to the Inyokern airfield, Mitscher took immediate action.

Following Renard's briefing, Mitscher was on the phone to an Army Air Force general to set up an appointment to discuss giving the Navy access to the land. The Navy contingent was Mitscher, his chief of staff and Renard. Across the table was an Air Force general and 16 of his staff who politely and strongly rejected the request.

As the three walked away from the meeting, Mitscher was humored by the Air Force show and predicted the CalTech team would get the land for its rockets. He stayed true to his statement, either personally participating or sending a representative to negotiations over use of the airfield. Finally, on Oct. 24, 1943, Mitscher joined in joint talks with the Air Force and Marines and came away with an agreement that gave the CalTech team the land it want-

Mitscher eventually bowed out of the NOTS development when it became clear the station would be more than a firing range, leaving the Bureau of oratory and test facility.

Ordnance to build a full-spectrum lab-Captain James C. Byrnes From the start, Capt. James C.

Byrnes was sold on Inyokern and Chi-

na Lake as the site for the Naval Ord-

nance Test Station.

Byrnes, head of the ordnance test station administration for the Bureau of Ordnance, was strongly in favor of a permanent West Coast proving ground that would also serve as a research and development center. If the bureau got the land, Byrnes felt having a laboratory a coast away would prevent the meddling that occurred with labs located closer to Washington, D.C. A base in the Indian Wells Valley was ideal, and Byrnes soon put all his

efforts behind the concept. In his position, Byrnes served as the spokesman for Bureau Chief Rear Adm. William Blandy for decisions on what the station should be, and in

some instances, injected his own ideas. A fervent supporter of NOTS, Byrnes assumed sweeping powers in the bureau where the station was concerned.

He was often the official line in Washington, interpreting Blandy's desires into tangible instructions. NOTS was a priority item, and Byrnes saw that the station got what it needed whether it be funding or more military personnel to smoothly run the facility. The relationship between Byrnes and Capt. Sherman Burroughs, the first NOTS commander, was tenuous at best, but the two men shared the

Together, they were able to put any differences aside and build the skeleton of the China Lake site.

Captain Sherman E. Burroughs

China Lake as more than a large firing range when the Naval Ordnance Test Station was founded in 1943. Capt. Sherman E. Burroughs Jr. was one of them. Burroughs, the



son of a congressman, was appointed to the Naval Academy

SEE PEOPLE OF NOTE, E4



The base of education: China Lake and schools

BY MICHAEL SMIT

Community Editor msmit@ridgecrestca.com

Education was one of the first priorities for the new, desert-dwelling Navy

Murray Middle School principal Kirsti Smith told the Daily Independent that in the early 40s when the base opened, Captain Sherman E. Burroughs and Earl Murray, who were parents in the Parent-Teacher Organization, championed the idea that if this area were to develop then it needed to have

Linda Miller's father moved to China Lake shortly after World War II ended. He was having a hard time finding full-time work and heard about a new facility being built out

The Burroughs High School campus was completed in the summer of Miller's Sophomore year. Before then, she had been attending high school at the old Murray campus on

When Burroughs first opened, the school was surrounded by full neighborhoods on base around the north and east sides of the school. At that time, the Navy provided housing even for the civilians working on base because there wasn't much of anything as far as private housing

"They built housing for the families to live in because there was no housing available," Miller said.

In fact, back then there wasn't even "Ridgecrest." The unincorporated town was referred to as Crumville, and the base was called Naval Ordnance Test Station China Lake. A lot has changed since

then. NOTS China Lake became Naval Weapons Center, and then later became Naval Air Weapons Station. Crumville became Ridgecrest, which then grew to become the largest city in Indian Wells Valley. One thing that hasn't

changed, however, is that the base still sees local education as a priority for a developing future.

75 years of tradition

Every year, seniors from Burroughs High School to caravan through the Navy base so they can repaint the "B" on Burroughs mountain.

The China Lake Police Department follows them up there, and the China Lake Fire Department is also there for safety. Other than that, they're given the freedom to make their way through the base and to the mountain.

Burroughs principal Bryan Auld reflected on the unique tradition, which goes back for generations

"It's one of those things where I tell kids that if I were to go pitch it today, like if it didn't exist, I wouldn't get past the first sentence," he said. There are people high up in command at the base who took part in that tradition themselves and want to make sure generations to come can also take part, according to Auld.

The base has a unique relationship with its neighboring schools. Originally placed in this desert area due to its lack of people, the base has evolved ways to interact with the people its own existence has brought here.

Part of that interaction is simply figuring out how staff and students get to the school when it's located on a Navy base.

This is the first year Murray Middle School has held classes at its new campus, next to Burroughs High School. Previously, Murray was on Navy grounds, behind the gates. Murray principal Smith said that going through the process to hire teachers every year, they also had to make sure teachers passed clearance and got a badge to enter the base.

However, Smith said that getting to school for Murray students was much like getting to school for any kids anywhere.

"Anyone under 16 can get on base," Smith said. Many students rode the bus to school. The trip was just like any other student riding the bus to school, except they went through a gate. Other students, Smith said, rode their bikes to school right through the gate. Smith said they could just wave to the gate guard and bike through to get to

Part of the community

"Ridgecrest is our community as well," said Sarah Dastrup, NAWS China Lake school liaison officer. She said that even though some service members are only here for a few years, this is their community for as long as they are here.

Fostering that community is a significant part of Dastrup's job. She's served here for just over a year and a half, and she said she's the first school liaison officer the base has had in quite some time.

"I'm very much a connector of resources. I'm here to connect a family to what their options are," she said.



Top: The old Burroughs High School campus, circa late 1950s.

Above: Burroughs High

School today.

One of her main duties is to help students feel at home in this community. She explained that being a military kid comes with some unique challenges, and one of those challenges is moving so often. They may miss sports tryouts or might not get into classes they wanted. Classes taken at one school may not match up with the classes needed for a different school.

That's where a Navy school liaison officer comes into play. Dastrup said that she's helped start a number of programs locally, one of which is Anchored for Life.

When a new student transfers to a local school, Anchored for Life springs into action to help them feel less like a floating skiff



The sky is the limit as students prepare to measure the altitude of a water bottle rocket during the Expanding Your Horizons Conference at Naval Air Warfare Center Weapons Division China Lake on March 4, 2017.

lost at sea and more like a strong vessel anchored to

its location. The program trains staff on how to support transferring students. It arranges a volunteer student to give the transferee a tour of the school facility. It even arranges a buddy student for the transferee so that no new student needs to feel alone.

The program is Navy funded and designed to support Navy families, but Dastrup said that they're able to use it to support any transferee students, whether they're connected to the Navy or not.

Naval Air Warfare Center Weapons Division, NAWS China Lake's biggest tenant, is also active in the community with numerous programs to get students excited about learning science, technology, engineering, and math (STEM).

One of the largest events NAWCWD hosts are the on-base STEM workshops, Expanding Your Horizons (EYH) and Young Engineers and Scientists! (YES!). NAWCWD K-12 and student employment outreach coordinator Angel Zamarron said that this year they had a total of 282 students between both events, with 223 China Lake volunteers helping

However, NAWCWD employees regularly volunteer around town. They lead robotics classes at schools, hold STEM workshops at the Ridgecrest Branch Library, and demonstrate fun science experiments at school assemblies.

Just recently, they held STEM Day at Burroughs High School a bunch of NAWCWD volunteers bring some of the high tech equipment to Burroughs for students to see first hand.

Events like this benefit the students and the base. For students, it exposes them to the option of the high pay, high tech jobs available right here in town at the base. For the base, it provides a workforce already acclimated to this area's unique climate and

community. Dastrup said that they welcome recruits from anywhere, but are always looking for local employees who are already used to the local environment. Life in the desert can take some

getting used to. "It's always nice to have someone who understands the community and wants to stay," she said.

NAWCWD human resources director Richard Cracraft told the Daily Independent that while one objective for these community events is to get local students into their employment pipeline, the primary objective is actually a

much larger picture. 'We're not parochially interested in employment, we're more interested in trying to grow the foundation around STEM excitement. That's really our focus," Cracraft said. He said that other nations like India and China are seeing a spike of STEM graduates, while the United States is seeing much lower numbers. Therefore, the Navy sees it as a national benefit to get students across all demographics excited for STEM.

He said, "It's always been our philosophy and intent to incite STEM interest in K-12 and beyond, frankly, and not specifically for base or navy employment. It's an item of national interest that we have STEM education and employment."





BRACing for impact: How China Lake made off like a bandit in the 2005 realignment process

BRAC (short for Base Realignment and Closure)— one acronym that holds the meaning for great gains or potential death keel to a military installation.

In 2005, the Department of Defense went through one such round of realign-

According to several elected and military leaders, a BRAC held the opportunity for either great awards — or great risks for China Lake.

In the end, China Lake came out ahead, thanks to support from state and local leaders and from advocacy groups like the China Lake Alliance, a nonprofit set up in 1993 as a way to prepare for a 1995 BRAC.

The installation not only was reaffirmed as a crown jewel and hotbed for innovation and testing, it gained.

Big time.

It received 800 new jobs, new missions and \$30 million in military construction money (MILCON for short). Projects that moved included weapons and armament research, development and acquisition, test and evaluation.

With it brought a sense of synergy, place a lot of research, development and acquisition and test and development functions into one centralized location.

BRACs are supposed to be an apolitical process. The process is a means by which the Department of Defense can increase its efficiency and consolidate operations. Some installations are closed, others realigned into another purpose.

The DoD defines a BRAC as the "congressionally authorized process DoD has used to reorganize its base structure to more efficiently and effectively support our forces, increase operational readiness and facilitate new ways of doing busi-

Some of the most obvious gains from the 2005 BRAC included the construction of McLean Laboratory, named after the William B. McLean, the man who led test and development of the Sidewinder Missile. McLean was completed in 2011 to celebration and houses some of the Navy's most impressive research, including facilities for HARM and AARGM system research.

McLean Lab might have been largest show of evidence from China Lake's gains in the 2005 BRAC, but other outcomes included the Weapons & Armaments Facility, the Weapons Center for Integration and much more.

But the matter can become political when federal lawmakers realize their districts might be impacted. Base closures or realignments that negatively affect a military installation can be the loss of jobs and cause the economy to collapse or severely decline.

In a September 2017 interview, China Lake Alliance boardmember Matt Anderson and incoming executive director Dave Janiec noted the complexity involved

"You can't look at BRAC as just a one-year event. You have to look at it as the five years before it happens and get the community ready for all the data calls on school districts and hospitals, and statistics on crime rates, infrastructure, all that," Anderson said. The six years in which it takes to implement a BRAC requires groups to be active and advocate for the community.

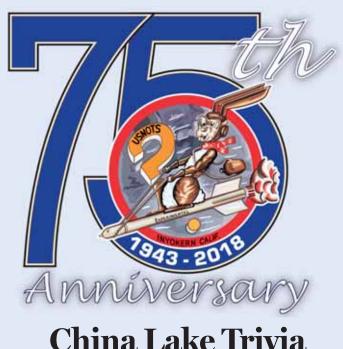
But even after a BRAC is approved, signed off on and implemented, it still re-

quires effort to keep momentum moving.

"A lot of political wheeling and dealing happens after the BRAC," Anderson said during the Nov. 2017 interview. "What is written into the BRAC sometimes doesn't happen. That's what happened in 1995.

Janiec had noted that groups like the China Lake Alliance need to be proactive and gather all the data that shows eh installation's importance and its contributions to the defense of the nation.

"Having a consistent message and understanding, the interface that is seen from the school board, local politicians, the hotel association, etc. If it's in dissonance, it plays against us in a decision," Janiec said. "Having it sing with one voice across the community stood us in great stead. It's not something you do just before ... it's a continuing effort.'



China Lake Trivia

- 1. In what month and year was NOTS established? What was and still is the mis-
- 2. Who was the first Commanding Officer of NOTS? (you could tie this one into 'did you know' the high school was named after...)
 - 3. Who was the first and only U.S. President to visit NOTS?
 - 4. Name all the official names of China Lake. Acronyms are fine.
 - 5. What years were NOTS, NWC and NAWS/NAWCWD in place?
 - 6. Who is the current commander of the installation (NAWS)?
 - 7. Who is the largest tenant command at NAWS?
 - 8. How many acres are the China Lake land ranges all together?
 - 9. Do you know the full name of the China Lake museum?
- 10. There are two military squadrons located at NAWS VX-31 and VX-9 squadrons, respectively. Individually, what are they known as?

8. More than 1.1 million acres; 9. Naval Museum of Armament & Technology; 10. VX-31 military and contractor workforce located at China Lake; , Naval Air Warfare Center Weapons Division (NAWCWD) with nearly 6.000 civilian,

. Capt. Paul Dale; 4. Naval Ordnance Test Station (NOTS); Naval Weapons Center (NWC); Naval Air Weapons Station / Naval Air Warfare Center Weapons Division (NAWS / NAWCWD); 5. NOTS – 1943 to 1967; NWC – 1967 to 1992; NAWS/NAWCWD - 1992 to present; October 1943 to 1967; NWC – 1967 to 1992; NAWS/NAWCWD - 1993 to present;

President John F. Kennedy in June 1963 (there's probably residents who were out Answer: Capt. Sherman Everett Burroughs Jr.;

n the use of such weapons."*"Sailors, Scientists, and Rockets," 1992, Albert B. Christ and testing of weapons, and having additional function of furnishing primary training California as a station, "having for its primary function the research, development, Nov. 8, 1943. This memo established the Naval Ordnance Test Station at Inyokern, Answers: 1. A Bureau of Ordnance memorandum was issued on Nov. 2 and signed



Celebrating The China Lake Military - Civilian Team

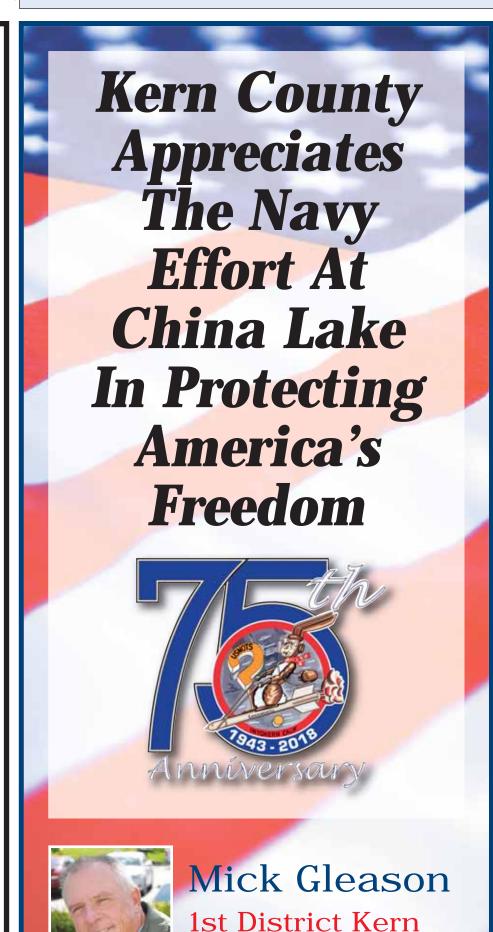
Arming Our Nation's Warfighters for 75 Years

NOTS - NWC - NAWS/NAWCWD



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County Supervisor

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PEOPLE OF NOTE

in 1920, and after receiving his commission, he successfully applied for flight training at Pensacola, Fla. Once back in the fleet as a pilot, Burroughs returned to the classroom to complete his ordnance postgraduate work. The combination of aviation and ordnance background would serve him and the new Naval Ordnance Test Station well.

Burroughs was 40 years old when he reported to the Bureau of Ordnance in March 1943 as the aviation assistant to the director of research and develop-

Almost immediately after reporting to his new assignment, Burroughs began lobbying for a large proving ground for aviation weapons, but he also saw the need for something more substantial. A career naval aviator, Burroughs had switched from bureau to fleet duties and had an insight on both sides of the development game. He knew what scientists needed for

research work and what pilots required for actual combat development game. His vision was for a permanent station that combined test and evaluation functions with re-

search and development - a sort of one~stop shopping place for aviation weapons. Combining naval oversight and civil-

ian scientists at a large proving ground would help researchers isolated from the conditions

of combat meet the needs of the pilots charged with using the rockets scientists developed.

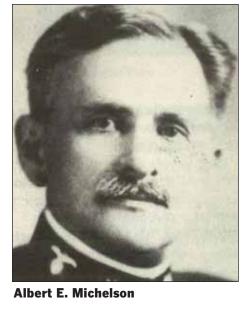
Originally turned down as the first commanding officer of NOTS, Burroughs was named to the post shortly after the station was established on Nov. 8, 1943.

In this capacity, he was able to put his personal touch on how NOTS de-

Albert E. Michelson

Albert A. Michelson was 65 years old when the United States entered World War I. A noted physicist whose hallmark advances in optical physics as a civilian will forever be remembered, Michelson's age or stature did not prevent him from signing up again to aid his country.

Michelson was an 1873 graduate of the Naval Academy, and after a two-



year tour at sea, he was sent back to the school as an instructor in physics and mathematics.

He was a Navy regular for eight years, choosing to resign to pursue an academic career at the University of Chicago. Among his many achievements, Michelson was the first to accurately measure the diameter of a star, as well as measure the speed of light, which provided the basis for the theory of relativity.

Fellow colleagues voted Michelson as the nation's top physicist in 1906, and in 1907 he became the first American to win the Noble Prize in physics.

Through these achievements, however, his work for the Bureau of Ordnance continued. Between 1891 and 1919 he filed five patents for optical range finders he designed for the bu-

So it was no surprise that he offered his services to the Navy when the United States entered World War I.

first volunteered his services as part of the University of Chicago staff, and then joined the Navy reserves in 1918.

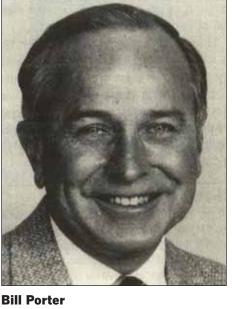
He continued refining his range finders, which are used to determine distance to a target, and patented an ear plug for sailors working near large guns that protected the ear while allowing sailors to hear normal sounds.

The end of the conflict marked the end of Michelson's naval career. He died in 1931, and it took the Navy until 1948 to dedicate its first laboratory to him - Michelson Laboratory at China Lake.

Bill Porter

Thank You To The

Entire Staff Of



When Rear Adm. William Newman and Capt. Doug Cook are credited for molding the Naval Air Warfare Center Weapons Division, the name of Bill Porter isn't far behind.

The China Lake fixture was technical director of the China Lake Naval Weapons Center when the research facility was selected to merge with Point Mugu and two sites in New Mexico to form the weapons division.

When NAWCWD weapons was established, Porter became the first deputy commander for research and development, which is the highest position a civilian can hold in the weapons division hierarchy.

Before he retired in 1993 after 40 years at China Lake, Porter helped realign the new division and bring the research and testing functions at four sites under one command.

The key to the transition, Porter said, was the way Navy administrators and China Lake officials informed employees of changes, alleviating some of the anxiety associated with realignment and budget cuts.

"With hindsight, I could have done a better job in that area," Porter said. Porter joined China Lake in 1953 as

a junior professional and in 1964 became the program manager for the Shrike missile, the first anti-radar

He was also integral in the design and development of the High Speed Anti-Radiation Missile, or HARM, which is a faster, more accurate version of Shrike.

Captain Doug Cook

In a matter of moments on Jan. 22, 1992, Capt. Doug Cook became the last commanding officer of the China Lake Naval Weapons Center and the first vice commander of the Naval Air Warfare Center-Weapons Division.

The change, however, didn't dimin-

ish his presence at China Lake. Cook came as NWC commander in 1989 and was ready to move to a new assignment by 1992 when the Navy retained him at China Lake to help guide the merging of four facilities into NA WC-Weapons.

Over four years as a commander and vice commander, Cook left his impression. He was able to transform China Lake from a free-spirit research facility to one that kept some of its maverick ways while fitting into a tighter organization.

It was an unenviable job, made more difficult by a slashed military budget and the collapse of the Soviet Union - events that forced cutbacks in facility budgets and person-

As the senior officer stationed at China Lake, Cook caught the brunt of the criticism from employees worried that this once steady ship was going to sink in stoney waters.

Captain Charles Stevenson

This then-commander of the China Lake Naval Air Weapons Station would probably be a civilian if it had not been for the draft.

Capt. Charles Stevenson was set for civilian life when he graduated from the University of Missouri in 1970.

With an electrical engineering degree in hand, Stevenson moved to Houston and went to work for Texas Instruments.

Then the draft came calling. Manda-

His choices narrowed to the Air Force and the Navy. He chose the Navy because its three-year commitment was one year less than what the Air Force required.

"Quite frankly, I wasn't pro-military at the time, but I had always been patriotic," Stevenson said at the time be-

fore taking his new command "In fact, when I left Texas Instruments I was on a leave of absence." But life in the Navy, and as a naval

aviator, was exciting. And soon he was a career man, advancing to the point that he now commands the Navy's largest land base.

His job description was simple: take care of the base and support the Naval Air Warfare Center-Weapons Divi-

But when the base is 1.1 million acres in size and the primary tenant is

the premier aviation laboratory in the world, fulfilling that job description becomes challenging.

Just in terms of environmental stewardship, Stevenson had to ensure that none of the threatened or endangered species, such as the tui chub and the desert tortoise, came

He also had to monitor cleanup of hazardous waste sites, prevent further damage to the environment and protect historical landmarks such as the petroglyph canyons.

Supporting NAWC-Weapons meant keeping everything shipshape, from base housing to Michelson Laboratory. In all, NA WS had more than 1,500 buildings to track at the time as well as the utilities that serve them.



Scott O'Neil Scott O'Neil

If innovation and foresight are part of what keeps China Lake moving, Scott O'Neil embodied those traits, especially by the time he retired as NAWCWD's top civilian in 2016.

O'Neil came to China Lake in 1972 and was set loose on his first love, building rockets. Fast forward approximately 33 years, and he was among those at the forefront of the Base and Realignment Closure of 2005. He took over as the acting executive director of NAWCWD in June 2005 — a position that became permanent in May 2006. The long-term gains included bringing several projects to China Lake, especially from its sister site in NAWCWD. The post-BRAC process eventually saw a new synergy across the entire Weapons Division, including stabilizing work at the Point Mugu

But he also saw the need to stabilize and inject new life into an seasoning workforce that was on the cusp of retirement. Some of the ideas he and his team launched included hiring fresh engineers and scientists, and having them train alongside more experienced veterans in the NAWCWD environment. Today, a good size of NAWCWD's total workforce is made up of those with less than 10 years within the organization.

Much of the progressive march on research and development, test and evaluation conducted by NAWCWD continues today under the leadership of his successor, Executive Director Joan Johnson.



Rear Adm. Brian Corey.

Rear Adm. Brian Corey

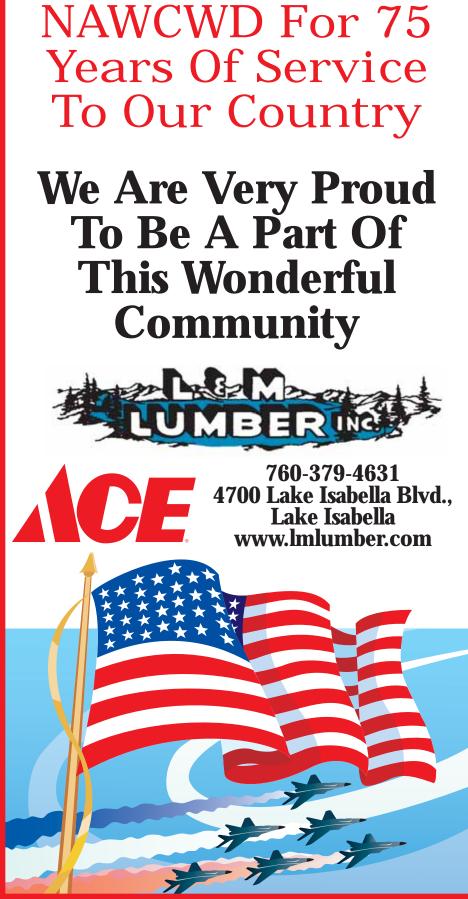
Rear Adm. Brian "Zulu" Corey has had an impressive career, especially as a Naval aviator. But when he returned to China Lake for his third time — to assume the role as commander, Naval Air Warfare Center Weapons Division China Lake, he also brought about a need to streamline things.

Corey utilized a philosophy of taking measurable risks. If a project failed, it was try again, and usually met with success on the second go.

Of China Lake, he noted during the 2016 groundbreaking for the new China Lake Museum in Oct. 2016:

"For those in naval aviation who are on the business end of delivering ordnance, China Lake is our mecca, We have changed the world literally. Our heritage is important to share because we are being challenged in ways we haven't before."

Under his tenure for the past twoand-a-half years, many milestones have been accomplished, including projects that might have had ridiculously absurd timelines. As he leaves for Pax River in Maryland, he leaves behind a legacy of getting things done.





















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E6 Friday, April 27, 2018 www.ridgecrestca.com



China Lake 75th Anniversary

A SLICE OF CHINA LAKE LIFE

Backyard Players important part of China Lake cultural history

City Editor jweston@ridgecrestca.com

China Lake has more than one history. There is the history we can talk about, the myriad of important weapons systems developed there. There is the history people can't talk about—the topics still under wraps for reasons of national security. And there is the human history, the cultural story of the people who lived and worked in the desert and how they passed their time in this tight-knit,

much-loved community.

One hugely important part of the cultural history of the China Lake area is the saga of the Backyard Plays and the Backyard Players. These were the creative inspiration of the legendary Steve Lee, a China Lake Ph.D. Mathematician with a love of racy, corny puns and old movie archetypes. For nearly 40 years, Lee wrote, directed, produced and acted in some 36 skits and plays that kept the community entertained.

Lee began his career as a playwright writing humorous variety shows and skits that were performed as part of holiday parties on the base during the 1950s. His works were always the hit of the event, so in 1962 he put on a fulllength play called "Pete Millers Cellar." The catch was, he staged the play in his own backyard on Kearsarge Avenue with the help and support of his patient wife Colleen.

The other catch was, they served beer. Lots and lots of beer. Lee intuitively knew his particular brand of humor was a lot more appealing once the audience had a few drinks under their belt, so kegs were always a feature of the Backyard Play experi-

It wasn't exactly highbrow entertainment. Usually the plot was roughly borrowed from one (or more) classical movies, with a satiric twist. Lee's technique was simple. He simply packed his script with so many jokes the audience never had a chance to stop laughing. And if one joke fell flat, another quickly hit the mark. Lee used many tried and true old jokes for this purpose and kept files of jokes which he used when writing his plays.

For years Lee staged the productions in his backyard. When the Lees moved out of that house, the plays moved to the backyard of Bruce

Wertenberger moved, an only-in-China-Lake twist ensued. The new tenant allowed the play to be staged in the same backyard one more time.

This was no small thing. Dozens of people were involved in the production, not to mention the hundreds who attended. And then there were the temporary bleachers put up in the backyard. And the kegs. The new resident rolled with it. But this was the old China Lake and everyone pitched in for the sake of a good

Eventually the plays moved off the base to the Ridgecrest backyard of Steve and Sandra Davis. Throughout it all, the experience retained its popularity and charm. This was helped, no doubt, by the fact that the beer kegs went along with the plays.

The plays attested to Lee's love of golden age Hollywood classic films. The titles sometimes gave a hint to the genre. "The Gypsy Tea Room" was roaring 20s farce, "Operation Soap" was a combination sci-fi/Casablanca mashup, "Edifice Wrecks" sent up classic Greek drama, and "The Sacred Brass of the Bald Monkey" was an Indiana-Jones style adventure.

As time went on, the productions and staging became more and more elaborate. Local scenic artist Dorothy Saitz acted in many of the plays and also designed artistically elaborate painted backdrops for each production. Lee was a fan of using the same actors over and over and crafting the parts to fit their personalities--or what he thought their personalities were. Saitz usually played the ditzy bombshell. (One memorable character was named "Appassionata Van Climax.") The legendary Joe Dorgan frequently played her equally ditzy suitor. Ed Romero (brother of Cesar Romero of "Batman" fame) frequently played the head bad guy or "old mobster." Ron Dettling was usually the hero. Linda Miller played the saloon girl or wise

A partial list of other actors participating included John Saitz, Bob Rockwell, Sheila Rockwell, Dave Fenneman, Bruce Macintosh, Brian Dettling, Cathy DeWolf, Ron Erickson, Bob Westbrook, Bob Gritton, Dick Cruise, Mort Kurotori, Gene Younkin, Yvonne Beyer, Ellen Seufert, Sandy Pryor, Jerry Zaand Bill Blanc. The Daily Independent apologizes for any omissions from this list. Given the length of the group's tenure, a complete list of participants is unavailable – although compiling this would be a good job for one of the local museums Lee himself usually

pitched in, playing multi-

ple small parts. He took advantage of his day job as a physicist to include lots of what might be termed science-geek humor. The play "Edifice Wrecks" had a character who happened to be named Pythagoras. After a long and somewhat tortured setup, Pythagoras exclaims triumphantly, "I have it! By Jove I have it! know why the Carthaginian squaw will bear twice as many children as her Roman peers. It is because the squaw on the hippopotamus is equal to the sum of the squaws on the other two hides!!!" This is, of course, a pun on the pythagorean theorem and

mathematicians. Such was the secret of Lee's success. He knew his audience.

the kind of joke uniquely

designed to appeal to an

audience of drunken

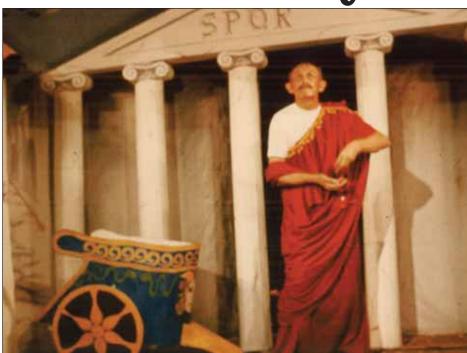
Tickets were hotly sought after and always in short supply. Being on the list for the Backyard Players events was definitely a status symbol during the golden age of China Lake.

Lee's final "backyard" play was "The Humingbird Club" in 1993, another 1920s gangster come-

The Backyard Players last performance was held April 19, 2005. The presentation was sponsored by the Historical Society and held in the Ridgecrest City Hall's council chambers. Lee narrated the history of his plays, helped by veteran players Saitz, Pryor, Blanc, Westbrook and Cruise acting out beloved scenes. The dvd of this historic final performance is available at the Historic USO gift shop run by the HSUMD.

Colleen Lee died in 2006. Steve Lee died in

Editors note: Daily Independent City Editor Jessica Weston is the daughter of John and Dorothy Saitz. As a child she attended the special alcohol-free Backyard Players dress rehearsals on the base, and graduated to attending the real grown-up event with "The Humingbird Club" in 1993.



Steve Lee in "Edifice Wrecks" in 1982.



A racy moment from "The Gypsy Tea Room" in 1978.



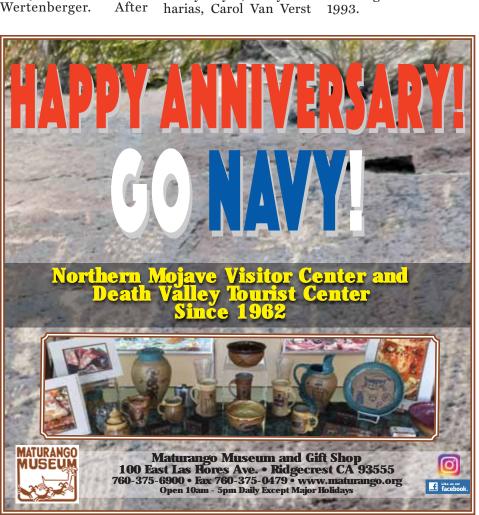
Yvonne Byer in "The Sacred Brass of the Bald Monkey" in 1984.



Joe Dorgan and Dorothy Saitz in "The Gypsy Tea Room" in 1978.

from the "Backyard Players."













China Lake Museum

Three museums, three stories, coming together for Community Day

On Saturday, April 28, the Naval Air Weapons Station China Lake will open its gate to the citizens of Ridgecrest as part of a Community Day celebration and China Lake's 75th anniversary (which is actually on November 8).

The relationship between the Navy base at China Lake and the town of Ridgecrest has always been special, and this close bond between the two entities has always made us distinctive. The Community Day celebration will be along the length of Blandy Avenue and will include a wide variety of displays and activities. A special part of the many displays will be located at the east end of Blandy, and will be a gathering of all three of the valley's "museums" in one place.

The bond between the Navy and Ridgecrest began during World War II when the Navy asked for a USO Club to be built for its military and civilian employees, and a USO Club was built and opened on Ridgecrest Boulevard in 1945. It immediate-

ly became a center of recreational, cultural, and civic activity.

In 1962, Rhea Blenman, the wife of the Navy base's commanding officer was instrumental in helping start the Maturango Museum. The Navy allocated a Quonset hut to the infant museum. In 1986, the Maturango Museum moved into newer and bigger buildings located on Las Flores Avenue in Ridgecrest. In addition to the exhibit galleries, which feature the natural and cultural history of the Upper Mojave Desert, the museum sponsors many programs and tours, including tours to worldfamous petroglyphs located on Navy lands.

In 1985, part of Maturango formed a new Historical Society of the Upper Mojave Desert (HSUMD), which met in Maturango Museum spaces until 1996 when it obtained its own nonprofit status. HSUMD later moved into a small house on Station

In 2006, HSUMD - with the help of a large community effort - started restoration of what had previously been known as the old County Building on Ridgecrest Boulevard, gaining ownership of the property an agreement with the city. The newly restored and named Historic USO Building – the original USO Club from many years previously – has returned to its original status as a center of community activity and also serves our military families and veterans.

In 1993, the nonprofit China Lake Museum Foundation was formed and the Navy allocated the old Officers' Club to a weapons exhibit. After years of support from residents across our valley and beyond, donations allowed the start of a move from the old Officers' Club to property just east and adjacent to the Maturango Museum. The new facility displaying our Navy's achievements to the public is called the China Lake

These three organizations – the Maturango Museum, the Historical Society, and the China Lake Museum – will be collaboratively waiting from 10 a.m. to 2 p.m.to greet citizens and visitors on Community Day at the east end of Blandy Avenue. They are co-hosting free shuttle service, if needed, between the Michelson Lab parking area at Blandy's west end and the Historical Zone at Blandy's east end. (Donations

Countering the problem of an aging, exiting workforce

China Lake has a penchant for drawing some of the most best and brightest the U.S. has available. After all, it's what has made the installation and its mission successful over the last 75 years. From developing some of the world's most advanced and lethal weapons and systems (the Walleye missile, the iconic Sidewinder missile, the HARM and AARGM to name a few) to ensuring new technology is thoroughly vetted before it's implemented into the fleet, China Lake has prospered.

And then there are those who pave the roads, maintain the air strip and ensure the day-to-day safety of those aboard the installation.

However, there was a time when there appeared to be exodus of talent as the workforce grew older and reached retirement age.

It was something Rear Adm. Corey brought up as he spoke his parting words as commander of NAW-CWD in April of this year.

"Ten years ago Scott O'Neil showed me a movie, it was the inevitable march of time and how this workforce was going to age out. He said we have to do something about it," Corey said. At that time, O'Neil was

the executive director of NAWCWD. He had realized that more than 50 percent would eventually leave or retire. One day to handle it? Start eyeing the talent that was coming out of the best programs in the U.S. and snatch them up as best as possible.

And then start a policy that allows China Lake and NAWCWD to keep its corporate knowledge intact.

'Today, half this work force has less than 10 years of experience. At that time it was how the well can you transfer that knowledge that fast with that many people," Corey said at the change of command ceremony. "I can tell you that this nation's university system is putting out amazing graduates. Within days of showing up they are contributing in ways that folks cannot imagine."

He noted the strategy works well.

"Our more senior employ-

ees immediately embrace those folks and turn them loose," Corey said. "They don't burden with lessons of the past; they embolden them with lessons of the past, tell them about the culture of NAWC Weapons Division." Joan Johnson, NAW-

CWD's current executive director, noted in a September 2017 interview with the Daily Independent's Perspective Magazine noted the organization has tracked the numbers of people reaching retirement age.

"We have been actively mitigating the impact through a combination of aggressive hiring, especially for the last 10 years," Johnson said during that interview. "Our numbers have grown year after year over the past 10 years, and a significant portion of those new hires are in the STEM (Science, Technology, Engineering and Mathematics) field."

Of the in house training approach, she said, "we pair a seasoned with expert with a new hire so that knowledge transfer accelerated in critical skills areas," Johnson said. "We've been doing that because we know we are losing a lot of expertise was people retire." This year, NAWCWD ex-

pects about 300 new people, for a total of 700, when including attrition of the workforce. It also has a budget worth \$1.7 billion and an increasingly important role (as with the rest of the Navy) in national security. So, it's a good time to be a part of the Navy team.

Retaining what you get

The trick is retraining those folks who come to China Lake bright-eyed and bushiedtailed.

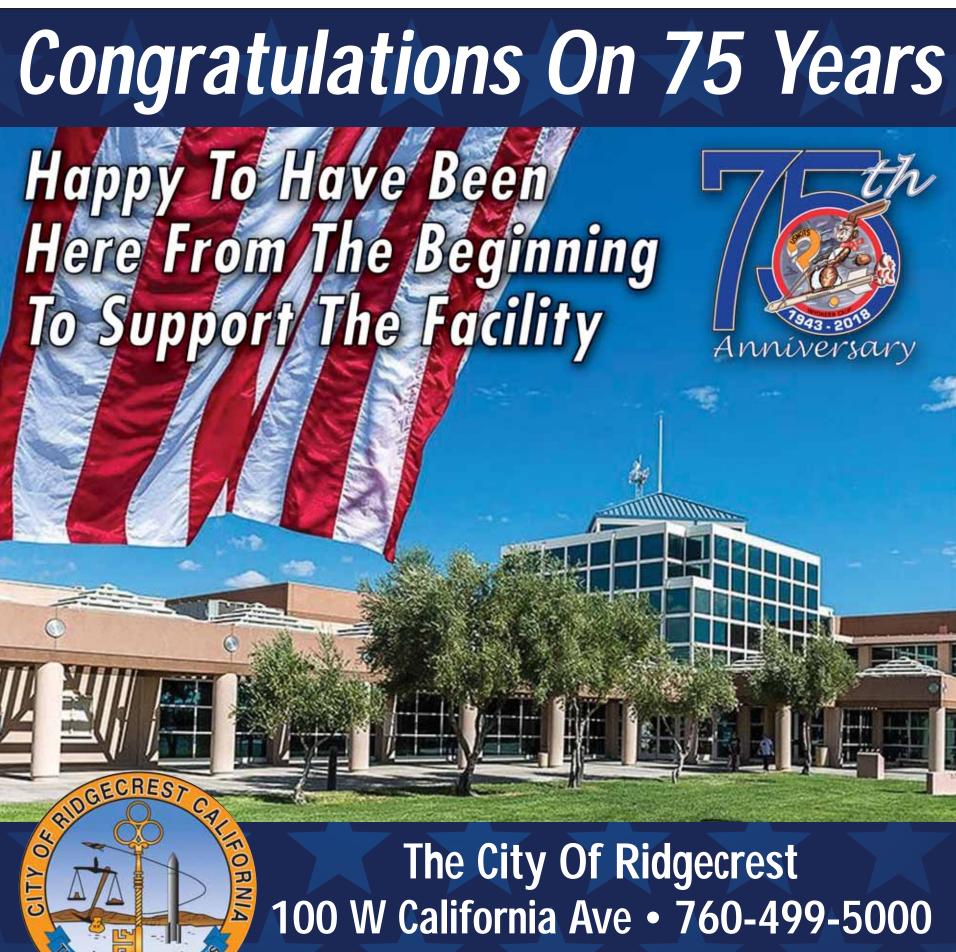
There was a time when defense spending spiraled down in the 1990s following the drawdown from the Cold War. Less spending meant less jobs, and an exodos from

At the 2018 Economic Outlook Conference, Johnson noted historic data on attrition has shown that the area loses up to 50 percent of young professionals within the first 10 years of their careers here. This places NAW-CWD right back where it an aging workforce and the potential of losing capital knowledge without it being transferred.

Johnson said retaining those younger employees requires the fostering of a vibrant community. One of those issues she addressed was the dwindling supply of housing and rentals in Ridgecrest.

"If we don't provide quality of life on both sides of the fence line for these young professionals they will leave. We know that," she said at the February Outlook Conference.

She noted that things like housing aren't addressed in the near future, "Half of them are going to leave before they start working. If they leave, we lose capacity, we lose capability and we no longer are going to be able to execute our mission. The city of Ridgecrest, the Indian Wells Valley loses a generation of professionals and the payroll associated with



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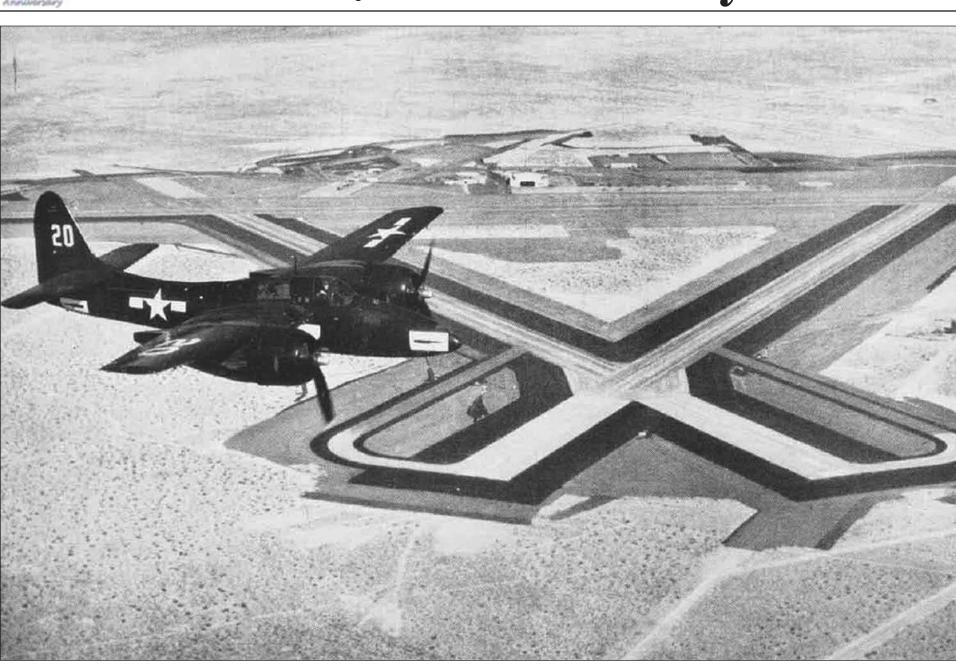
"I'm proud to represent the hardworking, forward-thinking men and women of China Lake. I thank you for your service to our country."

Kei Manual Company Company Company Country.









A Grumman F7F Tigercat flies over U.S. Naval Ordinance Test Station China Lake in 1947.

Land and air: Ranges at China Lake

Land and air.

That remains the most important element for Naval Air Weapons Station China Lake as it has evolved over the years. With more than 1.1 million acres and 20,000 square miles of controlled air space spread across three counties in the Mojave Desert, the Navy utilizes the Rhode Island-sized piece of land in the best way it can: test weapons systems that will be utilized by the fleet to defend the nation.

Everything from explosive ordnance to radar detecting have been done over the 75 years of China Lake's existence. Experiments conducted at the various laboratories aboard the installation can naturally transition to controlled testing in the field.

SNORT

Parachute ejection tests, rocket sleds and more are tested at the Supersonic Naval Ordnance Research Track (SNORT for short). The four-mile long dual rail spreads out over 21,600 feet on a 27-square mile range. It opened in 1953 at a cost of \$4.5 million, and since then has conducted some of the Navy's significant testing, including the Rocket-Assisted Personal Ejection Catapult, the newer Navy Aircrew Common Ejection Seat. The SNORT range was also ground zero for several NASA tests for the Mercury and Gemini spacecraft.

The range's track system received an upgrade in 2007 when the Navy converted its network from analog to digital. More than 14 miles of fiber-optic cables were installed, the rails welded and precision aligned to less than 0.06 of an inch.

According to NAW-CWD's history of the facility, the SNORT track was used to conduct a number of tests over the years, including:

- During 2000, SNORT supported NASA "fly-by" tests propelling a prototype, laser-based hazard avoidance system for use on future Mars smart-landers. Earlier testing included propelling a 136,000pound Titan 111-C second stage rocket motor down the track at 640 feet per second.

- In another test for the FBI, more than 1,000 pounds of deadly explosives were packed inside an empty bus that detonated — replicating the Bali terrorist attack.

Through the years

The history of the ranges remains vastly impressive as various testing exercises have been conducted over the decades.

1946 saw the development of the Transonic Track, SNORT's ancestor, which would replace it in 1953. The G-4 track was es-

tablished in 1954 to support rocket trajectory flights. The Polaris Static Test Complex, or Skytop, was

created in 1959 to test

solid rocket propellants The Vietnam War prompted the creation of the EWTES (ECR's predecessor) in 1967 to reduce the pilot losses from enemy Surface-to-Air missile fire. 1971 saw the creation of the Weapons Survivability Lab to test aircraft survival. QF-86 drones are added in 1979 to sup-

port air-to-air testing. Projects continue to progress through the 1980s and 1990s as infrastructure was added or improved on. The 2000s saw the support of weapons integration for the Hellfire missile on the Predator drone, 2004 saw the first GPS drop of a guided weapon from a UAV. Facilities were established in 2006 for EOD training and to test counter improvised explosive devices.

In 2011, unmanned air systems testing began to surpass manned test

In 2009, several track records were set on a single test. The first record was the successful simultaneous firing of 74 Mk 16 Zuni rocket motors. Those motors produced a record 500,000 pounds of thrust. In another test, 6,000 feet of water bags were filled with 11,000 gallons of water and laid down over the rails to provide additional deceleration for the sled.

The North Ranges contain the China Lake Propulsion Laboratories, "the Navy's most comprehensive and unique center for RDAT&E of the energetic components of rockets, guided missiles, and freefall weapons" The lab utilizes basic research of chemicals to processing and testing it.

According to the NAW-CWD's description, "the CLPL area, also known as Salt Wells, is used for propulsion, warhead, and fuze testing. Propulsion grain, nozzles, and actua-



Two second stage rocket motors fire to continue to pull a parachute down out of the sky during of a 2013 test at the Supersonic Naval Ordnance Research Track at Naval Air Warfare Center Weapons Division



U.S. NAVY IMAGE

A missile launches from a ground unit, as shown in a 2016 NAWCWD video, which shows that the Navy can blow up pretty much anything on the ranges.

tors are designed here. Research is conducted for explosives and propellants. Motors and warheads are processed and cast. In

Echo Range and ECR

The Echo Range, on China Lake's south end, is home to China Lake's electronic warfare testing applications. E*Warfare celebrated its 50th anniversary in October 2017. Every-

thing from anti-radar to weapons and tactics are tested on the Echo Range.

Established in 1967, the

Electronic Combat Range was created in response to the need for realistic pilot training during the Vietnam War.

The ECR itself is spread over 900 square miles with 1,200 square miles of re-

stricted airspace above it. According to NAVAIR, 'ECR is the Navy's principle open-air range for the test and evaluation of airborne electronic combat systems. ECR supports a combination of land and naval systems (littoral

threat). The ECR provides

engineering support, de-

velopmental and operational testing, analysis and training resources for users of systems that counter or

penetrate air defenses.' The types of testing conducted at ECR include electronic countermeasures, radar warning receivers, unmanned drone systems (called Unmanned Aerial

Systems), and anti-radiation flight missile testing. In October, Dr. James Colvard, the former operations division head, wrote a

letter noting the impor-

tance of ECR and Echo

"At the time Echo Range was established, we were losing a high percentage of Navy aircraft to Vietnamese [surface-to-air missiles]," he wrote, "the Echo Range became a combatsolving site and remains so today in an even larger scale. I am proud to be part of the original Echo

SEE RANGES, F2



WD's Fire Science Laboratory is a hotbed of capabilities

NAWCWD Public Affairs

(Editor's note: article originally published in March 2017)

ccording to Eric Sievert, the Fire Science Laboratory at Naval Air Warfare Center Weapons Division is a first-class facility that few people know about. In late 2016, Sievert and his team worked with the Workforce Engagement Program to hold jet fuel fire demonstrations at China Lake to help change that.

During the demonstrations, Sievert, FSL team lead, Ross Davidson, team lead and test fire supervisor, Dr. Ben Goodman, chemical engineer, and Dr. Erik Tolmachoff, mechanical and chemical engineer, allowed NAWCWD employees a front-row seat to what Sailors and Marines have to manage during a shipboard emergency. Over 60 civilians and fleet personnel watched them extinguish a large, jet fuel fire with the newly upgraded P-25A Shipboard Firefighting Vehicle. "As a prior Marine, I've

got a strong connection with the fleet," Sievert said. "I've been at NAWCWD for 11 years working handin-hand with the warfighters and it's like I never left. Their personal safety is of utmost importance to me."

The group regularly performs fire research and testing through the use of a large-scale Carrier Deck Firefighting Test Facility called the Mini Deck and a small-scale test facility called the Burn Room. The Mini Deck can support a 6,400-square foot fire, while the Burn Room serves as an indoor space that can hold a 20-square foot fire. Additionally, they have a wet lab where they can mix and analyze agents as well as perform fume,



Fire Science Laboratory teammates Ross Davidson, left, and Eric Sievert, on truck, from Naval Air Warfare Center Weapons Division demonstrate a shipboard aviation fire emergency recently at the Carrier Deck Firefighting Test Facility, or Mini Deck, at China

hood-sized fire experiments. As one of few facilities of its kind in the United States and the only one belonging to Naval Air Systems Command, the Weapons Division's FSL

has the unique ability to burn directly on the deck and use jet fuel to conduct

realistic testing. 'We do anything from small-scale to large-scale fire research and thermo-dynamic testing," Sievert said. "We do rescue operation tactics testing and we put together our findings for the firefighting Naval Air Training Operating Procedures Standardization manuals. We work closely with the ships, so we get great input from the fleet. They help us develop what works best for them and their needs."

Steel mock-ups manufactured in the Machine Shop help the team target specific areas of the aircraft, working with the Chemistry Department aids in their discovery of lasting materials and fire suppressants, and the FSL team does collaborative work in the command's areas of survivability. A few of their firefighting inventions and other developments include thermal imaging camera assessments, High Mobility Multipurpose Wheeled Vehiclecrew compartment fire extinguishing system assessments for the Marine Corps and hazardous materials citing for NASA's Vehicle Assembly Building at Kennedy Space Cen-

Additionally, they've led assessment of battery powered rescue tools to decrease the use of gas powered equipment as well as the development of highoccupancy, helicopter rollover procedures that will make it easier to get passengers out of a crashed aircraft while minimizing additional injuries commonly associated with rescue operations.

"The FSL has years of broad fire experience and because of that, the FSL gets the opportunity to work outside of strictly shipboard fire research," Tolmachoff said. "Our office regularly assists with aviation fire issues that pertain to new ship con-

and firefighter manning requirements for shipboard unmanned aerial vehicles and in recent months, the FSL has been approached to consult on hypergolic refueling procedures, fire extinguishment on the range and for wildland oil spill clean-up operations. I think a lot of what we do has the potential to save lives on ships and potentially move on to structural and aircraft engineer-

Of their more recent inventions, a slide-in cooling and fire suppression device for the internal F-35 weapons bay has been used aboard ship with future deployments pending. In addition to their testing, research and development. struction requirements, they're looking to provide a

training program on the Mini Deck that will be open to shipboard firefighters and possibly the installation firefighters.

'When you go for firefighting training in the Navy, they train you how to put out propane fires similar to a large, modified barbecue grill," Tolmachoff explained. "It's a fuel source that keeps coming at you, but it's fixed. It's not as realistic as a fire on a ship might be where, most likely, there will be some sort of fuel spill. I think what [Sievert] really wants to do with this training is create a more realistic fire situation so that Sailors can gain experience fighting realistic fires in a controlled

RANGES

Continued from F2

Benefits

The ranges and laboratory at China Lake support one another in several ways: a system devised in the lab can be tested in the field, whether it's radar-related or something that just goes boom. The versatility of the labs make an attractive draw not only for the Navy, but for contractors and allied foreign partners as well.

The British Royal Air Force, the Netherlands, Australian Air Force and

other partners make use of the ranges for their own testing or in exercises with the U.S. military.

A more recent example was the a 220-personnel, 220-ton Italian Air Force campaign that successfully tested the AARGM missile on its aircraft. The event, Blazing Shield, was considered a success that included two live fire tests of the missile system.

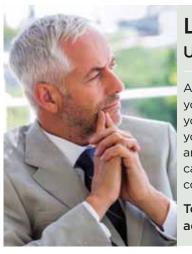
"The airspace here is huge," Italian Air Force Col. Marco Bertoli said in an April interview. "The land range here in China Lake I believe is one of the greatest in the world. We were really looking forward to flying over this landscape which allowed us to fly several different missions at the same time."

Air space itself has its advantages in a shared zone as part of the R-2508 complex. China Lake, Edwards Air Force Base, and Fort Irwin all share in it. It's not unusual to see fighter jets through screaming Rainbow Canyon at the western edge of Death Valley National Park. The air space over China Lake's ranges are prime grounds for testing weapons launches, electronic warfare systems, unmanned systems and air combat tactics.



An AGM-88E Advanced Anti-Radiation Guided Missile is fired from a VX-31 FA-18 Hornet over the NAWCWD China Lake land range in August 2008 dur-

ing the missile's Operational Assessment.



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An sounds off as the end result of a 2016 weapons test on the ranges on China Lake, as seen in a 2017 NAW-**CWD** video on its land ranges. U.S. NAVY PHOTO

Science done in the lab

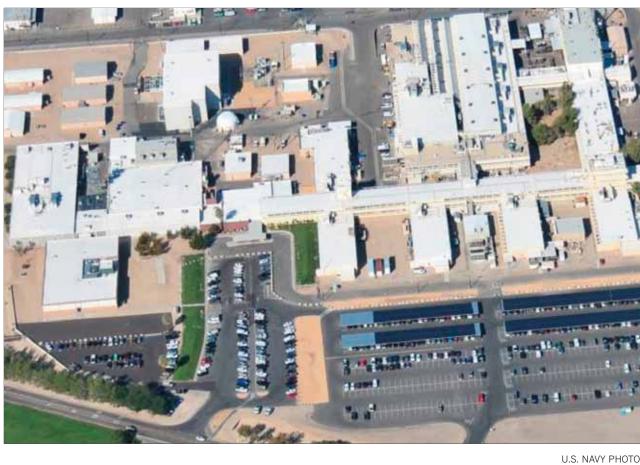
hroughout its history, engineering, science, test and evaluation have led the way at China Lake as its workforce continues to develop new systems for the fleet and increase the lethal force meant to the keep the U.S. Navy on the leading

Numerous labs and facilities have been developed over the years to allow China Lakers to test items. In some cases, it was to try, fail, try again and succeed.

Michelson Lab

Michelson Laboratory, a sprawling behemoth of a complex on China Lake's main site, has produced countless numbers of accomplishments and products over 70 years, from post-WWII to the aftermath of the Sept. 11, 2001 attacks on New York City and Washington D.C., the Global War on Terror

Dedicated in 1948, Mic elson Lab was one of the most comprehensive and advanced facilities of its time. The original cost was \$7 million in construction and named after "Albert Abraham Michelson, the first American recipient of the Nobel Prize in Physics in 1907. Early in his career, he was appointed by President Grant to the U.S. Naval Academy where he even-



Michelson Lab from the air.

tually became an instructor in physics and chemistry. Michelson was one of the first to measure the speed of light and the diameter of a star, and he became known as 'the man who taught the world to measure.' Michelson had academic and personal connections to the founding fathers who established China Lake in the early 1940s, and his work and inventions contributed to the technology used in weapons and other systems subsequently developed at China Lake," according to the U.S. Navy.

edge technology within two years of its opening when two chemists constructed an analog computer from old radar and radio parts. This was four years after the creation of the first electronic computer system. "The computer dramatically reduced the time necessary to calculate the theoretical performance characteristics of certain propellant compositions," according to Michelson Lab's fact sheet. "China Lake's first centralized computer began operation in October 1951 when the new Reeves Electronic Ana-

in Michelson Laboratory. This is a clumsy device by today's standards requiring about 3,000 vacuum tubes to make it work—REAC was a marvel of efficiency back then and was used to perform early Sidewinder simulations."

Michelson Lab has since grown from its single building. It sits on more than nine acres of floor space and 16 massive units, all interconnected to survive an earthquake. Wings that have been added include: IBAR, Video Teleconference Center, Fiber Optic Trunk System Hub, Solid State Wing, and the Intel Library.

The main building includes a chemistry wing; physics wing; composites and plastics laboratory; engineering prototyping facility (machine shop); Integrated Battlespace Arena (IBAR); physics laboratories; multiple video teleconferencing foundry; standards of measurement, materials testing, heat-treating, electroplating shops; environmental testing facilities; and nu-

merous clean rooms Each of those labs stand on their own merits and accomplishments, all integrated to support multiple objectives or singular ones as

needed.

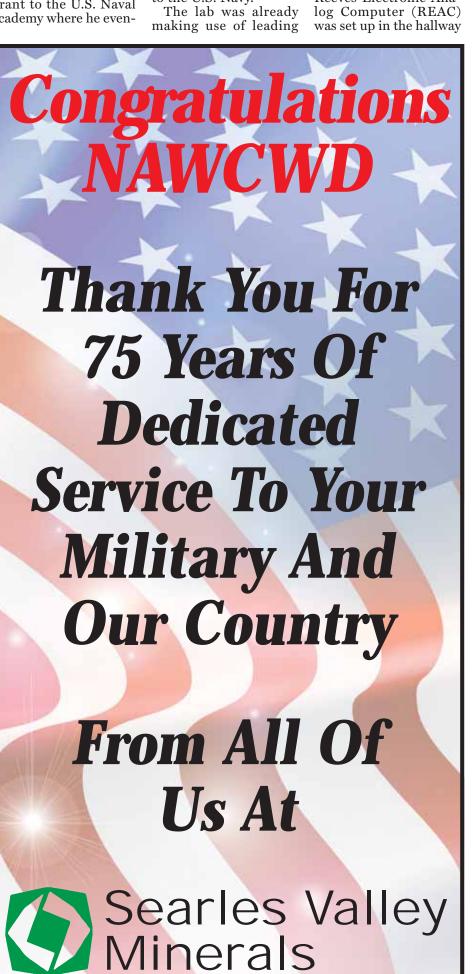
Some of the contributions the lab as a whole contributed to the warfighter over the years included the development of a tank-busing weapon known as the Rolling Airframe Missile, which was tested and produced at China Lake and sent into service during the Korean War. Creation was done within 29 days and Mic Lab's hall turned into a testing stage for the RAM fuses.

After the 9/11 attacks, NAWCWD set up a command center on the north end of Mic Lab, and has since served troops around the clock on various projects. During Operation Enduring Freedom, the BLU-116 hard-target deep penetrator was used in the GBU-24G/B weapon system.

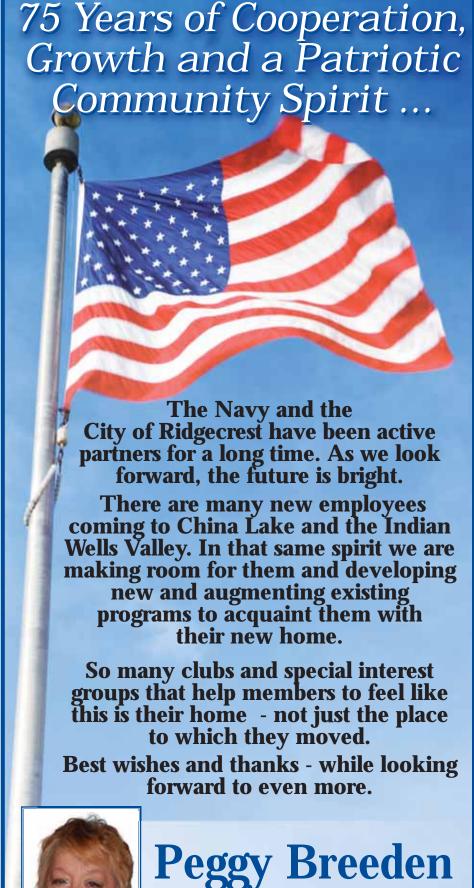
Lauritsen Laboratory

Lauritsen Laboratory holds its own legacy of important projects since it opened in 1976. Named after one of the towering figures in China Lake history, the facility focuses on laser and optical work. At 56,000 square feet housed in a threewinged building, the lab's major facilities in-

 The multi-sensor laboratory, which develops and tests algorithms for combining information from multi-



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Mayor

Paid for by Peggy Breeden



McLean Laboratory: an example of what China Lake's 2005 BRAC benefits

is perhaps the sin-gle most example of what China Lake benefited from following the 2005 Base Realignment and Closure.

From breaking in ground in 2009 through its ribbon cutting in 2010 to its completion in 2011, McLean is a two-story state-of-the-art conference facility, filled with office and management suites, meeting rooms and secure lab space.

At 178,000 square feet, the building had a \$76 million value as early as 2014 (at least according to the Navy's fact sheet). At least 50,000 square feet is dedicated for general laboratory work.

Designed to be environmentally efficient, McLean was built to achieve Low-Energy Electron Diffraction (LEED) certification. Many of its conference rooms seat up to 55 people each, features a technical library, shower rooms, break areas and communication room. Audiovisual elements make it one of the places to host important meetings or sympo-

It's also a focal point for many educational events meant to benefit local students. Two signature events — Young Engineers and Scientists! (YES!) and Expanding Your Horizons expose hundreds of

middle schoolers to the work conducted by NAW-CWD folk does evey year.

The east wing is home to engineering laboratories and high bay facilities. Some of the programs hosted there have included the Advanced Medium-Range Air-to-Air Missile, Rolling Airframe Missile, Joint Standoff Weapon, the Anti-Radiation Guided Missile, the Missile, Warfighter Response Center — the list goes on.

It also holds a spot for one of the Navy's nextgen projects, the Long Range Anti-Ship Missile (LRASM), a "precisionguided Anti-Surface Warfare (ASuW) weapon designed to meet the needs of USN and USAF warfighters from standoff

in a robust threat environment." LRASM has seen testing conducted at Point Mugu Sea Range in Ventura County and captive-carry tests at the China Lake ranges.

McLean Lab is named after physicist William B. McLean (1914–1976) a China Lake pioneer, the man who led development of one the U.S. military's most enduring weapons the first heat-seeking Sidewinder missile. According to the U.S. Navy, "Even today, it is still the world's premiere air-toair missile. McLean earned a PhD in 1939. During World War II, he worked on ordnance equipment and testing at the National Bureau of Standards in Washington, D.C. Following the war, he moved to NOTS, Inyokern / China Lake, California where he led the project team developing the Sidewinder from 1945–1954. In 1954, he was appointed as technical director. For his brilliant work, he was formally recognized by President



McLean Laboratory

U.S. NAVY PHOTO



More than 450 people attend the ribbon cutting ceremony Oct. 8, 2011, for the Dr. William B. McLean Laboratory at NAWCWD China Lake.

Eisenhower. A Memorial Award for Dr. William B. McLean was established in 1968 to recognize creativity in employees who furthered the mission with significant inventions. In 2008, the Navy an-

nounced that the dry cargo ship USNS William McLean would be named

LIC#496447

Continued from F3

actionable intelligence for targeting anď fire control.

 Multi-Mode Sensor Laboratory, focuses LADAR and automatic aided targeting recognition systems. The facility is one of a handful dedicated to that research and provides AiTR to unmanned aerial systems operators using 3D LADAR imaging, which extends the identification range by a factor of 5 over imaging infrared systems of equivalent apertures.

Sensor Technology Integration and Evaluation Laboratory (STIEL). This lab assembles and integrates large EO/IR and eye safe laser systems whose performance is evaluated before flight testing. 1,100-SF laboratory with 20-foot high ceiling is equipped with 28 volts direct current (VDC), 3-phase 208-volt

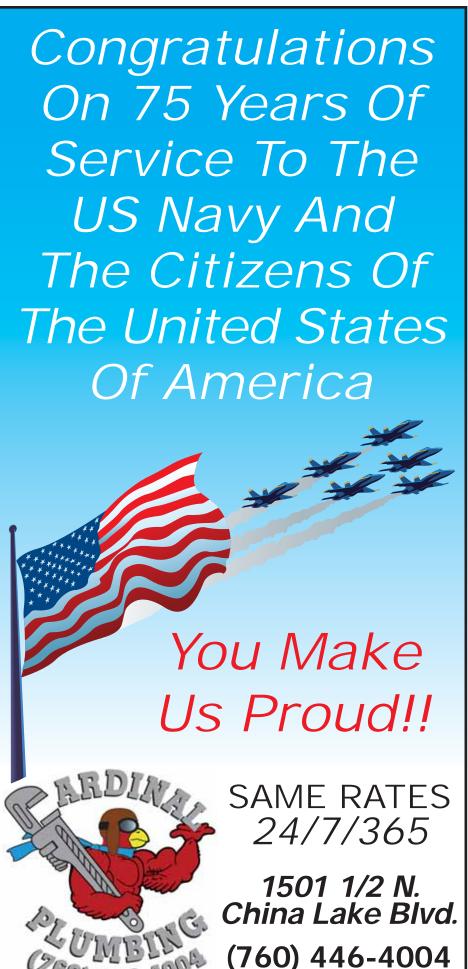
400 cycle and 110-volt power, high pressure air, and a high bay access door. Six work benches are used for assembly

Electronics Development Laboratory. This lab designs and develops prototype electronics for weapons systems, signal processing, interfacing, and data acquisition, in addition to quick-turn design and prototype electronics, which includes smallscale production.

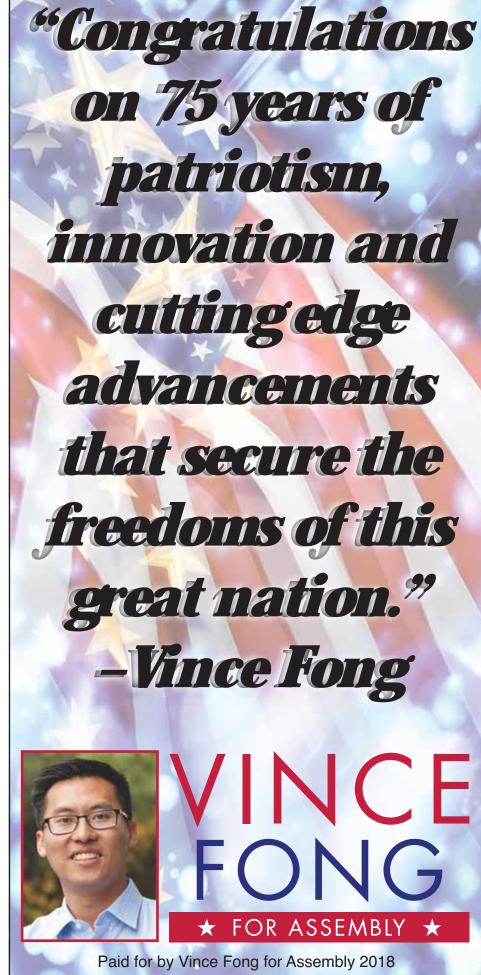


U.S. NAVY PHOTO

Lauritsen Laboratory from the air.



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the history behind China Lake and the achievements that occurred there over the installation's 75 years.

China Lake Museum: New location, same mission

After years of planning, saving and grant applications, China Lake Museum had a new home. The bastion of history and knowledge of the Navy's mission at China Lake will slowly be moved to its new location on East Las Flores Avenue (next to the Maturango Museum) as it builds more.

The new China Lake Museum on Las Flores is not important just for preserving history, but also for maintaining a record of defense practices that may be necessary for the future defense of the United States.

"After 15 long years, it's finally happened. We are out in Ridgecrest," said China Lake Museum Foundation President Laura Hickle during the museum's opening following a March 16 cere-

"NAWS China Lake is proud to be a very small part in the Foundation's movement of the China Lake Museum to the prime location in the city of Ridgecrest," said Captain Paul Dale, NAWS China Lake's commanding officer, during a March 15 celebration of the museum's opening the next day.

Also in attendance were several distinguished guests, including Captain Glenn Tierney. According to Hickle, Tierney fired Sidewinder missiles as a test pilot. He is recognized in one of the exhibits in the museum.

Former CLMF President Alice Campbell Alice Campbell said the grand opening was a big suc-

"It was wonderful we were able to use the Maturango Museum for the rest of our program. We are so glad we could share museums and that's our plan for the future is to help each other that way.'

The new location, part of Phase 1, houses displays, information graphics of the various weapons systems and timelines for the ranges, as well as examples of the weapons systems used. But it's just the tip of the iceberg.

The old museum site, located at the old Officer's Club on Pearl Harbor Drive at the end of Blandy Avenue aboard China Lake, was a mecca of technological innovation and history

The museum was housed there for a few years, before budget cuts nearly closed it down.

"This museum is not only to preserve China Lake's history and to tell of our contributions to the warfighter and to our national security, it is also to document the way we used to do things."

Scott O'Neil

Volunteers and fund raising continued to keep it

The museum moved from the old location in large part to make it more accessible for visitors who might not otherwise be able to access the base after security was increased following the Sept. 11, 2001, terrorist attacks. The number of visitors went from an average of 20,000 to 7,000.

Phase II will increase the footprint for indoor and outdoor exhibit, allowing the China Lake Museum foundation to bring in more exhibits.

Campbell added that another focus of the museum will be on telling the stories, the human histories, of people who lived in the area in the past.

Campbell asked that people contribute memo-

"That includes dropping off chunks of history they have documented. Anything they have written, historic documents. Anything that they have that they want to give up we have places," she said.

Campbell said the museum will focus in the future on "people and their roles. We have a lot of items and artifacts, we don't have the people to go with it."

Also needed are volunteers including docents who can tell their stories and a docent coordinator, as well as greeters. The museum currently

27 exhibits, including the F11 F-1 F "Super Tiger" that sits facing Las Flores It is located at 130 E.

Las Flores Ave and is open Monday through Saturday from 10 a.m. to Former NAWCWD Ex-

ecutive Director and current Indian Wells Valley Economic Development Corporation director Scott O'Neil also had

words of wisdom during the museum's grand opening.

O'Neil has been involved with museum planning for many years and was one of several speakers in the grand opening program. He spoke eloquently on the importance of the China Lake Museum in not only preserving history but in documenting successful defense practices from the Cold War era.

This museum is not only to preserve China Lake's history and to tell of our contributions to the warfighter and to our national security, it is also to document the way we used to do things," O'Neil said. "That way was an active partnership between the military and the civilian scientists and engineers here in the Navy and our nation's defense-indus-

trial base. He added, "This story is critically important. We have been so long now in the reform since we have won the Cold War, that almost no one left in the bureaucracy remembers how we used to do things in developing and acquiring our warfighting systems. Then we, the government and industry, jointly developed the critical technologies underpinning the advancement of

our weaponry.' O'Neil said that learning from and repeating practices of the past is crucial to national security in the future.

He said he is not criticizing the current defense

industrial base. 'They are responding to the processes and demands that Congress and the executive department have put in place," O'Neil

However, he said, in his opinion, it is an imperative that the U.S. and particularly the U.S. Navy change the way that it designs, builds and buys its weaponry.

We cannot afford the path we are on and have been on since the end of the Cold War," he said. "We must use the history preserved here in this museum and relearn the way of the past. We are losing ground against our adversaries and our weapons are costing way too much. We cannot afford the inventories we need in tomorrow's fight. Today we are on the same path the Soviet Union was on in the Reagan defense buildup in the 1980s. That broke their system."



The static display of a Sidewinder missile is among the many exhibits the **China Lake** Museum has at its new loca-



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A swarm of drone activity on the ranges



DEPARTMENT OF DEFENSE PHOTO

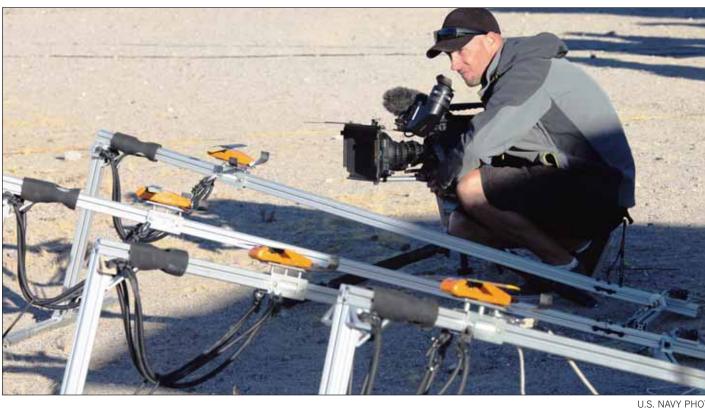
A Perdix drone in flight.

What do small drones, affordability and 3D printing have in common? A lot of activity at China Lake's ranges.

At least, that's what was in the national spotlight when CBS's "60 Minutes" produced a segment on the deployment of "one of the world's largest micro-drones" in October 2016.

The test involved three F/A-18s dropping 103 Perdix remote-controlled drones over China Lake. The small device moves at a rate much too fast to be tracked by any conventional means -- at a rate of MACH 0.6. They went so fast that television news crews almost threw their hands up in the air due to the difficulty.

"Due to the complex nature of combat, Perdix are not pre-programmed synchronized individuals, they are a collective organism, sharing one distributed brain for decision-making and adapting to each other like swarms in nature," Strategic Capabilities Office Director William Roper explained in a January



CBS cameraman Leigh Hubner prepares to film a Perdix ground launch event on the Naval Air Warfare Center **Weapons Division South Range.**

2017 statement about the test. "Because every Perdix communicates and collaborates with every other Perdix, the swarm has no leader and can gracefully adapt to drones entering or exiting the team."

The project began at MIT's Lincoln Lab in 2013 and became a partnership effort with the Department of Defense. They were then first tested at Edwards Air Force Base in 2014. They have been working at China Lake for mostly the same time.

In the course of the test, the drones

demonstrated advanced swarm behaviors, including self-healing communications, self-adapting formation flying, and collective decision-making.

The GradEx represented a first-ofkind event that dispensed more than 100 Perdix micro-UAVs from three F/A-18Fs, according to a Jan. 10 NAWCWD news release. The Perdix vehicles then executed a swarming mission demonstrating autonomous behaviors.

"The scale of this swarm event exceeded any known air launched, or

ground launched event, by a factor of more than three," said Alex Ordway, NAWCWD's Perdix test engine

"This demonstration of one of the world's largest micro-drone swarms at China Lake is yet another example of how the one-of-a-kind ranges and facilities, and our uniquely qualified workforce at the Weapons Division support cuttingedge, innovative work for the warfighter," said NAWCWD Executive Director Joan Johnson in a January 2017 news re-



Aviation Ordnanceman 3rd Class Clarence Young inspects an AIM-9X Sidewinder missile before the launch of an F/A-18F Super Hornet from the Diamondbacks of Strike Fighter Squadron (VFA) 102 aboard the aircraft carrier USS George Washington (CVN 73) in August 2009.

dewinder: Still a classic

Why mess with a classic? Well, except to improve on it.

Of all the weapons developed at China Lake, none have endured the test of time more than the AIM Sidewinder missile. The weapon is still in development, with one of the most recent iterations being the AIM-9X Block II. The Block II completed operational test and the Navy declared initial operational capability in the spring of 2015 and "is capable of using its datalink, thrust vectoring maneuverability, and advanced imaging infrared seeker to hit targets behind the launching fighter," according to the Naval Air Systems Command's Air-to-Air Missiles Program Office in Pax

It is perhaps the most advanced short-range air-to-air missile in service by the U.S. military. Designed by William McLean in the early 1950s, the missile entered service in 1956 as the world's first targeted air-to-air missile. The guided missile can trace its origins back to a 1947 feasibility study of whether an infrared seeker could be built.

It brought such fame and fortune that in 2002, China Lake and the Ridgecrest community threw an anniversary party in honor of its 50th anniversary.



Rear Adm. Brian Corey, left, then-Naval Air Warfare Center Weapons Division commander, talks with then-Secretary of Defense Ashton Carter, far right, about how High-Speed Anti-Radiation Missiles are converted into Advanced Anti-Radiation Guide Missiles at China Lake during Carter's visit in February

ARM to AARGM, no foul

Plenty of weapons systems have been developed by China Lakers over its 75 year history: the iconic Sidewinder, the Shrike and HARM missiles, the RAM rocket (built

in less than 30 days in 1950) the Tomahawk and more. And then there is the AARGM (Advanced Anti-Radiation Guided Missile), an upgrade of the HARM missile since it hit the fleet in 2009. The AARGM is a air-tosurface missile that went into full-scale production by Orbital ATK in September 2012 under contract. A year later, the company delivered its 100th missile.

Throughout its development period, the AARGM saw testing at the China Lake

The missile is utilized by the U.S. Navy, Marine Corps and by the Italian Air Force. According to its specs, "AARGM features an advanced digital anti-radiation homing (ARH) sensor, millimeter wave (MMW)-radar terminal seeker, precise Global Positioning System (GPS)/Inertial Navigation System (INS) guidance and net-cen-

tric connectivity." The HARM missile, the AARGM's predecessor, is still used today.





Making big rocks into little rocks

China Lake might be a place where things go boom, but it isn't the only thing going on. It's also a perfect place for training in desert environments for things scenarios that might have need of a hammer and nails — or big honking machinery to drill

That's where the Seabees come in. China Lake is home to a training facility just for that purpose, including the mineral products training facility, as well as water well drilling and blasting and quarry operation.

The mineral products site at China Lake allows for personnel throughout the Naval Construction Force (NCF) to receive the training needed to succeed in the missions they face today. There are numerous operations including concrete batch operations, asphalt batch operations, rock crushing, reclamation crushing, and wash plant op-

Seabees and members from other service branches, train in mineral products, the byproduct of blasting. Blasting teams would go into the mountains and blow them up which would result in piles of rocks ranging from three or four feet in dimension. In essence, it allows Seabees to use a 42-acre sandbox with the biggest construction equipment available, get dirty, make big rocks into little rocks, all with the end

result being good quality asphalt and concrete China Lake has two detachments: Naval Construction Training Center and the Naval Crews make use of the equipment at the Seabee training facility at China Lake

Construction Group ONE.

U.S. NAVY PHOTO

during a 2017 blasting and quarry class.

growth."

A clear message: China Lake 'has never been more relevant'

China Lake's mission has never been more relevant. That message was first and foremost at the February 2018 Indian Wells Valley Economic Outlook Conference.

The message was delivered by NAWCWD Executive director Johnson, and then-outgoing NAWCWD Commander Rear Adm. Brian Corey and NAWS Commanding Officer Capt. Paul Dale took turns on the stage at the Indian Wells Valley Economic Outlook Conference at the Kerr McGee Center Wednesday. The overall message was positive: things are going well at China Lake and are expected to be doing even better in the future.

"In the entire US Navy when our Chief of Naval Operations were talking about people that are innovative and doing things faster and delivering products that our warfighter needs, he singled out one group - and that was NAWC Weapons Division," Corey said at the conference. He said Johnson was also singled out and commended.

He delivered the same message as he had in past

"What I said the first time was that this time, with the Navy leadership we have in place and what our command has been asked to do, 'We have never been more relevant.'

Johnson, for her part,

delved deeper into the budgetary nuts and bolts.

"I know the numbers are boring but the message I hope is not boring at all," she said.

According to her presentation, Weapons Division Budget continues to increase. It was \$1.4 billion in fiscal year 2015, \$1.5 billion in fiscal year 2016 and \$1.6 billion in fiscal year 2017.

The forecast for fiscal year 2018 is a little in excess of \$1.7 billion, she

And there is potentially even better news, according to Johnson. She said that President Donald Trump's proposed budget "for the Navy alone is in excess of a \$12 billion increase to the Navy's requested top line. There is a reason for that, if any of you have a chance to grab the public version of the national defense strategy you will see the Navy's mission all over the national defense strategy.

The NAWCWD workforce, meanwhile, has rebounded significantly since sequestration, she said.

"With the exception of sequestration on a general trend we have been in a growth phase for about 10 years."

The civilian workforce at China Lake was 4,053 in fiscal year 2017, up from 3,919 in fiscal year 2016 and 3,691 in fiscal year

"We are hiring at an ex-

come from outside the tremely aggressive rate. We have been doing this fence line, he added. Dale noted that in calenfor quite some time now. If we are talking about NAWC Weapons we are dar year 2017 over 21,000 official visitors came to going to be hiring in excess NAWS China Lake. of 700 people this year to

Dale ended his presentation on an upbeat note, account for attrition and talking about the Blue An-Capt. Dale finished out gels visit in March 2017. the segment with some This three-day event far pertinent facts and figures. exceeded expectations. At-He seconded the ongoing tendance was nearly 50,000, twice the projecneed for affordable, appropriate housing for the tions; sponsor revenues 7,000 people on NAWS were about five times the China Lake. Also in deprojections; and seating mand is high quality infant revenue was three times to elementary-aged child the projections. Local comcare. He noted that some munity non-profit groups received nearly \$31,000 36 children of varying ages in proceeds and local await enrollment in NAWS China Lake childcare promorale, welfare and recregrams. Solutions for some ation accounts earned approximately \$92,000. of these issues need to

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exists after all these years. We look forward to continuing our journey with you.

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"Old Dorm 1" on Blandy Avenue

Chartered on November 26, 1947 as NOTS (Naval Ordnance Test Station) Employees Federal Credit Union. The initial location was provided by NOTS in Room 1 in what was known as the "Old Training Building" on Halsey Street (which is now Inyokern Road). The Credit Union moved several times after its original Halsey Street location. In 1965, the Credit Union expanded and moved into "Old Dorm 1" on Blandy Avenue.



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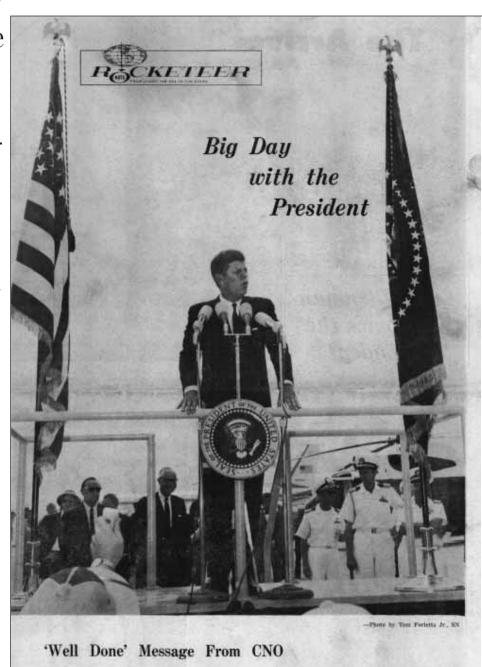


China Lake: 75 years in photos

With 75 years of history, China Lake certainly has accumulated plenty of pictures. From its founding days as NOTS to the present day, the installation has seen a single presidential presidental visit, countless successful tests, high-level dignitaries visit and so much more. This last section is devoted to the images over the years.



Aerial view of the U.S. Naval OrdinanceTest Station —NOTS about 1946 or



The front page of the June 7, 1963 Rocketeer depicts President John F. Kennedy addressing the crowd at China Lake. Kennedy was touring China Lake in June 1963. To date, he is the only commander-in-chief to visit the installation.



Dr. William B. McLean at Michelson Lab., China

Capt. W.W. Hollister accepts on behalf of the Station presented by the men and officers of GMU-61 from Cdr. Selden N. May in June 1959.



U.S. Navy McDonnell F2H-2 Banshee with a Sidewinder missile loaded on the ground at the U.S. Naval Ordnance Test Station (NOTS) China Lake, California (USA), on 17 July 1957.





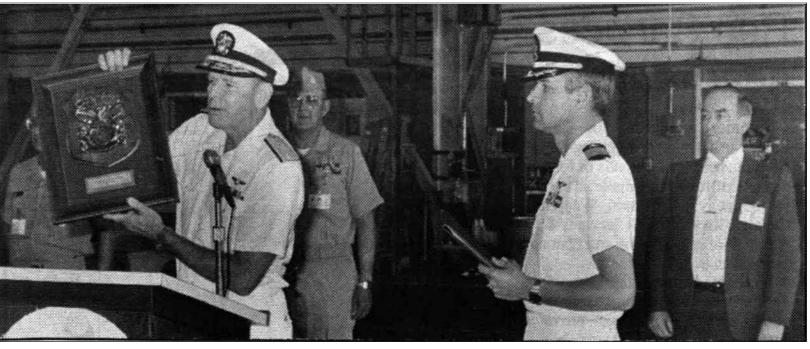




A U.S. Navy Grumman QF-9J Cougar of the "Redbird Squadron" at Naval Air Weapons Station, China Lake, California (USA) sits on a flight line in January 1970. This particular aircraft, after a long and varied service life was part of the NOLO (No Live Operator) program. She flew twenty successful NOLO flights and crashed on the 21st flight.



In this June 1987 photo, Gen. James J. McMonagale and Brig. Gen. David V. Shuter (second right) got a tour of Marine Air Contingency Battalion command area and a briefing on the operation. As part of the tour, the Marines had static displays of equipment and weapons as they answered questions from interested visitors. The Air Contingency Battalion arrived and departed China Lake in C-141 Starlifters (above) from Norton AFB.



ROCKETEER PHOTO RAdm. William J. Finneran (left) shows off the CNO **Aviation Safety** Award plaque he presented to Capt. John Burt, NWC **Commander (right)** in June 1987 for **NWC's outstanding** safety record in 1986. Looking on in the background were (from left)
ABCM Larry Duysen; Command Master Chief, Capt. Gene Allen, head, Aircraft Department; and Gerry Schiefer, NWC Technical Director.



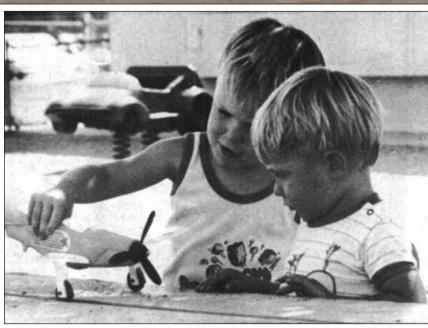






ROCKETEER PHOTO Commander Light Attack Wing Pacific Fleet (COMLATWINGPAC) held a command inspection at Air Test and Evaluation Squadron Five in December 1989. In this photo COMLATWING-**PAC's Command Mas**ter Chief Withcombe reviews the troops. The Squadron had been preparing for the inspection for several weeks.





ROCKETEER PHOTO **As Kevin Kirkpatrick** readies his aircraft for a takeoff from the picnic table top, Phillip **DeMay** watches intently so that next time, he may be the "pilot" of the plane in July 1985.



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China Lake 75th Anniversary



When Vieweg Elementary School celebrated 40 years of education in the community in December 1992, Cdr. Chip Mills, executive officer at the Naval Air Weapons Station China Lake, was called on for remarks. The school was named after RAdm. Walter V.R. Vieweg, fourth commander of the Naval Ordnance Test Station. The color guard from the MAD at China Lake assisted in the celebration.



A Royal Air Force SEPECAT Jaguar GR.1 of No. 54 Squadron taking off from Naval Air Station China



Four other Former technical directors join Bill Porter (second From left, when they presented him with a special Former TD Award at Porter's retirement party in Jan. 1993. From left, they include Bob Hillyer, Gerry Schiefer, Leroy



"Our nation and those who love liberty in the world depend on the brilliant work of the Naval Air Weapons Station at China Lake. We in Kern County honor every man and woman who has served our country here."



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NAWS Command Chaplain LCdr. Tony Cosimana, NAWS Command Chaplain; RAdm. WE Newman, NAWCWPNS Commander; VAdm. W.E. Bowen, NAVAIR Commander; Capt. D. W. Cook, NAWCWPNS Vice Commander; RAdm. G.H. Strahsahl Jr., NAWC Commander and Capt. B.J. Craig Jr., NAWS Commanding Officer, take part in ceremonies establishing the Naval Air Weapons Station China Lake.



In May 2002, The U.S. Navy's Fire Scout Vertical Takeoff and Landing Tactical Unmanned Aerial Vehicle (VTUAV) launches into its flight test program at the Naval Air Forces Western Test Range Complex in California. Fire Scout has been designed to provide situational awareness and precision targeting support for the Navy and Marine Corps, as a fully autonomous UAV requiring limited human intervention. Future operations are planned for the UAV this





On March 13, 2006, a CH-46 Sea Knight assigned to Marine Helicopter Squadron One, Presidential Helicopter Squadron, deploys its MJU-32/B round flares over Naval Air Weapons Station China Lake. The squadron was participating in a testing event for a new deployment tactic for the 36mm MJU-32/B round



On Jan. 18, 2012, Jackalyne Pfannenstiel, Assistant Secretary of the Navy for Energy, Installations and Environment, third from left, and distinguished Navy leadership, break ground for the Navy's newest solar farm at Naval Weapons Station China Lake. The 118acre solar farm is expected to generate more than 30 percent of the facility's energy requirements.



On April 11, 2011, Aviation Ordnancemen assigned to the Vampires of Air Test and Evaluation Squadron (VX) 9 install AGM-88 Echo advanced anti-radiation guided missiles on an F/A-18D Hornet for test launches at Naval Air Weapons Station China Lake.



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China Lake 75th Anniversary



A group of sailors carry flags past the Historic USO Building on West Ridgecrest Boulevard during the 2011 Parade of 1,000 Flags.



Chief of Naval Operations (CNO) Adm. John Richardson holds an all-hands call in All Faith Chapel at Naval Air Weapons Station (NAWS) China Lake in December 2016.



In Feb. 2016, Rear Adm. Brian Corey, Naval Air Warfare Center Weapons Division commander, and Joan Johnson, NAWCWD executive director, welcome cussion about the innovative work underway at the command.



U.S. NAVY PHOTO The U.S. Navy **Flight Demon**stration **Squadron, The** Blue Angels, fly over the NAWS China Lake Air **Show on March** 19, 2017.







Dillon assumes command of NAWCWD

By Stacie Lawrence

NAWCWD Public Affairs

Rear Adm. Scott Dillon relieved Rear Adm. Brian Corey as the commander of Naval Air Weapons Division during a change of command ceremony at China Lake on April 19.

"I called [my wife] and I said, 'What do you think; how about China Lake?' and she said let's do it," Corey said in reference to his first active duty tour with Air Test Evaluation

Squadron 31 over 20 years ago. "That was the beginning of an amazing set of friendships, an amazing set of professional lessons and the amazing beginning of the delivery of combat capability out here, and I've been truly humbled and honored to be a part of that effort."

Corey will be assigned as program executive officer for unmanned aviation and strike weapons in Patuxent River, Maryland while Dillon assumes the position of Naval Air Systems Command's assistant commander for Test and Evaluation in addition to his NAWCWD commander duties.

Dillon, a native of Pittsburgh, Pennsylvania, graduated from the U.S. Naval Academy in 1991 and is a graduate of U.S. Naval Test Pilot School Class 117. He earned a Master of Business Administration from the University of Chicago and a Master of Science degree in aeronautical engineering from the Naval Postgraduate School.



Rear Adm. Scott Dillon, left, salutes Vice Adm. Paul Grosklags, commander of Naval Air Systems Command, as he relieves Rear Adm. Brian Corey, right, as commander of Naval Air Warfare Center Weapons Division during a change of command ceremony April 19, 2018, at China Lake.

quite a bit of time at tiatives close up is NAVAIR during the course of my career may be a bit of an understatement," Dillon said. "During that time, I've tried to learn as much as I could about NAVAIR's capabilities. I thought that I had a pretty good idea of the role that NAWCWD played in that process and the capabilities that NAW-CWD brings to the table. I've been out here for the last few weeks and seeing WD's current ca-

"To say that I've spent pabilities and latest ininonetheless truly im-

pressive." Dillon reported to Patrol Squadron 1 at Barber's Point Hawaii following designation as a naval aviator, completing deployments as a P-3 tactical coordinator and mission commander. He was later assigned to the U.S. Naval Test Pilot School/Naval Postgraduate School Cooperative Program, Air Test Evaluation Squadron 20 as well as



U.S. NAVY PHOTO BY RON RODRIGUEZ

Rear Adm. Scott Dillon leads the arrival of the official party during the April 19, 2018, change of command ceremony at Naval Air Warfare Center Weapons Division at China Lake.

deployment in support of Operation Enduring Freedom in Djibouti, Africa.

"As the rest of the acquisition world has been stepping up recently and searching for ways to be more innovative and increase speed to the fleet," Dillon said, "this [NAWCWD] team has been busy providing concrete examples of what can be done for quite some time."

His own acquisition experience includes providing program engineering support for P-3 aircraft, serving as the integrated product team lead at the Maritime Patrol and Reconnaissance

Aircraft Program Office, and MH-60R team lead in the H-60 Multi-Mission Helicopters Program Office in addition to assignment as the aerospace engineering duty officer community detailer at Navy Personnel Command in Millington, Tennessee.

"He's done a tremendous job with every one of those challenges we gave him," said Vice Adm. Paul Grosklags, NAVAIR commander and guest speaker for the ceremony. "I'm confident that you all are transitioning from one set of good hands into another."

Prior to taking com-

mand of NAWCWD, Dillon served tours as a military assistant to the undersecretary of defense for acquisition, technology and logistics, and as vice commander for NAVAIR. Most recently, he served as commander of the Naval Safety Center in Norfolk, Virginia.

"It really is good to be here," Dillon said. "I'm looking forward to the opportunity. I want to thank all of you for the warm welcome and for making this opportunity possible. I'm really looking forward to the great things we are going to accomplish together."







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