



# THE CHINA LAKER

Vol. 17, No. 2 Newsletter of the China Lake Museum Foundation

Spring 2011

## USNS WILLIAM B. MCLEAN LAUNCHED

By **DESIREE JONES**, China Lake Public Affairs

In a special ceremony Saturday, April 16, Margaret Taylor christened the U.S. Navy's newest ship named for her late uncle, Dr. William B. McLean.

When the countdown-to-launch clock hit 00:00, Taylor announced, "I christen thee USNS William McLean." A two-tier audience — 1,000 people on the shipyard floor and 500 seated three staircases up — cheered as the ceremonial champagne bottle cracked against the ship's bow.

The Grand Pacific Band played the U.S. Marine Corps hymn while red, white and blue streamers shot up and over the ship's rail as USNS McLean rolled off its ramp and rushed into San Diego Bay. Audience arms reached out with cell phone cameras to capture the ship's departure while fireworks sprayed color into the night sky to the sound of "Anchors Aweigh" and "I'm a Yankee Doodle Dandy." The christening capped a two-day celebration honoring the ship's namesake, Dr. William B. McLean, China Lake's technical director from 1954 to 1957 and the inventor of the Sidewinder missile. More than 40 members of the McLean family from around the country attended in his honor. "I'm especially happy that this amazing event brought my family and extended family together for the first time in 50 years," said son Don McLean.

Festivities started Friday when the McLean family was given a private tour of the ship. Don said they participated in an ancient shipbuilding tradition called Stepping the Mast, where, for good luck's sake, meaningful items are placed in a box and welded into the new ship's mast. In ancient times, only coins were used in the ceremony. Don contributed two coins from USNS McLean's sister ship, USNS Sacagawea, and a coin made to honor his father. On one side of that coin is an image of McLean, and on the other is a likeness of the William B. McLean Laboratory. Don also put into the mast box a handwritten note to his dad, explaining why this ship is worthy of his father's name.

NASSCO, the ship's builder, hosted a dinner Friday night in honor of Margaret Taylor. She was presented with gifts from the shipbuilder — a crystal bowl inscribed with the launch date, a keepsake box for the pieces of the christening bottle, and an empty picture frame that will soon hold a photograph of USNS William McLean at sea trials.

In remarks at the dinner, Naval Air Warfare Center Weapons Division Executive Director Scott O'Neil said, "Dr. McLean is still a role model for our scientists and engineers at China Lake. When we talk about elegant design and simplicity, we still point to Dr. McLean. This ship seals his legacy of innovation for his entire family and for the U.S. Navy, both ashore and now at sea." (Cont. P. 2)

(USNS WILLIAM B. MCLEAN ARTICLE CONTINUED)

A second dinner was held on Saturday, just before the christening, giving the McLean family the opportunity to meet more people responsible for building and operating the supply ship.

USNS William McLean is the twelfth ship of the 14-ship Lewis and Clark (T-AKE) class of dry cargo ammunition ships General Dynamics NASSCO is building for the Navy's Sealift Command. Its mission is to serve as a shuttle or station ship, delivering ammunition and provisions to strike groups and other naval forces.

Speaking Saturday at the christening ceremony, Rear Adm. Mark Buzby, commander, Military Sealift Command, said USNS William McLean and her MSC mariners will be indispensable to the Navy, "daily performing many tasks required to keep our combat fleets on station, ready to face any aggressor anywhere in the world."

The Keynote speaker for the christening was Vice Adm. Dave Venlet, program executive officer for the Joint Strike Fighter and former NAWCWD commander.

From inside the San Diego shipyard, Venlet's remarks took the audience back to the desert, back to the 1950s, when Bill and his wife LaV McLean were helping to shape China Lake.

He spoke of their imprint that remains on the base and in Ridgecrest — the Dr. McLean Memorial Award given each June, the street named McLean Way, the Sidewinder statue by Freedom Park. And of course the William B. McLean Laboratory, considered by many to be China Lake's greatest tribute to McLean.

Then O'Neil talked about last weekend, when more than 140 middle-school boys interested in science and engineering were welcomed into McLean Lab, by China Lake's executive director and commander. When asked what they thought makes our country great, the boys had answered, "Freedom." Venlet said the boys wanted to know how missiles find their targets, how many bombs are dropped in a day, and news about that Joint Strike Fighter.

"Then one boy raised his hand and said, 'My grandfather worked on the early Sidewinder,'" said Venlet. "So the commander asked how many other boys had family members working on Sidewinder, and more than 30 hands shot into the air.

"On second thought," Venlet said, "maybe that is China Lake's greatest tribute to Dr. McLean."

As Venlet spoke, Taylor was escorted to the trigger platform where she was handed a sleeved bottle of champagne.

Standing with her was California Congressman Duncan Hunter, General Dynamics NASSCO President Fred Harris, and the ship's matrons of honor, family members Rosemary McLean and Virginia Rembold. Venlet finished out his remarks as the red numbers on the clock worked their way to launch time.

"Clearly his legacy is set on land," Venlet said, "but his passion was always for the sea. As Dr. McLean once mentioned, 'There are many jobs to be done in the ocean.' This amazing ship, its captain and crew will surely get the job of USNS McLean done, and done well.

---

#### **DON MCLEAN'S REMARKS—SPONSOR DINNER**

**I'd like to thank the Navy for naming a ship after my dad; Fred Harris and NASSCO for all the events, the NASSCO and Navy shipbuilders who made this happen; and everyone for attending.**

**I'm especially happy that this amazing event brought my family and extended family together for the first time in 50 years.**

(Cont'd P. 6)

## China Lake Museum Foundation

P.O. Box 217 · Ridgecrest, CA 93556-0217  
760-939-3530 · clmf@ridgenet.net · 760-939-0564 (FAX)

**Bob Campbell, *President***

**Jack Latimer, *Secretary***

**Craig Porter, *Treasurer***

**Milton Burford, *Director Emeritus***

**John DiPol, *Director Emeritus***

**Wayne Doucette, *Director Emeritus***

**Burrell Hays, *Director Emeritus***

**Bill Porter, *Director Emeritus***

**Jack Russell, *Director Emeritus***

**Frank B. St. George, *Director Emeritus***

### Trustees

**RADM Bert Johnston, USN (ret.)**

**Dr. James E. Colvard**

**CAPT Glenn Tierney, USN(ret.)**

**RADM Bill Harris, USN (ret.)**

**Dr. Karen Higgins**

**Franklin H. Knemeyer**

**RADM M. G. Mathis, USN (ret.)**

**Stuart Witt**

**Maj Gen Jon Gallinetti, USMC (ret.)**

### *Vice Presidents*

**Steve Boster, *Membership***

**Pat Connell, *Development***

**James Manion, *Facilities***

**Alice Campbell, *Public Relations***

**Paul Homer, *Operations***

### *Directors*

**Mike Benton**

**Clint Dougherty**

**Dale Gates**

**Rick Knaggs**

**Dotsy Cronin Clint Dougherty**

**Larry Lincicum**

**James Manion**

**Gary Parsons**

**Susan Raglin, *Education***

**Charles Roulund**

**Robert Smith, *Exhibits***

**Beth Summers**

**Wade Tallman**

**Charles White**

**Dotsy Cronin *Volunteer Coordinator/Gift Shop Manager***

## President's Report by Bob Campbell

I am pleased to report that we are now taking steps to relocate the Museum to a site in Ridgecrest within three years. Our priority is to establish a presence in the community to facilitate public access, provide an expanded venue for exhibits, and provide education outreach activities for youth. As I mentioned in my report to you in the last Newsletter the local Navy Command supports this goal.

Our Phase One goal, requiring \$2.5M-\$3M, is to build a 10,000-15,000 sq ft building into which we would move and expand selected existing exhibits as soon as possible, and no later than in three years (2013)

Phase Two, requiring an additional \$3M of funding, would expand the Museum to 25,000 sq ft, expand the exhibits and provide space for education outreach activities. The goal is to complete Phase Two within five years (2015).

Phase Three will be slipped out to the future and will address the original requirement of at least 40,000 square feet, based on need and financial considerations. It will probably not happen before 2020.

Our architect, Tom Schaniel, has provided draft site plans and a building concept amenable to an integrated phased building approach. Two sites were considered for planning purposes—the NAWS Main gate site and a site in the County Park adjacent to Maturango Museum. We are looking at a 5-7.5 acre parcel size to accommodate outdoor exhibits, parking and future growth potential. (Cont'd p. 4)

There are several key steps to be completed before either site can be finalized. We are focusing on the County Park site as our preferred location because of its potential as a cultural focal point within Ridgecrest and the obvious synergy with the Maturango Museum. Interestingly, the Maturango Museum and the Weapons Museum were collocated on the Navy Base in the beginning.

As reported elsewhere in this newsletter, Rebecca Dutton has been hired as our Development Manager. She is developing, and will be responsible for implementing our fund raising strategy. We have hired the fund raising consultant firm of Graham-Pelton to coach Rebecca and help guide us through our Capital Campaign to raise funds for the new building. Graham-Pelton was successful at fundraising for the new Seabee Museum in Port Hueneme, CA.

Dr. Robert Smith and his team are developing the plan to expand and enhance our exhibits to share China Lake history and that of Naval Armament and Technology in an educational and entertaining manner. These efforts will occur in parallel to the Capital Campaign and we should be seeing improvements in the current Museum exhibits this year.

We have updated our business plan to address the added financial responsibilities that come with the relocated Museum (added staff, utilities, upkeep, and maintenance, etc.) and have included the projected new revenues to be generated by our expanded development efforts and related fund generating activities. Meanwhile, our annual dinner auction receipts continue to grow, thanks to our generous supporters, and remain critical to our continued success. Accordingly, we have concluded the new Museum in Ridgecrest would be fiscally viable, and are proceeding to make it a reality as soon as possible.

If you have comments, any questions, and/or are interested in participating in this important venture please don't hesitate to give me a call at 760-377-0056. We want and need your help and input.-



Meet the newest member of the China Lake Museum Foundation, Rebecca Dutton.

In March of this year we hired Rebecca as our Development Manager. This is a new position that we created to focus on raising funds to build, and support our new Museum to be built and located in Ridgecrest. Rebecca is a recent Texas A&M University graduate with a strong academic background and a wealth of experience in information technology, planning, financial management, budgeting, publications writing, organizing and coordinating of events and fund raising that will greatly enhance and benefit our fund raising efforts.

Rebecca hit the ground running and has already done a large amount of research into grant opportunities, has presented us with fund raising options and she is working with our funds raising consultants, Graham-Pelton on our Capital Campaign. Rebecca is also supporting our annual dinner auction efforts and is already planning a fund raising event for the fall. Rebecca is shown with some of the items that have already been donated for the annual China Lake Museum Foundation Dinner Auction to be held at Kerr McGee Center in Ridgecrest.

Tickets can be obtained at the Museum by calling 760-939-3530.

OBITUARY

**Dr. Pierre Saint-Amand, 91**

Dr. Pierre Saint-Amand, Ph.D, long-time resident of China Lake and Ridgecrest, passed away on April 15, 2011 at the age of 91.

Dr. Saint-Amand was born on Feb. 4, 1920 in Tacoma Wash., to Cyrias Zepherin Saint-Amand and Mable (Berg) Saint-Amand at Tacoma General Hospital.

After serving honorably as a Sergeant in the United States Army in Alaska in WWII, Pierre earned a Bachelor's of Science in Electrical Engineering from the University of Alaska at Fairbanks. While at Fairbanks Pierre identified and named Alaska's famous Denali Fault.

In 1949, Pierre, his wife and older son moved to southern California so he could attend the California Institute of Technology where he earned his Ph.D in Geophysics. While at Cal Tech, in 1950, he began his career with the Navy supporting the Naval Ordnance Test Station at Pasadena. Following his graduation from Cal Tech, he spent a year in Paris on a Fulbright Scholarship at the Institute D' Astrophysique De Paris studying the light of the night sky.

His early work in geology included formulating the theory of the rotation of the Pacific Ocean Basin, which was quite controversial at that time, and studying the Tehachapi Earthquake of 1952. He was present at and prepared the definitive reports on the Chilean Earthquake of 1962 and the Alaskan Earthquake of 1964.

His career as a Navy scientist spanned over 38 years, until his retirement in 1988. During that time, he was detached to the State Department for two years where he helped to establish the graduate school of Geology at the University of Santiago in Chile. At China Lake, his accomplishments included ground breaking scientific research and patents in weather modification. He is perhaps best known for his leadership in Operation Popeye in Vietnam, where weather modification was used successfully for the first time to slow the flow of men and material from Communist North Vietnam into South Vietnam during the war, and Project Storm Fury, the first attempt to dissipate or steer hurricanes away from populated areas. His list of awards include the Distinguished Civilian Service Award (1967), the LTE Thompson Award (1973), and Charter Membership in the Senior Executive Service of the United States of America (1979).

Pierre believed that a professional had a responsibility to support his community. To that end, he served as a trustee of the Maturango Museum (1965-1969), was a founding member of the Board of Directors of the Ridgecrest Regional Hospital and the Indian Wells Valley Airport District, was the president and a member of the Board of Directors of the Indian Wells Valley Water District, and a former president of the Ridgecrest Sister Cities Association, International Footprinters Association Chapter 60, and the Rotary Club of China Lake.

Pierre is survived by Marie Saint-Amand, his beloved wife of 65 years, and his children Gene Saint-Amand, Barbara (Gniewek), Denali Saint-Amand, Ph.D, and David Saint-Amand; and his grandchildren, Laurel Saint-Amand, Ph.D, Ian Harper, Cyrus Saint-Amand Poliakoff, Emily Saint-Amand Poliakoff, and Abram Saint-Amand Poliakoff.

The family requests that donations be made in Pierre's name to the Rotary International PolioPlus program or the American Heart Association.

Don McLean's Remarks (cont'd from page 2)

**I like the traditions associated with ship launchings, especially this one. They included the Keel Laying ceremony last year, which signified the beginning of construction, and will end with the christening and launching by my Cousin Margaret tomorrow night. As part of the festivities today, We attended a tour of the ship and participated in the Stepping the Mast ceremony. This tradition dates back to Roman times, and is thought to bring good luck. During that ceremony, I contributed 2 Sacagawea \$1 coins (T-AKE 2), a coin which was made by the China Lake Lab to honor my Father and I also included a handwritten note to him.**

**Instead of a speech, I'd like to share that note with you.**

**Dear Dad,**

**4/14/2011**

**It is a great honor having this naval ship named for you. You deserve it. You spent most of your adult life working for the Navy at China Lake and San Diego, where at both Naval Labs; the mission is the support and protection of the fleet. Then and now, the US Navy "owned the sea", but you understood that sea power was not enough.**

**You knew, the number one way to protect the fleet was to "own the sky". The sidewinder missile now has almost 60 years of "owning the sky".**

**The number two way to protect the fleet was to "own the depths". There, you spent years on the electronics of submarine detection, ways to explore the depths, and the missiles and torpedoes for enemy submarine destruction. The US Navy now "owns the depths".**

**Having a ship named in your honor is a great tribute to you. You've always loved the sea. At home, from your early days of surfing, building your own scuba gear, and our many boating adventures, we spent a lot of time in the water. At work, you had so many ideas. From deep diving submarines, glass spheres for viewing, underwater tankers, multihull craft, sea farms, talking to the porpoises, and of course, ways to protect the fleet.**

**This ship is a lot like China Lake and NUC, both of which now have labs in your name. They all support the fleet by delivering the goods that are need; all run on a mixture of about 10% military and 90% civilian personnel; all are state of the art; and all often travel their own course. And I've been told there is nothing like delivering hard ice cream to our men at sea.**

**Always thinking, tinkering, building, simplifying and improving, I know you are continuing somewhere. The legacy you left continues in this life. The honors you continue to receive, such as the naming of this ship shows that your influence and the "Bill McLean Way" lives on.**

**Please keep this note dry, the USNS William McLean's crew safe and always sailing with fair winds and following seas.**

**Love, your son  
Donald Malcolm**

**P.S. I know you are glad to be reunited with mom.**



**China Lake was well represented at the 16 April christening of USNS William McLean. Seated in the same section with members of the McLean family and the ship's crewmembers were (l-r): NAWCWD Executive Director, Scott O'Neil; Former China Lake Technical Director, Bill Porter; and former department heads Jack Latimer and Paul Homer, and LCDR Chris Epp. Also attending, but not pictured, were CLMF President and Directors Bob and Alice Campbell, legendary scientists and engineers R.G.S. (Bud) Sewell, and Richard Demarco.**

**New Memberships received since Winter 2011 Newsletter:**

**Business Contributor Members (\$100.00 Annually)**

**Lifetime Members (\$1,000.00)**

Byrne, Robert A. & Patricia A. - Bakersfield CA  
Flora, Jan & Cornelia - Ames IA

**Contributor Members (\$100.00 Annually)**

RADM (Ret.) Maddock, Thomas S. & Caroline - Newport Beach CA  
Muse, Jim & Marie - Arlington VA

**Sponsor Members (\$33.00 Annually)**

Fallgatter, Jim & Cheryl - Ridgecrest CA

**Enlisted Military Members ("Free" from Sponsor Memberships)**

Moreno, David & Patricia - Ridgecrest CA  
Gifford, Calvin - China Lake CA  
Olander, Joeseeph P. & Maria - Ridgecrest CA

**Regular Members (\$25.00 Annually)**

Kelso, Raymond - Ridgecrest CA  
Scanlan, Line - Ridgecrest CA  
Hagenauer, Shelby - Arlington VA

---

THE VIEW OF THE FRONT OF THE MUSEUM HAS IMPROVED WITH THE  
MOVE OF THE  
A-6E TRAM INTRUDER TO THE SPOT PREVIOUSLY  
OCCUPIED BY THE SKYRAIDER





## **WILLS AND TRUSTS**

The China Lake Museum Foundation now has a process by which you can include consideration of the Museum as a part of your will or estate. It is a fairly simple and straight forward process which involves adding a sentence stating your attention to your will or trust with an appropriate witness (not a Foundation officer or staff member). Please consider providing a gift to the China Lake Museum Foundation in your will and/or estate. Gifts can include monetary (fixed dollar amounts or percentage of residuary estate), property items, artifacts. Tax benefits can be realized through the reduction of the size of your taxable estate. Family needs are met first. Special instructions can be stated. Otherwise the donation will be applied to the general fund, which can be used to support new facilities, exhibits, operations and education initiatives. If you have any questions, please call the Foundation office. The process was provided courtesy of the law office of Steve Boster.

---

### ***Commemorative—Memorial Brick Program***

The China Lake Museum Foundation has a brick purchase program. We have several donors who have purchased bricks as part of this program. We are currently working to place our first order and proceed with the display of the purchased brick at the Museum. The bricks are an excellent way of lasting recognition. They will be moved to the new museum once it is in place. Prices for the bricks are \$100 for a 4x8 brick with three lines of inscription. For \$250 one can purchase an 8x8 brick with more lines of inscription. Please contact the Museum Office for details.

---

### **100<sup>th</sup> Anniversary of Naval Aviation**

**The foundation and museum**

**Gift Shop**

**Now has Navy and Marine style**

**Caps and Polo Shirts**

**With**

**100<sup>th</sup> Anniversary of Naval Aviation**

**Patches**

**Stop by and get yours before they sell out!**

*From: Star Dusters Newsletter*

Retirees Affiliated With Lockheed Martin Leadership Association

MACH 3.18 IN-FLIGHT BREAKUP OF AN SR-71 BLACKBIRD

By Bill Weaver, Chief Test Pilot, Lockheed

Among professional aviators, there's a well-worn saying: Flying is simply hours of boredom punctuated by moments of stark terror. But I don't recall too many periods of boredom during my 30-year career with Lockheed, most of which was spent as a test pilot. By far, the most memorable flight occurred on Jan. 25, 1966 .

Jim Zwayer, a Lockheed flight-test specialist, and I were evaluating systems on an SR-71 Blackbird test from Edwards. We also were investigating procedures designed to reduce trim drag and improve high-Mach cruise performance. The latter involved flying with the center-of-gravity (CG) located further aft than normal, reducing the Blackbird's longitudinal stability.

We took off from Edwards at 11:20 a.m. and completed the mission's first leg without incident. After refueling from a KC-135 tanker, we turned eastbound, accelerated to a Mach 3.2 cruise speed and climbed to 78,000 ft., our initial cruise-climb altitude.

Several minutes into cruise, the right engine inlet's automatic control system malfunctioned, requiring a switch to manual control. The SR-71's inlet configuration was automatically adjusted during supersonic flight to decelerate airflow in the duct, slowing it to subsonic speed before reaching the engine's face. This was accomplished by the inlet's center-body spike translating aft, and by modulating the inlet's forward bypass doors.

Normally, these actions were scheduled automatically as a function of Mach number, positioning the normal shock wave (where air flow becomes subsonic) inside the inlet to ensure optimum engine performance. Without proper scheduling, disturbances inside the inlet could result in the shock wave being expelled forward - a phenomenon known as an "inlet unstart."

That causes an instantaneous loss of engine thrust, explosive banging noises and violent yawing of the aircraft, like being in a train wreck. Unstarts were not uncommon at that time in the SR-71's development, but a properly functioning system would recapture the shock wave and restore normal operation.

On the planned test profile, we entered a programmed 35-deg. bank turn to the right. An immediate unstart occurred on the right engine, forcing the aircraft to roll further right and start to pitch up. I jammed the control stick as far left and forward as it would go. No response. I instantly knew we were in for a wild ride. I attempted to tell Jim what was happening and to stay with the airplane until we reached a lower speed and altitude. I didn't think the chances of surviving an ejection at Mach 3.18 and 78,800 ft. were very good. However, g-forces built up so rapidly that my words came out garbled and unintelligible, as confirmed later by the cockpit voice recorder.

The cumulative effects of system malfunctions, reduced longitudinal stability, increased angle-of-attack in the turn, supersonic speed, high altitude and other factors imposed forces on the airframe that exceeded flight control authority and the stability augmentation system's ability to restore control. Everything seemed to unfold in slow motion. I learned later the time from event onset to catastrophic departure from controlled flight was only 2-3 seconds. Still trying to communicate with Jim, I blacked out, succumbing to extremely high g-forces.

Then the SR-71 literally disintegrated around us. From that point, I was just along for the ride. And my next recollection was a hazy thought that I was having a bad dream. —Maybe I'll wake up and get out of this mess, I mused. Gradually regaining consciousness, I realized this was no dream; it had really happened. That also was disturbing, because I COULD NOT HAVE SURVIVED what had just happened.

I must be dead. Since I didn't feel bad, - just a detached sense of euphoria- I decided being dead wasn't so bad after all. As full awareness took hold, I realized I was not dead. But somehow I had separated from the airplane. I had no idea how this could have happened; I hadn't initiated an ejection. The sound of rushing air and what sounded like straps flapping in the wind confirmed I was falling, but I couldn't see anything. My pressure suit's face plate had frozen over and I was staring at a layer of ice.

The pressure suit was inflated, so I knew an emergency oxygen cylinder in the seat kit attached to my parachute harness was functioning. It not only supplied breathing oxygen, but also pressurized the suit, preventing my blood from boiling at extremely high altitudes. I didn't appreciate it at the time, but the suit's pressurization had also provided physical protection from intense buffeting and g-forces. That inflated suit had become my own escape capsule.

My next concern was about stability and tumbling. Air density at high altitude is insufficient to resist a body's tumbling motions, and centrifugal forces high enough to cause physical injury could develop quickly. For that reason, the SR-71's parachute system was designed to automatically deploy a small-diameter stabilizing chute shortly after ejection and seat separation. Since I had not intentionally activated the ejection system--and assuming all automatic functions depended on a proper ejection sequence — it occurred to me the stabilizing chute may not have deployed.

However, I quickly determined I was falling vertically and not tumbling. The little chute must have deployed and was doing its job. Next concern: the main parachute, which was designed to open automatically at 15,000 ft. Again I had no assurance the automatic-opening function would work.

I couldn't ascertain my altitude because I still couldn't see through the iced-up faceplate. There was no way to know how long I had been blacked-out or how far I had fallen. I felt for the manual-activation D-ring on my chute harness, but with the suit inflated and my hands numbed by cold, I couldn't locate it. I decided I'd better open the faceplate, try to estimate my height above the ground, and then locate that "D" ring. Just as I reached for the faceplate, I felt the reassuring sudden deceleration of main-chute deployment.

I raised the frozen faceplate and discovered its uplatch was broken. Using one hand to hold that plate up, I saw I was descending through a clear, winter sky with unlimited visibility. I was greatly relieved to see Jim's parachute coming down about a quarter of a mile away. I didn't think either of us could have survived the aircraft's breakup, so seeing Jim had also escaped lifted my spirits incredibly.

I could also see burning wreckage on the ground a few miles from where we would land. The terrain didn't look at all inviting — a desolate, high plateau dotted with patches of snow and no signs of habitation.

I tried to rotate the parachute and look in other directions. But with one hand devoted to keeping the face plate up and both hands numb from high-altitude, subfreezing temperatures, I couldn't manipulate the risers enough to turn. Before the breakup, we'd started a turn in the New Mexico-Colorado-Oklahoma-Texas border region. The SR-71 had a turning radius of about 100 miles at that speed and altitude, so I wasn't even sure what state we were going to land in. But, because it was about 3:00 p.m. , I was certain we would be spending the night out here.

At about 300 ft. above the ground, I yanked the seat kit's release handle and made sure it was still tied to me by a long lanyard. Releasing the heavy kit ensured I wouldn't land with it attached to my derriere, which could break a leg or cause other injuries. I then tried to recall what survival items were in that kit, as well as techniques I had been taught in survival training.

Looking down, I was startled to see a fairly large animal – perhaps an antelope- directly under me. Evidently, it was just as startled as I was because it literally took off in a cloud of dust.

My first-ever parachute landing was pretty smooth. I landed on fairly soft ground, managing to avoid rocks, cacti and antelopes. My chute was still billowing in the wind, though. I struggled to collapse it with one hand, holding the still-frozen faceplate up with the other. "Can I help you?" a voice said. Was I hearing things? I must be hallucinating. Then I looked up and saw a guy walking toward me, wearing a cowboy hat. A helicopter was idling a short distance behind him. If I had been at Edwards and told the search-and-rescue unit that I was going to bail out over the Rogers Dry Lake at a particular time of day, a crew couldn't have gotten to me as fast as that cowboy-pilot had.

The gentleman was Albert Mitchell, Jr., owner of a huge cattle ranch in northeastern New Mexico and I had landed about 1.5 mi. from his ranch house--and from a hangar for his two-place Hughes helicopter. Amazed to see him, I replied I was having a little trouble with my chute. He walked over and collapsed the canopy, anchoring it with several rocks. He had seen Jim and me floating down and had radioed the New Mexico Highway Patrol, the Air Force and the nearest hospital.

Extracting myself from the parachute harness, I discovered the source of those flapping-strap noises heard on the way down. My seat belt and shoulder harness were still draped around me, attached and latched.

The lap belt had been shredded on each side of my hips, where the straps had fed through knurled adjustment rollers. The shoulder harness had shredded in a similar manner across my back. The ejection seat had never left the airplane. I had been ripped out of it by the extreme forces, with the seat belt and shoulder harness still fastened.

I also noted that one of the two lines that supplied oxygen to my pressure suit had come loose, and the other was barely hanging on. If that second line had become detached at high altitude, the deflated pressure suit wouldn't have provided any protection. I knew an oxygen supply was critical for breathing and suit-pressurization, but didn't appreciate how much physical protection an inflated pressure suit could provide.

That the suit could withstand forces sufficient to disintegrate an airplane and shred heavy nylon seat belts, yet leave me with only a few bruises and minor whiplash was impressive. I truly appreciated having my own little escape capsule. After helping me with the chute, Mitchell said he'd check on Jim. He climbed into his helicopter, flew a short distance away and returned about 10 minutes later with devastating news: Jim was dead. Apparently, he had suffered a broken neck during the aircraft's disintegration and was killed instantly. Mitchell said his ranch foreman would soon arrive to watch over Jim's body until the authorities arrived. I asked to see Jim and, after verifying there was nothing more that could be done, agreed to let Mitchell fly me to the Tucumcari hospital, about 60 mi. to the south.

I have vivid memories of that helicopter flight, as well. I didn't know much about rotorcraft, but I knew a lot about "red lines," and Mitchell kept the airspeed at or above red line all the way. The little helicopter vibrated and shook a lot more than I thought it should have. I tried to reassure the cowboy-pilot I was feeling OK; there was no need to rush. But since he'd notified the hospital staff that we were inbound, he insisted we get there as soon as possible. I couldn't help but think how ironic it would be to have survived one disaster only to be done in by the helicopter that had come to my rescue. However, we made it to the hospital safely--and quickly. Soon, I was able to contact Lockheed's flight test office at Edwards. The test team there had been notified initially about the loss of radio and radar contact, then been told the aircraft had been lost. They also knew what our flight conditions had been at the time, and assumed no one could have survived. I explained what had happened, describing in fairly accurate detail the flight conditions prior to breakup. The next day, our flight profile was duplicated on the SR-71 flight simulator at Beale AFB, Calif. The outcome was identical. Steps were immediately taken to prevent a recurrence of our accident. Testing at a CG aft of normal limits was discontinued, and trim-drag issues were subsequently resolved via aerodynamic means. The inlet control system was continuously improved and, with subsequent development of the Digital Automatic Flight and Inlet Control System, inlet unstarts became rare.

Investigation of our accident revealed that the nose section of the aircraft had broken off aft of the rear cockpit and crashed about 10 miles from the main wreckage. Parts were scattered over an area approximately 15 miles long and 10 miles wide. Extremely high air loads and g-forces, both positive and negative, had literally ripped Jim and me from the airplane. Unbelievably good luck is the only explanation for my escaping relatively unscathed from that disintegrating aircraft.

Two weeks after the accident, I was back in an SR-71, flying the first sortie on a brand-new bird at Lockheed's Palmdale, Calif. assembly and test facility. It was my first flight since the accident, so a flight test engineer in the back seat was probably a little apprehensive about my state of mind and confidence.

As we roared down the runway and lifted off, I heard an anxious voice over the intercom. "Bill! Bill! Are you there?"

"Yeah, George. What's the matter?"

"Thank God! I thought you might have left!!"

The rear cockpit of the SR-71 has no forward visibility--only a small window on each side--and George couldn't see me.

A big red light on the master-warning panel in the rear cockpit had illuminated just as we rotated, stating:

"Pilot Ejected!" Fortunately, the cause was a misadjusted micro switch, not my departure.



**Celebrating 100 years of Naval Aviation**

# 2011 Share the Dream



*The U.S. Naval Museum of Armament and Technology*

## ELEVENTH ANNUAL DINNER~AUCTION~MUSEUM FUNDRAISER

**Saturday June 4, 2011**

**Kerr McGee Center**

100 West California Avenue  
Ridgecrest, California

**5:00 pm - Cocktails - Start Silent Auction**

**6:30 pm - Dinner catered by Farris'**

**7:30 pm - Welcome and Live Auction**

Desert Casual    Raffle    Cash Bar

**Tickets \$30 per person**

Last day for ticket sales 5/28/11

Seating request available

Event Sponsorship Options:

**\$1500 Corporate Table / \$1000 Family/Small Business / \$250 Sponsorship**

**FOR TICKETS:** Call the Foundation at 760-939-3530 for information. Order by mail at the China Lake Museum Foundation, P.O. Box 217, Ridgecrest, CA 93556. Tickets can be purchased at the U. S. Naval Museum of Armament and Technology gift shop, One Pearl Harbor Way, Naval Air Weapons Station, China Lake, CA 93555 or the Ridgecrest Chamber of Commerce located at 128-B East California Avenue, Ridgecrest, CA 93555. Website: <http://www.chinalakemuseum.org/index.htm>



**Auction  
Items Greatly  
Appreciated**

**New Members  
Always Welcome**

**Sponsor Members (\$33.00 Annually)**  
Berry, Kristin Highberg - Riverside CA

**Enlisted Military Members ("Free" from Sponsor Memberships)**

Burchiel, James - Ridgecrest CA  
Morgan, Christopher & Brandi - Ridgecrest CA  
Pugliese, Charles & Meagan

**Regular Members (\$25.00 Annually)**

Benton, Mike & Alice - Ridgecrest CA  
Bonds, Susan - Pasadena CA  
Braithwaite, Moyle & Dianne - Ridgecrest CA  
Browne, Thomas E. - Ridgecrest CA  
Edwards, Hugh & Cynthia - Ridgecrest CA  
Frazier, Robert & Shandon - Randsburg CA  
Hennings, George & Elsa - Ridgecrest CA  
Hinz, Andrew & Linda - Grass Valley CA  
Kraay, Earl & Carol - Ridgecrest CA  
LaBonte, Lela H. - Inyokern CA

McCord, Richard - Ridgecrest CA  
McLean, Mark & Meredith - Ridgecrest CA  
Middlemiss, Terri & Edward - Inyokern CA  
Pugsley, Brett & Amber - Ridgecrest CA  
Ripley-Lotee, Deanna & Mike - Ridgecrest CA  
Rockwell, Kurt & Kathy - Ridgecrest CA  
Rumpp, Robert & Dorothy - Ridgecrest CA  
Sefel, Edward & Brandy - Ridgecrest CA  
Turnbull, Bill & Paulette - Inyokern CA

The China Laker

Winter 2011

***Thank You 2010 Business Donors  
Please Support our Business Donors***

<p><b><u>**Platinum Plus Donor**</u></b> <b><u>(\$10,000-\$14,999)</u></b></p> <p><b>Kern County Board of Trade</b></p> <p><b>Raytheon</b></p>	<p><b><u>*Platinum Donor*</u></b> (\$5,000-\$9,999)</p> <p><b>City of Ridgecrest</b></p> <p><b>Carriage Inn</b></p> <p><b>IWV 2000</b></p>
<p><b><u>Gold Donor</u></b> (\$3,000 - \$4,999)</p> <p><b>Jewelry To Go</b></p> <p><b>Jacobs Naval Systems Group</b></p>	<p><b>NDTI New Direction Technologies &amp; Ravensgate Sonic Water Level Meters</b></p>

<p><b><u>Silver Donor (\$1,000 - \$2,999)</u></b></p> <p>Alta One Federal Credit Union  Anonymous  Alliant Tech Systems - ATK  Barnhart, Inc. Construction  Booz Allen Hamilton  Computer Sciences Corporation  Country Feed Barn  Custom Wine Services  DCS Corporation  Edward Jones Investments - Avalos  Firequick Products</p>	<p>Lockheed Martin Services  Congressman Kevin McCarthy  Synectic Solutions  Systems Application &amp; Technologies, Inc. - SA-TECH  Sears Authorized Dealer  Solar Millennium  TOSS &amp; Servicemaster  United Way &amp; Combined Federal Campaign  Wyle Labs</p>
---	---

The China Laker

Winter 2011

<p><b><u>Bronze Donor (\$500 - \$999)</u></b></p> <p>C. Martin Company  Charlotte Freeman, Quilter  Furnace Creek Lodge, Death Valley  JP Gorman Metal Fabrication  Mammoth Mountain  MIL Corporation  Ridgecrest Moving &amp; Storage</p>	<p>Saalex Solutions  T&amp;T Alignment  Tejon Ranch Company  The Boeing Company, NAS Lemoore  Town &amp; Country Resort Hotel, San Diego  Valley Fence Co.  WACOM Thrift Shop  Wal-Mart</p>
--	---

<p><b><u>Friend (\$200 - \$499)</u></b></p> <p>Aegir Systems  Aguabonita Flyfishers  Betty Spindler Ceramics  Bishop Country Club  Coldwell Banker Best Realty  Digital Consulting Service  Frey's Gunshop  Assemblywoman Jean Fuller</p>	<p>Guns 4 Us  Lois Hinman, Painter &amp; Potter  IWV Insurance  Mammoth Snowcreek Golf Course  Merrie Giles Inlaid Glass  Neely Accountancy  Packwrap Business Center &amp; Boster Law Office  Southern Sierra Medical Clinic  Windows, Walls, 'N Floors</p>
---	--

<p><b><u>Business Contributor (\$10-\$199)</u></b></p>	
--	--

<b>AIM Gifts</b> <b>Roy Ashburn, California Senator</b> <b>Bank of America</b> <b>Baxendale's</b> <b>Beansters/Pizza Factory</b> <b>Body &amp; Bath Boutique</b> <b>Botany's Desire</b> <b>Bud Eyre Chevrolet Toyota</b> <b>Center Pharmacy</b> <b>Damiano's Notary Service</b> <b>DART</b> <b>Dave Pearson's Recycling</b> <b>Davis Instruments</b> <b>Desert Valleys Federal Credit Union</b> <b>Earth Landscaping &amp; Maintenance</b> <b>Farris' Diner &amp; Ashley Furniture</b> <b>Indian Wells Brewing Co.</b> <b>JW Enterprises</b> <b>Dr. Daniel Kus DDS</b> <b>Lori Lopez Custom Jewelry</b>	<b>Maddy's Cottage Fine Dining</b> <b>Mather Brothers</b> <b>McDonald's, Sierra II, Ridgecrest</b> <b>Jon McQuiston, Kern County Supervisor</b> <b>Merle Norman Cosmetic Studio</b> <b>Michael's Fine Jewelry</b> <b>Mickey's Pub &amp; Grill</b> <b>Mojave Air &amp; Space Port</b> <b>My Enchanted Cottage</b> <b>Mystique Chef</b> <b>Nelson's Automotive Inc.</b> <b>Party Lite Candles</b> <b>Ridgecrest Area Convention &amp; Visitors Bureau</b> <b>Searles Valley Minerals</b> <b>Sierra Soaring</b> <b>Starbucks</b> <b>Studio Eight</b> <b>Teresa's Ridgecrest Auto Body</b> <b>The Flower Shoppe Gift Express</b> <b>Tommy T's</b> <b>Treasures To Cherish</b>
--	---

## WHALE OF A TALE

A little bit of naval history, what is called a genuine "sea story", is in this tale. It is very serious stuff but, also, is on the funny side. The Soviet Union used the AGI trawlers as intelligence collectors mainly in the signals intelligence and electronic intelligence collection activities around the world. Part of their intelligence mission tasking was to maintain close surveillance on U.S. Navy and allied nation naval activities and, wherever possible, harass those activities or create some sort of an international incident that would embarrass their target ships. In the Vietnam war their mission was mostly to collect intelligence and also to alert the North Vietnamese that U.S. Navy aircraft were launching and heading toward a target within Vietnam. Thus, the Vietnamese could activate their fire control radar and anti-air missile batteries, etc., and assume defensive measures. In the below incident the soviet trawler created a very hazardous situation for the naval fuel tanker pilot trying to land and he responded...very well.

Excellent "Sea Story!"  
Vietnam 1967, A Whale Tale

The Russian "trawlers" (Russian AGI) with what looked like one thousand "fishing" antennas plied the Gulf of Tonkin on a daily basis...needless to say, it was a cat and mouse game to see what havoc they could expend towards our two carriers operating there 24 hours a day.

Since the U.S. government had proclaimed the waters of the Gulf of Tonkin three miles off the coast of North Vietnam and Hainan Island, People's Republic of China, to be international waters, American ships in the Gulf were bound to obey the international rules of the road for ocean navigation. This meant that if the Russian ship maneuvered herself into the path of an aircraft carrier where said Russian ship had the right of way, the carrier had to give



way even if she was engaged in launching or recovering aircraft. The navigation officer was constantly trying to maneuver the ship so that the trawler wouldn't be able to get in position to abuse the rules of the road and gain the right of way. Sometimes he was successful in sucking the trawler out of position, but the room available for the ship to maneuver was limited by our on-station requirements, and sometimes the trawler was successful in interrupting our flight operations. The pilots of the air wing were strictly forbidden to take any action against the Russian ship, but on this day CDR John Wunche, the commanding officer of the heavy tanker KA-3B detachment, had finally had enough of the Russians' antics.

John Wunche was a big man with bright red hair and a flaming red handlebar mustache. He was a frustrated fighter pilot whom fate and the Bureau of Naval Personnel had put into the cockpit of a former heavy bomber now employed as a carrier-based tanker. CDR Wunche flew the tanker like a fighter and frequently delighted the tactical pilots by rolling the "Whale," as we all called the KA-3B tanker, on completion of a tanker mission. Consequently John's nickname was "The Red Baron." On 21 July 1967 he proved just how appropriate that name was.

The China Laker

Winter 2011

The "Bonnie Dick" had nearly completed a recovery. The Russian trawler had been steaming at full speed to try to cut across our bow, and the bridge watch had been keeping a wary eye on the intruder. For a while it looked as if the Russian would be too late, and we would finish the recovery before having to give way to the trawler. But a couple of untimely bolters extended the recovery time, and the Bon Homme Richard had to back down and change course to comply with the rules. The LSO hit the wave-off lights when the "Whale" was just a few yards from the ramp. John crammed on full power and sucked up the speed brakes for the go-around. The "Bonnie Dick" began a sharp right turn to pass behind the Russian, causing the ship to list steeply, and there, dead ahead of John, was the Russian trawler. He couldn't resist. He leveled the "Whale" about a hundred feet off the water and roared across the mast of the trawler with all fuel dumps open like a crop duster spraying a field of boll weevils. The Russian disappeared in a heavy white cloud of jet fuel spray then reemerged with JP-4 jet fuel glistening from her superstructure and running lip-full in the scuppers. The Russian trawler immediately lost power as the ship's crew frantically tried to shut down anything that might generate a spark and ignite the fuel.

She was rolling dead in the water in the Bon Homme Richard's wake, the crew breaking out fire hoses to wash down the fuel, as we steamed out of sight completing the recovery of the Whale. The Red Baron was an instant hero to the entire ship's company.

### ***Commemorative—Memorial Brick Program***

The China Lake Museum Foundation has a brick purchase program. We have several donors who have purchased bricks as part of this program. We are currently working to place our first order and proceed with the display of the purchased brick at the Museum. The bricks are an excellent way of lasting recognition. They will be moved to the new museum once it is in place. Prices for the bricks are \$100 for a 4x8 brick with three lines of inscription. For \$250 one can purchase an 8x8 brick with more lines of inscription. Please contact the Museum Office for details.

---

#### IRA CHARITABLE ROLLOVER RENEWED

---

**Please distribute this notice to all your friends, relatives, and colleagues potentially interested in taking advantage of this opportunity to contribute to the China Lake Museum Foundation. A donation of \$1,000.00 gains a life time membership in the Foundation.**

#### Are You Ready for a New IRA Charitable Rollover Season?

IRA charitable rollovers are back! When President Obama signed H.R. 4853 into law on December 17, 2010, IRA charitable rollovers were extended retroactively from January 1, 2010 through December 31, 2011. IRA owners age 70½ or older once again have opportunities to make direct, tax-free transfers to charity—up to \$100,000 in both 2010 and 2011.

**Scoring:** People 70½ and older can take advantage of this opportunity to transfer up to \$100,000 tax-free from their IRA accounts to qualified charities before January 31, 2011 and still have these dollars count in their 2010 income tax returns. And, they can give up to \$100,000 again before December 31, 2011 by doing the following:

- Transferring the money directly from their IRA accounts to charitable organizations.
- Understanding that transfers can be designated for a field of interest (e.g., scholarships, medical research, conservation project, performing arts program) at qualified charitable organizations.
- Remembering that such transfers can be used to fulfill documented pledges.
- Recognizing that such IRA charitable rollovers will qualify—in part or in whole—for the yearly required minimum distributions for persons age 70½ and older.
- Understanding that, while IRA owners cannot take an income tax deduction for this transfer, neither will they have to realize it as taxable income.

**Line Ups:** Persons age 70½ and older with IRAs who are likely prospects for IRA charitable rollovers in 2010 and/or in

2011 include those who:

- Have not taken their required withdrawals yet 2010 and, therefore, can use the IRA charitable rollover to fulfill some or all of their 2010 required minimum distribution.
- Are already making gifts at or close to 50% of their adjusted gross incomes (the maximum permissible level for cash gifts each year) and, therefore, can make “over and above” gifts from their IRAs.
- Want to make larger gifts now than possible if they used other assets.
- Are Social Security recipients whose IRA withdrawals (when combined with other income) mean their incomes will exceed Social Security levels at which income may be subject to tax.
- Do not have sufficient amounts of income tax deductions to itemize (frequently because they no longer have mortgage interest deductions) and, therefore, are using the standard deduction.

**Game Plans:** Winning strategies and game plans include:

**Winning:** Donors who take advantage of the IRA charitable rollover provision can win by:

- Reducing assets in their IRA accounts that can be highly

taxed at death.

- Making meaningful—including larger—outright gifts to their favorite charities.
- Seeing their gifts impact their charities' mission and results now.

**Charities that move ahead now to communicate this opportunity can win by:**

- Increasing dollars available for current operations when donors use some or all of their required minimum IRA distributions to increase their annual gifts.
- Building endowments when donors transfer up to \$100,000 of their eligible IRA assets to charitable organizations and designate them for permanently endowed funds.
- Helping fund important building and facility projects.

### Al Berryman Obituary



Allyn R. Berryman 1928-2011

Allyn R. Berryman, known affectionately to his close friends as Owl, started life in 1928 in Chicago with parents Harry and Julia Berryman. He had one sister, Carole Amos, now deceased. Even at that young age he exhibited a quest for knowledge and a spirit of adventure. He loved airplanes and had a scrapbook of every article he could find about flying. This love of flying was inspired by his father who was a pilot and had his own airplane in the early days of flying. He also loved everything mechanical and worked in a garage while in high school. As soon as he was old enough he enlisted in the Navy in the closing days of World War II and served on the cruiser Columbia. He had developed a fascination for electronics and went to school to complete his technical degree at DeForest (predecessor to DeVry) in Chicago. Soon after graduation he received a mimeographed postcard that he was being called back to

active duty for the Korean War. Thinking it was a joke from his friends who knew he was ready to embark on his electronics career, he almost ignored it. It turned out to be legitimate, and soon he was back in the Navy. He served for two years aboard the Lyman K. Swenson as an Electronics Technician in combat duty off the coast of Korea.

When he reported at the Great Lakes Training Center when he was called back into active duty, it was in the dead of the Chicago winter and was freezing cold. Shortly thereafter he was sent to San Diego to report to his assigned ship. A shipmate who was from San Diego took him out water skiing, using their Navy issue long underwear for wetsuits. The contrast between freezing in Chicago and water-skiing in San Diego was not lost on Al and he decided then that he would not return to Chicago.

When his service was completed in 1952, he disembarked from his ship at San Diego to be greeted by recruiters from China Lake (that mysterious, isolated Navy base in a remote part of the Mojave Desert) seeking talented electronic technicians to join a very special group of scientists, engineers and technicians who were oriented towards problem solving. The recruiters found a person who was ripe for a new life in a warm climate. He was discharged with one of his buddies and they both decided to go up to this new place temporarily while looking around for other opportunities. As happened with many people who came to China Lake with this idea, he quickly became absorbed in the fascinating work and quickly forgot about looking elsewhere. He was very talented and creative and his "can do" attitude, special training, and sense of adventure fit right in with the early days of the China Lake culture and led him to participate in many exciting and worthwhile programs. A phrase associated with him is "I can do it!"

Early in his career he designed and built a very sensitive geophone instrumentation system to detect extremely small earth disturbances associated with the testing of a ground penetrator weapon. He then designed a large two way radio communications system that provided the primary China Lake test range communications for over twenty years.

His reputation as an innovative electronic designer spread and he was invited to work on one of Bill McLean's special projects, the Moray submersible. This goal of this project was a proof of concept for a small fast two man maneuverable submersible which could be launched by a large submarine to attack an enemy sub. Al was involved with the instrumentation and controls and developed an autopilot that allowed stable high speed underwater runs. This was a difficult problem because of the vehicle dynamics. He was a pilot and designed the system so that it could be flown like an airplane rather than controlled like a traditional submarine. Al was selected as the only civilian pilot of Moray and was the pilot on many of the test runs including the first, and the very memorable last one, when the battery compartment exploded and sent Moray to the bottom of the ocean. This was one of many close calls Al had during his life. He survived them all primarily because of his extraordinary skill and ability to think clearly under pressure.

During his submersible career he also worked on another China Lake submersible, Deep Jeep. In 1966, he participated in the search and recovery of an H-Bomb that was lost in the sea when a B-52 G collided with its tanker while refueling off the coast of Spain. For this work he received the Meritorious Civilian Service Award. (Yes, the world of soaring is a small world – United States Soaring Hall of Fame member Charlie Spratt also was involved in the retrieval of that bomb although the two never met.)

His flying and electronics skills combined again when he was recruited to work on an experimental weather modification program. He designed and outfitted a turbo charged Cessna 210 with avionics and special instrumentation for this task, and flew as pilot in command on many of the cloud seeding operations.

For the last 20 years of his career he was the Hardware Group Leader in the Simulation Laboratory, doing hardware-in-the-loop testing on many of China Lake's missile programs. He was an integral part of the evolution of the Simlab from analog computers to all-digital systems.

In retirement he continued to do many electronic design projects from his home, including commercial projects and just fun projects for his friends. Most recently and notable was an elaborate data collection and monitoring system for a close friend's twin diesel powered boat. He loved projects of all kinds and not happy unless he had quite a few going. Another of his interests was welding and metal work. He took all the welding classes that the college had to offer. This resulted in the construction of many more great projects for his friends, including 13 beautiful ornamental iron and redwood benches, which are highly prized by the recipients.

His private flying career paralleled his China Lake career. Al achieved his dream of learning to fly shortly after he arrived at China Lake in 1952. Over the years, he owned many airplanes, alone and in partnership. He soon earned his instructor's credentials and became known as one of the best instructors in the area. In the mid-'50s he was attracted to soaring and checked out in sailplanes at the famed soaring site of El Mirage in the California desert. The international aviation sporting organization has established several goals for advancement in the art of soaring but Al's obstinate determination and perseverance in trying new approaches inspired him to seek the altitude portion of these goals in an airplane rather than a sailplane. He devised a technique of rigging the barograph (pressure altitude measurement) to the engine of his Cessna 170B and launched himself into the Sierra Wave. At the appropriate time he cut the engine and soared to high enough heights to achieve the altitude gain goals of 1000 meters (3281 feet) and 3000 meters (9842 feet). However, the cold air aloft meant the engine would not re-start – necessitating a no-power landing back at the airport. In addition to the difficulty of the flight, he had the task of convincing the overseers of the accomplishment that the mark should be recognized. He succeeded. However, the recording barograph system failed on another flight when he soared his Cessna 170 from 6000 ft to 33,000 ft., so that achievement was never recognized. On that flight he landed dead stick at the old Davis Airport after dark in high winds, an amazing accomplishment.

His love of soaring grew and soon he joined with three others to take over the Sierra Soaring operation at Inyokern, California (still existing today under new ownership and organization). It was at that time that he purchased a Libelle sailplane as did his long time friend and companion BJ. Together they ran a very successful training operation and, in addition, competed with each other for soaring records. One of Al's records was a 100 kilometer triangle speed record of 75 mph in a Sports Class two-place with another Sierra Soaring pilot.

His next series of adventures involved the sports of bicycling and hiking, which he enjoyed all over the United States and the world. It was during this time that his wry and mischievous humor was

---

The China Laker Winter 2011

often demonstrated. For example, on the second day of a week-long bike tour near the coast of California, some curious observers asked where the group had started. Al, embarrassed to admit that he had just started a day ago, quickly replied with a perfectly straight face - "Fairbanks." His bicycling friends were trying to think of ways to gracefully exit the scene when the now impressed but still curious bystanders asked where he was going. The immediate reply – "Mexico City." Someday you may hear tales of an adventurous group bicycling from Alaska to Mexico.

Maybe you ask – how did he get the name Owl? We can attribute this to young Brian Wiley, who at an early age, misunderstood the pronunciation of his name. To the great amusement and delight of his friends the name stuck, and he came to very much enjoy the name also.

Al's accomplishments and adventures are too numerous to be fully recounted here but he will be remembered by all his friends as a thoughtful but mischievous person with daring tendencies and innovative ideas – but always persevering to accomplish his goals. As he expressed during his last difficult year – "I had a great life." He left us on January 15, 2011 having accomplished what we all desire – an exciting, productive and worthwhile time on this earth.

He leaves his close friend and longtime companion BJ Holden, stepsons Mike and Joel Cash, and his many, many dear friends.

Donations can be made to:  
"In Memory of Allyn Berryman"  
China Lake Museum Foundation  
PO Box 217  
Ridgecrest, CA 93556

---

**BERTHA RYAN  
AUTHORS NEW BOOK**

**The Soaring Society of America  
Announces the Publication of *Soaring Beyond the Clouds*,**

## ***Einar Enevoldson Reaches for 100,000 Feet***

**Hobbs, New Mexico, November 29, 2010**

Author Bertha Ryan, covers the life of Einar Enevoldson from his childhood determination to fly to his life as a pilot soaring above the earth in every type of aircraft imaginable. Einar Enevoldson is forever connected to the world record altitude flight he and Steve Fossett made to about 51,000 feet, but that is just one of his amazing flights. Recovery from a flat spin while testing an F-14 and his land-out in an F-104 are just two of the “interesting” moments described. This book covers the challenges Enevoldson faced as a glider pilot, Air Force pilot, and NASA research test pilot.

Ryan, an aerospace engineer who has known Enevoldson since the 1950s, fills the pages with fascinating background material that shows Enevoldson’s connection to the people who propelled US aeronautical advancements.

This book handles the complexities of the aviation design, flight characteristics and aviation weather in a way that both the general reader and an aeronautical expert will find satisfying. The information about such phenomena as the Stratospheric Polar Night Jet reminds us of the challenging conditions Enevoldson had to consider. With lots of

---

The China Laker

Winter 2011

pictures as well as additional materials provided in the appendix, it is an excellent resource for all interested in aviation, science and human exploration.

It is an honor for the Soaring Society of America to have an opportunity to publish this book. We believe that it will inspire young students to set their sights on a career in aviation. The narrative of a person with determination and skill is one that can awaken in each of us a possibility of a limitless future. James Payne, Northrop's Global Hawk Flight Test manager and retired Air Force Test Pilot said, “Until I read *Soaring Beyond the Clouds*, I did not realize the breadth and depth of his experience. Anyone interested in NASA flight tests or soaring will enjoy this chronicle of Einar’s exploits.”

The author, Bertha Ryan, an aerospace engineer and commercial pilot, earned her undergraduate degree in mathematics at Emmanuel College in Boston and then a master's degree in aerodynamics at MIT. She moved west to work for Douglas Aircraft, then NASA at Edwards until finding a home with the Navy at China Lake. Retiring to neighboring Ridgecrest, California, Ryan has now turned her attention to writing, first publishing in several national general aviation magazines and now the book.

Her honors include the FAI Pelagia Medal (the first American to be so honored), the SSA Eaton Trophy, the SSA Schweizer Lifetime Service Award, and AIAA Associate Fellow. She is a member of the US Soaring Hall of Fame. Ryan is the perfect pilot to take the reader for a ride through aviation history.

To purchase ***Soaring Beyond the Clouds***, please contact the China Lake Museum gift shop at 760-939-3530, or visit the Museum.

---

---

---

# PAVEKNIFE

## The First Navy Combat Use of the Airborne Laser Designator

by *RADM Robert S. Owens, USN (Ret.)*

In mid-January 1973, I was as much surprised as pleased to receive this message from the Commander-in-Chief of the Pacific Fleet:

"FM CINCPACFLT

TO CTU SEVEN SEVEN PT SEVEN PT ONE

WELL DONE

1. I HAVE JUST REVIEWED YOUR HIGHLY SUCCESSFUL DAY OF BRIDGE BUSTING ON THE 15TH. THE DESTRUCTION OF 14 BRIDGES OF THE 15 ASSIGNED IS INDICATIVE OF A HIGH DEGREE OF EXPERTISE AND PROFESSIONALISM. THE CREWS OF BOTH DESIGNATOR AND DELIVERY AIRCRAFT HAVE PROVIDED US WITH A REMARKABLE DEMONSTRATION OF PAVEKNIVE/LGB WEAPON SYSTEM EFFECTIVENESS.

The China Laker

Winter 2011

2. PLEASE CONVEY MY PERSONAL CONGRATULATIONS TO THE CREWS OF THE A6'S AND A7'S INVOLVED FOR THEIR OUTSTANDING PERFORMANCE. , WELL DONE.

ADMIRAL B.A CLAREY, COMMANDER IN CHIEF US PACIFIC FLEET.

Many may be unaware of the excellent guided bomb delivery system which provided the wherewithal to gain the success to merit the above message. This article will tell the story.

### Getting Started

Attack Squadron 145 was assigned to *USS Ranger* as a part of Carrier Air Wing Two. The ship was undergoing overhaul at Bremerton and the Air Wing was engaged in shore based training in preparation for SEASIA deployment in October 1972.

In the spring of 1972, President Nixon ordered a stepped up bombing effort to encourage the North Vietnamese leaders to reach an end-the-war settlement and get our POWs home. Efforts throughout the Navy were emphasizing a maximum effort in support of the new Linebacker II bombing campaign.

During the early Spring 1972, NAVAIRSYSCOM and OPNAV representatives identified the U.S. Air Force PAVEKNIFE Airborne Laser Designator as a system which could be incorporated into the A-6A Intruder aircraft. The PAVEKNIFE pod, loaded on a tactical aircraft's armament station, housed the laser electronics, a low-light TV camera and electronics stabilization. The A-6A installation included a TV screen in the cockpit for the B/N's use and the necessary hand-held controls to operate the system. The PAVEKNIFE system enabled an equipment operator to illuminate a target with laser energy. Target tracking functionality allowed the delivery aircraft complete freedom to reach an optimum bomb release position. Laser guided bomb (LGB) guidance sensors



detected the laser energy reflected from the target and provided precise guidance to any selected target. The Air Force employed this system on F-4C's, operating out of Thailand, to knock down the very durable Than Hoa bridge during a previous bombing emphasis. In addition, the Air Force successfully used PAVEKNIFE in the Hanoi area to achieve "surgical strikes" on high priority targets.

The PAVEKNIFE had an optical recording system which replayed the video seen during a bombing attack and could also be used to assess the PAVEKNIFE's own bomb damage as the aircraft was leaving its target after an attack. There was an audio track on the tape which also flawlessly recorded the aircrew's conversations during the attack. Later playing the tape recording of the bombing attack in Air Intelligence for bomb damage assessment (BDA) was an early success of the PAVEKNIFE.

The production schedule to install the PAVEKNIFE system on the A-6A was very tight. The initial contract turn-on occurred by telephone during March, 1972 specifying a deployable system aboard *Ranger* for her October departure. This six-month timeframe included all the requirements to make a Navy PAVEKNIFE ready for the rigorous at-sea combat environment expected. Three A-6A aircraft were configured, three crews trained, a space was carved out of the limited area aboard *Ranger* for pod storage and maintenance, technicians schooled, test equipment positioned aboard, spares loaded, a highly capable contractor technical representative hired (Bill Rohrer from Philco-Ford) and OPEVAL were all conducted prior to the ship's departure for WestPac. A minor miracle!

The *Ranger* arrived off South Vietnam December 8, 1972 for several days of Air Wing operations to polish the skills of the many players who would make the PAVEKNIFE Ship/Air Wing team perfect. This period provided a practice period for the aircraft crews to sharpen their performance, the ordnance men to determine optimum

The China Laker

Winter 2011

procedures for Laser Guided Bomb handling and loading, and to make RADM Wes McDonald's CarDiv 3 staff aware of the excellent capabilities inherent in the PAVEKNIFE system. A typical day's Air Plan scheduled one or two sorties for the PAVEKNIFE aircraft against specific targets in South Vietnam. Usually our target assignments included attacks on stream crossings, suspected troops in jungle locations, suspected truck parks or other equally non-challenging targets.

The flights in South Vietnam allowed the squadron to train additional aircrews in the operation of the PAVEKNIFE system. Actually, it was very easy to use, and two hops were normally enough to teach the necessary skills for attacking a target with an LGB. The target videos collected were invaluable in devising attack techniques, assessing bomb damage and, primarily; demonstrating the highly accurate, versatile system which we had acquired. A concept of "one bomb, one bridge" took shape in our minds as *Ranger* moved north.

### ***A Fortunate Decision***

My choice to head up the squadron's PAVEKNIFE introduction was LCDR Pat Cornelius, the VA-145 Operations Officer. Pat previously completed tours with VX-5, VA-35 and the A-6 RAG. He was an outstanding, combat-experienced Naval Aviator. In addition, Pat and I selected as his assistants two naval flight officers, LTJG Harry A. "Bud" Jupin and LTJG Robert K. "Slick" Champney who were showing early promise as extremely capable naval flight officers.

Pat organized the OPEVAL with typical effectiveness. Easily meeting the various requirements of the evaluation, cooperation among the myriad players was the order of the day. Representatives from OpNav, NavAirSysCom, ComNavAirPac, Naval Weapons Center, USS *Ranger* and contractor Philco-Ford combined efforts to provide the PAVEKNIFE to the *Ranger* on time for the combat deployment.

Pat and I flew the OPEVAL sorties with "Slick" and "Bud" as the laser designator operators. The actual flight experience with PAVEKNIFE was somewhat anticlimactic. The laser guided bombs continued to impact the target within the lethal fireball radius. With a CEP of five feet achieved during OPEVAL, we were convinced the Navy PAVEKNIFE would contribute in a large way to our upcoming combat tour off North Vietnam.

On *Ranger's* arrival off South Vietnam, LCDR Louis "Tim" Thomassy and LTJG Todd Cleland were trained to operate the PAVEKNIFE. These two airmen proved exceptionally alert and eagle-eyed when it came to employing the system to its utmost. Later on, Tim and Todd were on an Alpha strike in the Hanoi area. The weather was not cooperative and the Strike Leader ordered the strike aborted. Their bomb load was two 2,000-pound LDGP LGB's and they were carrying the PAVEKNIFE pod. In case of a weather abort, the strike leader briefed to select targets of opportunity in the Vinh area.

Tim and Todd navigated to the area and coasting in at about 18,000 feet, they decided to start down the river and see if they could see anything worth the bombs they carried. Todd visually spied a truck racing along a narrow road. Tim picked up the truck and noticed that out ahead of it was a bridge. They quickly prepared to take the truck and the bridge under attack with an LGB! A twofer.

Tim pulled the aircraft into a 4g turn toward the dive line holding the nose on the horizon as he approached the attack heading. Pulling the nose down toward the target, he rolled wings level toward the target in a fifty-degree dive. As he positioned the target at the 210 mil lead line on his bombsight, he called to Todd, "*Target.*" Todd observed the target move into view near the aiming reticle on his TV display. He toggled the switch on his controller to un-cage the TV camera in the PAVEKNIFE and reported "*Target Tracking.*" Todd manually, and with rate-aiding tracking provided by the electronics, maintained the aiming reticle on the bridge target.

The China Laker

Winter 2011

The delivery procedure required that Tim report to Todd when he was tracking toward a release point. When Tim did this, Todd switched on the laser transmitter. The system would now transmit laser energy onto the target. The reflection of this energy enabled the laser seeker on the front of the LGB to guide in on the laser energy maintained on the target by the bombardier. The system made a tape recording of all video seen through the TV and audio on the aircraft communications systems.

Todd reported "*Lasing*" which was Tim's final check before bomb release. Tim flew the plane to a point where the bomb would attain a ballistic trajectory impact on the target. The LGB guidance package ensured an accurate impact on target. In combat, enemy defensive pressures may cause pilots to achieve less accurate deliveries than experienced on stateside bombing ranges. This was the value of the PAVEKNIFE. The bomb only needed release in an elliptical cone or "basket" with an approximate radius of 2,500 feet at the release altitude and centered on the target at the bottom. The energy imparted by the delivery aircraft and the bomb's flight control system would fly the weapon to the reflected laser energy on the actual target aim point.

Tim rechecked his airspeed at 500+ knots true and his dive angle at 50 degrees. The altimeter was passing 11,000 feet. He watched through the bombsight as the target tracked toward the bomb release point. He pushed the bomb release button passing 10,000 feet when the target touched his bombsight aiming diamond. He pulled the stick back to start a 4g recovery and reported "*Bomb's Away*" to the B/N. Todd concentrated on maintaining the aiming reticle on the center of the bridge as Tim pulled the aircraft up and started a turn away from the dive line. Todd glimpsed the bomb appear in the TV display field of view just before impact. After the explosion, Todd maintained the reticle on the target area to collect his BDA. As the smoke blew away, Todd saw the bridge was gone and a large crater was rapidly filling with water. They returned to the ship and proceeded to IOIC to make their report.

Meanwhile, at an All Officer's Meeting, The ship's CO, CAPT Hank Glindeman, encouraged each of us to think about how each could contribute more to gaining an early satisfactory solution to the war effort. Watching Tim's video playback, I realized the potentially significant contribution available to us. With the accuracy afforded by PAVEKNIFE, why not try to close down the truck traffic between North and South Vietnam by destroying *all* of the bridges? We had enough LGBs on board *Ranger* to make a severe dent in the enemy's ability to move supplies to their troops in the South. What was necessary now, however, was gaining acceptance of using the PAVEKNIFE system to sever the transportation capabilities and gain approval up the line of higher authority.

I discussed the idea with the squadron Department Heads. Timing for such strikes would be critical. I wanted the initial strike to put an immediate restriction on enemy truck traffic movement. This would require a large number of aircraft and, with only two PAVEKNIFE pods, we would be severely limited in our ability to carry the complete strike out in the span of a single cycle. Complicating the issue was the availability of A-6s: we had seven UP bombers, two of which would carry the Pods. Two of the squadron's A-6A's could not be counted on in the near term due to combat damages. Mission planning began by considering the strike composition. The matured concept included sections of A-6's and A-7's loaded with LGBs and targeting designation being provided by the A-6A PAVEKNIFE aircraft.

#### *The Plan*

The "customer" A-6 and A-7 bomber aircraft carrying the LGBs received individual target assignments and would proceed to the target area after join-up. The two PAVEKNIFE aircraft launched first and proceeded without rendezvous to attack two

---

The China Laker Winter 2011

bridges each before joining with our A-6 and A-7 "customers" for assigned bridge attacks. Widely separated targets isolated the separate aircraft during the attacks. I assigned two bridges to each aircraft scheduled in the strike. The PAVEKNIFE aircrew was responsible for targeting and in flight coordination as required to ensure success of the bomb deliveries. There were drawbacks from the standpoint of weapons delivery training. There had been no practice of the coordination which would be required to ensure the delivery pilot and the PAVEKNIFE aircrews were attacking the same target. This proved to be the most serious drawback and its importance was less than fully appreciated prior to the flight. We relied on verbal communication of target descriptions to try and ensure the "customer" aircraft and the A-6 PAVEKNIFE aircraft *were* attacking the same target.

We elected to double cycle the designators to maximize the A-6 PAVEKNIFE on station time. During the second launch and recovery period, the PAVEKNIFE aircraft would inflight refuel and meet the oncoming sections of bombers at the assigned targets. We selected 1,000-pound bombs due to their high kill potential, less weight (could be returned back aboard), and better aerodynamics.

Following the planning, CDR Charlie Cellar, COMCARAIRWING TWO was briefed on the mission and permission was received to discuss the concept with the *Ranger* CO, Captain Glindeman. Following his approval, we quickly proceeded to brief the embarked COMCARGRU THREE staff and finally, RADM Wes McDonald approved our plan and arranged for me to brief CTF77, RADM Hutch Cooper.

RADM McDonald and I briefed RADM Cooper in the Admiral's Cabin aboard *Ranger* where we used the video play-back unit to show previous PAVEKNIFE strike results. It was important that CTF77 see the operation of the PAVEKNIFE from the operator's position to develop a full appreciation of the methodology employed and the equipment capabilities. The premier footage was the Tim Thomassy and Todd Cleland BDA of the highway "bridge" strike, which had instead wiped out one of the forbidden

dikes and a NVN truck and crew. RADM Cooper often smoked cigars similar in size and shape to those enjoyed by Winston Churchill. As the video tape displayed the target becoming larger as the aircraft descended toward the release point, RADM Cooper, an attack pilot himself, moved to the edge of his seat. The video fidelity was so realistic he might have imagined himself sitting in the cockpit making the attack. As the bomb damage film rolled and Tim reported "bombs away" and began to pull up, it was customary for the bombardier-navigator (B/N) to shift to wide field of view to ensure maintaining the target within the reticle during pull out from the visual dive attack. RADM Cooper looked, visibly winced, inhaled strongly and seemed ready to swallow his big cigar. He exclaimed, "that's a DIKE!" My dream plan to knock down the NVN bridges was finished. Not only would there not be PAVEKNIFE missions, I could expect a quick trip to CONUS.

RADM McDonald quickly interjected to head off the inevitable. He discussed the visibility conditions and the appearance of a road over water as appearing to be a bridge from the attacking altitude. I emphasized our squadron briefing procedures which required a discussion of the Seventh Fleet rules of engagement before every flight. A second rerun of the tape from start to finish apparently provided RADM Cooper with sufficient justification to convince him that an honest mistake had occurred. After further discussions on the strike composition, selection of Route Package Two for the initial flight would permit us to work on the flight coordination, smooth out our attack procedures and carry the strike out in a relative benign environment.

At the close of the conversation, RADM Cooper turned to me and said, "Son, you've got a go on this one." Plans were firmed up with CTF77 Staff to select the most important bridge targets based on intelligence estimates of the traffic and observed areas of traffic intensity. We received final approval by message and the *Ranger* looked for an opening to put the mission on the Air Plan.

The China Laker

Winter 2011

Disappointingly, the weather was not cooperative during this period. The December-January monsoon season created lower level clouds and intermittent rain showers throughout the Route Packages. In addition, there was national tasking of higher priority targets in support of Linebacker II which necessitated maximum effort and required the aircraft for missions other than PAVEKNIFE strikes. Nevertheless, the *Ranger* continued to try and schedule the mission as often as possible. We suffered two days when weather over the Route Package was unsuitable for the high altitude dive attacks necessitating canceling the planned strike.

During this time, continued raids into the Hanoi/Haiphong areas were achieving the effects necessary to obtain meaningful agreements at the Peace talks. Finally, the peace representatives reached an accord whereby a truce could be declared. No truce date had yet been announced, but one was expected at any time. The six Navy carriers in the Gulf continued to conduct a maximum effort to help maintain the initiative which the negotiators in Paris had achieved. The PAVEKNIFE mission again appeared on the schedule January 15, 1973.

A million things needed doing before launch! Target assignments and preflight discussions would be necessary immediately. The MIG and TAR CAP pilots required additional briefings on positioning and overall mission coordination. The Search and Rescue CAP needed to understand the lengthy time our A-6 designator crews would be over the beach; usually a mission was a quick in-and- out dash. Today, we would be over hostile territory for over an hour during each cycle. And, the double cycle meant that *twice* as many people as usual would be involved. Suffice it to say, the professionalism of naval aviation successfully countered all of these coordination problems.

I was the Strike Mission Leader with B/N Jay Sherman in one of the PAVEKNIFE aircraft. Pat Cornelius and "Slick" Champney were in the other PAVEKNIFE designator. A6 wingmen included J. M. Lydiard and Gary Sims, John

Smith and Bob Sutherlin and Mike Reilly and J. W. Henson. CDR Bruce Cargill, CO, VA- 113 and CDR Ed Greathouse, CO, VA-25 led the two A-7 events. A4 wingmen included N. W. Blatt, Denny McGinn, J. S. Kraabel from VA-113 and H. W. Hartsell from VA -25.

The first cycle completed according to plan. As expected, there was some confusion over the actual targets on the ground when the first "buddy bombing" bomb did not guide to the designated target. The value of the video tape proved again during debriefs when a review correlated the designated targets with the actual targets. Greater verbal coordination prior to attack roll-in minimized this condition after the initial occurrence. The relatively benign defensive environment aided us in this regard greatly.

In a demonstration of the tactical adaptability of this system, a large multi-span steel and concrete railway bridge was spotted which had not been included in the briefing. I directed the "Blue Tail Fly" wingman to proceed away from his briefed target for this more lucrative aim point. I briefed him on the new coordinates copied from the A-6 weapon system so that the A-7 pilot could enter this information into his navigation/attack computer. We rendezvoused over the revised target and set up for the attack. I asked him to aim at the southern end of the bridge where it reached the shoreline. Bingo! The "one bomb, one bridge" goal achieved. The bridge structure fell down the embankment and into the river.

### ***More Tactical Flexibility***

As the bombers returned for landing, the A-6 PAVEKNIFE aircraft proceeded to the tanker rendezvous. During the air-to-air refueling, *Ranger* strike control ordered the PAVEKNIFE strike to "Covered" strike channel. A message announced the end of bombing north of 20 degrees north latitude. All of the second cycle targets were located in that vicinity! Radio discussions with RADM McDonald pointed out the flexibility that

---

The China Laker Winter 2011

we had just experienced and included my recommendation that we proceed with the strike south of the bombing halt latitude. The PAVEKNIFE designator crews would act as airborne FAC's providing target of opportunity assignments to the bombers. This was approved.

The first two A-7 bombers checked in on time and a quick briefing explained the new rules. I coordinated with my wingman to maintain a geographical separation and he used secondary strike control, as briefed, to conduct his operations. There wer



# 2011 Share the Dream

**Celebrating 100 years of Naval Aviation**



*The U. S. Naval  
Museum of  
Armament and  
Technology*

**ELEVENTH  
ANNUAL**

## **DINNER~AUCTION~MUSEUM FUNDRAISER**

**Saturday June 4, 2011**

**Ferr McGee Center**

100 West California Avenue  
Ridgecrest, California

**Auction  
Items Greatly  
Appreciated**

**5:00 pm - Cocktails - Start Silent Auction**

**6:30 pm - Dinner catered by Farris'**

**7:30 pm - Welcome and Live Auction**

Desert Casual      Raffle      Cash Bar

**Tickets \$30 per person**

Last day for ticket sales 5/28/11

Seating request available

**Event Sponsorship Options:**

**\$1500 Corporate Table /\$1000 Family/Small Business/\$250 Sponsorship**

**FOR TICKETS:** Call the Foundation at 760-939-3530 for information. Order by mail at the China Lake Museum Foundation, P.O. Box 217, Ridgecrest, CA 93556. Tickets can be purchased at the U. S. Naval Museum of Armament and Technology gift shop, One Pearl Harbor Way, Naval Air Weapons Station, China Lake, CA 93555 or the Ridgecrest Chamber of Commerce located at 128-B East California Avenue, Ridgecrest, CA 93555. Website: <http://www.chinalakemuseum.org/index.htm>



**New Members  
Always Welcome**

## Dinner & Auction Information Sheet

The proceeds from the auction will be placed in the China Lake Museum Foundation Fund that supports the costs associated with achieving the overall Museum Vision and Mission. Membership, fundraising, and community support are instrumental in maintaining the museum and achieving the museum's future goals. Currently the museum is located on China Lake Naval Weapons Center with the goal of moving the museum into the Ridgecrest Business Park which will greatly improve the accessibility of the public, providing a significant tourist draw directly supporting the local community.

### **Ways you can help:**

#### **Event Sponsorship:**

##### **\$1500 Corporate Table or \$1000 Small Business/Family Table:**

A reserved table, dinner for eight, CLMF membership for non-member table guests, dinner wine, and name displayed in the program. The Museum will include these sponsors' names in the local media. Corporate donors can provide their company banner for display at event.

##### **\$250 Sponsor:**

Includes two dinner tickets, reserved seating, and name in program.

#### **Recognition Opportunities in Dinner Auction Program:**

\$500 -- full-page    \$250 – half-page    \$125 – quarter-page    \$50 – business-card-size

**Donated Action Items:** China Lake Museum Foundation is a 501 (c) (3) corporation. Donations are tax deductible to the fullest extent of the law. Items can be dropped off at the Museum Gift Shop, or contact the gift shop and we may be able to pick them up. 760-939-3530

**New Members:** The success of the museum is dependent on active members. Anyone interested in joining are encouraged to call Museum Office at 760-939-3530 and discuss with him the benefits of membership and supporting this Foundation.

**Volunteers:** Volunteers are the backbone of the foundations activities. If interested in helping in the auction, or other museum related events, contact Pat Connell at 760-378-2142 or [paconnell@hughes.net](mailto:paconnell@hughes.net)

**Museum Mission:** "To document, preserve, display, and interpret artifacts, papers, and memorabilia depicting China Lake's history and the development of naval armament and technology."

**Museum Vision:** Create a self sustaining, historical, educational and entertaining Museum that:- Shares history of China Lake and the development of Naval Armament and Technology -Nurtures curiosity in science and engineering to youth through the rocket scientist program -Is a tourism draw for the Indian Wells Valley -Is a community resource for social and networking events."

The challenge faced by the Foundation is to expand and modernize the Museum thus allowing expanded exhibits, and developing a focus on the history of science, engineering and technology for educational purposes. The Museum is located on the Navy base requiring special permission for public visitation; improved access is another part of the plan.

The U.S. Naval Museum of Armament and Technology is located on the Naval Air Weapons Station, China Lake, California. This national asset has an unmatched display of naval armament and technology. The Museum was established by the Secretary of the Navy May 12, 2000.

The China Lake Museum Foundation is a 501 (c) (3) corporation. Donations are tax deductible to the fullest extent of the law.

China Lake Museum Foundation: P.O. Box 217, Ridgecrest, CA. 93556, (760)939-3530

**AUCTION-----AUCTION-----AUCTION-----  
AUCTION**

Remember the All New Auction & Dinner Program will be 4 June 2011

Your Foundation's Planning Committee is creating a new program for the dinner and auction. The program promises to be bigger and better each year, so don't miss it! The main event and evening's excitement will be the Live and Silent Auctions, which are planned this year to ensure everyone can participate and take home outstanding and top quality items. The Auction and Dinner Program is a main fundraiser for the Foundation and for it to be successful we not only need your participation at the Auction & Dinner, but we need your donations of items to be auctioned off. Therefore:

START NOW CONSIDERING WHAT YOU CAN DONATE TO THE AUCTION. June 4 IS LESS THAN THREE MONTHS AWAY, SO DON'T DELAY IN GETTING THOSE GOOD DONATIONS UNDER WAY. THEY CAN RANGE FROM: FINE ART YOU HAVE GROWN WEARY OF (AND FOR WHICH YOU CAN USE A TAX DEDUCTION) TO ----- GREAT BUT NOT NEEDED CHRISTMAS GIFTS (AND YOU CAN USE A TAX DEDUCTION) TO -----ITEMS YOU LOVE TO PURCHASE FOR THE THRILL OF THE SHOPPING TO -----GOOD STUFF IN THE HOUSE OR GARAGE THAT YOU HAVE OUTGROWN TO -----GREAT HOBBY, CRAFT, COLLECTION, ANTIQUES, NOTABLE BOOKS AND HISTORICAL ITEMS, ETC. ITEMS YOU HAVE. IN OTHER WORDS "USE YOUR IMAGINATION".

Bring donations to the Museum or call and we will pick them up. If you have ideas for making this our most successful event ever, or if you would like to volunteer to participate in preparing for the Dinner Program, please call:

**Pat Connell at 760-378-2142 or [pacconnell@hughes.net](mailto:pacconnell@hughes.net)**

Or

**Call Chris McKinley at the Museum**

760-939-3530

[clmf1@ridgenet.net](mailto:clmf1@ridgenet.net)





**!!!!!! WE NEED YOU !!!!!!**

The China Lake Museum Foundation is seeking volunteers to help plan the upcoming Annual Dinner Auction Fundraiser on May 31.

Volunteers get to meet new people, learn new skills, create deep friendships, and never say “I am bored and have nothing to do”!

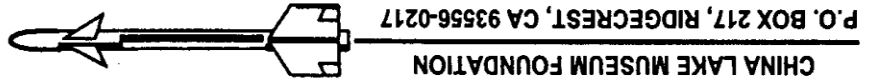
We have volunteer opportunities large and small in the areas of advertising, publicity, donation solicitation, auction planning, program planning, logistics, data base input and management, decorations, invitations, program publication, reservations, and more! Please come be a part of this opportunity to help “Share the Dream” of our future Naval Museum of Armament and Technology building.

**Contact: Pat Connell**

760-378-2142 or paconnell@hughes.net

NONPROFIT ORG.  
U.S. POSTAGE  
PAID  
RIDGECREST, CA  
PERMIT NO. 48

RETURN SERVICE REQUESTED



Combined Federal Campaign