



THE CHINA LAKER

Vol. 13, No. 4

Newsletter of the China Lake Museum Foundation

Fall 2007

PROJECT RAINHAT

by

Anthony L. Tambini II, Commander, USN (Ret.)

High in the northern Mojave Desert of California, in what is known as the Indian Wells Valley, sits Naval Ordnance Test Station, China Lake. Bordered by the High Sierras on the west, Death Valley to the east, Mount Whitney to the north, and Edwards Air Force Base on the south, N.O.T.S., as it was then known, shares with Edwards Air Force Base a huge chunk of California air space reserved for military flight testing. China Lake, the dry lakebed for which the station is named, held water just once in the four years that we were stationed there. The water lasted for a little over two weeks before it once again dried up.

I had spent weeks preparing my wife, Angie, for her first look at the upper desert we would be calling home for the next four years. Crossing the Sierras from Bakersfield and driving north from the town of Mojave, the landscape was everything that I had promised her the sandy, dry desert would be. We crossed through Red Rock Canyon and over the rise that was the El Paso Mountains south of the base. As the valley spread out below us, she got her first glimpse of China Lake and the little town of Ridgecrest just outside the gate.

The base is a lush, green oasis amid the sand and rocks of the desert. Deep, artesian wells provide an abundant source of water. Homes, laboratories, and recreation facilities are all furnished with underground sprinkler systems. In the desert it seems that, with water, you can grow pretty much anything.

Above it all that day, was a huge thunderstorm pouring buckets of rain down on everything below. It was a surprise that neither of us expected. I don't remember it raining again for the whole four years we lived there. But boy did it snow once. That's another story.

For me, my first shore duty was as close to heaven as an aviator can get, especially if you were flying "Projects." The naval ordnance test station had been commissioned during World War Two to design and test new weapons for use in naval and air warfare. Unlike any other military base that I had ever seen, it consisted of laboratories, engineering spaces, manufacturing facilities, and test ranges. More like a college campus than a military base, the scientists and engineers outnumbered naval personnel by a factor of more than ten to one.

Also within the confines of this sprawling complex in the middle of nowhere was a naval air facility, which existed for the sole purpose of supporting the scientists and engineers in putting their ideas and contraptions into use on board actual aircraft. At the time, the station's most noteworthy accomplishment was the "Sidewinder" air-to-air missile, a heat seeking, guided missile with a deadly, expanding-rod warhead. Versions of this missile are still in use by our military and our allies; and every nation, friend, or potential foe all over the world copies them.

Note: This article was written for the 50th Anniversary Reunion of AOC 10-56 in 2006, and appeared in the Journal of the *SKYHAWK ASSOCIATION*, fall 2007 issue.

About the Author: CDR Tony Tambini entered the Navy through the NAVCAD program in 1956, then flew the F-9F *Cougar* and FJ-4 *Fury* prior to transitioning to A4D-2s in VA-56. He deployed in *Skyhawks* on *Ticonderoga* and later on *Coral Sea* with VA-153 before his assignment to China Lake. Following the China Lake tour, he served with the ship's company on *Coral Sea*, flew A-7s with VA-37, and completed Navy Command and Staff at Newport, R.I. His final assignments were in nuclear weapons safety and readiness at COMNAVAIRLANT and OPNAV.

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

CHINA LAKE MUSEUM FOUNDATION
P.O. BOX 217, RIDGECREST, CA 93556-0217



Combined Federal Campaign

When I arrived in the early 1960s, emphasis was on lessons learned from the Korean War and the problems presented to weaponeers that appeared with the introduction of jet aircraft in ground-support combat roles. The old "iron bombs" of World War Two didn't exactly go together with faster, sleeker aircraft, and making weapons into lower drag shapes often resulted in bombs that sailed along beneath the airplanes after release and reached the ground at about the same time and place as the releasing aircraft flying overhead. At lower altitudes above the ground, this was a situation that could threaten the longevity of pilot and aircraft.

Also, at that time, the predominant thought was to deliver weapons low and fast to escape detection by enemy radar. A whole new batch of weapons to be carried and released from jet aircraft was being designed. These would become the "Eye" series weapons. The first to be successfully built and tested was a simple retardation device consisting of four folding fins that, when opened, acted much like an umbrella; they slowed the bomb down in order to allow for separation between the airplane and the bomb. This device would become the "Snakeye," a reliable, predictable fix that is still in use in the fleet today. Others would follow on in rapid succession, not all of which would prove to be safe, reliable, or effective. Some, in fact, were truly menacing to the pilots who would attempt to fly and test these devices. One of these pilots was to be me.

For the very reason that testing some of these early, and sometimes questionable, new weapons required more than a willing pilot and a compatible airplane, the Projects Department of the naval air facility was born. Commander Larry Walker, a graduate of the first class of the Navy's Test Pilot School, and formerly my commanding officer, was asked to form the department, select the pilots who would be assigned to testing, write the job descriptions, and develop a program to ensure logical and safe progression of airborne test. A close coordination between laboratory, engineering, the civilian Aviation Ordnance Department, and the Projects Office of the naval air facility was developed. Test plans were written, followed, and reviewed on a regular basis.

My first Projects Office assignment would prove to be the defining program of my entire tour. I was the "Shrike" missile program pilot. Still in its infancy, the Shrike program had been without a pilot for a while. The pilot previously assigned, Wally Schirra, had been detached early so that he could report for duty in the Mercury Astronaut Program. There had yet to be an actual launch of a Shrike. An FJ-4 Fury assigned to the program was retired, and a newly assigned A-4 Skyhawk aircraft underwent a reconfiguration which would convert it to a YA-4 prototype designation. Program-specific wiring, instrumentation, and provisions for recording and telemeter equipment were crammed into the limited space available in the small aircraft.

The Shrike missile is designed to home in on and kill the enemy's radar. Built especially to meet the threat of the Soviet surface-to-air missile systems, or SAMs as they were popularly called in the Vietnam War, the Shrike homed on the Fan-song radar signal that guided the SAM-II missiles. In operation, the pilot is alerted to an enemy's radar by an aural tone in his headset as well as a visual indicator on the instrument panel. The missile is then launched ballistically toward the target radar indicated on the instrument panel. After an unguided flight, missile guidance takes over and steers the missile down the main beam of the target radar.

The warhead is composed of a high-explosive charge around which are stacked thousands of three-sixteenth-inch steel cubes. When the warhead is detonated by the target detecting device, the steel cubes are distributed such that at least one cube will penetrate every square foot within the target effective range. It is a relatively small warhead. There's no great big boom, but inspection of a target afterwards reveals that the target radar has been thoroughly penetrated by little steel cubes, cutting virtually every wire and cable in the target radar system, rendering it useless and unrepairable.

The system included the missile itself; the aircraft instrumentation, wiring, and launcher; and a delivery computer that would launch the missile at the optimum delivery point and aircraft attitude. The launch was calculated to place the missile at the proper point in space above the target in order to allow the missile guidance system to control the final path to the target.

Because the system could see and hear all of the radars operating in the China Lake area, my test flights would take place in the early morning, during the normal lunch hours, and late in the afternoon when the ranges were all shut down except for the requirements of my tests.

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*
John DiPol, *Director Emeritus*

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

Craig Porter, *Treasurer*
Jack Russell, *Director Emeritus*

ADM Wesley McDonald, USN (ret.),
RADM Bert Johnston, USN (ret.)
CAPT Glenn Tierney, USN (ret.)
Dr. Karen Higgins,

TRUSTEES
LaV McLean
Stuart Witt
RADM Bill Harris, USN (ret.)
Frank Knemeyer

Dr. John F. Lehman
Dr. James E. Colvard
Burrell Hays
RADM M. G. Mathis, USN (ret.)

Pat Doucette, *Membership*
Bob Peoples, *Public Relations*

Vice Presidents
Jim Seaman, *First Vice President*
Paul Homer, *Operations*

Vacant, *Facilities*
Vacant, *Fundraising*

Burrell Hays, *Charter Director*
Directors

Alice Campbell
Dotsy Cronin
Ruth Hornibrook
Charles Roulund
Bill Summers

Pat Connell
Mallory Boyd
Rick Naggs
Betty Seaman
Scott Smith

Dotsy Cronin
Dale Gates
Gary Parsons
Beth Summers
Paul Valovich

Dotsy Cronin Volunteer Coordinator
760-371-7527/legachic@aol.com

MEMBERS MEETING RESULTS

The annual Members Meeting of the China Lake Museum Foundation was held in October 2007. A slate of eight directors of the Foundation were elected, with incumbents Bob Campbell, Dotsy Cronin, Dale Gates, Jim Seaman, and Paul Valovich being re-elected to three-year terms. Newly elected to three-year terms as directors of the Foundation are Pat Connell, Craig Porter, and Scott Smith.

WELCOME ABOARD TO ALL!

ELECTION OF OFFICERS

The election of officers of the Board of Directors of the China Lake Museum Foundation was conducted during the November board meeting. Bob Campbell was re-elected to serve as President of the Board, along with Vice Presidents Jim Seaman (First Vice President), Paul Homer (Operations), Bob Peoples (Public Relations), and Pat Doucette (Membership). Jack Latimer was elected to continue as the Secretary to the Board, and new Director Craig Porter was elected to serve as the Treasurer of the Foundation.

One Monday afternoon in October 1962, after flying the late Shrike test flight on Charlie Range, I walked into the wardroom for a cup of coffee before getting out of my flight gear and into the working uniform. The wardroom television was turned on, a rare occasion on a working day. A group of officers had gathered and were watching. As I got closer, I realized that the President was speaking. I found a chair, dropped my gear, got a cup of coffee, and began to watch. This was national television, and there seemed to be a full-scale briefing going on. We were being told that the Russians were putting long-range, ballistic missiles into Cuba, and they were beefing up Cuban air defenses with surface-to-air missiles.

This looked like serious stuff. Almost as soon as I sat down, the squawk box by the steward's head came on. It was the commanding officer's voice. He asked the steward if I was in the wardroom. Oh, God. What did I do this time? He was telling the steward to let me finish watching the President speak, but as soon as the briefing was over, I was to report directly to his office.

The rest of the televised briefing didn't exactly hold my attention; I wondered what I might have done that would command my presence at just this time. After changing into my uniform, I nervously walked the hallway to the captain's office. When I entered, his civilian secretary ushered me in without delay. The captain sat behind his desk in his great big office. He looked more serious and worried than I had seen him in a while. I didn't have to wait long to find out what he wanted me for. His opening words were, "The President wants you in Washington—now."

My travel had already been arranged. The secretary brought in my tickets and handed them to me. I was booked on the TWA "Redeye Special" out of Los Angeles that very night to Baltimore-Washington International Airport. There was a commuter flight from Inyokern Airport just a few miles from the test station that would connect with the TWA flight. I had about two hours to pack and catch the plane.

The captain had arranged for a car to pick me up at my house and take me to the airport. There was one catch, it was the day before payday, and there wasn't time to go to disbursing for advance travel pay. I called Angie and told her that I had to go, and to get me some clothes together. I also asked her if she knew where we could get some cash quick. I couldn't tell her where I was going, or for how long I'd be gone, or even why I was going. Hell, I didn't even know myself. I had an open return ticket. I just had time to go home, change into a dress uniform, grab my bag, and kiss Angie and my son, Tony III, goodbye. My car and driver were at the front door.

I arrived in Baltimore-Washington Airport the next morning at about 0630. A car was waiting to take me into D.C. The Naval Air Systems Command project officer for the Shrike Missile Program met me at the old Main Navy building on Constitution Avenue, and we rode over to the Pentagon. There, we went to the office of the Assistant to the Secretary of Defense, Deputy Director, Research & Engineering (ATSD DDR&E), a position then held by Dr. Harold Brown. Apparently, in the course of the events of the previous day, the President had expressed a thought that it might be a good idea to have me close at hand should the need arise to take out one of Castro's SAM sites.

The President's thought became an urgent need, followed by the rush to get me to Washington. The Cubans had already shot down one of the Air Force U2 reconnaissance airplanes as it made a photo pass over the island, and President Kennedy had warned Castro that, if he should attempt to shoot down another of our airplanes, we would take out the SAM site that did the shooting. We could have launched a large-scale air strike, but that would result in a lot of collateral damage to the surrounding countryside. The President wished to be very precise because of the heavy Russian presence in the form of military advisors to the Cuban military.

At the time, there was only one Shrike-qualified pilot in the world, and I was he. So, here I sat, cooling my heels in the Pentagon, "Ground Zero" for those Russian missiles in Cuba. When I realized why I had been summoned, I decided that some logical and rational thinking was appropriate. In order for me to be able to do as the President might wish, I would first have to fly back to California and get a Shrike-configured airplane—which didn't exist except for a couple of A-4 prototypes, and only one of these had a complete system. Furthermore, the missiles were hand-built in the laboratories at the Ordnance Test Station for specific tests, so a full-up warhead round would have to be assembled and loaded on the airplane.

What a beautiful airplane. It was silver and sleek, about the same size as the Skyhawk, and probably as ma-

All in all, my presence in Washington could delay any effort to do as the president might wish until I could get back to California. Better I should be at China Lake waiting for the order to go than in Washington. I argued my case, and cooler heads prevailed. I was allowed to return to China Lake that evening.

There was no way for me to know of events taking place at China Lake that day while I was gone. Rumors were flying, and war fever had broken out all over the base. There was a run on the commissary to stock up on food, security was tightened, and there was even talk of a military invasion—from whom and from where, I don't know. We were in the middle of the desert. Why would anyone invade here? The whole idea was crazy, but that didn't stop anybody, least of all the commander of the naval air facility. He doubled the guard, set out roving patrols, and bulldozed a trench all the way around the naval air facility. You would have thought that World War III was beginning.

Meanwhile, I just made the late flight from Baltimore-Washington Airport to Los Angeles. Arriving about midnight in Los Angeles, I found that the late-night flight to Inyokern had been cancelled because of high winds in the desert. Dog-tired, I rented a car for the three-hour drive to China Lake. There was no rental car return in the desert at this time of the night, so I parked in front of the house and quietly let myself in. I tiptoed through the house and checked on our young son before going into our bedroom. It was dark, and I left the lights off as I undressed for bed. When I dropped my trousers, I heard the unmistakable sound of the hammer going back on my gun. Angie swears that when she saw me without my trousers, she recognized me, and that's why she didn't shoot. I still count that night as one of my narrowest escapes.

By the time I was back at work the following day, the telephone lines between the base and Washington were humming. Soon our newest A-4E Skyhawk was being configured for Shrike and the Cuban mission.

If we were going to have to go to Cuba, we were going to have to have a single-side-band radio installed for reliable communications with the Joint Air Reconnaissance Communications Center in Key West. Finding a spot big enough to put one of these radios into an A-4 was no small task. We finally squeezed it into the forward engine access bay. Now, the antenna was another matter. Larger airplanes had enough room to string out an antenna in the skin of the airplane. We ended up having to install a mast behind the cockpit and string an antenna wire from the cockpit to the top of the vertical stabilizer. What a strange "1930s" look that gave the airplane. Everyone who saw this new antenna wondered what it was for, and everywhere we took it, people would ask.

The A-4E and the A-4C that was already my primary Shrike aircraft were outfitted with as much instrumentation as would fit inside, and Shrikes were buried inside three hundred gallon external fuel tanks along with more instrumentation. All identification and insignia were painted out to keep anyone from knowing where we were from, or the purpose of our mission. A small, carefully selected crew of Navy and civilian personnel was given secret orders, and I began training my boss, the Projects Officer, to fly the Shrike mission. Before very long, we were on our way to Key West Naval Air Station at Boca Chica.

The cross-country trip had its high points. Everywhere we stopped for fuel we got strange looks. What were these two different-looking airplanes with absolutely no identifying markings? The A-4E, with its more powerful engine, had a distinct advantage over the fully loaded A-4C. At Kirtland Air Force Base in Albuquerque, New Mexico, altitude five thousand feet above sea level, the A-4C took every bit of the runway and staggered into the thin air, barely able to gain altitude. We were at its very limits for altitude and temperature. From New Mexico, we went east to NAS Memphis in Tennessee. After an overnight stay, we woke up to a dense fog blanketing the area. In one of those "I can't believe that I actually did it" situations, we made a formation takeoff in zero-zero visibility. The fog layer wasn't very thick, and soon we were climbing out into a bright sunlit morning bound for NAS Pensacola, our next refueling stop.

When we arrived, Key West looked like a war zone. There were Hawk missile batteries on the beaches, and there were tents and military uniforms from every service. Security was strict. The Personnel Officer at the naval air station had been a squadron mate of mine, and he knew where we were from because he had been in the squadron when T had gotten my orders, but he was forbidden to tell anyone else. It drove him crazy that I wouldn't tell him what we were doing on the island. We didn't stay on the Navy base. All of our people were booked into the Holiday Inn at Key West.

Our two aircraft were parked on the far side of the field inside a restricted area with a twenty-four-hour armed guard for protection. The only other aircraft within our perimeter was an intelligence-gathering A-3 Skywarrior.

neverably, but it was a helluva lot faster. As he came along side, the pilot waved. I waved back with a single finger. I would swear that he laughed. He didn't look like any Cuban I had ever seen; I'd be willing to bet that he was Russian. We flew along together for about twenty minutes. Then, with another wave, he peeled off and headed

Our two aircraft were parked on the far side of the field inside a restricted area with a twenty-four-hour armed guard for protection. The only other aircraft within our perimeter was an intelligence-gathering A-3 Skywarrior.

Our enlisted men were instructed not to tell anyone where they were stationed, or why they were in Key West. The very first day after we arrived, we sent one of our young sailors to pick up a mule, a towing vehicle that was used to tow the airplanes around while on the ground. He got the mule all right, but, being unfamiliar with the station layout, he wandered onto a taxiway on his return trip. A big, burley chief petty officer in a security vehicle stopped our sailor and demanded to know what he was doing on the taxiway and the name of his unit. When the sailor told the chief that he couldn't tell him, the chief got a bit insistent. The young sailor became so distraught that he hyperventilated and passed out. This scared the hell out of the chief who thought that he had killed the sailor. He scooped the sailor up in his arms and rushed him to sickbay. When the sailor awoke, he asked the corpsman to call me, and I had to go over and retrieve our first casualty of the Cuban conflict.

In a vivid reminder of my past experience with Marine aviation, one day a Marine A-4 landed at Key West because he was streaming fuel from his fuselage. It turned out that he had lost the fuel cap to his fuselage fuel tank, and fuel was being siphoned out as he flew. There were no A-4 fuel caps in the supply system at Key West, so he appeared to be stuck until a new fuel cap could be ordered and delivered to Key West.

As we drove onto the air station the next morning, we saw the Marine A-4 taking off from the airstrip. It looked like he had found a fuel cap on the base after all. When I preflighted my aircraft before the day's operations, I discovered that my main fuel tank cap was missing. Somehow, the Marine had managed to get past the twenty-four-hour guard and into the restricted area, had stolen my fuel cap, and had flown away without getting caught.

We would eventually fly fourteen missions over Cuba. The intelligence that we gathered through the onboard instrumentation was a real boon to our engineers and scientists who excitedly listened each night to the tapes that we made during our passes over Cuba that day. We were able to provoke the Cubans into turning on their surface-to-air missile guidance radars, but they didn't fire at us.

The first day, the Joint Air Reconnaissance Command Center (JARCC) duty officer almost had a heart attack as he watched the progress of our flight over Cuba. He had been under the impression that we wouldn't fly over Cuba unless provoked. Actually, we were the provokers; we wanted actual SAM-2 radar signatures to be sure that we had the right info to feed the Shrike missile, so it would home in properly. He was quick to inform us that we had created "An International Incident." We told him to talk to the President if he had a problem. That was the last we heard of our "International Incident."

CDR Jack Sickel, the Projects Officer and my immediate boss, was an exceptional pilot. He was a graduate of the Navy's Test Pilot School and had combat experience. I couldn't have asked for a better companion on my first flight over hostile territory. Our little Skyhawks had no defensive armament. Every nook was taken up with recording devices and various types of instrumentation. On each of our Cuban flights, we had fighter air cover stationed five miles out and five thousand feet above our altitude. Should we need help, all we had to do was call.

We flew eastward along the northern coast of the island, flying over each of the surface-to-air missile sites as we came to them along our course. The SAM sites along the Cuban coast were easy to spot. They were laid out with six missile launchers and a radar van in the middle, and they looked like a six-pointed star. Every site looked like all the others.

On about the third day, I saw a glint on the horizon to the south just as we started our track from the west end of the island, and I began watching it. It was on what seemed to be an easterly course like we were, and it held position right off our starboard beam, but it slowly grew larger. It wasn't long before I was able to make out the unmistakable shape of the Mig-21 Russian fighter. Slowly and carefully, he approached us as we flew our planned track toward Havana. The pilot never pointed the nose of his aircraft at us, but he kept closing the distance between us until he was practically in parade formation with us.

ownward until he was out of sight. From what I know of MiG-21 endurance, he must have been getting pretty low on fuel to stay with us for as long as he did.

For several weeks, the photoreconnaissance birds ran their photo missions, and we flew our tracks, all without incident. Then it was time to go home.

TECHNICAL ADDENDUM

**BY
JACK RUSSELL**

As the design of the guidance system progressed on the first Shrike missiles, it was repeatedly tested against our target radars on the China Lake ranges. At that point in time the primary target was the SCR-584 gun fire control radar. The United States had exported these radars to third world countries in the years following WW-II and now they might be used against our aircraft. Fortunately, we had some of these radars at NOTS that we could test against.

When the Soviets introduced new radars for controlling their surface-to-air missiles we were faced with a problem. These radars were significantly different than any we had tested against. We were uncertain if the Shrike guidance receiver could track their signal strength dynamics. The intelligence community could not provide us with the information necessary to make a determination. We needed a way to test the Shrike receiver against the actual radar signal.

We knew these radars were deployed in Cuba as well as other Soviet early warning radars of interest. We found a specialized recorder that could record the radar signal dynamics of interest and mounted it into an empty aircraft fuel pod. A flush antenna was mounted to the surface of the pod. When mounted onto an A-4 aircraft, it appeared to be a normal fuel tank. China Lake Shrike project pilots, LT Tony Tambini and CDR Jack Sickel, flew two specially configured A-4s to Key West, Florida, along with the pod. They were joined by myself to oversee the data collection and a technician to maintain the pod. I believe G. O. Miller was also involved. This plan to covertly record the Soviet radar signatures while flying at the edge of Cuban airspace had to be blessed from the highest levels of the Navy and DoD.

With the help of the air controllers at the Naval Air Station at Key West, the A-4 carrying the pod was flown to the edge of the Cuban airspace. Our pilot flew close enough to provoke the Soviet radars. The Cuban air defense system tracked our A-4 with a variety of early warning radars and, in particular, the surface-to-air missile radars. After gathering all of the data, he got the hell out of there.

As I watched one of the flights on radar from the Naval Air Station control tower, it was apparent that our A-4 was dangerously close to crossing into Cuban airspace. The air controller kept saying, "Wow, that pilot sure has balls!"

D. J. (Jack) Russell at the time of these events was Head of the Design Branch (Code 4021) that built the Shrike guidance section. Russell retired at China Lake as a member of the Senior Executive Service, and served on the China Lake Museum Foundation Board of Directors, and now is a Director Emeritus.

**Museum Gift Shop
Great Christmas Gifts**



Watches, Zippo Lighters, Olaf Doud Artwork, Hand carved Mahogany Wood Aircraft, Leather Jackets, Various Children's Models and LOTS MORE!

**We have unique ornaments!
All Members get 20% off during the month of December.**

CLMF Gift Shop staff wishes you all a *HAPPY HOLIDAY!*

Hope to see you soon!

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.

New Memberships received since Summer 2007 Newsletter

Lifetime Members (\$1,000.00)

Jeter, Edward L. & Carol - Ridgecrest CA
 Manion, James & Patricia - Inyokern CA
 Schoenhals, Samuel R. & Gail Marie Petty - Ridgecrest CA
 Seibold, Joe & Joyce - Ridgecrest CA
 Sewell, Robert & Carrol - Ridgecrest CA
 Zinke, Richard A. & Margy - Ridgecrest CA

Sponsor Members (\$33.00 Annually)

Patin, Ian & Mandy - Ridgecrest CA

Enlisted Military Members ("Free" from Sponsor Memberships)

Regular Members (\$25.00 Annually)

Baldwin, E-8 Charles & Miranda - Ridgecrest CA	Pedro, A03 Ricardo - St. Paul MN
Blasi, Sgt Shaun Alan - Ridgecrest CA	Perry, SGT Jeffrey & Heather - Ft. Lewis WA
Bortz, AC2 David - Ridgecrest CA	Ratuita, AD1 Belhady & May - Carson CA
Colapietro, AM1(AW) Vito M. - Ridgecrest CA	Schmitt, ATAN James - Ridgecrest CA
Draime, SRA Amanda Kay & Scott - Newport News VA	Schnuderl, AEC Heinrich and Kathryn - Ridgecrest CA
Dunham, AT1 Greg - Patuxent River MD	Schobitz, AMAN Raymond - China Lake CA
Lane, A03 Aaron and Alissa - Ridgecrest CA	Schroeder, AVCM David & Elaine - Coon Rapids MN
Lau, E-4 Alvin - La Puente CA	Scott, CPL Ian - Monterey CA
Lyon, SKC Dana - Minneapolis MN	Seguin, AM2 Chris & Julie - Coon Rapids MN
Martin, SGT Robert W. & Janet - San Diego CA	Trejo, SK2 David R. & Susie - Ridgecrest CA
Martinez, Veronica - Ridgecrest CA	Weinert, E-6 Erich M. - Hammond WI
Mencue, AEAA Chris - China Lake CA	Yeram, SGT James & Amanda - Ridgecrest CA
Middleton, ADC Terry & Betty - Ridgecrest CA	
Mora, ABC James D. & Annie - Patterson CA	

Arenas, Carmen - Ridgecrest CA
 Backman, Ronald and Sharon - Ridgecrest CA
 Bartels, Bruce and Char - Ridgecrest CA
 Bolstad, Jon & Maud - Meridian ID
 Buffum, Frank & Debby - Ridgecrest CA
 Burton, Kenneth and Nancy - Ridgecrest CA
 Calvert, David E. - Anchorage AK
 Dake, Robin - Inyokern CA
 Davis, Scott & Liz - Laguna Beach CA
 Dutton, Suzanne - Tucson AZ
 Faris, Charles C. -- Ridgecrest CA
 Hernandez, Manuel & Trang - Tehachapi CA
 Johnson, Arne - Ridgecrest CA
 Knutsen, Dale & Georgia - Chester CA

Kraay, Earl & Carol - Boise ID
 Latimer, John H. & Linda - Ridgecrest CA
 Lee, Dongwoo & Woonhee Kim - Ridgecrest CA
 Lusk, Willard & Jo Ann Griggers - Ridgecrest CA
 Meide, Keith - Los Angeles CA
 Mikel, Pat - Ridgecrest CA
 Moldenhauer, Viki - Sunnyvale CA
 Monahan, Elizabeth - Ridgecrest CA
 Paiz, Ernest A. & Anita L. - Ridgecrest CA
 Smith, Debra - Ridgecrest CA
 Whitworth, Peter - Ridgecrest CA

Jacobs Engineering—Naval Systems Group
Makes Major Annual Donation



Dale Gates, General Manager of the Jacobs Engineering—Naval Systems Group, a major support contractor to the Naval Air Warfare Center Weapons Division, presents a donation of \$5,000 to Bob Campbell, on the left, China Lake Museum Foundation President.

Campbell noted that Jacobs Engineering—Naval Systems Group, (formerly Sverdrup Corp.) has made an annual contribution of \$5,000 or more each year since the U.S. Naval Museum of Armament and Technology was established by the Secretary of the Navy.

DCS Corporation
Makes Major Contribution



CAPT Paul (Booger) Valovich, USN(Ret.), representing the DCS Corporation, left of center, presents Paul Homer, China Lake Museum Foundation, a donation of \$5,000 to support the development of a new, enhanced exhibit on the Walleye. Looking on, left side is David N. Livingston, the first Walleye Project Manager that introduced Walleye to the Fleet, and Marc Moulton, one of the Walleye inventors.

Valovich said that he did lots of training with Walleye, but had delivered only one in combat. “That day,” he stated, “the bad guys weren’t shooting back, so I followed the weapon in and watched the impact directly on the intended target, a fortified facility. Great weapon.”

The CLMF is assisting the Navy in showing the great history and effectiveness of Walleye, the first real precision guided weapon.