



THE CHINA LAKER

Vol. 13, No. 3

Newsletter of the China Lake Museum Foundation

Summer 2010

Editor's Note: With the scheduled dedication of the new Dr. William B. McLean Laboratory on 8 October 2010, the life, career, and great contributions of Dr. McLean are very well summarized in the following memoir. The author, W. H. Pickering, received his PhD in Electrical Engineering from Caltech in 1936, and was the Director of the Jet Propulsion Laboratory from 1954-1976.

WILLIAM B. McLEAN — A BIOGRAPHICAL MEMOIR

May 21, 1914-August 25, 1976

BY W. H. PICKERING, National Academy of Sciences, 1985

I FIRST MET BILL MCLEAN when we were both graduate students at Caltech; and I grew to know and appreciate him some twenty years later when he was technical director of the Naval Ordnance Test Station at China Lake, California. For twenty-five years thereafter I knew him as scientist, engineer, inventor, and leader of men. I also knew him to be modest, soft-spoken, full of gentle humor, unremittingly honest, and stubbornly persistent when right. Bill was a high principled and religious man, descended from a line of Presbyterian ministers. Both his maternal and paternal grandfathers, as well as his father and brother, were ordained ministers. He often stated that he never felt a conflict between science and religion because he believed that all of knowledge was of a common origin, and that the highest function of the human intellect was the search for truth.

He was born in Portland, Oregon in 1914, but lived the first four years of his life in Dubuque, Iowa where his father was teaching. In 1919 the family moved to the Los Angeles area and lived in Eagle Rock, where he completed his primary and secondary education. In 1931, he entered Caltech. The family moved to Santa Barbara, but Bill remained at Caltech.

His parents were both mechanically inclined. As Bill had often stated, "My mother taught me to knit, crochet, and use the sewing machine before I went to kindergarten. My father showed me how to repair automobiles, build homes, and do plumbing and electrical wiring. Everything that broke became a challenge to figure out how to repair it and make it better." This interest in "fixing things" stayed with him throughout his life. Another interest that remained with him was his love of the water. In 1927, his father bought a lot on the beach at Newport, California. Bill spent the next four summers at the beach and learned about surfboards, canoes, rafts, and "sucking air through a hose from the surface is not possible".

He entered Caltech as an electrical engineer, but, after one term, Dr. Earnest Watson suggested that he transfer to physics. He received his B.S. in 1935 and the M.S. in 1937. His interests were experimental, particularly in the design of instruments. As a graduate student, he worked in nuclear physics with Dr. Charles Lauritsen and Dr. Willy Fowler on the construction of their half-million-volt Van der Graaff generator. He completed his Ph.D. in 1939, with a thesis on the short-range alpha particles produced by the bombardment of fluorine by 350 KEV protons. During his years at Caltech, he helped support himself by working in the photo lab. He had shown an early interest in photography. In fact, in each new house, the first family priority was to set up a workbench; the second, to arrange a darkroom.

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Shortly after receiving his Ph.D. degree, Bill married La Verne Jones. LaV, as she was known, was the extrovert; Bill, the introvert. LaV shared his interest in the Presbyterian Church and outdoor recreation, particularly scuba diving. Their home reflected her pride in his accomplishments and his in her competence as a homemaker at the center of community activity. The young McLeans settled in Iowa City, Iowa, where Bill had a postdoctoral fellowship in nuclear physics for the period from 1939 until 1941. He continued to work with alpha particle counters and, as might be expected of Bill, improved the instrumentation circuitry then in use. He taught a graduate class in advanced theoretical physics for one year, which, he stated, cured him of any desire to continue teaching.

In 1941 Bill moved to the Bureau of Standards in Washington to lend his energies to the war effort. His assignment was primarily to work with proximity fuses, but he also worked on rockets, arming devices, fire control systems, and acceleration integrators. His great interest in experimentation left him feeling frustrated with the difficulty of field testing at sites many miles from the Laboratory, so that when Dr. L. T. E. Thompson invited him to join the new Naval Ordnance Test Station (NOTS) at Inyokern, he accepted. He is quoted as saying that he arrived there on July 5, 1945, with his wife and two sons, expecting to stay two months. Two months became twenty-two years; he left in January 1968.

Moving to Inyokern was a natural move for the McLean family. They were returning home to California; NOTS was an outgrowth of a Caltech war-time program; his former professors, Lauritsen and Fowler, were closely associated with its formation; but, more importantly, NOTS was a new organization established to work in a field that was of interest to Bill, and it was set up to do research and development as well as field testing. Furthermore, its first technical director, Dr. L. T. E. Thompson, was a physicist who had been chief scientist at the Naval Proving Ground in Dahlgren, Virginia. Bill felt—rightly—that Thompson would understand the opportunities presented to the new organization and he would support the young scientists and engineers who were coming to work for him.

Bill's first assignment was head of the Ordnance Division, which soon became the Aviation Ordnance Department. Nine years after joining NOTS, in 1954, he was appointed technical director, succeeding Dr. Frederick W. Brown, who had replaced Dr. Thompson in 1951. Bill McLean remained the technical director until July 1967, when he was appointed head of the newly formed Naval Undersea Warfare Center at San Diego. His best known achievement at NOTS is the *Sidewinder* air-to-air missile, which used infrared radiation from the target airplane as its source of guidance information. It has been battle tested and proved to be very effective. It is simple, accurate, reliable, and low cost. The technical problems were solvable. The bureaucratic problems were more difficult. Bill was faced with the problem of convincing the Navy that *Sidewinder* was a useful weapon system. As a member of the NOTS Scientific Advisory Board at the time, I feel it is not too much of an exaggeration to say that Bill built *Sidewinder* in spite of the Navy. Eventually, however, his accomplishment was acknowledged and, in 1956, the Navy awarded him \$25,000. In presenting the award, the Chief of Naval Operations, Admiral Arleigh A. Burke, told the assembled group that nothing since the atomic bomb "had done so much for the Navy" as the *Sidewinder* missile.

As technical director of NOTS, Bill was known for his low-key administration. He very seldom gave a direct order to his subordinates, and he did not try to dominate his meetings. He had, however, the respect of his subordinates, and when he had something to say, they all listened. His technical understanding and his creative imagination guaranteed his leadership.

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China Lake Museum Foundation

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PRESIDENT'S REPORT

By BOB CAMPBELL

We had another great Dinner Auction event this year. Highlight for me was the fact that we had four generations of the Campbells in attendance at the start. My mother and father, our daughters and their children. All are shown in the photo by Bob Peoples (See page 6). Dotsy Cronin and her team of volunteers did a tremendous job of pulling the auction together. We realized a net of over \$100,000 from the evening including the sponsorship by Raytheon and donors who were not the Museum. able to attend.

I mentioned in my last report that we were initiating a capital campaign to relocate and expand As the first step, we have hired a fund raising consultant firm—

Graham Pelton—to perform an audit of our fund raising plans. They will conduct interviews with selected stakeholders of the Foundation to assess the feasibility of taking the next step. They will also provide a plan. Their report will be presented in late Sept. to the Board and we will discuss at our annual meeting in September. I hope you all will attend the annual meeting as your inputs are important. In summary, we are evaluating the ability of the Foundation and the interest of the community in proceeding with a Museum that will be sustained by the Foundation without direct Navy support, with the exception of the loan of artifacts and exhibits to help tell the story and educate the public.

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The very fact of their isolation in a desert community, one hundred and fifty miles from Los Angeles, made the technical staff a tightly knit team. Bill was their natural leader. He understood their problems, he saw to it that they had the resources they needed, and he advised them on their technical difficulties.

Although Bill had some difficulties with the Navy in Washington, the Bureaus soon came to realize that their desert facility in California was turning out first-class work, and they tried to minimize bureaucratic interference. Fortunately, the physical distance and travel time between Washington and China Lake helped.

Bill was a true experimentalist. He loved to build things. His home had a shop well equipped with good tools and cluttered with half-built projects. Because he enjoyed scuba diving at a time when very few people had even heard of the sport, he designed his own wet suit and pressure regulator. He enjoyed open-sea boating and designed water vehicles for personal use, even small submarines with glass domes for visibility. His interest led him to solve the problem of how to unload fish from boat to dockside for the commercial fishermen of San Diego. At his San Diego home, he used his swimming pool for some underwater experiments. His interest in underwater activities was reflected in the program at NOTS. Deep diving vehicles and cable controlled vehicles were designed and built. One of these, CURV (cable controlled underwater research vehicle), was used in 1966 to help recover the hydrogen bomb that was lost off the coast of Spain. Another reflection of his interest in novel ship designs was the SWATH (small water area twin hull). This craft was designed to travel at high speed with a working platform well above the sea surface so as to remain steady under almost all sea conditions. It has worked well in tests. Bill was a man who worked on problems under the sea, on the sea, and above the sea. He was a man for the modern Navy.

Those who knew him best describe him as a man who participated easily in the many social functions he attended. He was quiet, good humored, mild mannered, and shy. In his recreation, he was physically adventurous with his skiing, boating, and diving. He was intellectually stimulated when faced with a difficult problem. He was persistent in working toward a solution to discover the truth. He regarded working on a difficult problem as fun, regardless of the time required. In the technical area, he had a gift for identifying the critical experiments needed to determine the validity of a solution. At heart, he was an inventor. He was never happier than when working on some new device or describing it to his friends. His engineering instincts were excellent. He understood the necessity of keeping clearly in mind the function to be performed by the new device and then finding a solution as simple as possible. At the time of his last illness, he was hard at work on new ideas. His interests were turning to solutions for our energy problems.

In a speech given to his church on the subject of science and religion, he stated:
My own beliefs have developed as a result of the study of as much data as I can assimilate, and my early background. The goal is always directed towards trying to find out how things behave. Man has learned to organize, codify and distribute his past experiences first as religious doctrines and then as scientific doctrines. By this process the wisdom of a few is made available to guide the actions of many and as a result the survival of groups of people has been enhanced. Before we had Science, Religion was our only guide. As Science expands, one is tempted to think that Religion must contract. However, this position does not take account of the infinite nature of the unknown. Man must have a belief in God if he is to operate effectively either as an individual or as a member of a group.

In spite of a very active life, Bill's health was not good—but few of his friends realized this. He had been a diabetic since his college days. He had a heart attack in 1968, and he had cataracts removed in 1967 and 1969. During his last illness, Bill, still the experimentalist, encouraged his doctors to try new techniques—unfortunately to no avail. His many friends and acquaintances will remember this man in different ways, but they will all remember him as a man who lived a full life. Administrator, engineer, inventor, hobbyist, family man—in each role he was successful. As an engineer and scientist he had the curiosity needed to ferret out the key factors in a problem, the wisdom to know what were the important elements in the solution, and the tenacity to stay with the problem until it was solved. As an administrator, he had the ability to obtain the resources he needed and to lead the staff that supported him. In his personal life he knew how to relax, and he particularly enjoyed using his technical skills to make his recreation more enjoyable. In his family life he was fortunate in having LaV for his wife, and they built a warm relationship together with their three sons.

HONORS AND DISTINCTIONS**EDUCATION**

B.S. California Institute of Technology, 1935
 M.S. California Institute of Technology, 1937
 Ph.D. California Institute of Technology, 1939

PROFESSIONAL SOCIETIES

Tau Beta Pi
 Sigma Xi
 American Physical Society
 American Association for the Advancement of Science
 Research Society of America
 American Ordnance Association
 American Institute for Aeronautics and Astronautics
 American Society for Public Administration
 Marine Technology Society
 American Society for Oceanography

HONORS

Fellow, New York Academy of Sciences
 Fellow, Institute of Electrical and Electronic Engineers
 National Academy of Sciences, 1965
 National Academy of Engineering, 1973

AWARDS

1956 Federal Government Award for Development of
Sidewinder
 L.T.E. Thompson Award (NOTS)
 1957 Commendation by California State Legislature for
Sidewinder
 1958 President's Award for Distinguished Federal Civilian
 Service
 1960 Blandy Gold Medal, American Ordnance Association
 1965 Rockefeller Public Service Award
 1966 Secretary of Navy Certificate of Commendation
 1969 California Institute of Technology Distinguished
 Alumnus Award
 W. B. McLean Award for Excellence in Patents
 (NWC)
 1972 Harry Diamond Award, IEEE

PATENTS

William B. McLean is the holder of forty-nine patents.

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The Campbell Family—Four Generations

Front: Bob's parents Eleanor and Jim Campbell, Bob's sister Julie

Back: Alice and Bob Campbell, Holly Campbell Forsyth, Mark Rarden with Heather Campbell Rarden

The 4th Generation: Bob Holds Holly's son Brandon, Holly holds second son Noah, and Mark holds the youngest of the three, Robert Dodge Rarden

China Lake Museum Foundation

Dinner Auction, 2010

President's Report (Cont'd from page 3)

I also mentioned in my last report the efforts of Susie Raglin and her team to pull together a summer camp for 4th and 5th graders. I have witnessed the preparations, and the three day camp was held July 20-22. We are looking forward to the assessment by those able to participate. (See article page 7)

Bob Smith and Jack Latimer continue to collect stories from docents and others. These stories will be weaved into the fabric of our new Museum exhibits. We will provide more details as they come available.

China Lake Museum Foundation Holds Science Camp for Grade School Students

The China Lake Museum Foundation with support from the NAWC-WD Educational Outreach Program conducted a science camp for ten and eleven year old students. The camp's theme was the science of flight, and was focused on aircraft and rockets.

Students learned the basics of aircraft flight from classroom lectures and gained "hands-on" experience using computer simulations. A "takeoff and land" contest was conducted using the simulations to stimulate interest and competition. A flight demonstration of a radio controlled model completed the aircraft portion of the program.

The science of rockets was explained with classroom demonstrations and exhibits. Hands-on experience was gained using 2-liter bottle water rockets. Each student personalized their own rocket and launched it as part of the program. To add interest and excitement, a tennis ball was set on top to the water rocket 2-liter bottles. This "second stage" flew two to three times as high as the first stage bottle, and typically remained in the air over six seconds. Experiments performed with these rockets included, determining the best amount of water to put in the rocket, and the performance of different weight and diameter second stage balls.

The final day of the class featured a field trip to the Range Control Center (RCC) and Armitage Airfield. At RCC the students visited the air traffic control center and the bays where range tests are controlled and monitored. At the airfield, students were met by one of the VX-31 pilots who toured them through the facility and gave them an overview of their mission. Finally the students were treated to a close up view and explanation of the controls and switches in the cockpit of a F/A-18E.

The Science Camp was held on three consecutive days for three hours each morning. Two camps were held this summer, one in mid-July, and one in mid-August. Additional camps are being planned.

Photo by Robert Peoples Kids Getting ready to launch Bottle Rockets!



WWII Submariner History Piece

THE SUBMARINE THAT SANK A TRAIN

Eight American sailors conducted the ONLY GROUND COMBAT OPERATION on the Japanese "homeland" of World War II

U.S.S. Barb: The Sub That Sank A Train

In 1973 an Italian submarine named Enrique Tazzoli was sold for a paltry \$100,000 as scrap metal. The submarine, given to the Italian Navy in 1953 was actually an incredible veteran of World War II service with a heritage that never should have passed so unnoticed into the graveyards of the metal recyclers. The U.S.S. Barb was a pioneer, paving the way for the first submarine launched missiles and flying a battle flag unlike that of any other ship. In addition to the Medal of Honor ribbon at the top of the flag identifying the heroism of its captain, Commander Eugene "Lucky" Fluckey, the bottom border of the flag bore the image of a Japanese locomotive. The U.S.S. Barb was indeed, the submarine that "SANK A TRAIN".

July, 1945 (Guam) Fleet Admiral Chester Nimitz looked across the desk at Admiral Lockwood as he finished the personal briefing on U.S. war ships in the vicinity of the northern coastal areas of Hokkaido, Japan. "Well, Chester, there's only the Barb there, and probably no word until the patrol is finished. You remember Gene Fluckey?" "Of course. I recommended him for the Medal of Honor," Admiral Nimitz replied. "You surely pulled him from command after he received it?"

July 18, 1945 (Patience Bay, Off the coast of Karafuto, Japan) It was after 4 A.M. and Commander Fluckey rubbed his eyes as he peered over the map spread before him. It was the twelfth war patrol of the Barb, the fifth under Commander Fluckey. He should have turned command over to another skipper after four patrols, but had managed to strike a deal with Admiral Lockwood to make one more trip with the men he cared for like a father, should his fourth patrol be successful. Of course, no one suspected when he had struck that deal prior to his fourth and what should have been his final war patrol on the Barb, that Commander Fluckey's success would be so great he would be awarded the Medal of Honor.

Commander Fluckey smiled as he remembered that patrol. "Lucky" Fluckey they called him. On January 8th the Barb had emerged victorious from a running two-hour night battle after sinking a large enemy ammunition ship. Two weeks later in Mamkwan Harbor he found the "mother-lode"...more than 30 enemy ships. In only 5 fathoms (30 feet) of water his crew had unleashed the sub's forward torpedoes, then turned and fired four from the stern. As he pushed the Barb to the full limit of its speed through the dangerous waters in a daring withdrawal to the open sea, he recorded eight direct hits on six enemy ships. Then, on the return home he added yet another Japanese freighter to the tally for the Barb's eleventh patrol, a score that exceeded even the number of that patrol.

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What could possibly be left for the Commander to accomplish who, just three months earlier had been in Washington, DC to receive the Medal of Honor? He smiled to himself as he looked again at the map showing the rail line that ran along the enemy coastline. This final patrol had been promised as the Barb's "graduation patrol" and he and his crew had cooked up an unusual finale. Since the 8th of June they had harassed the enemy, destroying the enemy supplies and coastal fortifications with the first submarine launched rocket attacks. Now his crew was buzzing excitedly about bagging a train. The rail line itself wouldn't be a problem. A shore patrol could go ashore under cover of darkness to plant the explosives...one of the sub's 55-pound scuttling charges. But this early morning Lucky Fluckey and his officers were puzzling over how they could blow not only the rails, but also one of the frequent trains that shuttled supplies to equip the Japanese war machine. Such a daring feat could handicap the enemy's war effort for several days, a week, perhaps even longer. It was a crazy idea, just the kind of operation "Lucky" Fluckey had become famous...or infamous...for. But no matter how crazy the idea might have sounded, the Barb's skipper would not risk the lives of his men. Thus the problem... how to detonate the charge at the moment the train passed, without endangering the life of a shore party. PROBLEM? Not on Commander Fluckey's ship. His philosophy had always been "We don't have problems, only solutions".

11:27 AM " Battle Stations!" No more time to seek solutions or to ponder blowing up a train. The approach of a Japanese freighter with a frigate escort demands traditional submarine warfare. By noon the frigate is laying on the ocean floor in pieces and the Barb is in danger of becoming the hunted.

6:07 PM Solutions! If you don't look for them, you'll never find them. And even then, sometimes they arrive in the most unusual fashion. Cruising slowly beneath the surface to evade the enemy plane now circling overhead, the monotony is broken with an exciting new idea. Instead of having a crewman on shore to trigger explosives to blow both rail and a passing train, why not let the train BLOW ITSELF up. Billy Hatfield was excitedly explaining how he had cracked nuts on the railroad tracks as a kid, placing the nuts between two ties so the sagging of the rail under the weight of a train would break them open. "Just like cracking walnuts," he explained. "To complete the circuit (detonating the 55-pound charge) we hook in a micro switch ...between two ties. We don't set it off, the TRAIN does." Not only did Hatfield have the plan, he wanted to be part of the volunteer shore party.

The solution found, there was no shortage of volunteers, all that was needed was the proper weather...a little cloud cover to darken the moon for the mission ashore. Lucky Fluckey established his own criteria for the volunteer party: ...No married men would be included, except for Hatfield, ...The party would include members from each department, ...The opportunity would be split between regular Navy and Navy Reserve sailors, ...At least half of the men had to have been Boy Scouts, experienced in how to handle themselves in medical emergencies and in the woods. FINALLY, "Lucky" Fluckey would lead the saboteurs himself.

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When the names of the 8 selected sailors was announced it was greeted with a mixture of excitement and disappointment. Among the disappointed was Commander Fluckey who surrendered his opportunity at the insistence of his officers that "as commander he belonged with the Barb," coupled with the threat from one that "I swear I'll send a message to Com-SubPac if you attempt this (joining the shore party himself)." Even a Japanese POW being held on the Barb wanted to go, promising not to try to escape.

In the meantime, there would be no more harassment of Japanese shipping or shore operations by the Barb until the train mission had been accomplished. The crew would "lay low", prepare their equipment, train, and wait for the weather.

July 22, 1945 (Patience Bay , Off the coast of Karafuto, Japan) Patience Bay was wearing thin the patience of Commander Fluckey and his innovative crew. Everything was ready. In the four days the saboteurs had anxiously watched the skies for cloud cover, the inventive crew of the Barb had built their micro switch. When the need was posed for a pick and shovel to bury the explosive charge and batteries, the Barb's engineers had cut up steel plates in the lower flats of an engine room, then bent and welded them to create the needed tools. The only things beyond their control were the weather....and time. Only five days remained in the Barb's patrol.

Anxiously watching the skies, Commander Fluckey noticed plumes of cirrus clouds, then white stratus capping the mountain peaks ashore. A cloud cover was building to hide the three-quarters moon. This would be the night.

MIDNIGHT, July 23, 1945 The Barb had crept within 950 yards of the shoreline. If it was somehow seen from the shore it would probably be mistaken for a schooner or Japanese patrol boat. No one would suspect an American submarine so close to shore or in such shallow water. Slowly the small boats were lowered to the water and the 8 saboteurs began paddling toward the enemy beach. Twenty-five minutes later they pulled the boats ashore and walked on the surface of the Japanese homeland. Having lost their points of navigation, the saboteurs landed near the backyard of a house. Fortunately the residents had no dogs, though the sight of human AND dog's tracks in the sand along the beach alerted the brave sailors to the potential for unexpected danger.

Stumbling through noisy waist-high grasses, crossing a highway and then stumbling into a 4-foot drainage ditch, the saboteurs made their way to the railroad tracks. Three men were posted as guards, Markuson assigned to examine a nearby water tower. The Barb's auxiliary man climbed the ladder, then stopped in shock as he realized it was an enemy lookout tower....an OCCUPIED tower. Fortunately the Japanese sentry was peacefully sleeping and Markuson was able to quietly withdraw and warn his raiding party.

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The news from Markuson caused the men digging the placement for the explosive charge to continue their work more slowly and quietly. Suddenly, from less than 80 yards away, an express train was bearing down on them. The appearance was a surprise, it hadn't occurred to the crew during the planning for the mission that there might be a night train. When at last it passed, the brave but nervous sailors extracted themselves from the brush into which they had leapt, to continue their task. Twenty minutes later the holes had been dug and the explosives and batteries hidden beneath fresh soil.

During planning for the mission the saboteurs had been told that, with the explosives in place, all would retreat a safe distance while Hatfield made the final connection. If the sailor who had once cracked walnuts on the railroad tracks slipped during this final, dangerous procedure, his would be the only life lost. On this night it was the only order the saboteurs refused to obey, all of them peering anxiously over Hatfield's shoulder to make sure he did it right. The men had come too far to be disappointed by a switch failure.

1:32 A.M. Watching from the deck of the Barb, Commander Fluckey allowed himself a sigh of relief as he noticed the flashlight signal from the beach announcing the departure of the shore party. He had skillfully, and daringly, guided the Barb within 600 yards of the enemy beach. There was less than 6 feet of water beneath the sub's keel, but Fluckey wanted to be close in case trouble arose and a daring rescue of his saboteurs became necessary.

1:45 A.M. The two boats carrying his saboteurs were only halfway back to the Barb when the sub's machine gunner yelled, "CAPTAIN! Another train coming up the tracks!" The Commander grabbed a megaphone and yelled through the night, "Paddle like the devil!", knowing full well that they wouldn't reach the Barb before the train hit the micro switch.

1:47 A.M. The darkness was shattered by brilliant light and the roar of the explosion. The boilers of the locomotive blew, shattered pieces of the engine blowing 200 feet into the air. Behind it the cars began to accordion into each other, bursting into flame and adding to the magnificent fireworks display. Five minutes later the saboteurs were lifted to the deck by their exuberant comrades as the Barb turned to slip back to safer waters. Moving at only two knots, it would be a while before the Barb was into waters deep enough to allow it to submerge. It was a moment to savor, the culmination of teamwork, ingenuity and daring by the Commander and all his crew. "Lucky" Fluckey's voice came over the intercom. "All hands below deck not absolutely needed to maneuver the ship have permission to come topside." He didn't have to repeat the invitation. Hatches sprang open as the proud sailors of the Barb gathered on her decks to proudly watch the distant fireworks display. The Barb had "sunk" a Japanese TRAIN!

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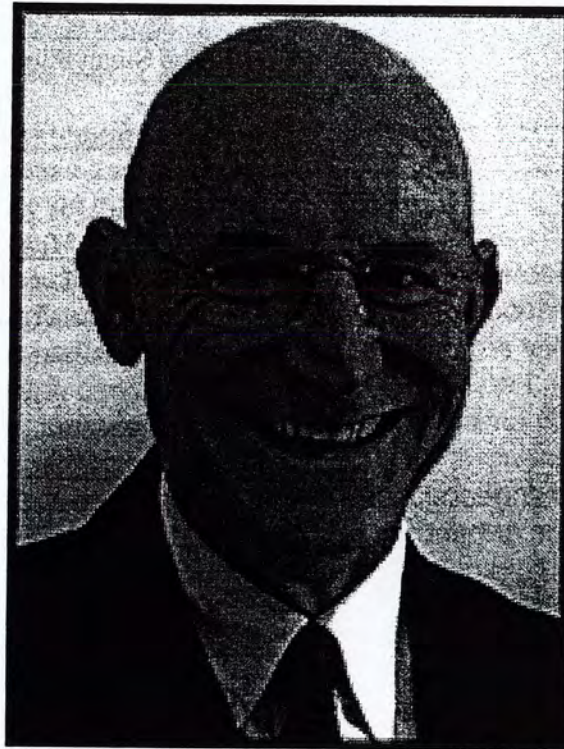
On August 2, 1945 the Barb arrived at Midway, her twelfth war patrol concluded. Meanwhile United States military commanders had pondered the prospect of an armed assault on the Japanese homeland. Military tacticians estimated such an invasion would cost more than a million American casualties. Instead of such a costly armed offensive to end the war, on August 6th the B-29 bomber Enola Gay dropped a single atomic bomb on the city of Hiroshima, Japan. A second such bomb, unleashed 4 days later on Nagasaki, Japan, caused Japan to agree to surrender terms on August 15th. On September 2, 1945 in Tokyo Harbor the documents ending the war in the Pacific were signed.

The story of the saboteurs of the U.S.S. Barb is one of those unique, little known stories of World War II. It becomes increasingly important when one realizes that the 8 sailors who blew up the train at near Kashiho, Japan conducted the **ONLY GROUND COMBAT OPERATION** on the Japanese "homeland" of World War II. The eight saboteurs were: Paul Saunders, William Hatfield, Francis Sever, Lawrence Newland, Edward Klinglesmith, James Richard, John Markuson, and William Walker.

Footnote: Eugene Bennett Fluckey retired from the Navy as a Rear Admiral, and wears in addition to his Medal of Honor, **FOUR Navy Crosses**...a record of awards unmatched by any living American. In 1992 his own history of the U.S.S. Barb was published in the award winning book, **THUNDER BELOW**. Over the past several years proceeds from the sale of this exciting book have been used by Admiral Fluckey to provide free reunions for the men who served him aboard the Barb, and their wives. Admiral Fluckey died in June of 1997. The link is his obituary in the Navy Times.

http://www.navytimes.com/news/2007/06/navy_fluckey_obit_070629w/

China Lake Museum Foundation Lecture Series



Meet Distinguished Author Eric Haseltine

Carriage Inn, Ridgecrest, CA

Friday, September 17, 2010

12 noon - social & light snacks (\$5 donation appreciated)

1 pm - presentation and book signing

Dr. Haseltine grew up in **China Lake**. He is the son of Dr. William R. "Duke" Haseltine, China Lake's premier ballistician, and he is a Burroughs High School graduate. He is a former **CTO for the U.S. Intelligence community**, former **Executive Vice President of Walt Disney Imagineering** and a leader in the design of virtual reality technology for flight simulation with **Hughes Aircraft**.

In his new book Dr. Haseltine discusses how to create long term success, while improving—as opposed to sacrificing—near term performance, through colorful and entertaining case studies including the Sidewinder missile. Dr. Haseltine shows how to work with our brain's craving for instant gratification, instead of fighting this ancient urge. Throughout his career, Dr. Haseltine has been helping organizations harvest the future by developing far-sighted solutions that deliver near-term value.

His new book is currently available at the China Lake Museum Gift Shop and will be available for purchase and signing at the review on 17 September. For additional information please contact the CLMF gift shop 760-939-3530. The book can be ordered by mail by calling 760-939-3530.

New Memberships received since Winter 2010 Newsletter

Business Sponsor Members

The Swap Sheet - Ridgecrest CA

Business Contributor Members (\$100.00 Annually)

Alta One Federal Credit Union - Ridgecrest, CA

Lifetime Members (\$1,000.00)

Ashbrook, Don - Laguna Niguel CA

Bolstad, Jon & Maud - Meridan ID

McLean, Donald & Patricia - La Canada Flintridge CA

Owens, Robert & Martha - FAIRFAX VA

Contributor Members (\$100.00 Annually)

Auld, Bruce & Ann - Ridgecrest CA

Welcome, Dr. Dennis & Mary - Ridgecrest CA

Sponsor Members (\$33.00 Annually)

Goodson, Don & Charlotte - Ridgecrest CA

Siegel, Dan & Kuei Chu - Ridgecrest CA

Waldron, Kurt & Kathy Frazier - Owings MD

Enlisted Military Members ("Free" from Sponsor Memberships)

Akeo, Ronald W. - Ridgecrest CA

Boyd, Gabrielle, S. - Ridgecrest CA

Curry Jr., Timothy & Melinda - Ridgecrest CA

Herrold, Dillon - Ridgecrest CA

McDonough, Shawn - China Lake, CA

Montgomery, Sarah - China Lake CA

Nelson, Timothy & Brenda - Ridgecrest CA

Riley II, Michael & Susan - Ridgecrest CA

Regular Members (\$25.00 Annually)

Bailey, Michael & Tracy - Ridgecrest CA

Beitnes, Brian & Mary - Ridgecrest CA

Borup, Mark & Myrna - Tucson AZ

Burr, Rich & Michele - Ridgecrest CA

Casperson, Charles & Lori - Inyokern, CA

Crawford, Jay & Nancy - Ridgecrest CA

DeAngelis, Lenny & Jinny - Ridgecrest, CA

Grove, Shannon - Bakersfield CA

Hareland, Fredrick & Thelma - Ridgecrest CA

Haseltine, Dr. Eric - Silver Spring MD

Haseltine, Dr. Florence - Alexandria VA

Hicks, Ted & Zell - Ridgecrest CA

Hutmacher, Bill & Jean - Ridgecrest CA

Jolly, Joseph - San Jose, CA

Klabunde, Richard & Linda - Ridgecrest CA

Krebs, Ron & Lynne - Tucson AZ

Kryskowski, Kelly - Ridgecrest CA

Maxwell, Darrell & Verna - Ridgecrest CA

Moore, David & Terry - Ridgecrest CA

Pierson, Brett & Sylvia - Ridgecrest CA

Patterson, Bill & Maria - Tucson AZ

Pentony, Joni - Ridgecrest CA

Peterson, Larry & Jeri - Ridgecrest CA

Rojewski, Gerald & Gayle - Oro Valley AZ

Rutt, Jerry & Jane - Oro Valley AZ

Shew, Thomas & Charlotte - Tucson AZ

Regular Members (\$25.00 Annually)

Continued

Silberberg, Sr., Daryl & Jennifer - Ridgecrest, CA	Thompson, Barry & Lynne - Ridgecrest CA
Smith, Ron and Debra - Ridgecrest CA	Wagoner, Brandon - Yorktown VA
Sprinkle, Chris - Tucson AZ	Whitnell, Douglas - Ridgecrest CA
Stussie, William - Tucson AZ	Zerbe, Jeff & Julie - Oro Valley AZ

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.

Please Support Your Museum Foundation

Help preserve and display the irreplaceable legacy of technology and weaponry for Naval aviation's defense of our Nation. The rich record of China Lake's achievements, past and present, is a vital part of our Nation's heritage.

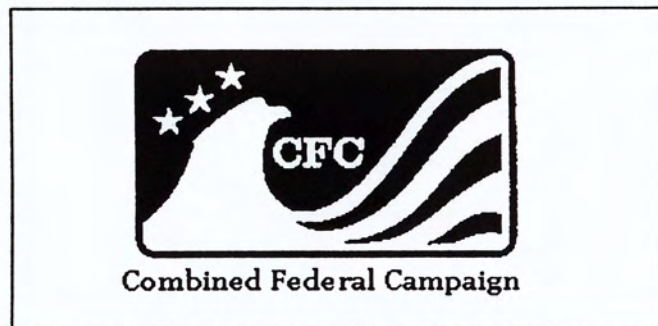
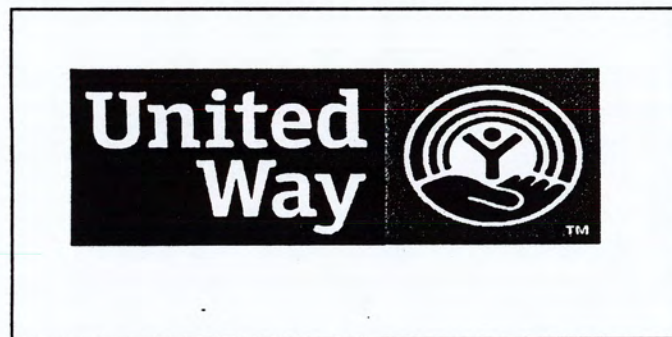
**Membership Fees and Donations
are the life blood of our Museum operations and growth.
And remember: The China Lake Museum Foundation is**

Agency 13086

(Note: New agency number. The old number was 5021)

in the 2007-08 IWV

United Way and Combined Federal Campaigns



**NOMINATION AND ELECTION OF DIRECTORS
OF THE
CHINA LAKE MUSEUM FOUNDATION**

In 2005, the China Lake Museum Foundation adopted updated by-laws which include a provision for electing Directors of the Foundation to three-year overlapping terms of office. This year, up to eight Directors may be elected to three year terms of office. Jim Manion led a nominating committee, and the following have indicated their willingness in serving as a Director:

- | | | |
|-----------------|-----------------|-------------------|
| 1. Bob Campbell | 2. Pat Connell | 3. Dotsy Cronin |
| 4. Dale Gates | 5. Craig Porter | 6. Larry Lincicum |
| 5. Craig Porter | | |
| 7. Susan Raglin | | |

Election: The election of Directors shall be conducted at the Annual Membership Meeting held September 28, 2010. All members in good standing of the China Lake Museum Foundation are eligible to vote in the election. The Annual Membership meeting shall begin at 12:00 AM at the Carriage Inn banquet room in Ridgecrest, California. The election and short business meeting will be followed by a program presentation for your interest and enjoyment. This will be a luncheon meeting, with the menu being the choice of three entrees:

1. Coconut Curry Chicken Breast
2. Lemon Dill Bur Blanc Crusted Trout
3. Vegetable Plate

All entrees served with salad, rice pilaf, mixed vegetables, dessert, iced tea, coffee, and iced water. The price for the lunch is \$12.00 presale, or \$15.00 at the door.

Reservations and tickets for the lunch meeting and entrée selection can be obtained by calling 760-939-3530, the CLMF office. Tickets can be obtained by visiting the office in the Museum. The deadline for obtaining lunch tickets is the close of business on 24 September 2009.

Members of the China Lake Museum Foundation wishing to participate in the Board of Directors election, but not to have lunch, may do so by attending the meeting. Please call the Foundation office and notify us as to your intent so as to ensure seating is available.

*Visit the
China Lake Museum Foundation website!
www.chinalakemuseum.org*

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