AMERICA'S FIRST ATOMIC ADMIRAL

'DEAK' PARSONS

Introduction: The life of William S. 'Deak' Parsons was filled with unusual events and daring-do; the stuff that makes for exciting movies. A historian once wrote that the four major achievements of World War II that materially contributed to the ultimate Allied victory were the atomic bomb, radar, the proximity fuze and penicillin.

Deak Parsons had a hand in the development and deployment of the first three on that list. It was over two decades after the war before enough of the Manhattan Project files were declassified to allow interested people to understand the significant part Deak Parsons played in the creation, development and first practical application of nuclear weapons. Until a few years ago, his story had been largely forgotten.

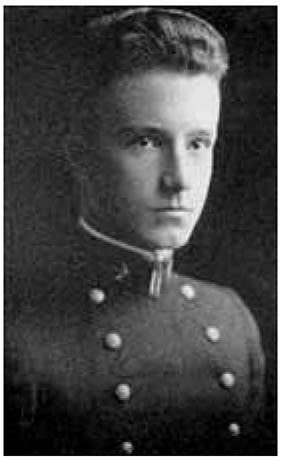
A well-written, highly detailed and downright inspiring biography was published in 1998. Entitled *Target Hiroshima - Deak Parsons and the Creation of the Atomic Bomb*, it spins a fascinating, almost unbelievable, but entirely true tale of a multi-talented American. But neither its title…nor the sub-title above…do justice to his many accomplishments.

'Deak' Parsons, for the most part, was…still is…an unsung hero. For those who may wish to learn more about this dedicated naval officer's stellar career, information about how to obtain a copy of his biography is included at the end of this belated tribute to a career naval officer who also was a brilliant scientist. His quiet, all-consuming devotion to duty in times of extreme stress took him from us far too early.

Bill Lee

William Sterling Parsons was born in Chicago in 1901. His family moved to a remote part of New Mexico when he was nine. Always studious, he finished high school at the age of 16. His abilities caught the attention of his math teacher, who encouraged him to take a competitive Naval Academy entrance exam, sponsored by a New Mexico senator.

At the Naval Academy, his serious demeanor resulted in his fellow midshipmen playing on the name Parsons to nickname him ‘Deacon’. That moniker was later shortened to ‘Deac’ and then to ‘Deak’. That latter spelling soon became an integral part of his name.



Deak Parsons graduated from the Naval Academy in 1922; ranked 48th out a class of 539. The class of 1922 produced two admirals that had early and significant involvement with the development of the nuclear navy. One of them was Deak Parsons; the other was Hyman G. Rickover.

Both were the children of poor parents who could not afford to send them to college, so they entered the academy on the strength of their individual successes in passing the Naval Academy entrance exam. They had to score a minimum of 2.5 (out of a possible 4.0) on each of five subjects; English, Geography, History, Arithmetic and Geometry.

They both did well enough to gain entrance to the academy, as history has duly recorded. But both of them had their lowest scores in the same subject…History. A 2.6 for Parsons and a 2.7 for Rickover. Slightly lower, disqualifying scores in that subject by either or both of them, ironically, might have changed the course of naval history!

Parsons’ early naval career was typical; a succession of shipboard assignments, interspersed with short stints of shore duty. He developed an early interest in weaponry and ballistics while serving in battleships. When ordered to Naval Postgraduate School in Annapolis in 1927, he chose to study ordnance. His next duty station was the Naval Proving Ground at Dahlgren, Virginia.

Throughout his career, Parsons had the heart of a sailor and the inquisitive mind of a scientist. A well-honed attention-to-detail discipline served him well when he was involved with the conversion of complicated concepts into dependable devices. When later it was suggested that he become an Engineering Duty Only (EDO) officer, Parsons decided that above anything else, he was a line officer and a sailor, and rejected that limited classification. Nevertheless, he continued to relentlessly study scientific subjects.

In 1930, he became a gunnery officer in the USS TEXAS (BB-35). In that capacity, he served three years, putting his theoretical training to practical use. Little did he know at that time that his experience with naval rifles would find further application of the most unique sort and success less than fifteen years later, near the end of World War II.

Ordered to the Naval Research Lab (NRL) in Bellevue, Virginia in 1933, Parsons turned his attentions to the problem of how to defend surface ships from airborne attack. Parsons discovered that the Navy had been ignoring a potentially useful phenomenon since 1922; i.e., the use of high frequency radio waves to detect ships and aircraft.

In August 1933, he wrote a memo entitled "Super-High Frequency Radio: Possible Use of Reflected Waves in Airplane Detection and Fire Control". Or, as we know it today; he advocated the development of Radar. He asked for $5,000 to fund a further study of the concept. He was turned down, even though he pressed the issue repeatedly at some risk to his naval career. Several years passed before the Navy awoke and recognized the successes the British had using radar during the Battle of Britain.

During his tour of duty at NRL, Parsons worked with Ross Gunn, a civilian physicist. They were close in age, appearance and brilliance. Their paths would cross later.

Parsons returned to sea duty in 1936, serving as executive officer and navigator in a destroyer and then as gunnery officer in a cruiser. He returned to Dahlgren in June 1939, on the eve of the onset of World War II in Europe. Here, with the title 'experimental officer' he led efforts to test and improve new gun designs and to determine the characteristics of their projectile trajectories, velocities and ranges.

In 1940, Parsons became aware that British antiaircraft fire was ineffective. The chances of making a direct hit on an attacking aircraft were estimated to be one in a thousand. A fuze that would set off an antiaircraft projectile when it came in close proximity (i.e., within the lethal range of the explosive power of the projectile) was badly needed.

There had been lots of theories put forth, but no success finding a workable solution; either in the United States or abroad. The shock of being blasted skyward out of a gun that produced a G-force of 20,000 proved to be too much for miniaturized vacuum tubes and other mid-20th century delicate electronic gear. Eventually, the scientists under Parsons' direction put some of his early theories about radio/radar to good use and developed a complex detection and triggering device that was rugged enough. Each one was essentially a tiny radio sending and receiving station about the size of a 100-watt light bulb.

At first, even under optimum test conditions, only one in ten of these so-called 'smart fuses' worked properly. Multiple modifications followed; each one given a sequential model number. At the end of January 1942, Parsons' team test-fired fifty projectiles of their latest design. Twenty-six functioned correctly. Further modifications allowed the success rate to climb. By mid-August, 1942, Parsons was ready for a realistic field test, using the Mark 32 proximity fuze. He and several members of his team embarked in the light cruiser CLEVELAND, along with a number of rounds of 5-inch ammunition.

Off the Virginia coast, the ship went to battle stations. A series of drone aircraft made simulated torpedo attacks off the Virginia coast. As each of three drones made a run, it only took the cruiser's gunners a few shots to destroy them. The test ended when they ran out of drones instead of projectiles. As one witness later said: "Three runs, three hits and no errors". The proximity fuze was considered ready for production…and combat testing.

A few months later, Parsons, his team and a supply of five thousand fuzes made their way to the Pacific, where they embarked in the light cruiser HELENA and headed to a combat zone. On January 5, 1943, only two, or perhaps three, rounds of the proximity-fuzed shells were fired at a Japanese plane before a close burst sent it crashing into the sea.

While onboard the HELENA, Deak Parsons tried to get orders to take the place of her recently departed executive officer. Instead, he was ordered to return to the United States to further refine the fuze design and help organize and start up the mass production of the proximity fuze. On July 6, 1943, HELENA and 190 of her crew were lost in battle.

The proximity fuze countered the Japanese kamikaze onslaught later in the war, and helped avoid a much higher toll of sunken American ships and loss of life. When German V-1 missiles appeared over England, thousands of what were sometimes referred to as 'funny fuzes' had already been sent to the British, who credited the invention with saving many additional lives.

By the end of the war, 22 million of these compact devices had been manufactured and shipped to the military. They were assembled by hand, largely by women war workers in multiple factories all across the United States.

In mid-1943, Parsons knew nothing about a super secret program code named the Manhattan Project, created in an effort to develop an atomic bomb before the enemy could do so. When his work on the proximity fuze was essentially complete, he longed to be given command of a fighting ship, and returning to the Pacific. Return he would, but under circumstances far beyond even his fertile imagination.

A high level group called The Military Policy Committee that was responsible for the A-bomb's development needed someone to help the scientists assigned to the Manhattan Project move rapidly from theoretical design to development of a practical weapon. General Leslie Groves, the Corps' autocratic and demanding military head of the Manhattan Project wanted an individual well versed in theoretical and practical ordinance. The scientists wanted someone that could help AND talk their language.

Neither faction had been able to identify a mutually suitable candidate. Then, the committee chairman asked Groves: “Would you have any objections to a naval officer?” Groves voiced no objection. The chairman proposed Deak Parsons. Other committee members who knew of Parsons felt there was no better man for the task.

Soon thereafter, Deak Parsons was told to report without delay to Admiral E. J. King, Chief of Naval Operations (CNO). King briefed him on the secret work, its importance to the war effort and the need for Parsons’ unique capabilities. Parsons hid his disappointment at not receiving a combat command and hustled off to meet Groves.

Groves quickly decided that Parsons was, indeed, just the right man for the job. He escorted Parsons to Los Alamos, the secret ‘ atomic city’ only referred to as ‘Project Y’ during the war that was hidden in the rugged mountains of New Mexico; not all that far from where Deak Parsons had grown up.

Groves had no intention of sending Parsons to work at Los Alamos until Robert Oppenheimer, the strong-willed civilian head of the scientific team had met Parsons and found the naval officer to be ‘simpatico’. Oppenheimer and Parsons immediately gravitated towards one another; both professionally and personally.

Much as been written about the tempestuous relationship between Groves (on the left) and Oppenheimer. Deak Parsons often had to serve as a mediator for this ‘odd couple, in addition to his almost overwhelming technical duties. In their respective memoirs, both Groves and Oppenheimer made it quite clear that they individually credit Parsons' participation and unflagging dedication as a major key to the project’s success.

In addition to his technical and mediation skills, Parsons had a low-key leadership style that appealed to military men of all ranks, as well those in academia. He was, first and foremost, a dedicated career naval officer. But at the same time, Parsons was an intellectual who rapidly absorbed the fundamentals of nuclear physics and was quickly able to hold his own with the scientists. He was a consummate planner, taking all possible variations into account so that nothing he could conceive of would impede progress during the Herculean effort required to create a workable atomic weapon.

To help hide the nature of Parsons’ assignment, Admiral King placed Parsons on the CNO staff and promoted him to the rank of Captain. But Parsons spent little time in Washington, DC, except to attend periodic meetings. Instead, he quietly moved his family to Los Alamos, a hastily expanded city consisting of mostly temporary, barracks-like buildings that ultimately provided housing and work space for 5,000 during the war.

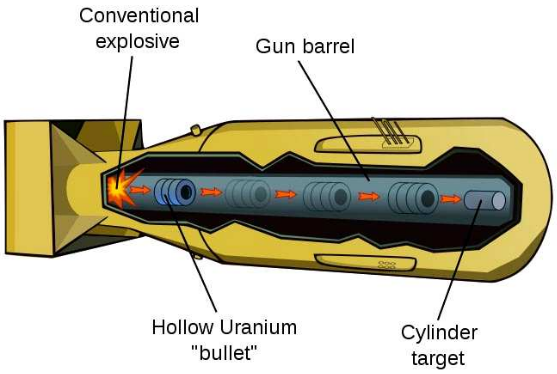
New Mexico's secret city was built on the grounds of the Los Alamos Ranch School, which had been commandeered by the government in late 1942. Deak Parsons was assigned quarters in one of the rustic lodges built for use by the school's staff. The Parsons' residence was located on 'Bathtub Row'; so-called because only the lodges had such bathing amenities at Project Y.

Parsons tirelessly concentrated his efforts at Los Alamos on the many and complex steps necessary to turn scientific genius into military practicality. While working under austere conditions, he served as the ordinance chief, as well as the second in command of the civilian/military complex there. Most importantly, his ordinance experience was invaluable in finding ways to create A-bomb triggers.

One of the first things he discovered, after arriving at Los Alamos, was that there was an on-going debate about how best to initiate an atomic explosion. Two possibilities were under consideration; implosion, using conventional explosives or the use of a gun assembly device. Either one, theoretically, would achieve a critical mass of fissionable material that would result in instant nuclear reaction (i.e., an atomic blast).

As Parsons rapidly absorbed information about the project from numerous physicists, he also quickly realized that they knew precious little about explosives or triggering devices. Both the implosion concept and a gun assembly device depended on such things in order to create an atomic bomb.

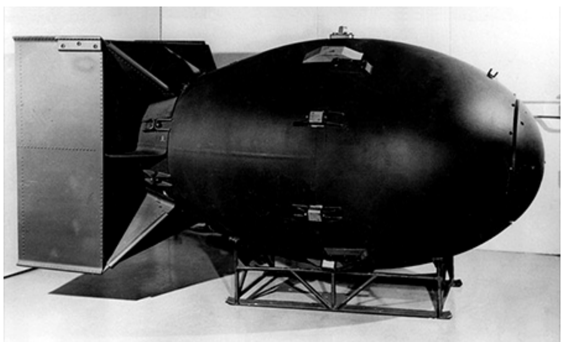
Initially, Deak Parsons was opposed to devoting limited resources to the development of a practical implosion device. He preferred the 'tried and true' concept that a gun assembly device, as shown in the simplistic sketch on the right, would offer. The Military Policy Committee, however, with Groves' strong urging, was unwilling to choose one method over the other.

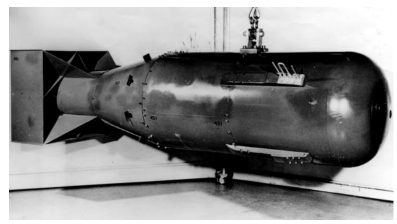


The Manhattan Project had already committed to the expenditure of billions of dollars to produce bomb-grade material based on differing technologies in parallel at other 'secret cities' located in Oak Ridge, Tennessee and Hanford, Washington. Groves was a devotee to this practice, not willing to follow any singular, unproven course of action in developing the A-bomb. The Committee insisted that Parsons follow a similar parallel path with his work. Deak Parsons, despite misgivings, obeyed and redoubled his efforts.

For months, hundreds of scientists, military ordinance experts and craftsmen designed, built and tested a wide range of devices. As Parsons expected, a reliable implosion device proved extremely difficult to develop. While the gun barrel device was finalized somewhat more easily, it too required a state-of-the-art design and multiple modifications based on non-nuclear testing before it was considered suitable for detonating an atomic bomb to be dropped from thousands of feet in the air.

Ultimately, two designs for the first atomic bombs were developed. They differed considerably in appearance. The implosion model, which used plutonium, was nick-named 'Fat Man' (below, left) and the smaller gun assembly device, which contained highly enriched uranium was called 'Little Boy' (below, right).





Everyone agreed that the implosion device needed to be tested using fissionable material. There was enough plutonium on hand by mid-1945 to build two such devices. But only enough highly enriched uranium on hand to build one gun assembly device. Deak Parsons stated that an atomic bomb fitted with a gun assembly device needed no proof-test. It took a lot of convincing, but ultimately his confidence and previous success in ordinance development won out.

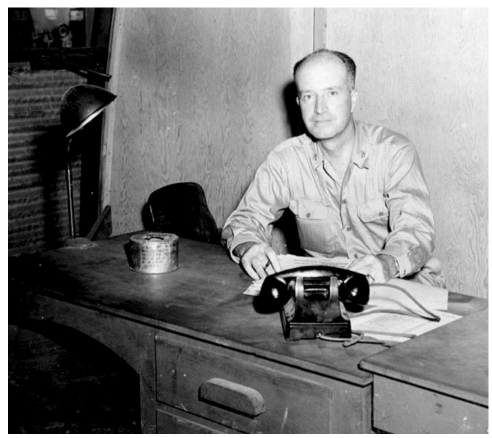
Plans proceeded rapidly to test an implosion device, commonly referred to as 'The Gadget' at a remote site in south-central New Mexico. By July 16, 1945, all was made ready for the world's first atomic explosion. The Gadget, when mounted atop a tower to simulate an air burst, looked more like a sci-fi movie prop than an atomic bomb.

Parsons assigned himself one of the most dangerous tasks; to fly over the tower where the device was suspended and drop test instruments by parachute from a B-29. The plan was to detonate the device after the plane flew out of the estimated range of the blast, but while the test instruments were still airborne. No one knew what to expect, and even the scientists' who knew the most about such things offered widely-ranging estimates.

But as the time for test approached, storm clouds filled with lightening foiled the initial plan. Instead, the B-29 with Parsons as a passenger/observer circled at a range of 20-25 miles from the tower, at 24,000 feet. When the device detonated, they had a ringside seat view of a blast that was bigger than anticipated, and might have downed the plane if the original plan had been followed.

In parallel, with the A-bomb developmental efforts, the Army Air force had designated a squadron of B-29s to serve as the delivery and observation vehicles…if the bombs were to be used in combat. Although the decision to bomb Japan is still hotly debated, President Truman authorized use of this new weapon, in hopes of forcing Japan to capitulate and avoid an invasion of Japan and an estimated one million Allied casualties.

Soon after the test in New Mexico, Parsons and a small team from Los Alamos made their way to join forces with the 509th Composite Bomb Group on the island of Tinian. Collectively they were code-named Project Alberta. Little Boy arrived later, in separately transported and heavily guarded pieces to avoid any mishap in transit.



Living conditions on that Pacific island were rudimentary and office space was sparse. Parsons directed the day-to-day preparations for possible atomic attacks on Japan from behind a battered wooden desk.

Aside from the civilians of Project Alberta, few on the island had any idea for what purpose Parsons and his companions were there. Colonel Paul Tibbets, commander of the 509th, was one of the few members of the military men assigned to the project that knew why they were there. Consequently, for weeks, rumors ran rampart all over the island.

After watching overloaded B-29's crash on takeoff and sometimes explode, Parsons decided that Little Boy should not be fully assembled until after a successful takeoff. Once again, he convinced his superiors of the wisdom of such an audacious plan, then assigned the task of airborne assembly to…himself.

In preparation for Little Boy’s deployment, a pit was constructed in which the over-sized weapon was placed on a hydraulic lift. This provided enough clearance for a low-slung B-29 to straddle the pit. This activity fostered even more rumors.

The aircraft selected for the first A-bomb mission had been named the *Enola Gay* by Tibbets, in honor of his mother. On August 5, 1945, the *Enola Gay* was backed over the pit where Little Boy rested. Cautiously, the 9,700 pound bomb was raised and secured in the aircraft, minus some critical parts required to fully arm the weapon.

Parsons created a check-list of eleven simple…to him…steps that were required to arm the bomb in flight. He carefully memorized the steps, but then gave the list to an assistant to be read to him during the flight to make doubly sure no assembly mistakes might occur. After the bomb was loaded, Parsons entered the aircraft's bomb bay and practiced the steps, repeatedly, for two hours, until he was satisfied what he proposed to do was feasible. He then put together a kit containing hand tools, back-up tools and spare parts. Parsons had seemingly planned for every conceivable contingency. Except one…

At 0130 hours the next morning, the twelve men destined to make the first atomic bombing mission assembled at the plane's remote and well-guarded parking spot. As they prepared to board the aircraft, General Farrell, Deputy Director for the Manhattan Project wished Parsons well. Then he suddenly asked: "Where's your gun?"

Parsons, constantly checking to make sure every planned activity went off flawlessly, had improbably forgotten this crucial detail. As the one man on that flight with complete knowledge of all the technical details associated with the bomb's design and construction, not to mention his knowledge of the proximity fuze secrets; capture was not an option for him. Embarrassed, he borrowed a security officer's pistol and holster.

At 0245 hours, the *Enola Gay* took off, carrying Little Boy and a full load of fuel. She was 15,000 pounds heavier than the maximum designated by her designers. The aircraft lumbered safely into the air, using all but the last few hundred feet of a runway over 1-1/2 miles long. Fifteen minutes later, at an altitude of 5,000 feet, Parsons and his civilian assistant, Morris Jeppson, crawled into the aircraft's drafty and dark bomb bay.

Parsons completed the final assembly of the a-bomb, working from a shaky, makeshift catwalk with only a flashlight for illumination. As his assistant read from the checklist, Parsons armed the device. Progress, step by step, was radioed back to Tinian, in case something went wrong… Parsons feared any loss of touch, by using gloves, might possibly result in dropping or cross-threading delicate parts, or cause breakage of an irreplaceable insulator. Any such mistake could have caused the mission to be aborted…or worse. When finished, his hands were bleeding and greasy.

As the B-29 approached the Japanese coastline, Parsons briefly returned to the bomb bay. In sub-zero temperature and wearing an oxygen mask, he removed three small, green-colored plugs that prevented the bomb's circuitry from functioning. Then, he replaced them with identically-sized red plugs, which connected the bomb's firing circuitry to its internal batteries. At that point, only a pressure switch sensitive to altitude kept the bomb inactive.

The green plugs used on that flight were saved by Parson's assistant; see certification tag, dated the following day, to the far right.

The rest, as is so often said, is history. The well-documented series of events associated with the only use of atomic weapons in war time need not be repeated here.

When they returned to Tinian, during an immediate mission debriefing the Silver Star medal was pinned to Parsons' greasy and sweat-stained uniform by an Army Air Force general.

The next day, Parsons flew to Guam with the B-29's commander to give Admiral Nimitz a first-hand account of the mission. Then Parsons returned to Tinian to help prepare Fat Man for possible use.

When the Japanese did not accede to the Allied demands for unconditional surrender, Fat Man was deployed. For that mission, one of Parsons' assistants served as weaponeer. Parsons was ordered to stay behind to plan for more missions, should they become necessary. His 'consolation' prize was promotion to the war-time rank of Commodore.

Back at Los Alamos, when the news of the first mission's success was released, there was much celebration by those 'in the know'. After over two years of wondering, Deak Parsons' wife and family learned what he had been doing all those long days, nights and weekends that he had devoted to his secretive work. As did the rest of the world…


SANTA FE NEW MEXICAN

Los Alamos Secret Disclosed by Truman

ATOMIC BOMBS DROP ON JAPAN

When the Japanese surrendered, Parsons dismantled his operation on Tinian and went home. There, he participated in a successful effort to keep Los Alamos from being shut down because of the euphoria of victory. In mid-November, 1945, he was feted to a going-away party by the scientists at Los Alamos. They gave him a faux diploma that declared he was ‘A Scientist, Gentleman and above all an Officer of the Highest Caliber’.

Moving back to Washington, DC by year-end, he was soon engaged in the planning of a series of tests to determine the effects of atomic weapons on naval vessels. In January of 1946, Deak Parsons was promoted to Rear Admiral at the age of 44.

Almost immediately after ‘making admiral’, Deak Parsons became interested and involved in the ‘rediscovery’ by the Navy of a 1939 proposal made by Ross Gunn, Parsons’ former civilian scientific partner. Shortly after nuclear fission was proven on a laboratory scale by others, Gunn had concluded that uranium could be used as fuel for submarine propulsion. Some further studies on this concept, started before America’s entry into World War II, were laid aside to deal with more urgent needs, such as developing radar, the radio proximity fuze and the atomic bomb.

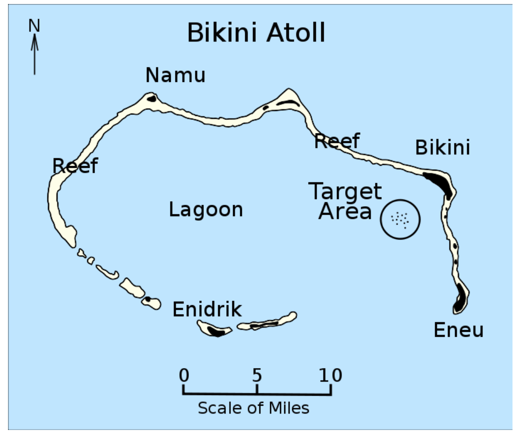
In November of 1945, the deputy chief of the Bureau of Ships broached the subject with General Groves. Although there is no record of Groves consulting with Parsons about the feasibility of nuclear propulsion, that would seem eminently logical.

Ross Gunn had also taken up the cause of nuclear power for submarine propulsion after the war. In 1946, he submitted a detailed feasibility study for a nuclear-powered submarine to the Bureau of Ships. There is no evidence that he and Parsons’ collaborated, but they were working in Washington, DC for the Navy at the same time. Surely…

Parsons proposed on March 26, 1946, that “several of our brightest and most imaginative and creative young engineering officers be selected for transfer to the Manhattan Project.” Two days later he augmented that recommendation with a memo to his Navy boss that included the following statement: “The naval application of atomic power for ship propulsion is the obvious first feasible use of this phenomenon.” In June, the Navy arranged with General Groves for eight naval officers to go to Oak Ridge to study. One of those eight was Parsons’ Naval Academy classmate, Hyman G. Rickover. Again, as is so often said, the rest is history…

Parsons, with the title Special Weapons Officer, soon was busily engaged in developing plans for subjecting naval vessels to atomic blasts. His boss coined the name “Operation Crossroads” when he noted that: “sea power, air power and perhaps humanity itself…are at a crossroads”.

Named task force deputy commander for Operation Crossroads, Parsons was soon fully engaged in what he referred to as the largest laboratory experiment in history. Forty thousand men, dozens of target ships, a hundred other support vessels and three hundred airplanes converged 4,000 miles west of the continental United States at Bikini atoll. To help study the effects of radiation, several hundred goats and pigs, and 5,000 rats also ‘participated’.

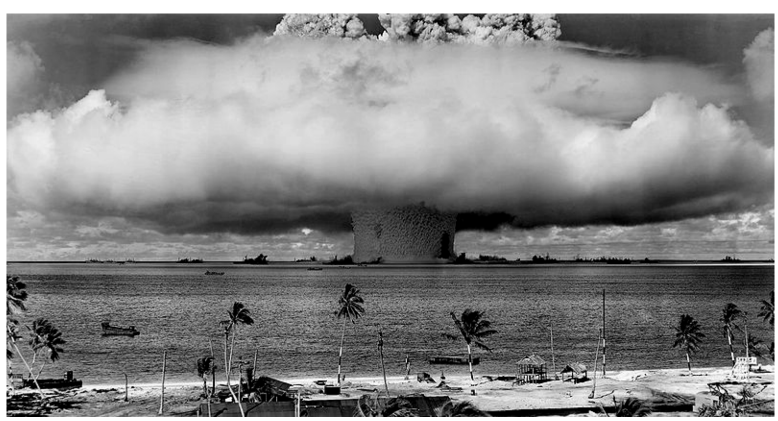


Parsons arrived at Bikini in early May 1946. He toiled night and day to get everything ready; considering and preparing for every possible contingency. He believed the planned tests would help establish the future direction of ship design and fleet deployments.

Two weapons were donated during the month of July. The first, a bomb dropped from a B-29, was off target by a half mile, in spite of clear weather. Limited information was gleaned from high speed cameras, and radiation and other types of detection equipment.

Despite that error, five ships were sunk and a number of others damaged. Parsons and his staff began to gather data and create a test report. In parallel, preparations were made for the second test; one in which a nuclear device was suspended 90 feet below the prime target ship, a Landing Ship, Medium (LSM). The carrier SARATOGA and the battleship ARKANSAS were anchored several hundred yards away from the LSM. A number of other naval vessels, in simulated fleet deployment, were positioned further away.

The underwater explosion created a number of unusual phenomena. The most visible was millions of tons of water that first rose one and a half miles in the air, then dropped back into the lagoon. Invisible, but far more insidious, were the heavy doses of the radiation contamination deposited on most of the target ships.



Only a few fragments of the LSM were ever found. SARATOGA and ARKANSAS were sunk, along with eight other vessels. The vessels that survived displayed shocking amounts of structural damage. Over the next few weeks, all of the test animals died. As the scientists in Parson's organization worked to evaluate the results of the second test, crew from the undamaged support ships tried to decontaminate the unmanned test ships.

Their efforts were only marginally successful. Several of the test ships, too 'hot' to handle, had to be scuttled. A third planned test was canceled. Operation Crossroads was at a dead end. A year later, a classified report of the test results was completed, and Deak Parsons took a two week vacation with his family; the first in seven years.

Following that brief respite, Deak Parsons returned to his assignment as the Navy's most experienced nuclear expert; one that also provided him with the unofficial title of Atomic Admiral. Certainly, that sobriquet was apt. After all, he had a major role in the development and initial deployment of nuclear weaponry, and also was the only person to witness seven of the first eight atomic explosions in the world.

Always thinking far ahead of his contemporaries, in 1947, when nuclear weapons still weighed tons each and could only be delivered to targets by large bombers; he envisioned and wrote about missiles with nuclear warheads being fired from submarines. By 1949, Parsons had deliberately groomed a replacement, and reminded the Navy that he was still a line officer…whose last sea duty had been in 1949.

For a while, the Navy didn't get the message…and assigned him to combined services' group to examine the effectiveness of present and future weapons. Disappointed once more, nevertheless, he did not object.

In December of 1950, six months after the Korean War erupted, he renewed his campaign for sea duty. He confided to friends: "I finally threatened to call myself 'Former Naval Person'."

On February 2, 1951, the Atomic Admiral took command of Cruiser Division Six in a ceremony held on his flagship, the cruiser MACON. A little over a year later, he was relieved of that command.

His next assignment, quite logically, was to become deputy chief of the Bureau of Ordinance. In that role, he became engaged in the development of, amongst other new weapons, nuclear depth charges and the Sidewinder missile.

In the fall of 1953, his former associate and close friend, Robert Oppenheimer, became a target of the anti-communist hysteria created by Senator McCarthy. On December 4th, Parsons was shocked and dismayed to learn that his friend's security clearance had been revoked. Extremely upset, that evening he complained to his wife about chest pains.

Ever the scientific inquirer, he consulted the encyclopedia about heart attacks. Because he had no pain in his left arm, he concluded his heart was not the problem. The next morning, after a restless night and still in pain, he yielded to his wife's insistence to seek medical help. They drove to the Bethesda Naval Hospital, but before doctors there could even complete a preliminary exam, the Atomic Admiral, age 52, was gone.

Stress and overwork during the war years were attributed to be major contributions to his early demise. But just a few months before he died, a physical exam indicated he was in good health. His wife felt that the news about Oppenheimer literally broke his heart.

There was an outpouring of sentiment from government officials, officers of all services and his fellow scientists. Additional recognitions followed in the form of two buildings named for him. Appropriately, one is a physics laboratory and the other a US Navy nuclear weapons training center.

Rear Admiral William Sterling Parsons, USN was interred with full military honors in Arlington National Cemetery. His grave is marked with the same simple stone used for thousands of others men and women who have devoted their lives to the defense of the nation.

There was one additional honor that Deak Parsons undoubtedly would have particularly appreciated. On August 19, 1958 a post-war design destroyer, the USS PARSONS (DD-949), was christened by his widow. Completed as a conventional destroyer, DD-949 was later converted into a guided-missile destroyer and re-numbered DDG-33.

DDG-33 served until decommissioned in 1982. In 1989, she was utilized as a target ship for newly developed weapons of that era.

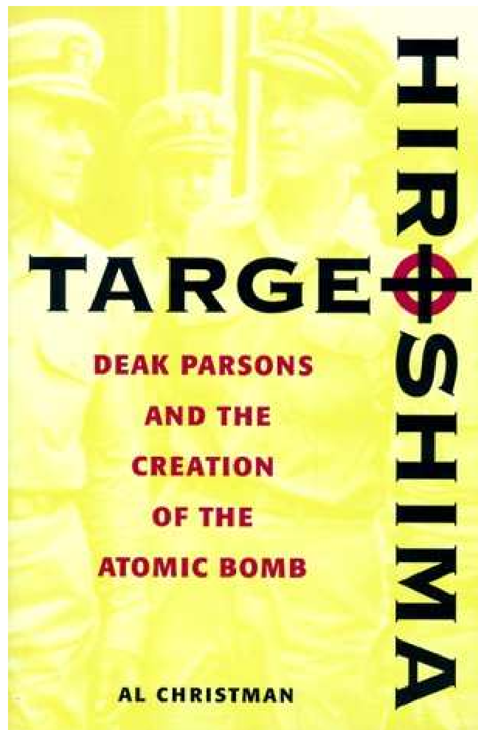
Her namesake, who had been a leader in mid-20th century weapons development, would surely have applauded that utilization of an otherwise obsolete resource.

Postscript: The foregoing summary discussion of Deak Parsons' many professional successes are not intended to overshadow, slight or ignore the parallel efforts of many others that worked in association with him. Collectively, they forged some of America's greatest technological advances.

The fact that such developments took place in a compressed period of time, while our nation was at war and resources were in short supply makes their accomplishments all the more impressive. They didn't know they couldn't do the impossible…so they did!

Since 1945, the story of the Manhattan Project has been told and retold countless times. Even in well-documented and scholarly tomes, Parsons' role, for whatever reason, is not accorded the credit that he is rightly due. Most likely, because Deak Parsons was only interested in results; not personal credit.

Fortunately, author Al Christman has ferreted out an amazing amount of well-documented details, plus painted an intensive word-portrait of the man he says 'had the heart of a sailor and the searching mind of a scientist'. Christman interviewed dozens of family members, friends and former naval and scientific community associates over a period of three decades.



As a result, his book not only covers Parsons' career in considerable detail, it also provides much insight as to the sailor/scientist's intelligence, foresight, family life…and his humanity.

Christman's work is available, on-line, in both new and used condition by numerous booksellers. Published in 1998 by Naval Institute Press (ISBN #1-55750-120-3), searching by title or author will yield multiple and economical sources for this book.