<u>United States</u> <u>Atmospheric & Underwater</u> <u>Atomic Weapon Activities</u>

1945 "TRINITY"
ALAMOGORDO, N. M.

1945 "LITTLE BOY" HIROSHIMA, JAPAN

1945 "FAT MAN" NAGASAKI, JAPAN

1946 "CROSSROADS" BIKINI ISLAND

1948 "SANDSTONE" ENEWETAK ATOLL

1951 "RANGER" NEVADA TEST SITE

1951 "GREENHOUSE" ENEWETAK ATOLL

1951 "BUSTER - JANGLE" NEVADA TEST SITE

1952 "TUMBLER - SNAPPER" NEVADA TEST SITE

1952 "IVY" ENEWETAK ATOLL

1953 "UPSHOT - KNOTHOLE" NEVADA TEST SITE

1954 "CASTLE" BIKINI ISLAND

1955 "TEAPOT" NEVADA TEST SITE

1955 "WIGWAM"

OFFSHORE SAN DIEGO

1955 "PROJECT 56" NEVADA TEST SITE

1956 "REDWING" ENEWETAK & BIKINI

1957 "PLUMBOB" NEVADA TEST SITE

1958 "HARDTACK-I"
ENEWETAK & BIKINI

1958 "NEWSREEL"

JOHNSON ISLAND

1958 "ARGUS"
SOUTH ATLANTIC

1958 "HARDTACK-II" NEVADA TEST SITE

1961 "NOUGAT"
NEVADA TEST SITE

1962 "DOMINIC-I"

CHRISTMAS ISLAND
JOHNSON ISLAND

1965 "FLINTLOCK"
AMCHITKA, ALASKA

1969 "MANDREL" AMCHITKA, ALASKA

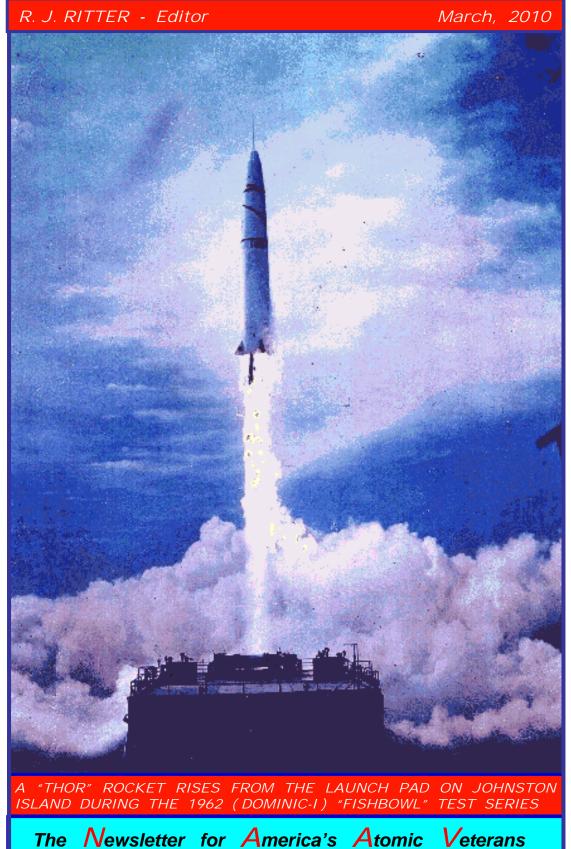
1971 "GROMMET"

AMCHITKA, ALASKA

1974 "POST TEST EVENTS" AMCHITKA, ALASKA

" IF YOU WERE THERE, YOU ARE AN ATOMIC VETERAN "





COMMANDERS COMMENTS

NAAV is now entering it's **31**st. year of assisting *America's Atomic-Veteran* community in the areas of obtaining proper documentation to insure the fair and expedient processing of **VA** claims for radiogenic health issues that may have been caused by exposure to lonizing radiation particles while on active duty in the military. Although the ratio of effort to

success has not been very high, we were able, in a multitude of cases, with the help of the *Veterans Advisory Board on Dose Reconstruction* (*VBDR*), to influence major improvements in the *VA* radiogenic claims processing and adjudication procedures.

The **VBDR** has also been attempting to get **DTRA**, or the **VA**, engaged in an "**Atomic-Veteran-Outreach**" effort. After two years of attempts to implement such an effort, the results have been minimal, at best. All printed information issued by any Federal Government Agency has to be blessed by a host of "risk-analyst's" and "legal-beagles." This drawn-out and procrastinated process has prompted **NAAV** to actively engage in such an effort. As a result of our first effort, the January (2010) issue of **VFW** magazine included a short article of **NAAV**'s history of assisting **Atomic-Veterans**, and their surviving families.

The response to the **VFW** article has, to date, generated more than **7,600** requests for additional information regarding potential **VA** services & benefits. The majority of those submitting such inquiries were not aware that they were no longer held to their "oath-of-secrecy." We have fully responded to all of these requests, and will continue to do so accordingly.

Approximately 65% of those inquiries were from **A-Vets**, who may be experiencing "Presumptive" and "Non-presumptive" illnesses, while approx. 20% were **non-A-Vets** who may qualify to file a radiogenic health issue claim with the **VA** as an "Occupational" radiation exposure event. The remaining inquiries were from the surviving Spouse of a deceased **A-Vet**. This response is also ample proof that "only a Veteran can successfully outreach to other Veterans." It is our hope that either the **VA** or **DTRA** will be able to get the message out to other surviving Atomic-Veterans, similar to **NAAV's** approach, with informational articles in other military publications and newsletters, including the **American-Legion** and **Disabled American Veteran** magazines.

As an additional point of interest, and over the last few months, we have been contacted by several news documentary groups, including the *Australian* (*60 minutes*) team, a group from the *British Broadcasting Corp.* (*BBC*), and two *Japanese TV* production groups, all of whom are interested in interviewing *American Atomic-Veteran's* who participated in nuclear weapons tests, both in the *Marshall Islands* and at the *Nevada Test Site*.

These interviews and related stories afford **NAAV** the opportunity to continue to reveal the manner in which *America's Atomic-Veterans* were treated, by shrouds of secrecy, by hard-core obfuscations, and by a (mostly) indifferent Congress, over the last 65 years. It is difficult to convince any surviving **Atomic-Veteran** that that he was not used by his own Government as a nuclear weapon test "**Guinea-Pig.**"

The *Aussie 60 minutes* group want to set up an interview with a few *A-Vets* who participated in the (1946) "*Crossroads*" Operation at *Bikini Island*, after which they may want to fly them back to *Bikini* to further enhance their past experiences with the "*Able*" and "*Baker*" tests. More details will follow, as they develop. We continue to seek (tax-exempt) contributions to assist us in defraying the costs of our "*A-Vet-Outreach*"

efforts. It is important to note that the Directors and Officers of **NAAV** dedicate their service to our Mission Statement without compensation. Our sole source of operating income is derived from **annual membership dues** and **(tax exempt) contributions**. We are most thankful for all previous acts generosity in these areas.

Final Muster

Charles Clark (HI) John Scoggins (OK) James Long (SD) David Heitmiller (MN) Sheldon Steffer (NM) Robert Ward (CO) Dean Snyder (IL) Earskin Nabors (MS) William Garrell (CT) Dovle Moore (NB) John Sanchez (NM) Thomas Salvato (FL) Richard Maes (NH) William Broadnax (TX) William Stone (SD) Carl Morris (KY) Roland Edgeworth (TN) Marvin Ford (MN) Lloyd Pritt (FL)

William Nichols (CA) Arthur Abell (DE) Richard Knight (KS) Bill Gillhooly (TX) George Schnabel (NY) Melvin Weese (NM) Jesse Williamson (OR) Curtiss Nolan (TX) Rudolph Basso (VA) James Potts (OK) Edward Moysenko (AZ) Donald O'Neil (WA) Carl McDonald (TN) Eugene Wooten (NH) Charles Sadler (MO) Dan Lutz (CA) Charles Aaronian (NJ) Duane Leonard (OH) John Hawkins (LA)

We ask our members to observe a special moment of silence to properly recognize & thank them for their honorable service and total commitment to their God, to their families and to their Country.

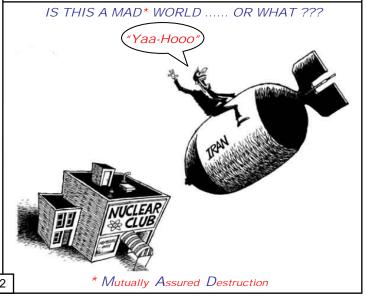


May Our Deceased Atomic-Veteran (Cold-War) Comrades "Rest in Peace"



ARE YOUR ANNUAL DUES CURRENT???

If you are an annual member, please check the (*red*) numbers following your name. This number sequence indicates *your dues expiration date*. Example: *02-01-10* indicates that your dues will expire, or have expired on that date........... We ask that you keep your dues current, so as to be able to continue to receive *NAAV* newsletters & additional pertinent information......... When your dues are received, we send you a new *NAAV* membership card showing the new expiration date. We cannot afford to send out annual dues reminders!!!!



BACK TO COURT DECADES AFTER A-TESTS

New York Times, August 6, 2008 By: John Schwartz

The *Bikini Islanders* are coming to court......again!! The latest round in a series of long-running lawsuits will be heard at the *United States Court of Appeals* for the *Federal Circuit*. The former residents of *Bikini Atoll* agreed to be removed from their homes in the 1940's so the United States could test atomic weapons there. The tests at *Bikini* took place from 1946 to 1958, when the Atoll, part of the *Marshall Islands*, was an *American* trust territory. The residents, fewer than 200 at that time, were relocated to other

Although it has been more than 50 years since the nuclear weapons testing ended, Bikini Atoll will remain radioactive for hundreds of years. Many of those Islanders have since developed a host of radiogenic illnesses resulting from the radiation particle fallout from those tests, and from an attempt to resettle the Atoll in the 1970's, after the U.S. Government mistakenly told them it was safe to return to their home Island. In the 1980's, the U.S. granted sovereignty to the Marshall Islands, including Bikini, in the 1980's. Part of the diplomatic compact included a 150 million payment that Congress, in ratifying the compact, called a "full and final settle-

nearby Pacific Islands.



A Doctor checks an Islander exposed to radiation fallout from a (1954) "Castle" H-bomb test.

ment," of all claims across the Marshall Islands. But the compact also seemed to leave a door open to further payments, as another part of the agreement created a tribunal to judge legal claims as "a means to address past, present and future consequences of the nuclear testing program including the resolution of resulting claims." It includes a provision that allows the tribunal to petition Congress for additional financing in the case of "changed circumstances."

The tribunal, after hearing years of evidence, said in 2001 that the *Islanders* deserved **\$563 million** in compensation. This figure also included money for soil remediation. At the time, however, the tribunal only had approx. **\$2 million** to pay out to the *Islanders*, so the *Bikinians* and their lead lawyer for 33 years, *Jonathan Weisgall*, went to federal court to ask for the rest of the money.

"They want to go home," said Mr. Weisgall, who wrote a book on their fight, "Operation Crossroads: The Atomic Tests at Bikini Atoll," and produced a documentary in 1998, "Radio Bikini." Last August, the United States Court of Federal Claims dismissed the suit seeking the rest of the \$563 million. In her decision, Judge Christine Odell Cook Miller said that the Islanders had brought their lawsuit past the six-year statute of limitations for filing claims under the Tucker Act, a law pertaining to suits against the United States, and that they had jumped the gun by filing a suit in a case that Congress might still act upon.

In filing the suit, *Mr. Weisgall* had referred to the basic language of the *Fifth Amendment* (of the *U.S. Constitution*) which states that private property cannot be taken without just compensation. He brought in an appellate lawyer, *Patricia Millett*, to take the case to the appeals court.

When *Ms. Millett* read the judge's opinion, she recalled, she phoned him, and in a shocked voice asked him, "Did you file too late, or did you file too early? That can't be right." That was the reasoning of the judge, who was appointed in 1982 by *President Ronald Reagan*, along with a determination that the case involved political issues that the courts have no jurisdiction over.

The seeming Catch-22, Ms. Millett said, "really encapsulates what's been going on for half a century." A spokesman for the Justice Department declined to comment specifically on the case but sent the government's briefs, which lay out arguments similar to those made in Judge Miller's decision. The briefs state that in creating the compact with the Marshall Islands, "Congress intended the agreement to accomplish a full and final settlement of claims."

Meanwhile, the community ages. Of the original 167 islanders who were moved (in 1946) only 45 are alive. The community has grown, however, and now numbers more than 4,000, most living on the *Marshall Islands*. *Mr. Weisgall* said he was committed to the fight, which he began as a 25-year-old lawyer. "It's a long black eye against the United States," he said.

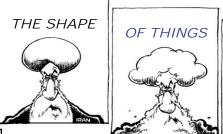
A leader of the *Bikinians*, *Tomaki Juda*, said in a telephone interview that his people had been moved from island to island over the years and just wanted to return safely to a place that they think of as paradise and a homeland. "We are like the people of Israel," he said. "We wander in the desert with Moses for 40 years, until the return to the promised land."

This article has been revised to reflect the following correction: August 8, 2008 – Correction: An article on Thursday about lawsuits filed by former residents of *Bikini Atoll* who agreed to be removed in the 1940s so the government could test atomic weapons there misidentified the court in which the suits will be heard. It is the *United States Court of Appeals* for the *Federal Circuit*, not the *District of Columbia Circuit*.

RADIOACTIVE CELL PHONE STRAPS ARE RECALLED!!!

Hiroshima, Japan: Two people were arrested here – the site of a U.S. Atomic bomb attack – last Summer for selling cell phone straps filled with *Tritium*, a radioactive form of hydrogen used to boost the explosive power of thermo-nuclear weapons. Ads for the novelties urged readers to "buy cell phone straps that can glow longer than ten years!" They each contained 26 times the legal limit of *Tritium*, in violation of the 1957 Radiation Sickness Prevention Law. The Tritium was somehow purchased in England, and the couple processed the Tritium themselves into small glass cell phone "charms."

Although the government declared a recall of the straps, major newspapers had the nerve to report that "no harm can be expected even if the substance flows out, police said," and "Tritium in the product is harmless to humans even if the glass container is broken." On the contrary, internal Tritium exposure greatly increases the risk to pregnant women and the embryo / fetus of early miscarriages, human development malformations, and serious genetic defects. The risks can also be multigenerational.





OPERATION "FISHBOWL" - 1962

Conducted as part of Operation "Dominic" was a series of high altitude tests known as Operation "Fishbowl". These tests were Thor missile launched warheads detonated at very high altitudes (30miles to 248 miles above sea level) to evaluate the destructive mechanisms and effects of high yield explosions against ballistic missile re-entry vehicles (RV's).

Several failures occurred with missiles being destroyed in flight by range safety officers when electronics failed (Bluegill), when rocket motors malfunctioned (Starfish & Bluegill-Prime), or when the missile veered out of control (Bluegill Double Prime).

The **Bluegill-Prime** test was particularly disastrous since the missile was blown up while still on the launch pad, requiring complete reconstruction of the demolished and plutonium contaminated **Thor** launch facility.



JOHNSTON ISLAND "FISHBOWL" TEST FACILITY

"Starfish-Prime" (07-9-62) was designed to use a **Thor** missile to carry a **1.5** megaton thermo-nuclear device to an altitude of **248** miles above sea level. This was the second attempt to launch the "Starfish" test. The original "Starfish" was launched on 20 June, but the **Thor** missile engine cut out only 59 seconds after launch.

The range safety officer sent the destruct signal 65 seconds after launch, and the missile was destroyed at an altitude of approx. **35,000 ft.** The warhead high explosive detonated in 1-point safe fashion, that destroyed the warhead without producing any nuclear yield. Large pieces of the missile fell back on Johnston Island, and more wreckage along with *Plutonium* contamination was found on nearby Sand Island.

"Starfish-Prime" was successful. The Thor missile carried the test instrumentation and the W-49 warhead / Mk-4 (RV) payload to an altitude of 248 miles. The test appeared quite spectacular from Hawaii (800 miles away) and at Kwajalein (1,600 miles away), with impressive light displays from an artificial aurora lasting up to seven minutes. The electro-magnetic pulse (EMP) from this test sent power line surges throughout Oahu, knocking out street lighting, blowing fuses and circuit breakers, and triggering burglar alarms.

The **W-49** warhead used in this test was used on the **Thor**, **Atlas**, **Jupiter**, and **Titan** missiles, and was a descendant of the versatile **Mk-28** thermo-nuclear bomb.

"Checkmate" (10-20-62) was designed for a *Thor* missile to carry a 125 kiloton device to an altitude of *483,000 ft*. This was the second successful "Fishbowl" test, utilizing an *LASL XW-50X1* warhead launched by a solid fueled *XM-33 Strypi* rocket using an *Army Recruit Rocket* booster stage.



THE "FISHBOWL" LAUNCH CREW MAKES PREPARATIONS FOR A HIGH ALTITUDE "EMP" ROCKET LAUNCH.

The **W-50** warhead detonated at an altitude of 91.3 miles, and 41 miles downrange from Johnston Island, and only 3 kilometers from the air zero point. This was possibly the lowest yield variant, the **Y1**, with a yield of **60 kt**. Since the shot occurred essentially above the atmosphere, a luminous fireball was not formed. Instead observers on the island at the moment of detonation saw a green and blue circular region surrounded by a blood red ring. This faded in less than a minute, and blue-green streamers and pink striations developed that lasted more than half an hour.

"Bluegill Triple-Prime" (10-26-62) was designed to use a Thor missile to lift a W-50 warhead, housed in a Mk-4 RV, to an altitude of 160,000 ft., and was the fourth attempt to launch this high altitude test, originally slated to be the first "Fishbowl" shot. The device was similar to those fired in "Adobe," "Aztec," and "Kingfish," that would utilize the standard 200 kiloton (Y2) W-50 warhead, or the 400 kiloton (Y3) W-50 variant warhead.



A "THOR" ROCKET STANDS READY FOR LAUNCH

The initial attempt ("Bluegill") was launched at midnight (local time) on 3 June. Problems had been encountered with the range safety radar prior to launch, and five minutes after launch the Johnston Island missile tracking system failed. Unable to monitor the missile's flight path, the range Safety Officer destroyed it 10 minutes later, and just prior to warhead detonation.

The second attempt ("Bluegill Prime") at 23:15 (local time) on 25 July was a genuine disaster. The Thor missile was carrying one pod, two re-entry vehicles (all heavily instrumented) and the W-50 warhead. The missile engine malfunctioned immediately after ignition, and the range Safety Officer fired the destruct system, while the missile was still on the launch pad.



A large portion of the *Johnston Island* launch complex was completely demolished, and heavily contaminated with *Plutonium* (*Pu-239*) radiation particles. Complete reconstruction was required before launches could be resumed. The third attempt ("*Bluegill Double-Prime*") was made at 21:14 on 15 October (local time). The missile was launched on a true bearing of 150 degrees. Between 86 and 90 seconds into the flight a booster failure occurred and the missile began tumbling, and the missile was destroyed, by remote control, 156 seconds after launch.

Some radioactive debris fell back on to *Johnston Island*. The fourth and finally successful launch resulted in a detonation at an altitude of 31 miles, approximately 19 miles south-southwest of *Johnston Island*. This burst occurred low enough in the atmosphere for fireball formation to occur, and observers saw a brilliant white flash and a noticeable heat pulse on their bare skin.

A slightly distorted bright moon-like sphere was seen, yellow at first, then gradually showing green, pink, and violet hues. Bluepurple streamers were formed. A bright glow persisted for 30 minutes, at times bright enough to read a watch face in the dark. This nuclear fireball was also seen in *Hawaii*.



"Kingfish" (11-1-62) was designed to use a **Thor** missile to lift a 450 kiloton device to an altitude of **320,000** ft., and was the fourth successful "Fishbowl" test. The system that was fired was similar to "Bluegill Triple-Prime", with a W-50 warhead housed in a Mk 4 RV. The detonation occurred at an altitude of 60 miles. The dramatic visual (and other) effects were observed over much of the central Pacific.

The explosion appeared as a bright yellow glow, at first circular, but elongating along a south-to-northwest axis. The long axis reached 125 miles after 30 minutes, and eventually reached 185 miles. The glow persisted for at least 1.5 hours. On *Johnston Island* a yellow-white luminous circle with intense purple streamers was visible for the first minute. Brilliant streamers (beta particle auroras) were seen going north and south from *Maui*. At *Oahu* a bright flash was seen, and after about ten seconds a great white ball was seen rising slowly out of the sea and remained *visible* for several minutes.

Another major effect of this shot was the widespread disturbance of the ionosphere and the consequent disruption of radio communications over the entire central Pacific, which lasted for a period of up to three hours.

"Tightrope" (11-4-62) was a **DOD** sponsored live test of the **Nike Hercules** Air Defense Missile (ADM), utilizing an **LASL** designed **W-31** warhead with a kiloton 40 yield, and detonated at an altitude of 69,000 ft. above Johnston Island. The **W-31** was offered in four yield variants ranging from 1 kiloton to 40 kilotons.

On Johnston Island an intense white flash, to bright to view even through high density goggles, was accompanied by a strong heat pulse. A yellow-orange disc formed, slowly changing to a purple toroid which faded from view after several minutes. This shot is usually regarded as the last U.S. atmospheric test. The later zero-yield atmospheric Plutonium dispersal tests conducted in Operation "Roller Coaster" are however listed as "nuclear tests" by the U.S. government and counted as part of the total of U.S. nuclear tests. Furthermore, several later "Plowshare" nuclear tests ("Cabriolet", "Palanquin", "Buggy" and "Schooner") were surface cratering shots, in which the explosions intentionally broke through the surface, thus venting a substantial fraction of the radioactivity produced into the atmosphere.

JOHNSTON ISLAND - THE AFTERMATH

CONGRESSIONAL TESTIMONY

By:

ROBERT L. CAMPBELL - Atomic-Veteran & NAAV Life Member (Current status – deceased)

On 13 November (1991) I testified before a subcommittee of the *House Veterans' Affairs Committee*, in the matter of *HR 3236*, one of the many ill-fated pieces of legislation that were offered to address the problems of America's *Atomic-Veterans*. Needless to say, this bill, as was the case with previous bills of similar nature, went nowhere fast.

My written testimony dealt with issues associated with Operations "Crossroads", "Upshot-Knothole", "Greenhouse", and "Dominic-I". In preparing this report, I was aided by Mike Thomas, a former member of the famed Navy Patrol Squadron VP-6. Mike, with the help of his Congressman, obtained a copy of "Radiological Survey - Johnston Atoll" dated April-August 1980 and produced by the Edgerton, Germhausen and Grier Energy Measurements Group (DNA-8114), Remote Sensing Laboratory, U. S. Department of Energy.

I urged, then Senator Alan Cranston (D-Ca.), to include as Atomic Veterans, personnel assigned to Johnston Island for the period of June 30, 1946 to August 31, 1980. My reasons for this request were as follows:

The report, which was not released for public consumption until almost ten years after it was written, stated that transuranic contamination of *Johnston Atoll* occurred as the result of three Thor missile aborts during the Dominic-I "Fishbowl" tests.

For openers, the report stated that measurements revealed the presence of *Cesium-137* as the result of world-wide fallout.

The three aborts were as follows:

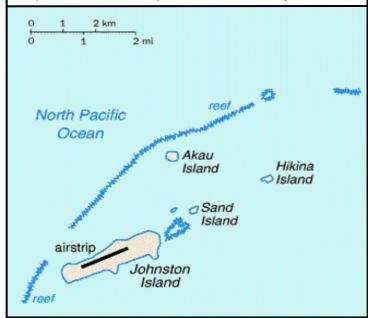
"Starfish" (06-19-62) aborted at 30,000 ft.,

"Bluegill-Prime" (06-25-62) aborted on launch pad
"Bluegill Double-Prime" (10-15-62) aborted at 109,000 ft.

I would interject, at this point, after talking with many "Dominic-I" veterans, that they believe the atmospheric abort altitudes, as reported in the study, were a work of fiction. The missiles, they claimed, were aborted at much lower altitudes.

Paraphrasing the report, when the "Starfish" missile with it's nuclear warhead was destroyed, several pieces of the metal skin and miscellaneous debris fell back onto Johnston Island, and in the surrounding waters. A search for debris was initiated and a substantial amount of Alpha contaminated scrap was located and placed in an unused portion of the launch pad (LE-1) enclosure. Contamination from "Bluegill-Prime" was spread over the entire LE-1 pad area. Sea disposal of radioactive waste was then performed.

In the years since [1962], contamination problems surfaced on a number of occasions. In 1964, the *U.S. Public Health Service* conducted an *Alpha* survey, at which time about four hundred 55-gallon drums of contaminated debris were disposed of at sea. A second survey performed in 1965 yielded another 50 drums of contaminated material. Then, in 1973, the *Nevada Operations Office* of the *Atomic Energy Commission* (*AEC*) conducted a survey using newly developed radiation detection instruments and found radioactive contamination throughout Launch Area One, extending to Launch Area Two. There were eight "hotspots" detected on *Johnston Island*, outside the launch complexes, and nine "hot-spots" detected on nearby *Sand Island*.



Further, 65 new "hot-spots" were found in the vicinity of Launch Area Two, and yet another 30 "hot-spots" were found on other pre-1964 portions of Johnston Island. Those who read my report, must know that prior to 1964, landing on that island could be likened to landing on top of a table. When I landed there in 1950, the plane's crew chief informed us that "the trick was for the pilot to put the wheels down on one edge of the island and hope the plane stopped before reaching the other end of the island". After 1964, the landing areas were extended by building up the island to accommodate jet transport service. The plane I flew in, at that time, was a four engine DC-8.

Searches for new "hot-spots" continued after 1974, and between the period of June, 1975 and March, 1980, over 500 radiation emitting spots were found and removed.

Radioactive elements involved in the survey include:

Americium [half life = 458 yrs.]
Bismuth-214 [half life = 9.17 yrs.]
Cesium-137 [half life = 30 yrs. (Gamma)]
Radium-236 [half life = 1,620 yrs.]
Thorium-234 [half life = 24.10 days (Beta)]
Plutonium [half life = 23,889 yrs.]
Plutonium-239 [half life = 6,760 yrs.]
Uranium-235 [half life = 7,130,000,000 yrs.]
Uranium-238 [half life = 4,510,000,000 yrs.]

The report contained, in relevant part, "The equivalent AM-241 is distributed over the ground surface with no soil [coral] barrier, i.e., AM-241 has a ground depth of 0 cm. This would be a conservative assumption for predicting dose via inhalation if resuspension were to occur from the 0 cm depth" (emphasis added). In so many words, AM-241 contamination was laying on top of the Island surface, and not buried in any fashion!!

The Defense Threat Reduction Agency (DTRA), at that time was identified as Defense Nuclear Agency (DNA), has never reported where the Ocean dumping of nuclear waste material occurred, or the location where other radioactive debris was disposed of.

Internal exposure of radioactive materials is covered quite thoroughly in the **DNA's** three volume report of the "Cleanup of Enewetak Atoll". This report state that "It has been well documented that radioactivity in soils can re-suspend into the atmosphere and be available for inhalation (or ingestion)."

"For most radio-nuclides, this pathway contributes to insignificant dosage, compared with dosages derived from other pathways, but not for Plutonium and other actinide elements. These latter radio-nuclides contribute negligibly to external exposures to the whole body and move in-efficiently through food chains, resulting in increased relative importance of the inhalation pathway."

It would be reasonable to assume that personnel, either assigned to *Johnston Island*, from 1946 to 1980, or those transiting through this location, were in a position to either inhale or ingest harmful airborne radioactive materials without knowing and therefore, the government bears a hugh responsibility, which, in my humble opinion, cannot continue to be ignored.

I also wish to note that *Werner Von Braun*, the former *Nazi* rocket scientist, and one of the "Top-Guns" in American rocketry design and development, was at *Johnston Island* for the three *Thor* test failures. The *Thor* was his creation, and an eye-witness, former Air Force Security Officer (*Henry Brunnel*) said he saw *Von Braun* climbing all over the rockets at the launch pad....... *Von Braun* later died of cancer!!

NUCLEAR WASTE BOOBY TRAP REPLACED

Oakridge, Tennessee: Part of the Y-12 nuclear weapons complex here was using 112 metal cargo containers full of radioactive waste as a "security barrier" until July, 2009. The shipping containers holding (so-called) "legacy" wastes, from nuclear weapons production, have since been replaced with concrete and razor wire. Identification and characterization of the containers' radioactive contents had never been done before using them as shields. It seems that if potential truck bombers were to smash through the security barrier, and their explosives had worked, they would encounter a nuclear waste "booby-trap" courtesy of the U.S. Government. Funding has since become available to properly identify and dispose of some of the waste.

The rest will be stored until additional funds become available.

INCREASED MEDIA INTEREST IN U.S. A-VETS

The British Broadcasting Company (BBC) recently held an interview with Capt. Nelson (Buz) Broussard (U.S.M.C. Ret.), a NAAV member who resides in Lafayette, LA. NAAV was contacted a few months ago by a BBC representative, and given the interest in the "Badger" test, associated with the (1953) "Upshot-Knothole" series. The BBC is doing a documentary about America's Atomic Veterans, and was interested in those who were assigned to Camp Desert Rock, Nevada for that particular test. "Buz" submitted the following recap of his interview.

Saturday, March 06, 2010 SUMMARY OF (FEB. 28, 2010) INTERVIEW WITH BBC By: Nelson "Buz" Broussard (Capt. U.S.M.C. Ret.)

Despite having caught food poisoning in Philadelphia, and delay caused by snowstorms on the East Coast, two *BBC* newsmen arrived at "Buz's" house in Lafayette, Louisiana on Sunday, 28 February 2010 to interview him about his witnessing the 300-foot high tower burst of the 23 kiloton device, "Badger", (18 April 1953) of the "Upshot-Knothole" Series of Exercise Desert Rock V in the Nevada Test Site. The preliminaries had been guided months in advance by NAAV Cdr. R.J. Ritter, and BBC Executive, Miss Viva VanLoock.



THIS PHOTO OF "BUZ" AND VERNA BROUSSARD WAS TAKEN AT THE WW-II MUSEUM IN NEW ORLEANS, LA.

The two newsmen (Peter & lan) unloaded and set up their lighting and photographic equipment and sat me towards the battery of equipment operated by lan, while Peter gently led me into the three (3) eventual main phases of the interview. (1) General mindset of me & the +2500 U.S. Marines involved. (2) the surroundings as we prepared for the burst, and the sights, sounds and colors and movements of troops and test animals, and, (3) my feelings 50 years later on the events, and, possible blame directed to the U.S. Government, for the ionizing radiation injuries I suffered from being so close to ground zero, and the lack of protective devices and decontamination facilities.

All went well on the first two main phases, but it appeared that it was difficult for *Peter* to accept that I did not blame the *USA* per se. I explained that the *USSR* and *USA* (and the West) were playing a terrible game of "brinkmanship" at this time, and had the *USA* not surmounted the *Soviets* in nuclear armaments, we might be in gulags and reading *Russian* newspapers.

Certainly, we would not have achieved the *Strategic Arms Limitation Treaty* (*SALT*) under which the then *USSR* & our *USA* agreed to reduce by 90% the *50,000* (yes, that's right: fifty-thousand) nuclear warheads aimed at each other!



"SIMON" WAS A 43 KILOTON TOWER TEST OF A TX-17-24 TWO STAGE THERMONUCLEAR PROTOTYPE THAT DEVELOPED INTO THE WX-17 AND WX-24 AIR-TO-AIR MISSILE WARHEADS.

(This retreat from Armageddon has been given short shrift by the media.) I hope that I made it clear to **BBC** that the *Atomic-Veterans*, by their selfless devotion to duty, stopped World War III *before* it started. The *Mutually Assured Destruction* (**MAD**) theory made even the most reckless leader ponder the usefulness of an attack that would destroy both attacker and attacked (and most of their citizens.)

I mentioned to *Peter* that, sadly, the radiation injuries of both participants and progeny are being neglected by the Agency designated to help them: the *Veterans Administration (VA)*. The January 3, 2010 exposé (*CBS 60 Minutes*), of the *VA* giving bonuses and perks to several of their employees for *not* helping Veterans is sickening & needs to be rectified.

My hope is that this worldwide documentary will reveal the nature of the hitherto unknown sacrifices made by *Atomic-Veterans* and *Radiation Survivors* in preventing *WW-III*. As a Veteran of *World War-II*, *Korea, Vietnam* and the *Cold War*, I see my participation in the *Cold-War-Atomic-Tests* as being my greatest achievement in gaining relative peace in the world. (*Note: BBC will send me a DVD before the Series airs this autumn.*)



U.S. MARINES ARE SHOWN HERE ADVANCING TOWARDS THE "HOT-ZONE" AFTER AN "UPSHOT-KNOTHOLE" NUCLEAR TEST

Editors notes:

Along these lines, *Cdr. Ritter* also recently devoted three hours to a (second) film session, with a *Japanese* documentary crew, in *Houston, TX*. The interest here was centered around the host of radiation illnesses experienced by *U.S. Atomic-Vets*, and in the manner in which they may be recognized and compensated for "service-connected" radiogenic illnesses.

Additionally, **NAAV** has been contacted by the **60 Minutes** office in Australia, who want to set up a film session with a few **A-Vets** who were involved in the (1946) "**Crossroads**" tests. During our initial conversations with the Aussie's, they indicated that they may want to fly these "**Crossroads**" interviewees back to Bikini, to relive those memories. We will keep you posted on future developments along these lines.

PLANE CRASH AT ATOMIC TEST SITE From: Robert Schwab (Kingsland, Tx.)

"DRONE PLANE CRASHES, PERILS TROOPS AT NEVADA ATOMIC BLAST SITE"

[San Francisco Examiner - April 26, 1953]

Las Vegas Nevada – April 25th. American troops were imperiled during an atomic explosion today, when a pilot-less "drone" plane careened crazily into the blast area, and crashed a short distance away on the Nevada desert proving grounds. The Navy AD-2 (Skyraider) propeller-driven plane was part of history's biggest military atomic maneuvers in which approximately 3,000 troops participated. There were no casualties.

The plane had been borne aloft by a mother ship and then turned over to ground control on an assigned mission to attempt to pierce the atomic device's "thermal envelope" – heat wall around the atomic fireball. The detonation wrenched the plane from its radio control as the atomic explosion ripped skyward.

A tense drama ensued as crews aboard two "mother" planes, and at the *AEC* control point sought to keep the "drone" plane flying and away from the troops, who were crouched in several trenches 4,000 yards from "ground-zero." But the plane could not negotiate the fantastic heat wave which boils out of an atomic explosion before the mushroom cloud forms. The plane, hot with radioactivity, plowed into the desert at about 400 mph. The Navy *Skyraider* "drone" crashed just beyond the test troops, south of the firing area and north west of the detonation site, on *Yucca Flats*, a scant short distance from the trench area.



A NAVY (AD-4 SKYRAIDER) PILOT GETS FINAL INSTRUCTIONS PRIOR TO AN "UPSHOT-KNOTHOLE" TEST SUPPORT MISSION

Other aircraft have successfully flown through the atomic mushroom cloud, but today's drone mission was the first time a plane had attempted to pierce the fireball's heat wall. The blast, seventh in the (1953) "Upshot-Knothole" series, brought atomic experts another step nearer the historic firing of the first atomic artillery shell from a 280mm (Mk-65) cannon. This test is expected on May 21st. Tests eight and nine are scheduled on May 2nd. and May 7th.

Roughest Jolt: AEC officials who witnessed the test detonation from a control point seven and one-half miles from "ground-zero" said the shock wave was the roughest jolt to date. Several light globes and window panes were shattered in a number of guard stations and other (Camp Mercury) buildings on the proving grounds. Later, scientists learned that radioactive material fell from the atomic cloud across a major highway near the Nevada farming community of Glendale and Alamo, 100 miles east of the blast zone.



ROBERT SCHWAB AND HIS FELLOW ATOMIC "GUINEA-PIG" TROOPS ARE HUNKERED DOWN IN A TRENCH JUST BEFORE THE "SIMON" TOWER TEST

This was the first such experiment since the tests began in Nevada. The *AEC* said the radiation was not a dangerous degree, but roadblocks were set up, nonetheless, the check passing vehicles and their occupants for radiation.

One automobile was washed after it was found to be slightly contaminated with fallout particles. One report said that more than two dozen windows were shattered at a mining operation 20 miles north of the test site.

Fourteen Congressmen witnessed the shocking detonation from a the control point and were unanimous in describing the atomic blast as "a fearful force" and "an awesome spectacle."

Despite the plane crash, the well-disciplined ground troops rose from their trenches and foxholes, and moved without further incident into simulated atomic warfare attack formation and into the "ground-zero" area. They stalked toward the 300 ft. tower where the nuclear device was detonated, observing on the way several pieces of combat equipment that had been exposed to the heat, blast overpressure and radiation effects.

The **AEC** said that mice, sheep and rabbits had again been used in the tests, and added that fifty-two aircraft participated, including six **B-47's** and six **B-50's**. Eight volunteer officers-observers occupied foxholes in advance of the troop positions, but they were not made available for our interview.

At *Las Vegas*, seventy five miles to the southwest, the gambling and resort city reported a slight rumble five minutes after the detonation. The atomic cloud rose to a height of 40,000 feet.



UPSHOT-KNOTHOLE "SIMON" (04-25-53) WAS A 43 Kt. TEST OF A COMBINATION "TX-17" AND "TX-24" EXPLOSION SYSTEMS, COUPLED WITH A REDESIGNED "RACER" PRIMARY CONTAINING A SMALL AMOUNT OF SUPER ENRICHED (ORALLOY) URANIUM MATERIAL THAT WOULD BOOST THE TOTAL DESIGN YIELD BY AN IMPRESSIVE FACTOR OF 2 TO 1

IN SEARCH OF THE TRUTH ABOUT THE EFFECTS OF DEPLETED URANIUM (D.U.)

"Despite Threats, DU Expert Pushes on with Pursuit of Truth"

By Brian Covert - Independent Journalist

San Francisco Bay Area Independent Media Center

Kyoto, Japan - If it seems that *Dr. Asaf Durakovic's* visits to *Japan* are always preceded by violent threats and harassment back home in *North America*, it is only because that is a constant reality for him. Just before coming to *Japan* last year to appeal the deadly dangers of *Deplete-Uranium* (**DU**) to the *Japanese* government and general public, his family back in the U.S. received a spate of telephone threats.

The latest Japan visit (his third to this country) was preceded earlier this year by the ransacking of his Washington D.C. home. "Nothing was stolen from the house, but every single paper in my house was scrutinized," said the 64 year old Durakovic in a recent interview here. "And I don't know who did it. I have no idea. It was reported to the police [but] the police were helpless in finding the culprits," said Durakovic.

The windows of his car, he adds, were smashed out earlier this year at his home in *Canada*. And that's not counting what *Durakovic* calls the "betrayal" of the organization he heads, the Toronto-based *Uranium Medical Research Center*, by outside infiltrators over the past year, or the mysterious hit-and-run incident in Toronto that targeted some of his colleagues in front of a church on a quiet Sunday morning.

These anonymous acts of violence over the past year, he says, are the kind of unfortunate price that all conscientious scientists throughout history have had to pay in trying to get the truth out, and in his case, the truth about *Depleted-Uranium* (*DU*), a lethal waste product of the Uranium enrichment process that has become a critical part of modern-day warfare.

"Many doctors and scientists have joined the soup kitchen because of speaking up against the obvious injustices that are going on in the world," said Durakovic. He also said he intends to keep on talking publicly about **DU** despite the ongoing pressures to quit.

He was recently in *Kyoto*, the ancient *Japanese* capital, to do just that before an audience of a couple hundred students and scholars at the prestigious *Doshisha University*. His speaking appearances are generally warmly received by the public in *Japan*, if not ignored by the *Japanese* government and mainstream media.

Durakovic's troubles, of course, date back far beyond this year or last. As a military insider, he had served at the rank of Colonel in the U.S. Army Medical Corps during the 1990-91 "Operation Desert Shield" phase of the Persian Gulf War attack on Iraqi military forces. Upon returning to the States, he was appointed Chief of Nuclear Medicine at the Department of Veterans Affairs Medical Center in Wilmington, Delaware.

He recalls that a group of American veterans who had served in *Iraq* were referred to him with apparent traces of *Uranium* in their bodies. *Durakovic* ordered diagnoses on the soldiers and the tests, he says, came back positive. The test records later were supposedly lost somewhere along the line by U.S military officials.

Durakovic then did more tests and came up with the same positive results. "So it was obvious the [U.S.] government lied," Durakovic told this writer in an interview in Osaka, Japan last year. The pressure on Durakovic to immediately cease his testing of American veterans for Depleted-Uranium poisoning in their bodies was steadily raised, including from the Chief of the

military hospital where he worked.

Durakovic was fired from the hospital in February, 1997. He never got his job back. He went on that year to found the nonprofit Uranium Medical Research Centre, in Toronto, to continue testing for Depleted-Uranium and to challenge official claims of **DU's** minimal risks to humans and the environment.

His team has since gone to *Afghanistan* and *Iraq* to collect and test *DU* samples directly from civilians, as well as from U.S. military veterans who are now Stateside. Over the past year, *Durakovic* and his colleagues have continued presenting their findings at scientific gatherings and public forums around the world.

Last year, *Durakovic* won the "2004 Nuclear-Free Future Education Award" in India in recognition of his work. And, his team's tests for **DU** contamination continue to produce positive results, he said. This evidence has hit especially close to home for *Durakovic*.

Two of his **UMRC** field staff members fell ill after spending a few days in *Samawah*, *Iraq*, collecting **DU** samples in 2003. One of them, *Tedd Weyman*, remains nearly incapacitated to this day with severe respiratory problems.

"It is alarming because he [Weyman] only stayed in the area for eight days," said Durakovic. "Now, I'm asking everybody to use their common sense and think of what might have happened to people who were stationed there for three, four, six months."

That includes the hundreds of Japanese Self-Defense Force soldiers still stationed in Samawah, the same area in Iraq where Durakovic's team had confirmed DU contamination. An estimated 500 Japanese soldiers recently departed for Samawah with great fanfare from an SDF base in Itami, Hyogo Prefecture in western Japan.

How **DU** will affect those and other *Japanese* soldiers now based in *Iraq* - ostensibly to help shore up the U.S. occupation remains to be seen, as the *Japanese* press and even opposition political parties are mostly mute on the subject of depleted uranium. But *Durakovic* says he would "very much appreciate an opportunity to be introduced to some of those [Japanese] veterans" and hopefully test them for **DU** someday.

His fight to reveal the truth about **DU**, he maintains, is not about merely confronting the *Pentagon* or the *U.S. Department of Defense*, but also standing up to what he calls the "political-industrial complex" of other countries - such as *Britain* and *Canada* - that he sees as stonewalling or trying to whitewash the facts and data surrounding *Depleted-Uranium*.

"The Department of National Defense of Canada conducted a worthless study [of **DU**] in which millions of dollars were spent, using the wrong population, the wrong methodology and wrong specimens to come to the wrong conclusions," said Durakovic. "And their wrong conclusions were that there is no risk of **DU** because they found nothing. But our team found **DU**, our team found sick people, our team found catastrophic dimensions of radioactive warfare." And I asked the people from Canada: 'Why didn't you use a washing machine to measure uranium isotopes? Because your methodology is as equally insensitive as a washing machine'."

If Durakovic has faith in anything, it is in the power of science to rise above all forms of politics. "Eventually, the truth of scientific information will prevail. Political parties rise and fall. Governments and kingdoms rise and fall. Swords and crowns can be dug [from] the mud of dirty rivers, but scientific facts will always remain unchallenged."

"That is what we have to encounter today," he adds. "In the unpleasant reality of radioactive warfare, somebody has to be taking the consequences for the work that is not according to the tastes of the current political opinions."

His plans for the coming year include continued testing of the remaining 120-plus **DU** samples his team has taken from people in *Iraq*, as well as continued **DU** testing of civilians in *Port Hope*, *Canada* and *Padukah*, *Kentucky* (in the *U.S.*) - places in *North America* with their own histories of nuclear contamination and cover-up. So for now, despite all the threats and harassment, *Dr. Asaf Durakovic* pushes on with his **DU** research, undeterred by the ideological winds of time: "We were not afraid of the communist secret police. I lived in communist Yugoslavia and I was not afraid of that. So I'm not going to be afraid of free countries either."

Note: Brian Ohkubo Covert is an independent journalist based in Hyogo, Japan.

"VOICES FROM NUCLEAR HELL"

My name is **Nuell W. Paschal**, and I was Quartermaster aboard the **USS Fall River (CA-131)** engaged in *Task Force One*, *Operation "Crossroads"*, at Bikini Island, in1946. I was one of **42,000** healthy young men who were used as human guinea pigs for this test. I am now past the age of 75, and I am one of only 15% (of the original 42,000) who have survived the two "Crossroads" atomic bomb tests. It has been almost 60 years since the blasts and I am just learning the true extent of the damage to my body these tests has caused.



I grew up in *Stout, Texas* during the "Dust Bowl" and the remainder of the *Great Depression*. My father was a veteran of **WW-I**, and was totally disabled after being shot through the stomach. Against my fathers wishes my grandmother signed the papers for me to join the *U.S. Navy* at the age of 17, and I hitch-hiked to *Tyler, Texas* and was sent to the boot camp in *San Diego, CA*.

After basic training I was transferred to *Camp Catlin*, a Marine base where we underwent intensive Quartermaster training, and received a "Q" security clearance. After this, I was loaded on the *U.S.S. War Hawk*, in *San Francisco* and sent to the *South Pacific*. During my training much time was spent learning to use the sextant to take azimuths, to measure the angle between heavenly bodies and the horizon so as to determine their height.

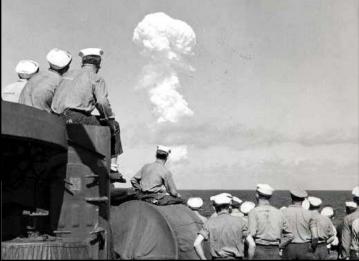
I did not know I was training to participate in an atomic bomb test with *Task Force One*, for which my ship, the *Fall River*, was to be the flag ship. We proceeded to the *Marshall Islands*, and to *Bikini Island*, to be exact, and trained for the exercise for a month or so.

We were never told about radiation, and such complete secrecy about the atomic tests surrounded us with our "Q" clearances

and known consequences of breaking our security oaths that we did not ask questions or even talk among ourselves of the (radiation exposure) risks. In my case I only learned of the declassification and the "openness law" about three years ago.

Atomic bomb test "D" day came at 0800 on July 1, 1946. I was assigned to assist *Mr. Clair Beaumont*, an artist for *Life Magazine*. I took measurements for him and marked them every 15 seconds, measuring the atomic mushroom cloud height at 2,000 feet, 12,000 feet, and 25,000 feet. The cloud rose to about 42,000 feet in 1 ½ minutes!

We had no protective equipment for this test. I was given a pair of dark glasses and ordered to watch for the initial flash, take them off immediately so I could take the azimuth readings. The heat wave and fall-out could easily be felt where we were positioned on the East side of the blast.



FALL RIVER CREWMEMBERS VIEW THE "ABLE" MUSHROOM CLOUD

We were anchored 7.8 miles from ground zero. Given the 1,500 hundred extra yards where the fly boys missed their target and dropped closer to us, this is closer than what had been reported. We immediately went into the lagoon to access the damage to ships and measure their angles in the water to determine the impact of the explosion.

The most noteworthy ship was the *USS Nevada* which had been painted orange and was supposed to be the target but was missed by 1,500 yards. It was fitted with two tri-pod masts, one forward housing the bridge and navigation, and one aft which was a conning tower. These were held up with 16 inch steel posts, and in seconds the heat had melted them like wet noodles and the masts collapsed onto the bridge.

On the ships decks we had placed all sorts of animals, including chickens, and they were a pitiful sight, all burned, cooked, bleeding, living & dead !! The medic-types would tend to their needs, and they would be used in radiation effect studies. This was the end of the "Able" test, so we had nearly a month to finish assessing the damage and to train for the "Baker" test.

We did our daily work which included scrubbing down the radioactive ships with radioactive (lagoon) water. We also had several beach parties on *Bikini*, in which we were supplied plenty of 3.2% (near) beer. We swam in the radioactive water, and we drank the radioactive water. We walked barefoot on the radioactive sand and we slept on the radioactive ships.

On July 25, 1946, the "Baker" bomb went off as scheduled. The bomb was suspended 90 ft. under one of the barges.

This is the blast about which there has been so much controversy. I am convinced the government did not want the world to know how awful this bomb really was, indeed I did not realize just how much until after that blast.

When the bomb went off in the lagoon the wall of water was ¾ mile wide and rose to 15,000 feet in a few seconds. It blew the entire aircraft carrier (USS Saratoga) 2,200 feet into the air where it broke in two pieces, at the bridge, then fell bow down and stern down and slowly sank. I know for a fact that this happened because I took the azimuths of it.

In seconds the column of water rose to an altitude of three miles, and a thick fog rolled toward us as the column fell back to the lagoon. I have now learned that this "base-surge" was highly radioactive.

Only a few days after this blast, I became deathly ill and was transferred to the hospital ship, *USS Benevolence*, by a ship-to-ship long line. I was there for *21* days and lost from *165* pounds and was down to a weight of 121 lbs. I was unconscious for *15* of these days and when I came to I could not walk, and had to learn all over again. I was given injections of something I had never heard of, and as a kid, I was raised in the house with a doctor.

I was told I had *Malaria*. I now know what I had was sickness from radiation exposure. I realize now the health problems I have had since were caused. by this exposure. I was sent back to the *USS Fall River* a couple days after my 18th birthday, August 16, 1946. Ironically this was the day after the entire operation was called off because of the deadly radiation levels and the third test, *"Charlie"* was canceled.

We arrived back in the *United States* around *November 7, 1946*. We took this huge cruiser up the Columbia River for a Navy Day show off. After this we were sent to Terminal Island, San Pedro, California, where I was mustered out on a hardship release but was not discharged until 1951. My blood pressure was so high they had to keep me for two weeks on medication. This has plagued me all my life since and has been the cause of the health problems I have had, including a quadruple coronary by pass and a stroke which claimed most of my vision in both eyes.

Although I was initially told that my medical records could not be found, they were then sent to me in 2000. My records show that upon entering the Navy, I was in perfect health but only 1 year and 4 months later the records show 3 fractures, fractured hips, and Malaria, along with a notation no official records of this could be found. They did admit to a definite loss of hearing, however; my blood pressure numbers showed lower than when I went in!

I am now totally disabled and depend on my wife for most of my daily care and to drive me to my **VA** appointments. She is at risk of losing her job because of missing so much work. I live entirely off my social security and we must have her income.

I filed for pension in February, 2000 and was told none of my problems were service related and they could find no records. I filed again in October, 2001, a claim for my cancer and I have been put off by red tape and finally got a response on August 16, 2003, from the Defense Threat Reduction Agency that they "are in the process of modifying their radiation dose reconstruction program" in accordance with recommendations made by the National Academy of Sciences, and "therefore it make take up to six more months to complete the response."

Now we come to a very sore spot, the *Radiation Reconstruction Program.* I cannot believe the *U.S. Government* is using this as an excuse to cut a few more poor souls out of what is due them.

There is enough information since the *Openness Act*, and enough new laws in the making to charge that this is just another stall tactic put in place. Wait long enough and everyone will be dead. You cannot reconstruct where the radiation was most concentrated or who stood in it more, etc. and the U.S. government knows this.

The Navy de-commissioned and dismantled the Battle-Cruiser that I served on because it was too radioactive to serve; and at that time, this ship was only **3** years old. The fact that this multi billion dollar ship was de-commissioned after only **3** years of service should be all that is needed to state my case!



The bow portion stands today at the entrance to *Battleship Cove* in *Fall River, Massachusetts*. It remains as a "testament to those brave sailors who fought for our country from aboard her decks." There is no mention of being wounded by *Ionizing-Radiation*, while serving on those decks!

I am a proud man, I was proud to be in the Navy. Our government should be ashamed of itself for forcing people who are already suffering to go through this red tape. Our government should be ashamed of itself for making people beg for compensation that should have been readily offered. And our government has the names of all the enrolled men that served, we should not have to do the research, and we should not have to furnish proof, and we should not have to write the letters. That was not what I signed up for.

I believed in my country, I believed that the *United States* of *America* took care of its servicemen. My beliefs have since been shattered. I am now totally disabled and need the compensation that is due me. I never asked the government for anything until I started using the *Veterans Hospital* in June of 2000, when my insurance was cancelled and I could no longer pay for medical care. *I MAY NOT HAVE 6 MONTHS TO WAIT !!* I would appreciate your considering the suffering I continue to have, and expedite this matter. Thanks.

Nuell Paschal - Atomic Veteran - Operation "Crossroads" (current status - deceased)

"VOICES FROM NUCLEAR HELL" FEEDBACK

We have received many letters, both from Atomic-Veterans and from family members of deceased A-Vets, commenting on our first hand "Voices from Nuclear Hell" stories, all of which were positive. Some of these letters were from A-Vets who served with those who's stories were printed, and some were from A-Vets who were present at the tests mentioned, with similar comments of their experiences. We will continue to tell their stories, as they re-live them with vivid and descriptive details, so that no one will ever forget their total dedication to their God, their family and their Country.

SECRET WOUNDED WARRIORS

New Jersey Courier News – 24 Feb. 2010

Military casualties do not always occur on the battlefield, nor are military casualties always inflicted by the enemy. Tragically, some military casualties come from a source that the military



personnel fought for, believed in and trusted – the *U.S. Government*. This is how it all happened. It wasn't long after the two *Atomic-Bombs* were dropped on the Japanese cities of *Hiroshima* and *Nagasaki*, that *American* troops went in to occupy these cities and surrounding areas, and also to free *American Prisoners of War* (*POW's*) being held near both. Unknowingly, those *American* troops and the (*U.S.*) *POW's* were being exposed to high levels of lonizing radiation. Not only would some of these veterans become casualties of war, that had already ended, but for many, their lives would become a living hell. Exposure to exceedingly high levels of nuclear radiation did not end in *Japan*.

From 1945 to the end of 1962, the *U.S. Government* continued to atmospherically test nuclear weapons, on land and at sea. There were well over 1,000 such tests. As part of the testing, *American* military personnel were placed in precarious positions facing the blasts of the tests. Veterans who had participated in atmospheric tests in *Nevada* and the *Pacific Ocean*, or at underground tests in *Amchitka Island (Alaska)*, would have also been exposed to radiation. All the troops exposed to radiation. All the troops exposed to as the "Atomic-Veterans."

Reports have been made by hundreds of military personnel of being positioned within 1,000 yards (little over half mile) from a detonation site or being directly exposed to the detonation blasts within 10 miles of these tests, or being exposed to nuclear blasts while standing on the decks of ships, or standing in the deserts of *Nevada* and *New Mexico*.

Military personnel were not only directly exposed to the harmful effects of these tests, by design, but there were those who were assigned to decontaminate aircraft and field test equipment after the tests, the results of which would also produce long term health issues. Civilians were also involved in these nuclear weapons tests, including radiation exposure events at the gaseous diffusion plants in *Paducah, KY., Portsmouth, OH.*, and the *K-52* plant in *Oak Ridge, TN.*, prior to 1992.

Because of these exposures, many veterans reported various types of cancers, including birth defects in their children and, in some cases, miscarriages. There are 22 types of cancers related to ionizing radiation exposure. Sadly, when these veterans went to their own doctors for treatment, they could not reveal that they had been exposed to ionizing radiation because they had taken an oath of secrecy under the *Atomic Testing Act*, and were under a threat of imprisonment if they revealed anything about those events.

The ban was lifted in 1996. By this time, many *Atomic-Veterans* had suffered agonizing deaths, or a life of torturous pain due to various cancers caused by those activities, as well , by watching their loved ones go through the severe pain of having cancer in their vital organs, or cancerous blood cells. Through many years of struggling to get the *Federal Government* to acknowledge that these veterans had developed cancers from being ordered to participate in radiation exposure events, the *National Association of Atomic Veterans* (*NAAV*) and other related organizations, finally coaxed the U.S. Government to

acknowledge, at least, a group of "presumptive" radiogenic illnesses that are directly associated with those "service-connected" nuclear test radiation events. These "Atomic-Veterans" are now receiving VA health care treatment and (limited) compensation, if they can show proof that they were involved in these past events.

Carl J. Asszony (of Piscataway, N.J.) is a former Veterans Services Co-Ordinator for Middlesex County, and host of the former radio program "The Veterans Roundtable" on WCTC 1450 AM.

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Editor" Notes: The surviving Spouse of deceased Atomic-Veterans, and (in certain cases) surviving children (of deceased Atomic-Veterans) can also apply for monthly compensation benefits (**DIC**), as well.

In keeping with the Radiation Exposure Compensation Act (RECA) The Department of Justice (DOJ) will also award \$75,000.00 (per each presumptive illness) to qualifying Atomic-Veterans, or their survivors.

Additional information may be obtained from the following sources:

Dept. of Veterans Affairs (DVA) 800-827-1000 or www.va.gov/irad

Defense Threat Reduction Agency (DTRA)

800-462-3683 (Ms. Miriam Gates) or www.dtra.mil (To obtain an official letter of Atomic test participation)

Dept. of Justice (RECA)

800-729-7327 or www.usdoj.gov/civil/torts/const/reca

Veterans Advisory Board on Dose Reconstruction (VBDR) 866-657-8237 or www.vbdr.org

National Association of Atomic Veterans, Inc (NAAV)
281-481-1357 or www.naav.com

Note:

Many A-Vets (or the surviving Spouse of a deceased A-Vet) do not use computers, however; they should ask a family member, or friend to assist them in obtaining (on-line) information, as may be required for claims filing purposes, from the internet addresses shown above.

U. S. NUCLEAR ARSENAL ASSESSMENT

By: Robert Norris & Hans Kristensen "Nuclear Notebook"

[Bulletin of the Atomic Scientists]

We believe the current inventory of (deployable) nuclear weapon warheads will decline from approx. *9,938* today to about *5,470* by the end of 2012. Current plans call for retaining approx. *2,000* (*W-76*) warheads, modifying them, extending their service lives, and improving their military capabilities. It took almost 10 years (1978 – 1987) to produce *3,250* (*W-76*) warheads for the "*Trident*" Submarine missile system.

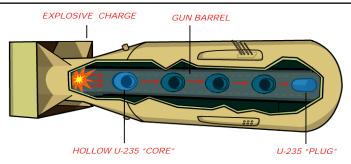
[We] estimate that U.S. "operationally deployed" strategic forces under the (2002) Moscow Treaty will number 2,192 warheads by the end of 2012, and that another 3,275 warheads will not be counted under the treaty! The current (land based) Intercontinental Ballistic Missile (ICBM) inventory is approx. 500 warheads. There are 450 "Minuteman-III" (ICBM's) with 150 W-87 warheads deployed at Warren Air Force Base in Cheyenne, WY, and 150 more at Malmstrom AFB, in Great Falls, MT. Another 200 W-78 warheads are on Minuteman-III missiles are at Minot AFB in North Dakota. The (estimated) total of Submarine Launched Ballistic Missiles (SLBM) is 1,152 warheads. Additionally, there are 646 W-76 and 506 W-88 warheads (475 kilotons each) assigned to missiles on 12 nuclear powered ballistic missile (Trident) submarines, and 16 Combat Coded (B-2) Bombers at based at Barksdale, LA., Minot, ND., and Whiteman, MO.

HOW DO NUKES WORK ??

Nuclear weapon designs are a combination of physical, chemical, and engineering arrangements that cause the final design physics package to detonate. There are three basic design types. In all three, the explosive energy of the particular (deployed) devices has been derived primarily from nuclear fission, not nuclear fusion.

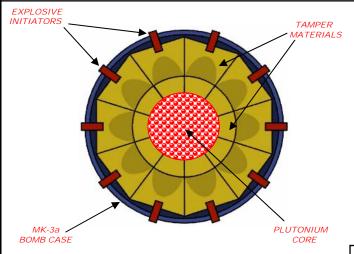
Pure fission weapons were the first nuclear weapons built and have so far been the only type ever used in warfare. The active material is fissile Uranium (U-235) or Plutonium (Pu-239), explosively assembled into a chain-reacting critical mass by one of two methods:

The first is the *Gun Type*, in which one piece of (fissile) *Uranium* is fired at a second (fissile) *Uranium* (*U-235*) target at the end of the weapon, similar to firing a bullet down a gun barrel. This method will achieve critical mass when the *Uranium "core"* impacts the *Uranium* (*U-235*) "plug". This design was originally used on the "*Little-Boy*" bomb that was dropped dropped from the *B-29* (*Enola-Gay*) and detonated over the city of *Hiroshima*, *Japan* on *August 6*, 1945. The shotgun method only uses *Uranium*, as *Plutonium* is considered impractical for the gun-type design because of (unwanted) early triggering due to *Pu-240* contamination and also due to its time constant for prompt critical fission being much shorter than that of *Uranium* (*U-235*).



THE EXPLOSIVE CHARGE WAS TRIGGERED BY A BAROMETRIC DEVICE SET TO ACTIVATE AT AN ALTITUDE OF 1,500 FT.

The second is the *Implosion Type*, in which a fissile mass of either *Uranium (U-235)* or *Plutonium (Pu-239)*, or a combination of both, is surrounded by equally spaced high explosives that compress the tamper material into the "core", thus initiating the "critical-mass" chain reaction process. This type was used in the "Fat-Man" bomb that was dropped from the *B-29 (Bock's-Car)* and detonated over the city of *Nagasaki, Japan* on *August 9, 1945*.



The development of "fusion-boosted" fission weapons improved on the implosion design. The high temperature and pressure environment, at the center of an exploding fission weapon, compresses and super-heats a mixture of Detuerium / Tritium (DT) gas (heavy isotopes of Hydrogen). The Hydrogen then fuses to form Helium and giving off free Neutrons. The total energy release, from these fusion reactions, is relatively negligible, however; each neutron starts a new fission chain reaction, thus greatly reducing the amount of fissile material that would (otherwise) be wasted. This boosting process can more than double the weapon's fission energy release.

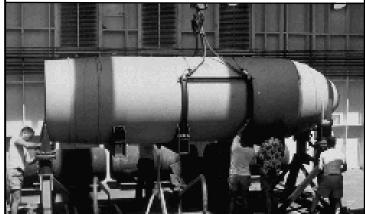


As a point of interest, during the (1954) "Castle" series, the "Bravo" device detonated with a force of 15 megatons, more than twice the original design "yield." This was due to a miscalculation of the amount of DT gas, and Lithium-6 / Deutiride (L6-D) boosting agents. These agents were surrounded by a natural Uranium tamper, and encased in a scaled down version of a "Runt-II" device.

Two-Stage thermo-nuclear weapons are essentially a chain of (fusion-boosted) fission weapons, usually with only two stages in the chain. The second stage, called the "Secondary," is imploded by "X-ray" energy from the first stage, called the "Primary." This radiation implosion is much more effective than the high-explosive (implosion) of the "primary."

Consequently, the "secondary" can be many times more powerful than the "primary", without being bigger. The "secondary" can be designed to maximize fusion energy release, but in most designs fusion is employed only to drive or enhance fission, as it is in the "primary".

More stages could (therotically) be added, but the result would be a multi-megaton weapon too powerful to be useful. The *United States* briefly deployed a three-stage **25**-megaton (**Mk-41**) bomb, in the 1960's.



THIS IMPROVED (3-STAGE) "RUNT-II" DEVICE IS BEING PREPARED FOR THE (1954) "YANKEE" TEST, AND WILL BE THE PROTOTYPE FOR THE MK-41 (25 MT.) HYDROGEN BOMB

Also in 1961, the *Soviet Union* tested, but did not deploy, a three-stage **50+** megaton "*Tsar-Bomba*" device, code named "*Big-Ivan.*"

Pure fission weapons historically have been the first type to be built by a nation state. Large industrial states with well-developed nuclear arsenals have two-stage thermonuclear weapons, which are the most compact, scalable, and cost effective option once the necessary industrial infrastructure is built.



THIS IS THE SOVIET'S 57 MEGATON (3-STAGE) "CZAR-BOMBA"

(CODE NAMED "BIG-IVAN")

Most known innovations in nuclear weapon design originated in the *United States*, although some were later developed independently by other states incorporating features dimilar to the *U.S.* designs. In early news accounts, pure fission weapons were called *atomic-bombs* or "*A-bombs*", a misnomer since the energy comes only from the nucleus of the atom.

Weapons involving fusion were called *hydrogen-bombs* or "H-bombs", also a misnomer since their destructive energy comes mostly from fission. Insiders favored the terms nuclear and thermo-nuclear, respectively.

The term thermo-nuclear refers to the high temperatures required to initiate the *fusion* process. It ignores the equally important factor of pressure, which was considered secret at the time the term became current. Many nuclear weapon terms are similarly inaccurate because of their origin in a classified environment. Some are nonsense code words such as "alarm-clock".



THIS IS AN "EC-14" (ALARM-CLOCK) BOMB CASE ASSEMBLY.

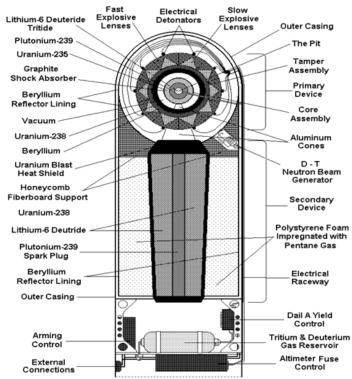
Thermo-nuclear bombs work by using the energy of a fission bomb in order to compress and heat the fusion fuel. In the **Teller-Ulam** design, which accounts for all multi-megaton yield hydrogen bombs, this is accomplished by placing a fission

bomb and fusion fuel, such as *Tritium, Deuterium*, or *Lithium-Deuteride*, in proximity within a special, radiation-reflecting container.

When the fission bomb is detonated, "Gamma" and "X-rays" are emitted, then they (first) compress the fusion fuel, then heat it to thermo-nuclear temperatures. The ensuing fusion reaction creates enormous numbers of high-speed Neutrons. which then can induce fission in materials which normally are not prone to it, such as Depleted-Uranium (**DU**).

Each of these components is known as a "stage," with the fission bomb as the "primary" and the fusion capsule as the "secondary." In large hydrogen bombs, about half of the yield, and much of the resulting nuclear fallout, comes from the final fissioning of Depleted Uranium.

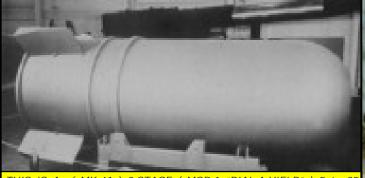
By chaining together numerous stages with increasing amounts of fusion fuel, thermo-nuclear weapons can be made to an almost arbitrary yield; the largest ever detonated (the *Soviet "Tsar-Bomba"*) released an energy equivalent to over *57* million tons (or *57* megatons) of *TNT*. Most thermo-nuclear weapons are considerably smaller than this, due for instance to practical constraints in fitting them into the space and weight requirements and limitations of various missile warhead designs.



The above schematic is that of the *Mk-41* multi-stage "Strategic" Hydrogen Bomb that was deployed by the Strategic Air Command (SAC) during the 1960's. A point of interest is the "Dial-a-Yield" device connected to the "Tritium & Deuterium" gas reservoir and the DT Neutron beam generator.

The "Dial-a-Yield" is a pressure regulator with five (5) settings. These are Y-1 to Y-5, (or Yield One to Yield five). with a normal (initial) setting at Y-1. This regulator sets the pressure in the DT Neutron beam generator section.

Taking advantage of the relationship between volume, pressure and density, as the pressure increases (in a fixed space), the number of molecules of **DT** gas is increased, thus increasing the density, that then results in a larger "boost" effect, The Dial-A-



THIS IS A (MK-41) 3-STAGE (MOD-1 "DIAL-A-YIELD") 5 to 25 MEGATON HYDROGEN BOMB THAT WAS DEPLOYED BY SAC DURING THE COLD WAR YEARS.

Yield feature allows the **SAC** mission Weapons Officer to set the desired destructive "yield" of the **Mk-41** thermo-nuclear weapon to that required for a specific designated target, and in accordance with his "Nuclear-War" Authentication Code.

There are other types of nuclear weapons as well. For example, a *boosted fission* weapon is a *fission* bomb which increases its explosive yield through a small amount of fusion reactions, but it is not a *fusion* bomb. In the boosted bomb, the *neutrons* produced by the *fusion* reactions serve primarily to increase the efficiency of the fission bomb.

Some weapons are designed for special purposes; a **neutron bomb** is a thermonuclear weapon that yields a relatively small explosion but a relatively large amount of neutron radiation; such a device could theoretically be used to cause massive casualties while leaving infrastructure mostly intact and creating a minimal amount of fallout.

The detonation of a nuclear weapon is accompanied by a blast of *neutron radiation*. Surrounding a nuclear weapon with suitable materials (such as *cobalt* or *gold*) creates a weapon known as a "salted-bomb." This device can produce excep-tionally large quantities of *radioactive contamination*. Most variety in nuclear weapon design is in different yields of nuclear weapons for different types of purposes, and in manipulating design elements to attempt to make weapons extremely small.

SEVEN "W-38" (3 Megaton)
WARHEADS CAN BE DELIVERED
TO SEVEN INDEPENDENT TARGETWITH
ONLY ONE I.C.B.M.

The **W-38** warhead (shown here) is a classic example of how a large yield weapon can be housed in a small delivery package. The first *Atomic-Bomb*, used during an act of war, developed only **18** kilotons (the equivalent of **18,000 tons** of **TNT**) with a total delivery weight of **9,200** lbs. The **W-38** can deliver a total destructive yield of **3** Megatons (the equivalent of **3 million** tons of **TNT**) with a total delivery weight of only **600** lbs.



Nuclear weapons technicians (shown above) are assembling (seven) **3** megaton "W-38" warheads housed in multiple reentry cones, on top of an *Intercontinental Ballistic Missile* (*ICBM*). Each warhead can programmed (after launch) to detonate over seven (7) different targets. Similar warhead designs are used on other delivery vehicles, including the "Titan," "Polaris," "Nike-Zeus," "Minuteman," and "Patriot" missile systems.



The ability to take out multiple strategic targets with one basic delivery vehicle carrying multi-megaton warheads may also be possible with the newly designed "X-51" Intercontinental Sub-Orbital Cruise Missile.

And so we must ask, what will be the final legacy of the **Cold War** years, given the multitude of hardships, medical issues and slow deaths experienced by **America's Atomic-Veterans** given the current status of world events ???? Only time and the sensible restraints of responsible World leaders will tell!!!!



TRENCH TROOPS EXAMINE THE REMAINS OF FIELD EQUIPMENT SHORTLY AFTER A NUCLEAR WEAPON TEST, IN NEVADA

<u>15</u>

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