<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 "



National Association of Atomic Veterans, Inc. "Assisting America's Atomic Veterans Since 1979"

Assisting America's Atomic Veterans Since 1979

Website: www.naav.com E-mail: Cmdr@naav.com

R. J. RITTER - Editor

July, 2010



The Newsletter for America's Atomic Veterans

COMMANDERS COMMENTS



Given the national uproar surrounding the recent passage of "Healthcare-Reform," the U.S. Congress is suffering from a bad case of "lock-jaw," that is severely hampering any meaningful considerations that would further benefit America's Atomic Veterans. It seems as though it is impossible to get any such legislation, out of committee, and passed on it's own merits,

without having it tacked onto other proposed pieces of legislation that is totally un-related to any **A-Vet** issues.

And there doesn't appear to be any relief in sight, given that this is another election year. And so it goes, that as our fellow **A-Vets** get older and slower, the chances of additional Congressional recognition also appears to be fading into the sunset. We only hope that Barack Obama's Healthcare-Reform does not impair, or threaten healthcare for Veterans, such as "Tri-Care," or any of the current available medical and pharmaceutical services. We want to thank all **NAAV** members and friends for their continued support as we stand firm on our "Mission-Statement" to assist surviving **A-Vets** and their families in their quest for full recognition, fairness, and proper compensation for their faithful duty to their Flag and their Country.

ARE YOUR ANNUAL DUES CURRENT???

Be sure to check the numbers following your name on your newsletter mailing label, as they indicate your dues expiration date....... Annual dues (\$20.00 / yr.) and Life dues (\$200.00) have remained the same for the last 30 years, although our operating, printing and mailing costs have increased appreciably. The surviving family members (of deceased A-Vets) can continue to receive NAAV newsletters, if they continue to contribute \$20.00 on an annual basis. Members are encouraged to pay their dues in advance, thus insuring that they will remain on the Newsletter mailing list. Of course we do appreciate (taxexempt) contributions, that are most important in all areas

Final Muster



William Wallace (VA) John Frank (MD)

Walter Broderick (NY) Donald Reed (TX)

Louis Haas (MO)

Benjamin Fudge (CO) Jordan Bass (TX)

William Draper (TX) Ralph Gaona (MO)

Darrell Koon (IN)

William Hayes (OR) Lester Agar (ID)

Roy Hensel (FL)

Robert Achison (MD)

Col. Ted Morgan (TX) Salvadore Sallone (NB) Donald Gage (MO) Millard Sisson (FL) Arthur Lahew (NM) Leonard Negrin (CA) Vernon Pierce (TN) Gerald Grille (LA) Harold Johnston (AL) Carl Addison (FL) Vernon Isham (MN) Roland Easton (CA) Lee Iddings (NV) Charles Kronloken (NV) Elvin Horn (TX) Jack Malloy (NJ) Charles Shawline (MD)

Milburn Callen (OK)

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"

NAVY AIRSHIPS USED IN "EFFECTS" TESTS

Several of the "Weapons-Effects" tests performed at the Nevada Test Site (NTS) were designed to determine the effects of nuclear detonation (blast) heat and over-pressure forces on various types of building structures, and military & civilian equipment of all types, including tanks, field artillery pieces, aircraft, and several types of transport vehicles. These tests were most effective in all aspects, and produced a baseline of useful data relative to the potentials for having to wage war on a nuclear battlefield.

At that time, the *U.S. Navy* wanted to test such effects on "lighter-than-air" vehicles, and furnished several surplus "airships" for such purposes. These tests were included as a part of the (1957) "**Plumbbob**" series, and as shown in the photo below.



Here we see an airship, moored to its ground mast, a few miles from "surface-zero," and the nuclear weapon detonation is clearly visible in the background. All of the "airship" tests resulted in their total destruction, as shown on the cover of this newsletter.



SCIENTISTS FROM LOS ALAMOS EXAMINE THE REMAINS OF A NAVY AIRSHIP DESTROYED BY A NUCLEAR TEST

As long range nuclear weapon technology and delivery systems continued their rapid development, during the *Cold-War* years, the *Navy* made a decision to retire their entire fleet of airships, due to their obsolescence, thus relegating the memory of their useful purpose to history books.

02

STRANGE THINGS OCCUR DURING A-TESTS

Many strange things have occurred during the 900+ nuclear weapons tests conducted at the Nevada Test Site (NTS), and 200+ conducted in the Pacific Ocean. One of the most unique of these incidents happened during the "Upshot-Knothole" series, involving the "Dixie" shot, an 11 Kiloton test of a modified Mk-5 weapon design that was air-dropped over Yucca Flats.



Since the purpose of the "Upshot-Knothole" series was to measure the effects of multi-blast detonations on nuclear warfare participants, several of those tests were joint ventured with the British & Canadians. In the above photo, we see several of their military and civilian scientists observing the "Dixie" test. The resulting mushroom cloud, attached to the "mach-stem" (heat chute) riser column, is clearly visible.

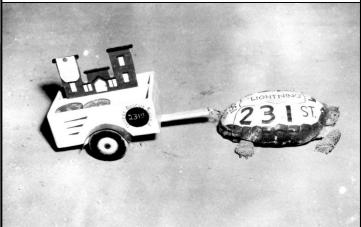


And as the mushroom cloud gains altitude, it separates from the "mach-stem," and continues to rise, as ground observers look on with increased interest.



While back in *Las Vegas* (*65* miles south-east of the *NTS*), a showgirl named "*Dixie*" was doing a promo photo session, and the above picture captured the rising "*Dixie*" mushroom cloud, that appears to be balanced on her right hand!!!!

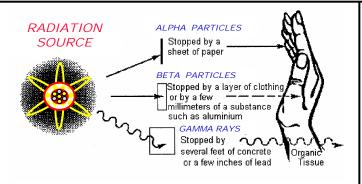
Also, as a note of sheer interest, *Howard Hughes* was not happy with *NTS* nuke tests, when he was in *Las Vegas*. Having purchased a high-rise casino hotel, he occupied the Pent-House, and during a nuke test, the water in his bath would be agitated to the point that it would splash all over the room, thus aggravating the hell out of *Hughes*!! He was so annoyed that he contacted the *Pentagon* and requested that no nuke tests be conducted at the *NTS* until he left town !!! The *Pentagon* suggested that he lower his bath water level by a minimum of 8 inches !!!!



And we must also mention the mascot of the **231**st "Lightning Desert Rescue Squad" (shown above), that was adopted by all of the "Upshot-Knothole" atomic warfare "trench troops."

There were other key objectives designed into this series of nuclear weapons tests. Among these were the determination of the "safest" practical operational and maneuvering distances from a nuclear "ground-zero" condition, and the "proof" testing of smaller (linier) munitions, such as the Mk-9 (15 Kiloton) projectile that was fired from the Mk-65 "Atomic-Cannon," and the "proof" testing of mechanisms that would be incorporated into the final design of the Mk-54 "Davey-Crockett" recoil-less rifle

73 propelled "Special-Atomic-Demolition-Munition" (SADM).



THE PENETRATING EFFECTS OF NUCLEAR RADIATON

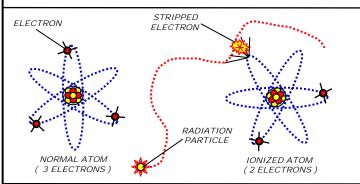
"Ionizing" radiation exposure effects the human organism by depositing energy within the body, which can cause cell damage, or even death. In some cases, there may be no (detectable) effects at all, until many years after the exposure event, while in other cases, most body cells will survive, while several will become abnormal. Abnormal cells may then become malignant, or mutated, thus raising the risks of developing various types of cancers. Thus, abnormal health issues attributed with these events are called "Radiogenic-Illnesses."

The Atomic makeup of all atoms include a fixed number of electrons, that continuously orbit the atom's nucleus, in the same manner in which the *Earth*, and *Planets* in our *Solar* system orbit around the *Sun*. These electrons are held in perfect orbit patterns by force fields (scientifically) referred to as "Valence Forces."

Several different atoms will bond together (into clusters) to form a variety of molecules, which in turn will then bond together to form a variety of compounds, which will then bond together to form various type of cells, or tissue, or bone, that will determine the total makeup of the human body, and it's many functioning organs, as mandated by their individual genetic (**DNA**) building codes.

On the other hand, naturally decaying molecules are constantly being rejected by the body processes, while new molecules are constantly being generated as respective replacements. These activities are functions of the normal body chemistry processes. So as to better understand this process, the following actions will occur within the body, after internal introduction of "lonizing" radiation particles.

When an "lonizing" radiation particle is placed in close proximity to an atom, or a molecule, or a compound, it will strip away one (or more) electrons from one (or more) atoms, thus causing those atoms, to become "ionized" and unstable, or unbalanced.

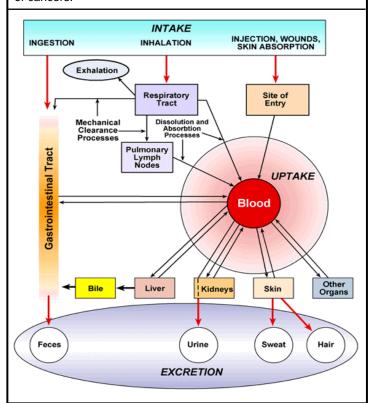


Over a period of time, these imbalanced atoms, or molecules, may combine to form an imbalanced or defective compound, or cell. In the case of the body's reproductive processes, this may precipitate a series of various types of cancers, or even

genetic defects. Such defects could adversely affect the health of the offspring of those who may have inhaled, or ingested "lonizing" radiation particles at some time in their past. Large doses of "lonizing" radiation exposure can cause extensive cellular damage and result in premature death.

The majority of (ingested or inhaled) "lonizing" radiation particles will be evacuated from the body, due to the normal interactions of the body's chemical processes. A small number of these particles, however; will be retained much longer, and will continue to circulate within the body for several years.

Eventually, the adverse effects on the body processes will become apparent, in the form of several types of deleterious "radiogenic" health issues including, as mentioned earlier, a host of cancers.



For humans (and other mammals) acute exposure to "lonizing" radiation particles, if large enough, can cause rapid development of radiation sickness, readily evidenced by gastro intestinal disorders, bacterial infections, hemorrhaging, anemia, loss of body fluids, loss of body hair, and electrolyte imbalance.

Delayed biological effects can include cataracts, temporary sterility, cancers and other adverse effects, including genetic mutations, as also mentioned earlier. Extremely high levels of acute radiation exposure can result in death within a few hours, a few days, or a few weeks after the exposure event.

We must also mention that people are chronically exposed to background levels of radiation that is ever present in the environment in which we thrive. Many people will also receive either additional chronic exposures of relative small "acute" exposures. For populations subject to such exposures, the primary concern is that radiation could increase the risks of cancer development, and / or other harmful (altered) genetic effects.

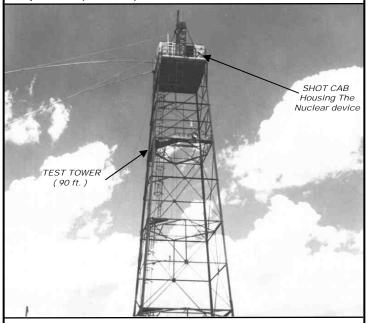
And so, it is a scientific fact that the probability of a radiation caused cancer, or an abnormal genetic defect is related to the total amount of radiation accumulated by an individual over a given period of time.

DESCRIBING THE INSTANT OF DETONATION

We have, in simple terms, previously described "How-Nukes-Work", in past issues of NAAV newsletters, so as to provide our membership, and other interested parties, with the inner workings of the weapons that produced harmful radiation by-products that have impacted their health and overall life expectancy. Since then, we have received many requests to describe how the "critical-mass" process develops at the instant of detonation. Given these requests, the availability of (ultra high speed) photos, and a little research, we will attempt explain this process, in the following manner.

All *nuclear* (and *thermo-nuclear*) detonation processes basically react in a similar fashion. While "*single-stage*" nuclear weapons rely upon either *Uranium* (*U-235*) or *Plutonium* (*Pu-239*) fissile materials, or a combination of both, they may or may not incorporate the use of several types of "fission-boosting" agents, and / or different "initiator" mechanisms.

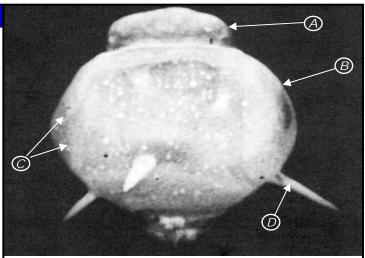
On the other hand, *multi-stage* (*fission-boosted*, or *fission-to-fusion-conversion*) processes incorporate the use of a combination of these agents, including *Lithium-6-Deuteride* (*L6-D*) or *Lithium-6-Deuteride-Tritide* (*L6-D-T*), or *Deuterium-Tritium* (*DT*) gas, which is an (isotropic) *hydrogen isotope* mixture, coupled with (external) *Neutron "initiators."*



For the purposes of describing the "instant-of-detonation," we will use one of the **Nevada** tower tests as our example. The above photo shows the 90 ft. (Yucca Flats) test tower with a nuclear weapon assembled within the "shot-cab" that is located at the very top of the tower. In this case, the (spherical-type) device was a **TX-16** (Buzzard) weapon, that developed a maximum yield of **43** Kilotons.

This particular weapon would be a "proof" test of a new modified "Class-D" mechanism housed in an XW-27 bomb case. The "tamper" material is Uranium (U-235) and the (core) is a Plutonium (Pu-239) "pit." This device also used standard explosive "initiators," equally spaced around the (Oralloy) Uranium (U-235) "tamper" material.

After the "initiator" explosives detonated, the Uranium (U-235) tamper is rapidly compressed towards the center of the bomb, creating extremely high heat and pressure forces, thus activating the Pu-239 "pit." This combination of extreme pressure and temperature initiates the "critical-mass" chain reaction process.



The beginning of the "chain-reaction" process is shown in the above photo, taken with a "Rapatronic" camera, capable of film speeds of 3 milliseconds. Clearly visible are the speckled (mottling) blast effects (C) of the nuclear activity. Prior to this moment, the growth of the "fireball" was due to the effects of "radiative-transport," where the resulting thermal "X-rays" quickly outran the expansion of the exploding bomb material debris. Now, however; this rapid "fireball" expansion is caused by the "shock-front" (B) that is being internally driven by severe "hydro-dynamic" pressures, as in a conventional explosion, only in this case, far more exceedingly intense.

And, by now, the glowing surface of the "fireball" is caused by the effects of "shock-compression," which is heating the surrounding air at an incredibly high speed. This also means that (by now) the "fireball" expansion rate is growing far more slowly than before.

The bombs (internal) mechanical mechanisms and the "shotcab" material vapors (**A**) were initially accelerated to very high velocities, at several (tens of) miles / second, and small clumps of fragmented and vaporizing materials are now splashing, in an irregular pattern, against the back wall of the "hydro-shockfront." This was caused by the initial variations in mass distribution around the center of the bomb's (**Pu-239**) fission core, and this activity is what is causing the "speckled," or "mottling" effects that are clearly visible in the photo.

And, finally, the "spikes" (\boldsymbol{D}) are visible effects from "static-electrons" as they instantaneously migrate rapidly down the test tower guide wires. And below is an aerial photo of the "fireball" as separates from the "mach-stem" and begins to rise to a higher altitude.





Scientists, from Los Alamos National Labs (LANL) recover data from various instruments that were set up in close proximity to the test site. It is well to note that they are wearing protective clothing and masks, while the "trench-troops" were not issued any such protection against external (or internal) radiation exposure.



And here, a (Brigadier) General examines the remains of a "test" Jeep that was destroyed by the severe over-pressure forces of the initial nuclear blast "shock wave."



And a gallery of military and civilian (*scientist*) observers view the test from several miles behind the "troop-trench-lines," where "atomic- soldiers" are hunkered down to avoid the blast forces. Again, it is well to note that none of these observers, are wearing any "radiation" protective clothing or masks either !!!

ATOMIC-VET SEEKS IDENTITY OF SAILOR

Ex-Naval Officer Seeks The Identity Of Sailors He Rescued 55 Years Ago!!

Gilbert Di Lucia, a former_U.S._Navy Lieutenant (JG) seeks to establish the identity of one sailor who drowned, and six other sailors he rescued from drowning in the Bikini Atoll lagoon in 1954. The U.S. was conducting the "Castle" series of thermonuclear test at that time.

The group of sailors were swimming, in the lagoon, against the tide and could not make it back to the beach. Seeing the sailors floundering in the water, *Lt. Di Lucia* procured a lifeboat, and proceeded in attempted to rescue the sailors. When he drew near their location, they were all near exhaustion.

There were seven sailors in the water, however; one of them had gone under and drowned before *Di Lucia* could get to them. He remembers that it was said that the drowned sailor was from Tennessee, and he had no other information about the identity of the six he rescued. If anyone has information regarding the identity of the six surviving and the drowned sailor, *Mr. Di Lucia* would like to be contacted. His contact information is as follows:

Gilbert Di Lucia – Attorney at Law

265 E. 66th. St. Suite # 3-B New York, N.Y. 10065 (917) 584-7473 (cell) or (212) 794-6414 (home-fax) E-mail: gdilucia@hotmail.com

AGENT ORANGE CAUSES DNA DAMAGE

NEW ZEALAND STUDY SHOWS AGENT ORANGE EXPOSURE CAUSED DNA DAMAGE

By: Dr. Al Roland

Significant genetic damage to the **DNA** of (New Zealand) Vietnam-Veterans exposed to **Agent Orange** has been found in a study by Massey Molecular Scientists. Analysis of blood samples from **25** New Zealand Vietnam-Vet's, who were exposed to the (Dow Chemical) toxic defoliant (Agent Orange) showed that the group had suffered measurable genetic damage.

Dr. Al Rowland, author of the report, acknowledged the sample was statistically small, but said it was significant in that it clearly indicated the damage caused to **DNA**. Given these initial results, Dr. Rowland suggested that a more extensive study was now needed. Louise Edwards, a student who worked under the supervision of Rowland, studied the rate of "sister chromatid exchange" in cells, which is a test that analyses the manner in which chromosomes self-replicate. A comparatively higher level of sister chromatid exchange, identified in the study, indicated that there was some genetic (**DNA**) damage.

The chromosomal reproduction of the **25** Veterans was compared with a control group of former serviceman who did not serve in *Vietnam*. *Rowland* said the factors of smoking, alcohol consumption and the use of medical *X-rays* were taken into account when comparing the *DNA* of the two groups. "We don't know what causes the results that we see, but all we know is that this group went to Vietnam and something happened to them, while they were in Vietnam," he said. In April this year, the *Nuclear Test Veterans Association* (*NTVA*) released the results of a similar study, conducted by *Rowland*.

It involved the analysis of the **DNA** of Navy veterans exposed to *Ionizing* radiation during *Operation Grapple*, a series of atmospheric nuclear tests sponsored by the *United Kingdom* in 1957 & 1958, where *Hydrogen* bombs were detonated



"Grapple-X" (04-28-58) was a 2 Megaton (U.K.) thermo-nuclear) test conducted at Christmas Island in the South Pacific Ocean

at *Christmas Island*, in the central *Pacific Ocean*, and at *Malden Island*, in the *South Pacific Ocean*. The results of this study also showed significant levels of genetic (*DNA*) damage.

Veterans and their families, who have battled with serious health problems and birth defects, have argued for **30** years that **Agent Orange** had a significant deleterious genetic health impact on them and on their children. Successive governments have said there was no proof those Veterans had been exposed, let alone hurt or injured, by **Agent Orange**.

Two years ago, a select committee confirmed that Agent Orange was sprayed on New Zealand soldiers while serving in Vietnam. Chris Mullane, an ex-member of the Vietnam-Servicemen's-Association (VSA) said the study endorsed the findings of overseas research and confirmed what they had known for decades. "It was, however, good to have a study which specifically targeted the New Zealander's experience", he told a local National Radio commentator.

Mullane agreed the study was a small one, and hoped the Government would now support a wider study involving more veterans and their progeny. A joint working group involving the **VSA**, and the *New Zealand* government, set up to study the health of their Vietnam veterans, and look at the possibility of paying compensation to those who have suffered health issues and problems, is due to report back soon.

Rick Barker (New Zealand Veteran Affairs Minister) has had this report since April, 2006. Mullane said he hoped the findings of the latest research would be considered by the group and would strengthen the families' case for just compensation.

Note: NAAV does not address issues related to Agent-Orange, however; given that there is a large population of Atomic-Veterans who also served in Vietnam, we thought this article would be of interest.

LOW LEVELS OF "I-RAD" MAY CAUSE HARM

From: The National Academy of Sciences News

Washington, **D.C.** - A preponderance of Scientific evidence shows that even low doses of "lonizing" radiation (I-Rad), such as **Gamma** rays and **X-rays**, are likely to pose some risk of adverse health effects, says a new report from the National Academies' National Research Council. The report's focus is low-dose, low-LET (linear energy transfer) "lonizing" radiation that is energetic enough to break bio-molecular bonds.

In living organisms, such radiation can cause **DNA** damage that eventually leads to cancers. However, more research is needed to determine whether low doses of radiation may also cause other health problems, such as heart disease and stroke, which are now seen with **high doses** of **low-LET** radiation.

The study committee defined low doses as those ranging from nearly **0** to about **100** millisievert (**mSv**), which are units that measure radiation energy deposited in living tissue. The normal radiation dose from a chest *X-ray* is about **0.1** mSv.

In the *United States*, people are exposed, on average, to about 3 mSv of natural "background" radiation annually. The committee's report develops the most up-to-date and comprehensive risk estimates for cancer and other health effects from exposure to low-level "*Ionizing*" radiation. In general, the report supports previously reported risk estimates for solid cancer and leukemia, but the availability of new and more extensive data have strengthened confidence in these estimates.

Specifically, the committee's thorough review of available biological and biophysical data supports a "linear-no-threshold" (LNT) risk model, which says that the smallest dose of low-level "lonizing" radiation has the potential to cause an increase in health risks to humans.

In the past, some researchers have argued that the *LNT* model exaggerates adverse health effects, while others have said that it underestimates these harmful effects.

The preponderance of evidence supports the *LNT* model, this new report says. "The scientific research base shows that there is no threshold of exposure below which low levels of lonizing radiation can be demonstrated to be harmless or beneficial," said committee chair Richard R. Monson (Associate Dean for Professional Education and Professor of Epidemiology, Harvard School of Public Health, Boston.)

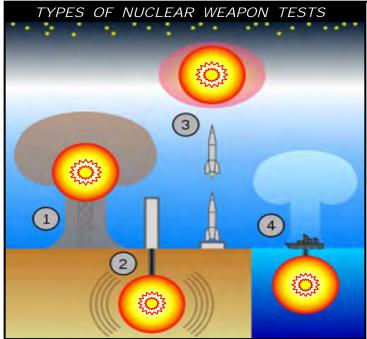
Monson also said, "The health risks – particularly the development of solid cancers in organs – rise proportionally with exposure. At low doses of radiation, the risk of inducing solid cancers is very small. As the overall lifetime exposure increases, so does the risk." The report is the seventh in a series on the biological effects of "lonizing" radiation.

Assessing the Health Risks

The committee's risk models for exposure to low-level *lonizing* radiation were based on a sex and age distribution similar to that of the entire U.S. population, and refer to the risk that an individual would face over his (her) life span. These models predict that about 1 out of 100 people would likely develop solid cancer or leukemia from an exposure of 0.1 Sv (100 mSv).

Approximately 42 additional people, in the same group, would be expected to develop solid cancer or leukemia from other causes. Roughly half of these cancers would result in death. These particular estimates are uncertain, however, because of limitations in the data used to develop risk models.

07



Nuclear Weapon Tests have (historically) been broken into four (4) different categories that reflected and identify the medium, or location, of each of those tests. These catagories were then applied to three (3) basic types, as described herein:

Atmospheric tests (1 & 3) include those detonations which occur in or above the atmosphere, at ground level, at low altitudes or at high altitudes. Generally these have occurred when nuclear devices were detonated on towers, hanging from balloons, on barges, on islands, or those that were air-dropped from various types of aircraft. Nuclear weapon detonations which are close enough to the ground to draw dirt, dust and debris into their mushroom cloud can generate large amounts of nuclear (particulate) fallout due to the "irradiation" of the airborne debris.

Included in this group were high-altitude (HA) nuclear detonations, that have been conducted to "proof" test theories about the effects of nuclear tests upon the Earth's magnetic lines of force. These tests included the (1958) "Teak" & "Orange" tests, the (1958) "Argus-1", "Argus-2" & "Argus-3" tests, and the (1962) "Checkmate", "Bluegill-3-Prime", "King-fish", "Tightrope", & "Starfish-Prime" tests, all of which were carried to their detonation altitudes on a variety of rockets.

The resulting "charged-particle" effects of **HA** tests, have produced various degrees of *Electro-Magnetic Pulse* (**EMP**), that caused a variety of atmospheric effects that can pose a serious threat to computer driven micro-electronics in many ways. The new description for such activity is "Magno-pulse Energy." For example, if a single Magno-pulse Energy Weapon (**MEW**), of ample size, were to be detonated **300** miles above central Kansas, all electrical systems relying upon the use of comuter chip "**micro-processors**" would shut down across the entire United States, Southern Canada and Northern Mexico!!

This includes computer controlled auto and airplane engines, building control systems, cell phones, radio and TV transmission systems, G.P.S. units, pace-makers & critical hospital systems, etc. This upper atmospheric interference effect is currently considered to be the greatest threat to the national security of the *United States*, and the *Defense Dept*. is experimenting with methods to counter this threat. This is one of the major driving forces behind the recent development of (laserguided) missile "shoot-down" systems.

Underwater tests (**4**) included detonations below the ocean surface, at shallow depths, medium depths, and at deep depths. These were performed while nuclear devices were suspended below a ship, or under a barge, or when the weapon was being "towed" through a designated target area, or when the weapon was attached to a small (depth-charge) rocket-type device fired from a distant Navy (sub-hunter) ship.

Tests of this nature have usually been conducted to evaluate the effects of nuclear weapons against various types of naval vessels, as in the *Crossroads* (*Baker*) test, or to evaluate (sea-based) nuclear weapon designs to be used as *Anti-Submarine-Warfare* (*ASW*) devices, including nuclear torpedoes and depth-charges. Those designs were included in the (1955) "Wigwam" test, the (1958) "Umbrella" & "Wahoo" tests, and (1962) "Swordfish" test. Underwater tests produce a hugh heat-gas bubble that erupts from the ocean surface producing large tidal waves, and dispersing large amounts of radioactive water and steam, thus contaminating nearby ships, and island surface and shore structures.

Underground tests (**2**) refers to those tests that were conducted beneath the earth's surface at various depths. These included tests in shafts, in mines, in salt domes, or in tunnels. Under-ground nuclear testing made up the majority of nuclear tests by the *United States* and the *Soviet Union* during the *Cold War;* while other forms of nuclear testing were banned by the (1963) *Limited Test Ban Treaty*.

When the underground nuclear detonation is fully contained, or "stemmed," such tests emit negligible amounts of measurable radiation fallout. However, several underground nuclear tests were "un-stemmed," or "vented" to the surface, by various means, thus producing considerable amounts of airborne radioactive fallout debris.

Underground testing can result in seismic activity depending on the yield of the nuclear device and the composition of the medium it is detonated within, and will generally result in the creation of subsidence craters. In 1976, the *United States* and the *USSR* agreed, via the *Threshold Test Ban Treaty*, to limit the maximum yield of underground tests to **150** kilotons.

Separately (from these designations) nuclear tests are also often categorized by the purpose of the test itself. Tests which are designed to garner information about how (and if) the various weapon mechanisms work are "Weapons-Related" tests, while tests designed to gain information about the effects of the weapons themselves on military equipment, ships, aircraft, structures or organisms are known as "Weapons-Effects" tests.



"SEDAN" was, a 104 Kiloton (-650 ft.) sub-surface test of a "W-56" Submarine Launched Ballistic Missile (SLBM) Warhead. The test was conducted at the Nevada Test Site (NTS) and lifted 12 million tons of rock and alluvial soil to an altitude of several thousand feet. It also dispersed 880,000 Curies of Radioiodine (1-131) into the atmosphere, causing extreme health issues, including cancers and premature death to civilians who lived "downwind" of the test site.

08

Other types of tests, designated "*Plowshare*," were dedicated to exploring the use of nuclear weapons in "*fracturing*" underground oil and gas holding zones. These included the (1962) "Sedan" & "Anacostia" tests, the (1963) "Tornio" test, the (1965) "Handcar" test, and the (1966) "Templar" test.



The "Vela-Uniform" tests were designed to recognize or distinguish a nuclear weapon detonation from a naturally occurring siesmic event. These include the (1963) "Shoal" test at

Fallon, NV., the (1964) "Salmon" and (1966) "Sterling-1" & "Sterling-2" tests, south of Hattiesbury, MS., and the (1968) "Scroll" test at Phyute Mesa, NV.

"Single-Point" (or sub-critical) safety tests were designed to insure that no "critical-mass," of the fissile materials would occur, if a weapon is accidentally damaged, or destroyed. Most of the 1-Pt. Safety tests were conducted at Yucca Flats (NTS), while others were performed at Nellis Air Force Base, NV. Several of the U.S. tests were co-sponsored with the United Kingdom.

Additional types of nuclear weapon "proof" tests included those that were incorporated in the development of Anti-Ballistic Missiles (ABM's). Additionally, there have been simulations of nuclear tests using conventional explosives, such as the (1985) "Minor-Scale" test. The last (U.S.) nuclear weapon test was on September 23, 1992. It was a 15 Kiloton (shaft) "Weapons-Related" test at Yucca Flats (NTS) code named "Divider", and a part of the Operation "Julian" series.

From 1945 to the end of 1992, the *United States* performed a total of 1,049 nuclear weapon tests, involving 1,154 nuclear devices, including the two *Atomic-Bombs* that were dropped *over Japan,* thus ending *WW-II.* The total number of (detected) nuclear weapon devices detonated (to date) by those nations who are now members of the *Nuclear-Power Club (NPC)*, are 2,185.

The most recent detonation, by *North Korea*, is thought to have been a partial detonation of a "primary" device only, and not a fully developed weapon device. The current nuclear weapon inventories of the *NPC* nations is not fully known at this time, and is subject to speculation.

The total yeild of the "Atmospheric" detonations, by all NPC nations, is measured at approx. 427.9 Megatons, or the equivalent of 23,772 Hiroshima size Atomic-Bombs, with the resulting equivalent dispersion of "Ionizing" radiaton fallout patterns, on a global basis.

It is estimated that more than **3.5** *million* military and civilian personnel, from all **NPC** nations, have participated in the

activities related to all of these nuclear weapon devices. And, they all share on common legacy they were all exposed to "lonizing" radiation, either from the device itself, or from the device detonation, or from post test activities either in close proximity to "ground-zero," or having been assigned duties within the radiation dispersion fallout zones.

Many have since had their natural lifespan shortened by a host of lonizing radiation induced health issues. And many more have had to live with children born with (radiation induced) genetic defects, while many more continue to suffer from illnesses caused by those long ago activities.

VOICES FROM NUCLEAR HELL !!!

My name is *Charles (Chris) Christian*. Upon returning to duty after being medically released due to wounds received in the *Korean War*, I was assigned to the *369th Engineer Amphibious Support Regiment* at *Fort Flagler, Washington*. I was the first *Korean War Veteran* assigned there and I was provided with several opportunities to attend various schools of Engineering such as heavy equipment operators school, however, I was holding out hopes of being transferred back to an Infantry unit, so, very foolishly I declined the offers.

Well, as it turned out I never got the transfer and I blew my chances of learning how to operate heavy equipment. I think part of my decision was the fact that within the last several months I had been relocated five times and I was just tired of packing up and moving againI wanted to settle down to garrison duty and live a half-way normal life again.

Fort Flagler is located on Puget Sound and if you didn't have a car or motorcycle the only means of transportation to the main land was via the "M-Boats" (short for Landing Craft Mechanized (LCM). Consequently, I didn't go to Port Townsend that often, except maybe on pay day when a few of us got together and went in for a few beers and to check out the town, which really wasn't all that much. The town included a small variety of restaurants, a few bars, a couple theaters and a VFW and American Legion Post.



In a way though, it was sometimes an adventure just going to town in the *M-Boat*. One time when we were returning to *Fort Flagler* the fog had set in and you could barely see your hand in front of your face. I don't recall exactly how far it was from the main land to the island, but, when you're out there in the water with a "fog-horn" blowing constantly and hoping you don't ram into a freighter or a tanker, it seems that you're an Ocean apart.

Luckily we had a good *Bo'suns Mate* and *Navigator* that got us home okay, a few hours late, but, we got there all in one piece, safe and sound. Another disadvantage of being stationed on the island was whenever there was a regimental parade at *Fort Worden* we had to be taken there by the good old *M-Boats* and as you can imagine there weren't any docks to tie up to get out of the boats, so, the *Bo'sun* would get us as close to the shore as

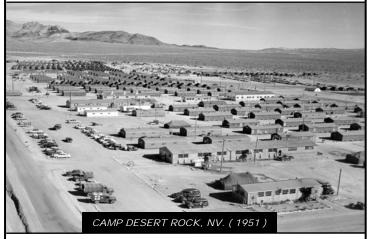
possible and then drop the ramp for us to wade to shore. It was very easy to determine the difference between troops of the *Boat-Battalion* and those from the *Shore-Battalion.....* as we were the ones with the water stains from the knees down! Thankfully, there weren't too many regimental parades.

In April (1951) we received orders for the whole battalion to participate in some *Atomic-Bomb* tests being conducted in the desert of Nevada known as *Frenchman's Flat* and *Yucca Flats*. We were transported there via troop train which took two days. That was a very educational trip as I learned how to play chess not very well, but, I could hold my own.

When we finally arrived in *Las Vegas* it was rather pleasant weather-wise. We were taken to what was to become known as "*Camp Desert Rock*" by truck convoy and we set about putting up squad tents and laying out routes of travel (I hesitate to call them streets or avenues just routes of travel). In two days we were all set up and ready to go about our special duties.

During this time I was assigned to various jobs, one of which was to climb the telephone poles that were installed along the road to connect us with the building occupied by the *Atomic Energy Commission* (*AEC*). My job was to secure the cross beams that would be holding the conductors for the wires. Everything was going fine and I had completed about ten of the telephone line poles.

As I was climbing up the next pole I was about three quarters of the way up when one of the gaffs didn't dig in far enough into the pole and I lost my footing and balance. When this happens you are trained to just lean back and depend on the safety belt to save you well, that's all fine and good in theory, but, when you panic you forget a lot of what you're told you should do consequently, I wrapped my arms around that pole like I was in love with it and slid all the way down, to the bottom.



I have no idea as to how many splinters I had in me, but, it seemed to take an eternity to get them all out. During this splinter removal period, which lasted about two weeks, I was placed on light duty and every day I had to go to the Medical Aid Station for splinter removal. The old timers never did let me live that incident down, but, they were sympathetic to me too. After I got all the splinters out of me I was assigned to drive various type trucks.

One such truck was an old "deuce and a half" with a stake body and a huge open rubberized container inside the back. This was used to transport water to *Camp Desert Rock (CDR)* from *Indian Springs Air Force Base*, a few miles down the road. One day I was dispatched to go to the air base and get water for the camp. Upon arrival at *Indian Springs* the Air Police, at the gate, directed me to the location to get the water.



CAMP DESERT ROCK GUARDS PRACTICE THEIR SHOOTING SKILLS

It took about two hours to fill the rubber container and then I was back on my way to *Desert Rock*. I think our (*CDR*) Military Police was much more proficient than their Air Police!! When I approached the gate to *Camp Desert Rock*, the Military Police (*MP*) posted there normally just flag me through, so, I usually maintain my speed and go right through, however, for some reason an *MP* came out of the security booth and signaled for me to stop, so, I immediately pushed on the brake pedal as I got to the gate and a cavalcade of water came rushing from the container, over the front of the truck and soaked that *MP* all the way to the bone. At this time, I thought I would be charged with being a part of a designed *SNAFU* conspiracy!

This was not done on purpose, of course, but I just knew that *MP* was ready to draw his .45 cal. pistol and put some lead in me, so I got out of the truck and explained to him that I'm never stopped coming in the gate when driving a *GI* truck. After a while he did settle down, but, had to go to his tent to get a change of clothing. See, there were some (testy) humorous things that happened out there on the high desert!!

After we were there about a month we got our first chance to witness a real *A-Bomb* test. This would be one of the "*Tumbler-Snapper*" shots. We were transported to the test site via convoy and upon reaching our destination we dismounted and fell into regular "*Company*" formation. We were then given a briefing as to what to expect and what safety procedures we were to follow. After the briefing we marched to the hundred foot perimeter from "*ground-zero*" and observed various types of equipment and live sheep, both above the ground, and in fox holes.



SEVERAL TYPES OF AMIMALS WERE USED AS NUCLEAR WEAPON "TEST" SUBJECTS, INCLUDING THESE PIGS

Some of the (test) equipment consisted of an *M-4* Sherman Tank, a couple of jeeps, a weapons carrier, some mannequins dressed in both civilian and military clothing (both fatigues and "Class-A" uniforms), a small two bedroom house with furniture, dressed mannequins inside at various locations in the house, an airplane, machine guns and other types of weapons. I was beginning to wonder what in the hell this was going to be all about!! From there we were taken to the next perimeter which was five hundred feet away from "ground-zero" with the same type of equipment and animals. We were also taken to the one thousand foot perimeter and observed that equipment as well.

After viewing all these different perimeters we were given a lunch break and after we ate we were instructed to get in this real long and deep trench and wait for further instructions. At this time they allowed us to stand up in the trench so we could observe the detonation of one thousand pounds of high explosives so that we would be able to make a comparison between that regular explosion and the "nuclear" one were about to witness.

About thirty minutes later we were instructed to put on our gloves, and make sure our pant legs were bloused inside our boots, insure our field jacket sleeves were buttoned tightly and all the way up to the neck. We were then told that at the end of the countdown to make sure to cover our closed eyes with our hands and stay all the way down in the trench. Then it began, ten, nine, eight, seven, six, five, four, three, two, one, **zero**!



THESE TROOPS ARE "DOWN-DEEP" IN THEIR TRENCH AS THE COUNTDOWN TO "H-HOUR" BEGINS

The test shot looked magnificent and then we were told to get back in our trench. After about an hour we were told that it was safe to get out of the trench and get into formation. Once we were assembled we were taken again to the various perimeters to see what the test equipment and animals looked like and what condition they were in.



SNAPPER "DOG" (05-01-52) WAS A 19 KILOTON (FINAL) "PROOF" TEST OF THE "TX-7" (MK-7) TACTICAL NUCLEAR BOMB ASSEMBLY DESIGNED TO QUALIFY THE USEFULLNESS OF DEUTERIUM (GAS) FOR BOOSTING AGENT PURPOSES.

It was amazing !! The *Sherman* tank (at the one hundred foot perimeter) was no longer there ... it was laying at the five hundred foot perimeter, and the tank that was at the five hundred perimeter was nowhere to be found, even though we knew it



SHERMAN TANKS AND OTHER MILITARY VEHICLES WERE TOTALLY DETROYED, AS SHOWN IN THIS POST TEST PHOTO

had to be somewhere !! And the houses were completely destroyed along with the mannequins inside them.

The sheep that were above ground were gone and the sheep that were in the fox holes had their fur either badly singed or burnt completely off!! They were later put to sleep after being checked for the amount of radiation they had been exposed to.

The weapons that were still at their locations were melted down or twisted and deformed so as to make them totally inoperable. At all the different perimeters there was total devastation. After viewing the various perimeters we were then marched to a check point where we were asked to turn in our radiation badges, and we were told that we had nothing to worry about, and that we were not exposed to any serious radiation.

Later, we were again told that our radiation exposure wasn't enough to be dangerous and we didn't have to worry about not making babies, lighting up at night, or glowing in the dark. Of course, at that time, we really stupid enough to believe all of that ration of **Bull S...t**!!

We later realized that there was no way to register the amount of radiation we took into our bodies from breathing in all the dust that was floating all around us. This was a daylight shot and as impressive as it was the pre-dawn shot was even more spectacular.

We went through the same drill as before with the exception of visiting the various marked off perimeters. With this pre-dawn shot, after we were given the countdown we were then advised as to when we could raise up out of the trench momentarily to view the fireball.

Upon seeing this massive ball of fire I was so awe struck by it that I forgot my counting and if it hadn't been for my trench mate yanking me back down into the trench I would have been blown away with the power-force of the blast. But, that was one magnificent sight to behold it's amazing how something as beautiful as that could be so damned deadly and destructive.

The beauty of the fireball filling up the darkness is indescribable. You would have to have been there to really appreciate it. All in all I think I participated in seven of those "*Tumbler-Snapper*" tests (and I still don't glow in the night) but I am having some serious health issues that I think is caused by those tests. To be honest, I found the nuclear tests to be very interesting and informative, and not very many people can say that. These were experiments in military personnel and field equipment survival, but in retrospect, I don't think I would like to do this again at any time in the future.

Charles Christian (Atomic-Veteran) is now deceased

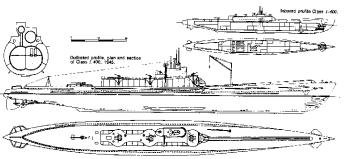


His Imperial Majesty's "Sensuikan-Toku" (Special "I-400" Class Submarines) were designed specifically to attack the long range targets, including the Panama Canal, with the use of aircraft launched from their decks. In many ways HIJMS I-400 Class Submarine were decades ahead of their time. They were the world's largest Submarines, with a length of 400 ft., and a surface displacement of 3,530 tons. Above her main deck rose a 115 ft. long (12 ft. diameter) hangar that housed three torpedo-bombers.



These float planes were rolled out through a massive hydraulic door onto an **85 ft**. pneumatic catapult, where they were rigged for flight, fueled, armed, launched, and after landing alongside the submarine, lifted back aboard with a powerful hydraulic crane.

The *I-400* was equipped with a snorkel, radar, radar detectors, and capacious fuel tanks that gave her a range of *37,500* miles, thus allowing her to sail one and one half times around the world, without a need to refuel. She was armed with eight torpedo tubes, a *5.5* inch deck gun, a bridge mounted *25mm* antiaircraft gun and three triple *25mm* anti-aircraft mounts atop her hangar. The advent of guided missiles and *Atomic-Bombs*, however; would transformed her from an over-specialized, undersea menacing strategic threat, to a historical dinosaur.



I-400 CLASS SUBMARINE CROSS-SECTION

The *I-400* was originally designed so that it could travel round-trip to anywhere in the world, and it was specifically intended to attack and destroy targets in the (U.S. controlled) *Panama Canal* zone. A fleet of *18* boats was planned in *1942*, and work on the first one was started in *1943* at the *Kure* (*Hiroshima*) arsenal.

Within a year, the plan was scaled back to produce only five, and shortly after this decision was accepted, only four were completed. These were the *I-400* & *I-401*, and the *I-13* & *I-14*. The *I-400 Class* had aircraft storage and catapult for three *M6-A1 Seiran* ("Storm from a Clear Sky") torpedo-bombers. These specially designed float planes had a length of *35 ft.*, a wingspan of *40 ft.*, a range of *654 miles*, and a munitions payload of *1,800 lbs.*

Additional fuel and bombs could be carried by jettisoning the floats on a one-way "KAMIKAZE" mission, where the pilots and planes were to be totally expended. The sleek Seiran bombers, built by Aichi Kokuki (at Nagoya), were stowed in the hangar compartment with their floats detached and their wings and tails folded.

An adjacent magazine stored **4** aircraft torpedoes, **15** bombs, and an ample supply of ammunition for all weapons. More ammo was stored topside, in pressure-proof, ready-use lockers, handy to all gun mounts.

Each of the two engine rooms housed a pair of **1,900** *h.p.* diesels, that were linked through a *Vulcan* hydraulic couplings, so as to drive the twin propeller shafts. A **1,200** *h.p.* electric motorgenerator on each shaft drew electricity from her storage batteries, for submerged propulsion.

Actually, with the wings removed, and the top of the vertical stabilizer folded over, the overall profile of the aircraft was within the diameter of it's propeller. A trained air-crew team could rig a floatplane for launch, with fuel and armament, in as short a time as seven minutes. In fact, that same team could prepare all three planes, and have them in the air, in under 45 minutes.

The planes were launched from a **120** ft. catapult on the deck of the giant submarines. Accommodations for a crew of **145** were designed into the capacious twin hulls, but on most occasions, this number was much higher, and somewhere in the **200+** range. The reason for the higher number of crewmembers was to facilitate speedy submarine and aviation operations at sea.



Even though the sub could surface, and the trained crew could, in fact, break out, assemble, fuel, arm, and launch all three aircraft, in a short period of time, more (available) crew members would assure that this short launch window would always be maintainable. The **I-400's** had a great cruising range, which enabled them to launch their bombers within striking distance of targets as far from Japan as San Francisco, the Panama Canal Zone, or even Washington, and New York. All of these missions were being considered, by the Tokyo Naval War Strategists.

Below the aircraft hangar, in the starboard twin hull, was a special compartment equipped to conduct aircraft engine overhaul and testing. With the bottom hulls clean, this power plant combination gave her a top speed of *18.7 knots* on the surface, and *6.5 knots*, when submerged below snorkel depth.



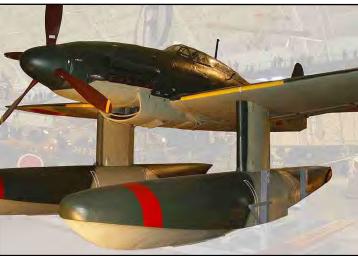
"SEN-TOKU" AIRCRAFT LAUNCH CATAPULT

Meals for the oversized crew were prepared in a galley located in the starboard hull, where large steam kettles turned out great quantities of rice, with an assorted variety of fish. As in all long range submarines, a four month supply of food was stowed in every nook and cranny, including a layer of crates laid out on deck, which the crew walked on until they had eaten their way through.

Supernumeraries were able to sleep on the deck, wherever they could find a nook. This was not a difficult task, as the Japanese were used to sleeping on the bare floor, or on a "tatami" mat.

Overall History

Several surviving Japanese submariners have described the hopes that accompanied the completion of the top-secret "I-400" boats in late 1944. As they became available, the four giant subs were assigned to a newly created "Sub-Ron-One," comprised of a 10 bomber (sub-sea) strike force. For their prime mission, Vice-Admiral Jisaburo Ozawa (Vice-Chief of the Imperial Navy General Staff) comprised and formulated "Operation-PX", a top-secret plan designed to use Sub-Ron-One's ten aircraft to unleash bacteriological warfare on populous areas of the American West Coast and several Pacific Islands.



THIS IS A FULLY RESTORED JAPANESE AICHI "M6A" SEIRAN TORPEDO BOMBER THAT WAS ASSIGNED TO AN I-400 BOAT

This operation called for the use of (virus infected) rats and insects, that would be dispersed over select targets, to spread bubonic plague, cholera, dengue fever, typhus and other super contagious diseases.

General Ishii's infamous (chemical & biological) laboratory at Harbin, Manchuria, had developed these virulent germ warfare agents and confirmed their lethality by infecting several hundred helpless Chinese and Caucasian prisoners-of-war. On 26, March (1945) this sinister mission was cancelled, by the orders of General Yoshijiro Umezu, (Chief of the Army General Staff), who declared that, "Germ warfare against the United States would escalate to a war against humanity." As an alternative, he and his staff considered bombing San Francisco, Panama, Washington and even New York!

After heated arguments and deliberations, it was finally decided to launch a surprise air strike against the (*Panama Canal*) *Gatum Locks*. Destroying these locks would empty *Gatun Lake* and thus block the critical passage of all shipping, from the *Pacific* to the *Atlantic*, for several months, or even a year or so.

For the *17,000* mile round trip to *Panama*, each submarine needed *1,600* tons of diesel fuel, which was unavailable at *Japan's "Jure"* submarine base.

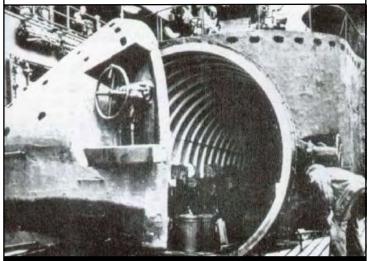
Given this, the I-401 was dispatched to Dairen, Manchuria, to bring back the needed fuel. However; on 12 April, 1945, she grazed a mine, that was previously laid by an American B-29 bomber, off the Hime-Shima lighthouse, in the Inland Sea, and had to return to base for required repairs. In her place, I-400 was tasked with the mission, and successfully returned to the Jure Base with the required load of fuel.

By early June, all four boats were topped off, armed, equipped with new snorkels, and disguised with false funnels, to present a (silhouette) appearance of Ocean trawlers. They then sailed north, through Tsushuma Strait, and on through the Sea of Japan, to Nanao Bay, on the west coast of Honshu near Takaoka.

Training there had been severely hampered by a multitude of randomly laid mines, air-dropped from B-29 bombers, and American submarines were also penetrating their training areas. And, given that there were also severe shortages of aviation gasoline war materials and aircraft, the Sub-Ron-One planners managed to launch a number of simulated air strikes on a full scale model of the (Panama) Gatum Locks that were erected at Tayama Bay, for mission training purposes.

While the submersible (aircraft-carriers) were perfecting their tactics to cripple the Panama Canal, the position of the Japanese Navy was steadily deteriorating. Before the submarines could set sail for Panama, more than 3,000 U.S. and Allied warships & transports had reached the Pacific in preparation for "Operation-Olympic", the forthcoming invasion of mainland Japan.

As this growing threat was fast becoming a reality, Tokyo strategists were forced to reconsider the attack on distant Panama, which now appeared to be only a questionable diversion.



THIS PHOTO SHOWS A PARTIALLY OPEN HANGAR DOOR

Now faced with this dilemma, the Japanese (top brass) ordered the entire fleet of I-400 Boats to abandon their carefully rehearsed Panama Canal Zone strike and were then given new orders to prepare for an attack against the American Naval forces at Ulithi Atoll, in the western Pacific. In response to the new orders, I-13 proceeded, on 4 July, to the Ominato Naval Base, on the northern tip of Honshu.

There she was loaded with two crated Nakajima "C6N2" Ayagumo ("Colored-Cloud") long range reconnaissance aircraft, after which, she then sailed into the Pacific through the Strait of Tsugafu, bound for Japan's Island stronghold of Truk. After repairing a "hot" main propeller shaft bearing, the I-14 Boat followed on 14 July, 1945.



I-400 (LEFT) IS "NESTED" ALONGSIDE THE I-401 JAPAN'S OMINATO BAY SUBMARINE

Two days later, on 16 July, 1945 the United States detonated the world's first Atomic-Bomb, at Alamogordo, New Mexico, and the Heavy Cruiser U.S.S. Indianapolis (CA-35) was in route to the the Island of Tinian, in the western Pacific, to deliver two Atomic Bombs for use against mainland Japan, given the success of the Alamogordo "Trinity" test.

After delivering the two nuclear weapons to the 509th (B-29) Composite Group, the Indianapolis was then given orders to rejoin Adm. Raymond A. Spruance's Task Group in the Gulf of Leyte, however; on 30 July, 1945 while half way between the Marianas and the Philippines, the Indianapolis was torpedoed by Japanese Submarine I-58, a 2,140 ton Type "B-3," boat built at the Yokosuka, Japan ship yard, and modified to carry both "Kaiten" manned (suicide) torpedo's, as well as standard conventional torpedo's.

In less than twelve minutes, the Indianapolis capsized and sank to the sea bottom, with 300 of her crewmembers, still trapped below decks. On 02 August, 1945 the survivors were finally spotted by a single patrol aircraft.

Shortly thereafter, all U.S. air and surface units, capable of rescue operations, were dispatched to the scene, and the surrounding waters were thoroughly searched for survivors. Upon completion of the day and night search, on 08 August, 1945, two days after the first Atomic-Bomb dropped, during an act of war, destroyed the city of Hiroshima, Japan, only 316 Indianapolis survivors were rescued out of the total crew of 1,199. More than 800 of the Indianapolis crewmembers either drowned, or were attacked, and killed, by a host of sharks that infested that particular area of the Pacific Ocean.



U.S.S. INDIANAPOLIS (CA-35)



THE U.S. NAVY IS MAKING PREPARATIONS TO SAIL THE JAPANESE I-400 CLASS SUBMARINE FLEET FROM JAPAN TO HAWAII.

On 23 July, 1945 the **I-400** & **I-401** boats departed *Ominato*, on separate easterly courses, for an intended mid-August rondezvous southeast of *Ulithi*. On 06, August (1945), while they were at sea, the City of *Hiroshima, Japan* ceased to exist, and, given no immediate response from the *Japanese Emperor*, or the *Japanese Military Command*, on 09 August, 1945 the City of *Nagasaki, Japan* was vaporized by the second *Atomic-Bomb* dropped on enemy soil during a wartime situation.

By now, Japan's Emperor had gotten the message, and on 15 August, 1945 he broadcast, directly from the Imperial Palace, that these events produced his immediate decree ending all hostilities against the United States of America, and all other Allied Military Forces. After hearing this message, the I-400 Boat crews were thunderstruck; as they came to the realization that their combat careers had abruptly ended just as they were reaching their planned attack rendezvous.

After a "Council-of-War" meeting, the shattered Com-Sub-Ron-One reluctantly carried out the Emperor's orders to cease all hostilities, hoist the black flag, and return to port, staying on the surface for the entire route.

AFTER ARRIVING IN HAWAII, U.S. MILITARY PERSONNEL AND CIVILIAN SCIENTISTS BOARD THE I-400 CLASS SUPER-SUBS TO BEGIN THEIR DETAILED INSPECTIONS.

All of the *I-400* Boat Captains were ordered to jettison all sensitive materials and munitions, fire all their torpedoes, and catapult all their aircraft into the sea. When the *I-401* surrendered to an *American* destroyer, the U.S. crew were absolutely astounded by it's humongous size.

Captain Arrizumi (Commander of the *I-400* Fleet) chose to commit "Seppuku" (he Japanese practice of ritual suicide) rather than surrender to the Americans. He instructed his aides to bury him with the Japanese flag and deposit his body into the sea, after which he promptly shot himself in the head. His remains were never presented as proof of his death.

The *U.S. Navy* recovered a total of **24** *Japanese* submarines, including all (four) **1-400** boats, and the **1-58**, that sunk the *U.S.S. Indianapolis* a few weeks earlier. They took all of these submarines, to the *Sasebo Bay Naval Base* for detailed studies and inspection. Shortly after arriving at the *Sasebo Base*, the Americans received a message from the *Soviets*, announcing that they were sending a group of scientific & military personnel to *Sasebo* for the purposes of thoroughly inspecting the fleet of *Japanese "Super-Submarines."*

So as to keep the technology out of the hands of the Russians, the U.S. Dept. of Defense quickly initiated Operation "Roads-End," ordering most of the Submarines to be towed far out to sea, where they were then loaded with charges of "C-2" explosives and "deep-six'd" in waters approx. 40 miles west from Nagasaki, off Goto-Retto Island. Today, they remain in that same location, 200 meters below the sea.

Four remaining Submarines, the *I-400*, *I-401*, *I-201* and *I-203*, which achieved speeds double those of American sub-marines, were sailed to *Hawaii* by *U.S. Navy* technicians for further inspection. After completion of the in-depth inspections, all of the remaining Submarines, there were then scuttled, in deep waters just off *Kalaeloa*, *Hawaii* (near *Oahu*) by torpedoes from the *U.S.S. Cabezon* (*SS-334*) on 31 May, 1946.

The decision to scuttle the *Japanese Underwater Aircraft Carrier Fleet*, was prompted by additional *Russian* demands to access and inspect the *Japanese I-400 Subs*.



In March, 2005, the wreckage of I-401 Boat was re-discovered by the Deep-Sea Research Submarine "Pisces," owned and operated by the Hawaiian Undersea Research Laboratory. The wreckage was located at a depth of 820 meters (2,706 ft., or 451 fathoms) and was in fairly good condition, given the number of years that it has been submerged beneath the sea. Her antiaircraft mounts are clearly visible in the above photo, taken from

one of the the submersible's cameras.

D. U. WEAPONS ARE UNDER SIEGE

German Armed Forces Contradict U.S. Denials Over Use of DU in Afghanistan

A classified (German Army) manual that was handed over to German campaigners has re-ignited allegations that the U.S. used Depleted Uranium (DU) ammunition in Afghanistan. The manual, published in late 2005, is a war-fighting guide for Germany's Armed Forces (Bundeswehr) contingents in Afghanistan is marked "classified" and for Official NATO use only.

The section on **DU** munitions begins with: "During the operation 'Enduring Freedom' in support of the Northern Alliance against the Taliban-Regime, U.S. aircraft used, amongst others, armorpiercing incendiary munitions with a DU core. Because of it's pyrophoric character, when this type of munition is used against hard targets (e.g. tanks, cars, etc.) the Uranium burns. During the combustion, toxic dusts can be deposited, particularly at and around the targets, which can then be re-suspended easily." It then warns troops how to recognize contaminated targets and of the potential health threat from **DU** munitions, suggesting precautions that troops should take.

It is notable that they suggest the use of full Nuclear, Chemical and Biological warfare suits: "DU-munitions can therefore induce toxic and radiological damage to exposed personnel through heavy metal poisoning and very low-level radiation. When it is suspected that these weapons have been used (burnt out cars or tanks, burnt out convoys, with typical 30mm bullet holes) NBC protection suits and masks have to be worn in the immediate vicinity of the munitions' impact, until NBC security troops can rule out any potentially harmful threats."

URANIUM TRAVELS NERVES FROM NOSE TO BRAIN

In it's July, 31st. online edition, the *Journal Toxicology Letters* reports that troops and *Uranium* workers who inhale radioactive *Uranium* may see it bypass the brain's protective barrier and follow nerves, from the nose, directly to the brain. In a study conducted on rats, olfactory nerves (acting as a conduit) carried inhaled *Uranium* from their nose directly to their brain. Once in the brain, the *Uranium* may affect task and decision-related types of thinking.

In his synopsis of the new study, *Dr. Paul Eubig* (*Veterinary Medicine*) noted that, "This study provides yet another example of how some substances can use the olfactory system, thus bypassing the brain's protective blood barrier, going directly to the brain proper."

Titanium nano-particles and the metals Manganese, Nickel and Thallium have also been shown to reach the brain using the same route. Dr. Eubig went on to say, "Once in the brain, the Uranium may affect task and decision related types of thinking. [One] study of Gulf War Veterans, who have Uranium shrapnel in their bodies, showed that they perform more poorly on general brain cognitive tests of performance efficiency and accuracy."

PENTAGON THINK TANK URGES SEARCH FOR DEPLETED URANIUM SUBSTITUTE

A military "Think-Tank" has urged U.S. Army planners to speed up the search for alternative metals due to the growing International opposition to Depleted Uranium (DU) weapons. The U.S. Army Environmental Policy Institute (AEPI) assists the Dept. of the Army in developing mitigation policies and strategies to improve or resolve environmental issues that may have significant impact on the Army.

In it's May (2008) report, the **AEPI** suggests that, "The military should continue pursuing R & D for substitutes and be prepared for increased political pressure for current and past battlefield cleanup." The opinion seems to have been triggered by the growing International campaign against the use of any type of Uranium (alloy) in weapons or armor plate. In particular, the report did acknowledge the impact that repeated European Parliament resolutions have had on this International debate.

Last year, a July / August (AEPI) report quoted the U.S. Institute of Medicine, whose two studies of the health impact of DU and the health assessment of Veterans concluded that, "Health impacts of Depleted Uranium exposure in military and veteran populations are difficult to determine with the available data and procedures and, given this, a meaningful assessment plan would not be easy to design."

AEPI fully accepted the *Institute of Medicine's* recommendations for, "a prospective cohort study of future military operations involving exposure to Depleted Uranium including better integration and linkages of Dept. of Defense databases for identifying the health issues of current active-duty military personnel and Veterans with potential **DU** exposure."

In acknowledging the flaws in the *Pentagon's* framework for surveillance of sick Veterans, and the dearth of reliable research into historical *DU* exposure, the *AEPI* made this stark recommendation to the U.S. Army: "Since the *DU* controversy continues, with pressure for creation of International regulations to ban *DU* munitions, the military should continue to seek alternative high-density projectile materials and glean force health protection recommendations from such studies."

Editors note: At this writing, we have been informed that the **U.S. Army** is now using an alloy of "Nickel-Titanium" (NT) in armor piercing ammunition. The exception to this is the continued use of **DU** munitions in the (rapid-fire) "Phalanx" anti-missile shield weapons used on **U.S.** Navy ships. It is suspect that this new "ultra-high" strength alloy may be found to be more toxic that the **DU** rounds!!!

EARTHWORM TO GLO-WORM!!

"Depleted Uranium Turns Earthworms into Glo-Worms"

from: Sunday Herald News - March 15, 2008

Scotland: Glow-Worms created from *Depleted Uranium*? Earthworms were pushed into the (political) firing line last week after a resumption of the testing of *Depleted Uranium* (**DU**) penetrator munitions at *Scotland's Dundrennan* test range. Significant levels of radioactive *Uranium*



isotopes were found in the flesh of earthworms at the *Dumfries* (*Ministry of Defense*) facility last year. Despite concerns from environmentalists and the International community, the *MoD* last week started a series of tests of *DU* shells, supposed "safety-checks."

A report published in the *Journal of Environmental Monitoring* found that worms in the *Dumfries* testing ground had significant traces of poisonous *Uranium* isotopes in their bodies. Worms are a crucial part of the ecosystem, aerating the soil and aiding the nutrient uptake of plants. If they are contaminated, it suggests the wider environment is tainted. The report said: "*Many of the soil samples from the Dundrennan Firing Range had Uranium concentrations and isotopic signatures indicative of DU contamination."*

The report described how plants and earthworms, collected



from above and within contaminated soils respectively, also had Uranium isotopic signatures strongly influenced by **DU**, indicating that **DU** was indeed assimilated into biological tissues.

Furthermore, it said: "More than 6,000 DU shells have been fired into the Solway Firth at Dundrennan, amounting to more than 20 tons of nuclear waste." These tests have been linked to increased rates of cancer and leukemia in the area. Opposition to their use is hardening, after a vote at the United Nations General Assembly, won by 136 states to five, required States to submit files on the health implications of **DU**. Britain was one of the states to vote against it. The Scottish government criticized the new tests. An **SNP** spokeswoman said: "We want to ask the secretary of state for defense about the **UK's** position with regard to these International developments. Although we don't have any powers over defense policy, we are responsible for the health and well-being of the people and service personnel of Scotland."

Depleted Uranium is used to make hard tips for armor-piercing rounds. When they explode, the Uranium turns into a fine powder which is carried on the wind for miles around. In Iraq and Kosovo, the use of these type shells has been blamed for horrific birth defects as well as being implicated in causing Gulf-War Syndrome.

Robin Harper (Scottish Green Party MSP) said: "There is no safe place to test these shells, and there is no appropriate battlefield to use them on either. The MoD should commit to the ban requested by the European Parliament." The MoD insisted the tests would be safe. An MoD spokesman said: "Comprehensive environmental monitoring programs involving air, water and soil sampling have been in place at and around Kirkcudbright since the beginning of the **DU** munitions trials. The findings continue to show DU does not pose a significant risk to the environment or to members of the public or site personnel."

VOICES FROM NUCLEAR HELL!!

Operation Greenhouse - 1948

My name is Leland D. Searles, and I was a member of U.S. Navy Squadron VR-3. We arrived on Eniwetok, Atoll on April 5, 1951 and were assigned to transport radiation cloud samples from drone aircraft back to the States following a Greenhouse nuclear weapon test. This test was conducted some 12 miles distant from the airfield on April 10, 1951. After getting the samples, we departed following the detonation and stopped only briefly at Hickam AFB to re-fuel.

During the days prior to the test we were able to sit around and enjoy some great swimming and good mess, mixing in with a bunch of *U.S. Army* military types.

Then, on the morning of the test I was standing along the airstrip with other crewmembers, to witness the test and to observe the air sampling operations.

We saw the detonation and then felt the the shock wave, then heard a single loud report on the waters surface as it came our way. I did not think that such a weapon the size of that blast would exist any where on Earth.

Then one of the small drone aircraft, an F-80 as I recall, that was supposed to fly through the mushroom cloud to get radiation samples, failed to return, and crashed offshore near our location. We collected the radiation samples from the drones that did work, and then left on our trip back to Moffit Field, CA.

Our crew wore dosimeters, and like others, I never heard the results, however, for several years after, I received periodic mail inquiries from the *Navy* asking my about my general health. My health issues have been good and bad, from time to time.

Your accounting of Operation Greenhouse is the only mention of the test that I have ever seen since I left the Navy 50 year ago !!

Leland Searles - Atomic Veteran - is now deceased

Operation Redwing - 1956

My name is Wayne Parsons, and I was first assigned to Task Force Headquarters as a clerk for a Colonel Custer, who was an S-4 Officer. Then, in November of '56 I was transferred to the Post Hospital and was the clerk for Captain Cutshaw. As I had witnessed 16 shots of the Operation Redwing series, and in this capacity it didn't take me very long to know that no one really knew how much of the radiation we were exposed to was going to cause problems for all of us sooner or later.

Captain James A. Cutshaw was actually the head Doctor at the hospital. I soon found out that there were two reports each month that I was typing up that were being mailed 'Top Secret' to the office of the Surgeon General in Washington, D.C. that were **NOT** being sent through the *Chain of Command*.

I soon figured out that one report was "officially" classified, while the other report was supposed to be made available upon request. I also knew that some information in the classified report was not in the 'made-available" report. I was told the first time that I sent one of these out that I was not to tell anyone, or even mention to the other hospital medics, what the contents of these reports were all about.

Later in the Spring of '87 there was a problem that came up and I found out that Captain Cutshaw had the phone number of the Surgeon General and the authority to place a call directly to him, if he thought a situation required such a call. However when the Admiral in charge of JTF-7 found out he was going to do this he came over to the hospital and there was a loud argument between the two of them. Finally the Admiral and the Captain came to some sore of agreement, and he didn't have to make the call to the Surgeon General.

Like many of my buddies, I have tried for several years to get my records from the Army and was always told that they must have burned up in the St. Louis fire. Finally in 1999, while living in Quincy, Illinois which was in the 17th Congressional District, I came to know Congressman Lane Evans. In a conversation with him I told him about my inability to get my records, he looked at me and said "I can get them for you"......and in about 3 weeks I had the whole file, almost 3 inches thick.

I was told that my records had never been in St. Louis. They came with a cover letter from the Nuclear Defense Agency in

Bethesda, Maryland. When I first applied to the local VA for help, I had a host of problems with the system. With the help of NAAV, I finally go proof that I was an "Atomic-Veteran" and things got a whole lot better. Most of my health care needs have been taken care of by the VA hospital system, but now I have since developed one of the "presumptive" conditions and to this day am still fighting with the VA for recognition of it and am still trying to get a disability rating. Now at the age of 75 I wonder if I will live long enough to see this through!!

Wayne Parsons - Atomic Veteran is now deceased.



From: An English Chap who is also an Atomic-Veteran

"Now see here, old Boy......here's something I never knew before, and now that I know it, I feel compelled to send it on to my more esteemed, intelligent, and enlightened friends, in the hope that they, too, will feel both edified and enamored with meaningful historical trivia. Isn't history more fun when you truly know something unique about it?"

The year was 1415, and France was preparing for the **Battle of Agincourt** that would pit their troops against the troops of England. The French were anticipating an easy victory over the English, and given this, it was proposed that the middle finger of all captured English archers should be removed (cut off)

You see, the thought of the day was that without that middle finger it would be impossible to fully draw the renowned, and most feared *English Longbow* and therefore; given the power and accuracy of the *Longbow*, those captured archers would thusly be incapable of using the *Longbow* while engaged in any uture conflict.

In those days, the Longbow was made from the wood of the "Yew" tree, which was favored for it's tight-grain strength and durability, and this tree was found only in England. Given this, the act of drawing the Long-bow was commonly known throughout the land, as "plucking-the-yew," or in keeping with the passion for using a short-version description, the simple, (commoner) verbiage was reduced to a simple "pluck-yew."

The *English*, much to the bewilderment of the *French*, handily and authoritatively won the battle, thus handing the *French* a major upset. As an added insult, and having obtained prior knowledge of the *French* plan to cut off the long-bow plucking finger, the victors began mocking the defeated *French* by waving their middle fingers, and shouting, "look hear you snivelers, i spite of your well laid plans, we are still able to pluck-yew."

Now, in most cases, "pluck-yew" was rather difficult to say, with any degree of intended animosity, given the difficulty of the consonant cluster, and additionally, after a few pints at the pub, the phrase was gradually, and over time, changed to include the labiodentals fricative (letter) "F," and thereafter the words were often used in conjunction with the "One-Finger-Salute."

It is also little known that because the paths of the arrows were held true by *Pheasant* feathers affixed to their shaft's, this symbolic gesture was also known as either "shooting-one-the-bird," or "giving-one-the-shaft." And today, rumor has it, that in the view of many *Europeans*, it is still considered to be a most appropriate salute when one chances to meet up with a "Frenchman".......

"And yew thought yew knew every plucking-thing."

Editors note: Have "yew" ever wondered what happened to Sir Robin?

Well, one historian states that after giving up his road warrior outlaw escapades, Sir Robin (Hood) retired to his Castle on the outskirts of Nottingham Forest. And shortly thereafter; he developed severe health issues, and was bedridden in the top of the Castle's west tower, which allowed for the best view of the surrounding grounds.......

Several of his followers, including Friar Tuck, John Little (Little-John) and Will Scarlet (his most trusted friend) were in attendance, keeping a constant vigil over their fearless leader. As the days wore on, Robin could hear increasing arguments about where to bury his remains should he pass-on to the next world.

After listening to these arguments for several days, Robin suddenly sat up in his sick bed and shouted to Friar Tuck to "fetch me my longbow." Startled at Robin's demeanor, the good Friar did so immediately, after which Robin notched an arrow and "plucked-the-pew" one last time, releasing the arrow through an opening in the tower wall. "Now listen carefully all of you blessed ruffians," said Robin. "I wish to be buried at the very spot where my arrow lies."

And so it was, that Sir Robin, Earl of Loxley, became the only mortal in the history of mankind to be forever buried in the ass of an OX !!!

"And now 'yew' know the rest of the story "



WHAT EVER HAPPENED TO WONDER-WOMAN ??

JAPANESE WORKERS POISIONED BY TRITIUM

Tsuruga, Japan: Fourteen workers were tested for Tritium exposure after an October 8th accident at Japan's Fugen reactor, in which approx. 70 milliliters (2.37 oz.) of heavy water leaked from the reactor system. One person ingested Tritium, the radioactive form of Hydrogen, in an amount above the allowable limit set by the Japan Atomic Energy Agency. According to JAEA, the leak released 1,000 times the permitted amount of radiation inside the reactor building, but none leaked to the outside of the structure. The Fugen reactor is undergoing dismantlement and has been shut down since 2003. During 20 years of operation, it caused a dozen Tritium leaks and a radioactive steam leak occurred in April, 2002. Decommissioning is expected to take 30 years and produce 4,000 tons of radioactive waste. Irradiated fuel rods have been shipped to the Tokai Reprocessing Center site.

Nuclear Agency Ministry Report - October 9, 2009

Editor's note: An isotropic blend high pressure Deuterium-Tritium (DT) gas isotope is used as a booster-agent in thermo-nuclear weapons. The DT reacts to the (double-prime) first stage (fission) chain reaction process where extreme X-rays excite external neutrons that then cause the fission process to trans-phase to a fusion process, thus becoming a true "Hydrogen-Bomb."

NEVADA GROUND WATER CONTAMINATION

Jackass Flats. NV. - A test well over a mile upstream from the site of "Benham" (a 1.5 megaton thermo-nuclear bomb test detonated on December 19, 1968) produced results that show contamination 3,000 times the allowable drinking water standard for Tritium. The contamination is part of a groundwater plume that spreads nine feet further each year, and has now migrated beyond the boundary of the Nevada Test Site.

The National Nuclear Security Administration (NNSA) announced that Tritium contamination had taken only 35 years to migrate beyond the Nevada Test Site. Darwin Moran, spokesperson for NNSA said it will take another 240 years to reach a public water supply and by that time, Tritium will have decayed to undetectable levels. The groundwater contains many contaminants however; including (radioactive) Chlorine, Iodine, Technetium and Plutonium. Heavier isotopes, such as Plutonium, travel at a slower rate, but have a half-life of 24,000 years.

According to the Las Vegas Review-Journal, if the Tritium plume takes an unexpected turn toward drinking water sources, the DOE will provide needed supplies for residents. The Tritium is assumed to have come from two underground *H-bomb* detonations, Benham (1968) and Camembert (1975). The explosions were two miles from the test well where the high levels of Tritium were detected.

The **DOE** plans to install six new radiation monitoring wells near Pahute Mesa, where 82 underground bomb tests were detonated. An agreement between the State of Nevada and the DOE requires the U.S. Government to collect any water found to be highly contaminated with radioactive agents.

Las Vegas Review-Journal - July 27, 2009

Editor's note: It was privileged to participate in a tour of the Nevada Test Site as a member of the Veterans Advisory Board on (radiation) Dose Reconstruction, in April, 2007. We were able to get a first hand assessment of the major test areas, including Frenchman's Flat & Yucca Flats, where the atmospheric tests were performed, and Phyute Mesa, Rainier Mesa, Jackass Pass, and the Northern Flats, where most of the underground, shaft and tunnel tests were performed. We were also able to get a good assessment of the impact of nuclear weapons on various structures and battle-field equipment and machinery.



As an example of the long term radiation hazards associated with nuclear weapons, this test Tank remains radioactive, more than 50 years after being subjected to atomic weapon tests at the Nevada Test Site.



And here, we see members of a (Homeland-Security) First Responder Team undergoing exercises in methods of detecting and monitoring "low-level" radiation hazard samples at the Frenchman's Flat "T-1" Field Training area.



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R. J. Ritter - Nat. Cdr., Editor & Publisher

Website: www.naav.com E-mail: cmdr@naav.com

