

# Nuclear War Planners “Never understood, didn’t care”

By Molly Mechtenberg-Berrigan

Sixty years ago this past August, the U.S. exploded two atomic bombs over Hiroshima and Nagasaki. On Aug. 6 the White House claimed, and the press reported that the bomb was dropped “on the Japanese army base at Hiroshima,” providing no information about the absolute destruction of the city or the tens of thousands of dead and injured men, women and children. President Harry Truman called the event the “greatest achievement of organized science in history.” Until the news broke, the development of the atomic bomb was a complete secret, even for those who had worked at the factories and plants to help develop it.

The devastating power of nuclear weapons is no longer a secret. It is still common, however, to speak of nuclear weapons using statistics and war-fighting strategies — the abstract language of Pentagon war planners. It is easy to forget the Bomb’s mass destruction caused by blast damage, fires, hurricane-force winds, and cancer-causing radioactive fallout. It is easy to forget the indiscriminate nature of nuclear weapons, which instantly vaporize men, women and children alike. It is easy to forget charred skin, third degree burns and radiation sickness. It is easy to forget that there still exist over 20,000 nuclear weapons, thousands on hair-trigger alert.

Below is a description of the likely effects of an explosion of a single 300-kiloton device, the approximate yield of many modern strategic nuclear weapons. This scenario is simplified, given the fact that nuclear strategy involves targeting a city with multiple warheads. Keep in mind that the Hiroshima bomb had 12.5-kilotons of TNT equivalent, and the Nagasaki bomb 21-kilotons. Today’s bombs are far more powerful.

## A radioactive firestorm

The detonation of a 300-kiloton nuclear bomb approximately 1,500 feet off the ground would release 300 trillion calories of energy in one millionth of a second. Most of this initial energy comes in a blinding flash of intense light. The superheated air creates a fireball. The fireball increases in size to about one-mile in diameter, with temperatures at its center reaching more than 200 million degrees Fahrenheit — about four to five times the temperature of the sun. Everything in close proximity to this

fireball — trees, buildings, cars, people — are vaporized. Within minutes of a detonation, fires spread in all directions.

Fifty percent of the energy released from a detonation is in the “blast wave.” The expansion of gases create a shockwave of air radiating outward, producing sudden



**The center of Hiroshima after the U.S. atomic bombing, August 6, 1945. Only a few concrete buildings are left standing. Hiroshima had been a busy city of 350-million people — the size of Denver. Cumulative deaths from the surprise morning attack, according to the Japanese government, amount to 237,062. In Nagasaki, when the long-term effects of radiation are included in the calculations, another 137,339 were killed.**

— Knoxville, Tenn. *News Sentinel*, Aug. 7, 2005

## Hiroshima & Nagasaki Myths Unraveling

by John LaForge

The 60<sup>th</sup> anniversaries of the U.S. atomic attacks on Hiroshima and Nagasaki were commemorated around the world and noted in papers and magazines everywhere. *Time* and *National Geographic* both ran lengthy and nearly “comprehensive” reports that — as usual — neglected even a single photograph of a victim. The better to help us deny the medical, ethical and legal consequences of these U.S. atrocities.

At Hiroshima, 140,000 men, women and children were turned into powder and ash; another 100,000 died at Nagasaki. After five years, an additional 130,000 inhabitants of the two cities died lingering, painful deaths from radiation poisoning.

The Australian war correspondent Wilfred Burchett saw Hiroshima on Sept. 2, 1945. He wrote in the *London Daily Express*, “Thirty days after the first atomic bomb destroyed the city and shook the world, people are still dying, mysteriously and horribly — people who were uninjured in the cataclysm — from an unknown something which I can only describe as the atomic plague. ... I write these facts as dispassionately as I can in the hope that they will act as a warning to the world. ...” The warning went unheeded and was unpublished in the censored U.S. press.

Censorship helped the atomic bombings blast the earth into the “nuclear age” that has seen governments produce global contamination from open-air bomb tests, human radiation experiments on 16,000 U.S. citizens, nuclear fallout poisoning of 400,000 atomic veterans, countless cancers among “downwinders” living under the fallout plumes, millions of tons of mishandled and uncontrollable radioactive waste, radiation disasters at Windscale in England, Church Rock in New Mexico, Three Mile Island in Pennsylvania, Tomsk in Siberia, Chernobyl in Ukraine — and a raging, international “atomic plague” we call the cancer pandemic.

We all know the official spin: The Bomb was used to “save” the lives of invading U.S. soldiers and Japanese defenders. President Harry Truman, who allowed the bombs to be used on heavily populated cities, continued in his retirement to say so, claiming several times that up to half-a-million lives were saved by the atomic bombings.

Actual estimates by U.S. military planners for U.S. troops’ lives that would be lost in an invasion varied from 20,000 to 63,000. Gen. George C. Marshall, then the military chief of staff, agreed with his planners’ estimate of 46,000.

The “saved lives” story is still believed by much of “the greatest generation” — those that won’t consider either the historical record or books like Alperovitz’s *The Decision to Use the Atomic Bomb* (Knopf, 1995) or Lifton’s and Mitchell’s *Hiroshima In America: Fifty Years of Denial* (Putnam, 1995). Both studies copiously document the cynical and deliberately suppressed history — buried in U.S. government reports, presidential libraries and

formerly classified studies — that the bombing was unnecessary and that Truman knew it was unnecessary.

The ironic “saved lives” rationale has been debunked by the U.S. Army itself. A formerly classified study done in 1946 — and uncovered in 1989 — by the War Department’s Military Intelligence Division, flatly contradicts the official cover. The Army concluded that *a large-scale U.S. invasion of Japan would never have taken place*. This study was labeled top secret and hidden from the public for 44 years.

The U.S. Strategic Bombing Survey found in late 1945, “The Hiroshima and Nagasaki bombs did not defeat Japan, nor by the testimony of the enemy leaders who ended the war did they persuade Japan to accept unconditional surrender. ... Certainly prior to December 31, 1945, and in all probability prior to November 1, 1945, Japan would have surrendered even if atomic bombs had not been dropped, even if Russia had not entered the war, and even if no invasion had been planned or contemplated.”\*

It is this generally denied reality that led Brigadier General Bonnie Fellers to write in the July 1947 *Reader’s Digest*, “Obviously ... the atomic bomb neither induced the Emperor’s decision to surrender nor had any effect on the ultimate outcome of the war.”#

Since Japan’s surrender was only days or weeks away, the bomb could have been demonstrated in the desert, or at sea — instead of being used against a city the size of Denver. Scientists and diplomats made these suggestions to Truman. Ten weeks before Hiroshima, Gen. Marshall recommended that the bomb be used only on a “straight military objective” and only after civilians were adequately warned so they could flee. This advice was snubbed.

Hiroshima’s City Council wrote to Truman in his retirement, asking pointed questions we all should answer: “Do you consider it a humane act to try to justify the outrageous murder of two hundred thousand civilians of Hiroshima, men and women, young and old, as a countermeasure for the surprise attack [on Pearl Harbor]?”

“Do you consider your country, which, having manufactured the atomic bomb, was aware of its explosive power and could anticipate the formidable destruction ... excused, just because it is a conqueror, for the crime of the first, the most cruel, and the largest-scale manslaughter that has ever taken place in the history of [hu]mankind?”

Millions more need to arrive where the Bomb’s designer — Robert Oppenheimer — said we would. Oppenheimer wrote, “If atomic bombs are to be added as new weapons to the arsenals of a warring world or to the arsenals of nations preparing for war, then the time will come when [hu]mankind will curse the names of Los Alamos and of Hiroshima.”

\* Robert Lifton and Greg Mitchell, *Hiroshima In America: Fifty Years of Denial*, Grossett & Putnam, New York, 1995, p. 83; # Gar Alperovitz, *The Decision to Use the Atomic Bomb*, Knopf, 1995, p. 352.

changes in air pressure and high winds that crush large structures, office buildings, homes, bridges and cars. The blast wave intensifies fires by exposing ignitable surfaces and dispersing burning objects.

Seven-tenths of a mile from ground zero, within a half-second of the detonation, light from the fireball, 5,000 times brighter than the noon sun, melts asphalt in the streets, burns paint off walls, and melts metal surfaces and glass. One second later, the blast wave hits with 750 mph winds. Objects such as heavy desks, tables, furniture, cars and trees become deadly projectiles. Virtually no one in an area of about 65 square miles survives.

Thermal radiation, or heat, accounts for 35 percent of the energy released in a detonation. Scattered fires coalesce into a firestorm. Clothes exposed to the fireball ignite or melt, and uncovered skin is scorched causing third-degree burns. Light from the fireball approximates 600 suns, twice the thermal energy at the edge of the mass fire at Hiroshima, three-and-a-half-miles from ground zero. Fires ignite as far away as 4.6 miles from ground zero. Blast damage to stores, water heaters, furnaces, electrical circuits or gas lines ignites fires where fuel is plentiful.

The firestorm creates air temperatures well above the boiling point of water. Within 10 minutes of the explosion, the pumping action from rapidly rising hot air generates superheated ground winds of staggering force, transforming the area into a hurricane of fire. Smoke, dust and intense heat make it nearly impossible for emergency response teams to function. The fire burns at this intensity for three to six hours, eliminating all life in the fire zone.

Radiation effects account for 15 percent of the energy released in a detonation. Direct radiation contamination occurs at the time of the blast and soon thereafter, as solid radioactive materials, catapulted into the air by the explosion, settle back to the earth and contaminate soil, water, food and immediate survivors. The extent of radioactive fallout depends on weather conditions at the time of detonation, particularly wind direction and speed.

People exposed to high doses of radiation, 4,000 to 5,000 rads, suffer what is known as Central Nervous System Syndrome. Their brain tissue, damaged by the radiation, swells, causing nausea, vomiting, diarrhea and progressive difficulty walking, talking and thinking clearly. They develop convulsions, pass into a coma and die, usually within a day or two.

People exposed to lesser doses of radiation, from 400 to 600 rads, suffer a gastrointestinal form of radiation sickness. They experience nausea, vomiting and diarrhea soon after exposure which lasts for several days and then seems to improve. But within a week, symptoms return and become worse. The majority of these patients also die, despite the most intensive medical therapy. Lower doses of radiation, 100 to 300 rads, cause bone marrow to stop producing normal numbers of white blood cells, and these people become prey to infection. Without adequate care these victims also die.

In addition to burn and radiation sickness there are many thousands of other injuries. These include people blinded by the flash or deafened when the pressure wave ruptured their ear drums, people whose lungs collapsed under the tremendous pressure, wounds to the head, chest and abdomen caused by flying debris, and broken bones resulting from the hurricane force winds or collapsing buildings.

The population is devastated and medical resources are incapable of coping with the high rate of injuries. Hospitals are destroyed, food and water contaminated, transportation and communication severely compromised. The long-term consequences of a nuclear detonation are incalculable.

## Blatant disregard for consequences

In 1999, Gen. George Lee Butler, former Commander-in-Chief of the U.S. Strategic Command, wrote regarding war plans for a U.S.-Soviet Union war, “[T]he calculation as to the military effectiveness of that attack was based on only one criterion, and that was blast damage. It did not take into account fire; it did not take into account radiation. Can you imagine that? We never understood, probably didn’t care about, and certainly would not have been able to calculate with any precision, the holistic effects of 20,000 nuclear weapons being exploded virtually simultaneously on the face of the earth.”

The blatant disregard for a comprehensive look at nuclear destruction continues today, as plans for “mini-nukes,” the robust nuclear earth penetrator and a revitalized nuclear arsenal are being pushed forward by the Republican Right. The Bush Administration has clearly stated its willingness to use nuclear weapons in a first-strike capacity against what it considers “rogue” states.

Sixty years after Hiroshima, the words of Albert Einstein, who helped develop the bomb, hold true, “The release of atom power has changed everything except our way of thinking.... The solution to this problem lies in the heart of [hu]mankind. If only I had known, I should have become a watchmaker.”

Sources: “*City on Fire*,” by Lynn Eden, *Bulletin of the Atomic Scientists*, Jan./Feb. 2004; “*Effects of a Nuclear Explosion*,” by Ira Helfand, M.D., *Physicians for Social Responsibility*