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Nuclear War: Hiroshima, Nagasaki, and A Workable Moral Strategy for Achieving and Preserving World Peace

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Caution: This document graphically reveals what happens to people caught one mile away from a *small primitive nuclear weapon*.

Why world peace is necessary

That Day: Monday, August 6, 1945, 8:15 AM: In the center of Hiroshima, just above Shima Hospital, it seemed like the sun had descended to the earth, followed by the sky blasting down like a Richter-10 cosmic quake from the gods, "rattling the earth's axis," scorching, searing, roasting, irradiating, blasting, and crushing everything and *everyone* below. It was as if the sun touched Hiroshima, creating a blazing inferno with no escape; hell was overflowing down onto the city; neutron radiation from the bomb made people's bones radioactive (*radio-chemical warfare*). Blast winds in excess of 200 miles per hour (mph), with blast overpressure blowing out ear drums and forcing eyeballs out of their sockets (like *globe luxation*); it hurled and slammed people into stone walls. Scorched blistered skin sloughed and peeled off their bodies, dragging on the ground as they tried to escape the city. The retinas of eyes looking up were burned. Stone and concrete buildings were fire-gutted to their cores, the blast-shattered glass window fragments sharply tearing into the bodies of those within, and without. This happened to Hiroshima citizens, the children and families, within seconds on August 6. Birds and butterflies never had a chance.

The next morning, Tuesday, August 7, acting Mayor Shigetada Morishita and whoever else he could find, had to deal with 70,000 dead under their crushed burned homes and heaped and strewn all over the streets, bridges, and river banks of Hiroshima. Over the next two weeks more people would die, day and night, averaging 160 per hour. Radioactive debris was all over the center of the city. Thirteen square kilometers of homes, stores and shops destroyed. A single small and primitive nuclear bomb, with the equivalent explosive power of 16,000 tons of TNT detonated over the city of 350,000, emitting a huge flood of nuclear radiation. By Dec 31, 1945 the Hiroshima death toll had risen to about 140,000 and the counting could not stop then. Hiroshima City was burned to the ground, wiped off the earth. More than 140,000 people, mostly civilians, eventually disposed of as ashes and smoke.

Thursday, August 9, a 21,000-ton device destroyed Nagasaki and its people, killing another 70,000 by year's end. By hindsight and knowledge gained later from surviving Japanese government officials neither bomb was necessary to bring about the end of the war. Thousands, like 16-year old Sumiteru Taniguchi of Nagasaki, on August 9, were burnt from the bomb's solar-like flash, some burnt to a crisp.

Is it safe being one mile (1.6 km) away from a small nuclear bomb's hypocenter? (Hypocenter being the ground point beneath the explosion. Safe there?)

Sumiteru Taniguchi, age 16 in 1945, was about *one mile* away from the Nagasaki hypocenter. A mile away from this small primitive nuclear bomb was not far enough. It was 11:02 A.M.; Taniguchi-san was on his red bicycle delivering mail in the Sumiyoshi-machi area on that hot Nagasaki day. He was burned on his back, left arm, and on his buttocks, while on his bicycle. I have

wondered if he was standing on the pedals going up the hills of Nagasaki. It is now too late to find out; Taniguchi-san died of cancer, August 30, 2017. Repeatedly, after Aug. 9, 1945, Sumiteru pleaded with his doctors and nurses, "Kill me! Kill me!" He spent 21 months lying on his stomach in the hospital; he remarked, it became his eating place and his toilet place. The Nagasaki #1 and #3 streetcars will take you to Sumiyoshi-machi, the last northern stop, Akasako.



The above picture is from the black and white photograph of Sumiteru Taniguchi taken by U.S. Marine Sergeant Joe O'Donnell, September 15, 1945, in Nagasaki. O'Donnell waved away the flies and gently brushed out the maggots before taking the picture, and then decided to take no more pictures of burn victims unless ordered to do so. (Color recovery (in 8/2017) is by Jordan J. Lloyd / Dynamichrome Ltd., England.) Please employ caution in using this photograph. A good 21-minute interview with Taniguchi-san is here. https://www.youtube.com/watch?v=ACu4prtWXpc His last words are here, https://www.youtube.com/watch?v=12DQaAz-Xvo One may read more about him in the book by Peter Townsend, *The Postman of Nagasaki: The story of a survivor*.

It has become clear that nuclear weapons are only a symptom of an all-pervasive malignancy of the spirit of the world and of humankind. Some Japanese have an expression for this period of human history in which we find ourselves; they call it "the era of nuclear madness."

Since 1945 there have been no world conflicts which could have justified the use of nuclear weapons, and none so far in 2018. Will there be any upcoming conflicts with our major trading partner, China? Will there be a war because Russia (usually a U.S. trading partner) illegally annexed Crimea and is otherwise meddling in Ukraine (as the U.S. has also been doing)? War with North Korea or Iran? Are there any American politicians, any "decision makers" or "deciders," "dividers," that would use nuclear weapons to "correct" international conflicts? Is there any single person in the world, or any cabal, qualified to make such a decision? Would any such decision, to murder hundreds of thousands, be justifiable?

There are people who consider nuclear bombs to be useable weapons of war; after all, in 1945 the Allies actually used two, which many believe ended that war. During the 1946 Bikini nuclear tests in the South Pacific, U.S. congressmen, invited to witness the tests, were located so far away (for their safety) that many came away naively expressive. "Like a giant firecracker," said one. Another, "In the next war I hope we don't have to throw atomic baseballs..." More recently we have heard from the White House, "If we have them, why can't we use them?"

Later, a team of American *congressional* investigators concluded, "The greatest irony of our *atmospheric* nuclear testing program is that the only victims of United States nuclear arms since World War II have been our own people." (I guess that includes Marshall Islanders as well.)

Dwight D. Eisenhower recognized war for what it was. — "I hate war as only a soldier who has lived it can, only as one who has seen its brutality, its futility, its <u>stupidity</u>." [Derogatory stupidity is not an attribute to war. Did you ever hear a war say, "Pardon me for being stupid"? Stupidity refers to those who create wars.]

Carroll Quigley (Professor at Princeton, Harvard, & School of Foreign Service at Georgetown) — "The powers of financial capitalism had a far-reaching [plan], nothing less than to create a world system of financial control in <u>private hands</u> able to dominate the political system of each country and the economy of the world as a whole." From Tragedy and Hope (Chapter 20): A History of the World in Our Time, 1966, (1359 pages). Who authorized <u>that</u> "financial control in private hands"? Do you suppose the goal of the "powers of financial capitalism" was to create a peaceful world, a world free from wars? Or was there some other goal being sought?

Albert Einstein — "The result of these developments is an oligarchy of private capital the enormous power of which cannot be effectively checked even by a democratically organized political society. …since the members of legislative bodies are selected by political parties, largely financed or otherwise influenced by private capitalists who, for all practical purposes, separate the electorate from the legislature. Einstein again, "…unless by common struggle we are capable of new ways of thinking, mankind is doomed." "At present we are bound by political thinking, much of which seems dictated by private financial interests, not human or necessarily moral interests." ②

How many more centuries are some "world leaders" going to continue their stupid ways, currently killing an average of more than 400,000 people per year? How many more centuries will the slaughter be allowed? How many more centuries will the western world continue training our youngest adults to be murderers, to continue murderous wars until financial control of the economy of the world is in private hands, undoubtedly not yours? Would it be stupid to continue?

In 2018 there is talk in the world about an impending trade war conflicting China and the United States. That is often how wars begin. One is reminded of USMC Major General Smedley Butler's comment in 1933, "The trouble with America is that when the dollar only earns 6 percent over here, then it gets restless and goes overseas to get 100 percent. Then the flag follows the dollar and the soldiers follow the flag." This might subtly explain why, "Nearly 200,000 U.S. troops are currently deployed overseas in 177 countries." — Business Insider, Mar. 20, 2017

Let us attempt some "new ways of thinking," based upon human and moral interests. Consider the following: It must be true that in an ideal peaceful world, a world without the conventional weapons of war, without tanks, missiles, bombers, warships, drones and cyber-threats, there would be no need for nuclear weapons, the weapons of true mass destruction, weapons that treat people like the dirt from which we are created. (In contrast to the treaty negotiated by the International Campaign to Abolish Nuclear Weapons (ICAN, 2017 Nobel Peace Prize), the inverse of the above proposition is not true. In a world without nuclear weapons, 1941, national armaments would continue to be abundant.)

A world without conventional weapons of war, and thus no need for nuclear weapons, *could* that be achieved?

The world initiatives for action need to be stripped away from the military-industrial establishment and from the war mongers of the world with their insidious subversions, their mythological belief in their superiority and cause, and their assumed destiny to "dominate the political system of each country" to rule the world, or their part of the world. World initiatives need to be directed not toward war and conquest but toward peace, for all those nations which are ready for peace, ready for the promised advances of the 21st century. At present U.S. foreign policy is subverted and corrupted by events abroad, events over which at present we have little control, corrupted by private financial interests who seek great personal and private gain. Can national and international discourse be redirected toward peace and away from war?

J. Robert Oppenheimer, "father" of the United States' atomic bombs, told us, 72 years ago, in 1946, that "... wars might be avoided by: universal disarmament; limited national sovereignties; provision for all people of the world: of a rising standard of living, better education, more contact with and better understanding of others; and equal access to the technical and raw materials which are needed for improving life..." Oppenheimer was not a stupid person.

What shall be proposed in the next pages, this plan, or strategy, if adopted: would put "everyone" back to work; bring peace and stability; end war-sacrificed lives; and ensure corporate profits, growth, and cooperation; and would allow people to return to peaceful opportunity-laden homelands.

This workable moral strategy seems the only approach, for decades or centuries to come, by which people of the Less Developed world, in peace, without war, can become their own masters, can create the sensible path to their own peaceful destinies, as so many other nations have done, and live to enjoy some of it. *This workable moral strategy exports no United States' or other nation's money*. It fosters the expressed desires of all people and nations seeking: peace, justice, opportunity, and a better life. This strategy has been referred to by one as "brilliant." Well, certainly; the strategy incorporates ideas advocated by Robert Oppenheimer, Philip Morrison & Kostas Tsipis⊕, Albert Einstein, and James C. Warf⑤, some very bright fellows. What will be described and recommended is a *workable moral strategy* that Barack Obama might well have referred to as the "*incentivization*" of world peace. (You may wish to compare it with the world peace plan of, Canada, of the United States, or that of Russia or China or the United Nations.) As Niels Bohr remarked to colleagues who were stumbling over a particularly onerous mathematical problem, "*No, no, you're not thinking, you're just being logical*." We do need some new ways of thinking.

A Workable Moral World-Peace Plan

The United States announces a strategy, that starting one year from now it will revise the manner by which it provides aid to all other nations and particularly to those of the <u>Less Developed</u> world, provides aid using wealth created by American taxpayers. It will no longer be *direct aid*. All other <u>Developed</u> nations are encouraged to similarly participate so that they also can obtain the benefits which will accrue to them just as benefits will accrue to the United States.

Henceforth, rather than direct aid, the United States will provide the *United Nations* with \$165 billion per year in "credit chits" (promissory notes) for use by Less Developed nations. Other Developed nations are invited to contribute *in total* an additional \$165 billion in "credit chits" to the UN; more if they wish. *No actual money leaves any nation*. The credit chits originating in the U.S. will only be redeemable for cash at the United States Treasury by American businesses and industries. With cooperation from other nations it means \$330 billion or more per year of

development aid to the Less Developed world, very roughly 8 times what is now provided by the U.S. alone, a great deal of which we know under the current system is **wasted**, **corrupted**, **or spent on tools of war**, (e.g., more than 43 Toyota trucks used by ISIS in Syria).

Affordable? On April 10, 2009 the small nation of Japan, not at war with anyone, announced a \$150 billion government stimulus package. In 2009 Japan thought it could afford to do this. I can hear a conservative United States Congress complaining that we cannot afford to do something like that. *But financial resources are always found for wars.* We can be smart enough to find them for *a peace which eliminates wars and the costs of wars.* July 27, 2016, Japanese Prime Minister Abe announced another economic stimulus package, this time, \$265 billion. In August 2016, PM Abe pledged that Japan will invest \$30 billion in Africa by 2018. In October 2017, PM Abe pledged \$1 trillion (\$8.8 million) of economic cooperation to Philippine President Duterte. China President Xi Jinping pledged \$24 billion of economic assistance to Duterte in October 2016; on September 4, 2018 he confirmed \$120 billion to African nations (S. China Morning Post, 9/4/2018). We will show reference that the workable strategy we are proposing will lead to more than 500,000 U.S. peacetime manufacturing jobs in the first year, and greatly more than 500,000 other peacetime jobs throughout the world.

The United Nations makes the "credit chits" available to *peaceful democratic* nations of the Less Developed world. To help them along the way chits will also be *very cautiously* offered to those nations which are *verifiably* peacefully *evolving toward equitable nondiscriminatory constitutional democracy*. The chits are made available to Less Developed nations based on *solicited application* of: development proposals from them, verifiable need, and guarantees against misuse or corruption.

These chits to be offered by the United Nations may be utilized <u>only</u> for social and economic development, six specific self-sufficiency goals:

- 1) modern appropriate agriculture, food, and fresh pure water production;
- 2) good sheltering and its basic amenities, including electricity, plumbing, sewage;
- 3) health care, with hospitals, clinics, electronic communication, and well-trained doctors;
- 4) national wealth creation and infrastructure from their own natural and human resources;
- 5) civilian security, and;
- 6) education and training at all levels to support items 1-5.

The <u>solicited</u> development proposals submitted to the United Nations by Less Developed nations will be carefully evaluated, in terms of the proposed societal, cultural, economic, and environmental impact, and in terms of protection against abuse and corruption. Unacceptable proposals will be returned for revision until they are in line with this UN sanctioned strategy. <u>The UN will aid revisions</u>.

The United Nations, administering this program, will not grant chits to nations where war exists or is likely or where *violations of rights*: gender, religious, human, or ethnic, are active or not being remediated. *Repressive and military governments and martial law governments will not qualify for participation in this program, nor will any nation, chit donor or receiver, regardless of its power and influence, which is not fully and actively transparently participating and cooperating in the worldwide elimination of: armaments of war, nuclear weapons, terrorism, and the illicit drug trade.* Chits may pass through other nations on their way back to their origin nation, that is, pass through nations which also must be in abidance with the behaviors of this paragraph.

In democracies seeking peace and advancement what will the people choose?

All the above are the essential specifications to this *workable moral strategy* for achieving and preserving world peace. There are three additional "recommendations," in Chapter 5 of the author's

Dev. and Flow chart: other Nations' A Workable Moral Strategy workers: for Achieving and Preserving Mortgages, **World Peace** Health Insurance, Medicare. Soc. Security, Less Developed Tuition, etc. Nations': Food production, cash water, farms, housing, health care, Billions, hospitals. economic means Goods, services (factories, offices, 8 roads, stores), civilian security, Developed schools, and other education & Nations' manufacturers training, etc. & suppliers \$330 Billion in Chits Billion in Chits L Gash Billion (\$330 30 \$330 Billion in Chits Less Developed \$330 Billion UN Developed and other Proposals in chits Nations Nations' revised and **Treasuries** approved 7

book† from which this document has been extracted and abridged. See † at end.

There will be great advantages to all nations that make chit deposits into this program, and considerable disadvantages to those who can, but do not. The more chits deposited, the greater economic value accrues to the depositor nation. It should be obvious.

Each year this workable and moral program will see returned to the nonmilitary economies of the Developed nations, in total, some US\$330 billion or more, to be used solely for peacetime goods and services! Hence, this proposed program should greatly reduce unemployment in any nation participating, supplier or receiver. This program will put workers, the original creators of wealth, back on the job. I would estimate that the first year could create in the U.S. alone some 500,000 or more jobs, and at least that many outside the *U.S.* Where do we get such an estimate of the number of jobs to be created or restored? David Swanson in Roots Action, Sept. 9, 2011; Political Economy Research Institute at the University of Massachusetts (Amherst). (http://rootsaction.org/news-a-

views/232-i-just-found-29-million-jobs)

When this plan is adopted <u>citizens of participating **Developed nations**</u> would come to understand that they are active participants in bringing peace and justice onto all regions of the world, and doing it without guns, bombs, and missiles, without destruction and killing thousands. Citizens would be doing exactly what all nations committed themselves to by their signatures on the UN Charter! When the "chits" are allocated the field is leveled; Less Developed nations can now

bargain with all participating Developed nations to gain the best bargain, the best deal, for themselves. New political and financial obligations to "powerful" nations becomes unnecessary.

When this plan is activated <u>citizens of the **Less Developed world**</u> will finally begin to see their hopes and dreams of a peaceful homeland coming true. Their long sought homes, industry, health care, utilities, schools, society, foods and water, etc., all coming into being, and by their own work and efforts, with this help from all participating UN Developed nations who committed themselves to such obligation with their UN Charter signature. The Less Developed nations will create their own peaceful destiny in their own homelands.

Consider, compare, what the 3,500,000,000 people of the Less Developed world *do not have*, and who is capable of supplying it! There are abundant opportunities for all! Chit donors and receivers. This proposal has the potential of bringing together the people of possibly 190 nations for the purpose of ending wars and creating a peaceful, cooperative world. This plan is "The Incentivization of World Peace." Billions of people worldwide would be able to have, jobs, greatly improved lives and living conditions.

If you think that this approach to world peace could become quite costly, then compare it to the cost of "attempting" to recover from a war that could involve the United States (and Allies) and Russia, China, and stateless terrorists. Such a war could result in hundreds of millions of deaths as well as physical destruction of the major cities on the surface of a radioactive earth. (Total U.S. military costs, 1945-2018, estimated at greater than \$22 trillion.)

Adoption of this strategy would result in an exchange being made:

- —With self-sufficiency and self-defined but true democracy *growing* in the Less Developed world and the virtual elimination there of poverty, illiteracy, malnutrition, disease, neocolonialism, rights deprivation, indebtedness, exploitation, and slavery;
- —The entire world could have full economic recovery, elimination of the possibility for international nuclear catastrophe, and the practical elimination of war.
- —In a world at peace the refugee problem is solved. The killing stops and solutions to *global* problems can be found. The basic tool is cooperation and proper incentives, not sanctions, boycotts, deadly threats, regime changes, and wars; but instead, justified benefits, not penalties; advantages for all. As promised, no money would leave any nation or pass through the UN, and the credit chits never pass through the World Bank, or any bank, or the International Monetary Fund.

Would a *world at peace* aid solution of present day social problems, in particular the immigration problems in Europe, Africa, the Middle East, the United States, and Latin America? Would the workers of the world, of the Americas, of Russia, of China, approve of this plan? Or would a wrench be thrown into the works for some reason? For some reason.

Justification: A Moral World View— Does the Developed World and its people have any responsibility for the conditions of exploitation, poverty, starvation, slavery, disease, displaced refugees, rights deprivation, war-killing and destruction, and illiteracy, etc., as they now exist in the former colonial and Less Developed world, in Africa, in Asia and the Middle East, in Latin America? Over past centuries has the Developed World exploited the people of the UnDeveloped World? Have you and your nation taken selfish advantage of people of the Less Developed world? If so, does the Developed World have any unfulfilled moral obligations to the former colonial and Less Developed World?

Past relationships are repairable. The evidence that this plan can work is before our eyes every time we, in the "western" world, walk through a parking lot and see Volkswagens, Mercedes, Audies, Toyotas, Nissans, Subarus, Hondas, and every time we happily turn on our products made by: Leica, Zeiss, Sony, Toshiba, Nikon, Canon, etc.

Chapter 5 of Wilson's book† also suggests specific solutions to the Palestine/Israel problem as well as the Senkaku Islands problem between Japan and China. Similar problems exist elsewhere.

Adoption of this Incentivization of World Peace would go down in history as the turning point which saved the earth and its people from the return to the darkest and a post-nuclear age. For all nations' Congresses and Parliaments it would symbolize the wisdom of finally coming to their senses. How many more centuries must the world endure mass murders?

This moral strategy would not need to be unending. How long would it take to achieve the goals? Perhaps one generation, say 25 years, at which point the nations united should be able to see their new peaceful world and look back at their murderous war history acknowledging their past stupidity. *New thinking* then could lead to modifications of the moral strategy, and perhaps at that time focus on worldwide problems that all nations will need to face. (Otherwise, continuing as we are, 25 years X 400,000 war deaths per year = 10,000,000 deaths. Ten million more murdered. Worth it?)

But: A prediction of "Constant Conflict," "There will be no peace. At any given moment for the rest of our lifetimes, there will be multiple conflicts in mutating forms around the globe. Violent conflict will dominate the headlines, but cultural and economic struggles will be steadier and ultimately more decisive. The de facto role of the US armed forces will be to keep the world safe for our economy and open to our cultural assault. To those ends, we will do a fair amount of killing." (Major Ralph Peters of the Office of the Deputy Chief of Staff for Intelligence, 1997, where he was responsible for future warfare (retired as Lieutenant Colonel in 1998).) He recently resigned from his analyst position at Fox News. (http://www.informationclearinghouse.info/article3011.htm) [Ends by such means? No amount would be fair.]

When nations are not at war, when nations are at peace, they advance. It should be obvious.



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†Adapted from Wilson's book, where the strategy is developed more completely in Chapter 5, Nuclear War: Hiroshima, Nagasaki, and A Workable Moral Strategy for Achieving and Preserving World Peace, 2014. There is a "Caution" on the cover. The book is **not for profit.**

Notes

- 1. Jordan J. Lloyd / Dynamichrome Ltd., England.), https://www.youtube.com/watch?v=lpMqvfYybh0
- 2. Albert Einstein, IDEAS AND OPINIONS, Bonanza Books, NY, 1954; also Albert Einstein, Why Socialism?, *Monthly Review*, May, 1949 and republished, May 1998. https://monthlyreview.org/2009/05/01/why-socialism/
- 3. J. Robert Oppenheimer, "THE INTERNATIONAL CONTROL OF ATOMIC ENERGY," Bulletin of the Atomic Scientists, Vol. 1, June, p. 1-5, 1946. Reprinted in THE ATOMIC BOMB, H. W. Wilson Co., New York, 1946.
- 4. Philip Morrison and Kostas Tsipis, REASON ENOUGH TO HOPE, MIT Press, 1998.

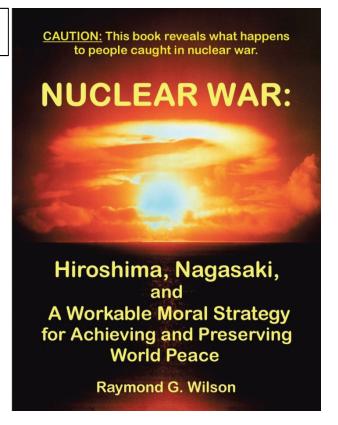
- 5. James C. Warf, ALL THINGS NUCLEAR, Figueroa Press, 2005.
- 6. The Purposes of the United Nations are:
 - 1. To maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace;
 - 2. To develop friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, and to take other appropriate measures to strengthen universal peace;
 3. To achieve international cooperation in solving international problems of an economic, social, cultural, or humanitarian character, and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion; and
 4. To be a centre for harmonizing the actions of nations in the attainment of these common ends.
- 7. "Constant Conflict," Lt. Colonel Ralph Peters, http://www.informationclearinghouse.info/article3011.htm

The <u>no cost</u> PDF book download is available here, http://sun.iwu.edu/~rwilson/PNDclass.html

From 2016 Amazon reviews:

"This book is a must-read for anybody that has the slightest interest in the events of Hiroshima and Nagasaki. The author's knowledge is one of the deepest I have ever encountered on the topic. Also, the recommendations for a sensible path moving forward are very much worth the read. Highly recommend."

"This book is a valuable update to the literature of the unthinkable—nuclear warfare—that began with John Hersey's iconic *Hiroshima*. Given the current level of international conflicts and tension, plus the efforts of the U.S. and NATO to move beyond the decades-old Mutually Assured Destruction balance of terror with Russia by installing anti-missile defense systems around the world, thinking Americans deserve a reminder that nuclear war is a ghastly, civilization-ending possibility that goes beyond any special effects that Hollywood can create."



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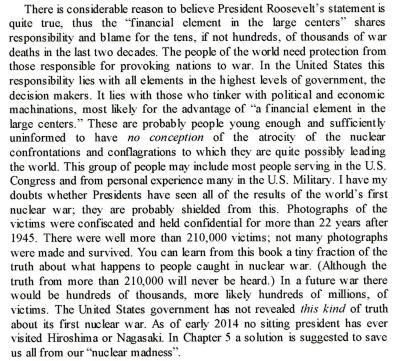
Raymond G. Wilson



"The real truth of the matter is, as you and I know, that a financial element in the large centers has owned the government of the United States since the days of Andrew Jackson." —Franklin D. Roosevelt

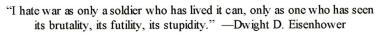


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"...we also possess the seeds of goodness and justice that humankind was given by nature and has fostered over the ages. We have the ability to cultivate self-control and consideration for others and to strive to live together in a humane and harmonious manner with others. The revival of such true humanity—not only between individuals, but also between nations—is an absolute necessity today, for the age has come when one nation's self-centered behavior could lead all humanity to annihilation."

—Naomi Shohno, 1986



"America can do whatever we set our mind to." —Barack Obama







USEFUL FACTS TO KNOW ABOUT NUCLEAR WEAPONS WHICH HAVE BEEN USED IN TIME OF WAR

1. <u>Trinity Test</u>, July 16, 1945; about 5:30 a.m., Yield = 21 kton (TNT); south of Bingham, New Mex.; A Plutonium-239 implosion type; Height of Burst = 100 ft; Max. Fireball Diam. = more than 1580 ft = 480 m. The Fireball touched the ground; this was a "dirty bomb" in New Mexico.

	2. HIROSHIMA	3. NAGASAKI
1. Date and time	Aug. 6, 1945; 8:15 a.m.	Aug. 9, 1945; 11:02 a.m.
2. Explosive Yield, equivalents of TNT	16 kton TNT (±20%) Estimate of 2003	21 kton TNT (±10%) Confirmed est. 2003
3. Height of Burst, (HOB), epicenter	600 meters (2003) (580 m 1945-2003)	500 meters
4. Bomb Type	U-235, gun type	Pu-239, implosion type
5. Hypocenter	15 meters west of Shima Hospital, aiming point is the "T-Bridge," (Aioi Bridge)	No. 171, Matsuyama-machi
6. Fireball Diameter, maximum	1370 ft (418 meters)	1636 ft (498 meters)
7. Casualties	140,000 dead by Dec. 31, 1945; 90% (126,000) dead within two weeks; 350,000 directly affected	70,000 dead by Dec. 31, 1945; 90% by ? 275,000 directly affected
8. Area Destroyed	13 square kilometers	6.7 square kilometers