

What Would Be the Immediate Effects of a Nuclear War?



VOICES FOR PEACE SERIES

On August 6th and 9th 1945, the United States dropped atomic bombs on the cities of Hiroshima and Nagasaki killing an estimated 210,000 people - including 38,000 children - instantly or within the first five months. In the immediate vicinity of where the bombs were detonated virtually everything - people, buildings, cars, houses – were vaporized releasing destructive power exponentially greater than anything human beings had ever experienced. Ground temperatures reached 4000 degrees celsius.

Unfortunately knowing what happened to the people of Japan in no way prepares the world for what might happen if a nuclear war were to happen today.

Today's Nuclear Weapons: Unimaginably Lethal

The Hiroshima bomb was equal to 15 kilotons (kT), 15,000 tons of TNT; most weapons in the US and Russian arsenal are between 100 and 800 kT, 6 to 50 times more powerful.

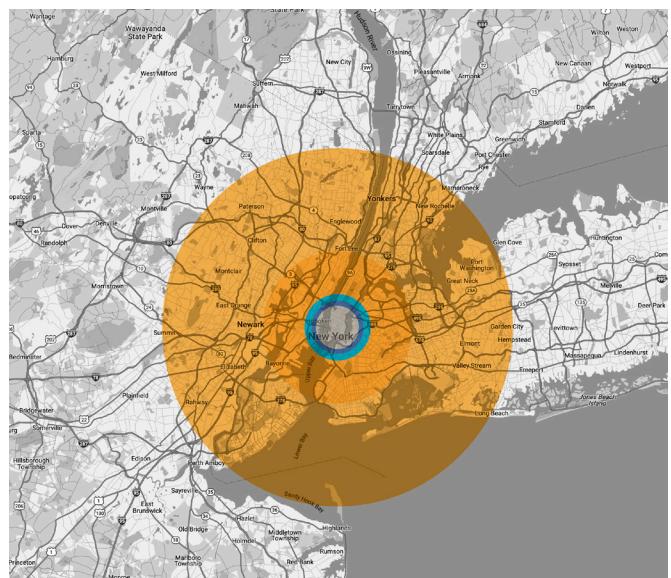
In a large-scale nuclear war between the US and Russia most major targets (e.g. large cities) in each country would likely be attacked with 10-15 nuclear bombs, maybe more.

To understand what that would look like we can use the model of a single 20 megaton (mT) bomb whose zone of total destruction closely approximates that caused by nine 300 kT bombs.

TO A DISTANCE OF:

- 2 miles in every direction (gray innermost circle), from where the bomb detonated, everything and every person would be vaporized.
- 4 miles in every direction (dark blue ring), there would be winds greater than 600 miles per hour.

- 6 miles in every direction (light blue ring), the heat would be so great that automobiles would melt.
- 16 miles in every direction (orange rings), the heat would ignite everything flammable—paper, cloth, wood, gasoline, heating oil.



Graphic: An example showing the potential damage radius of a single 20 mT bomb mapped onto New York City

RESULTING IN:

- Hundreds of thousands of fires would form over the next half hour and coalesce into a giant fire storm 32 miles across, covering over 800 square miles.
- Within this entire area the temperature would rise to 1400 degrees F. all the oxygen would be consumed and every living thing would die.
- In a highly populated area like New York or Moscow 12 to 15 million people would likely die within a half hour.
- This same kind of destruction could occur in every major city in both countries. All told some 200 to 300 million people would die within the first 4-6 hours after the attack.

Nuclear war is not inevitable and nuclear weapons are not a force of nature for which humans do not have control. Humans invented them and humans can dismantle them. At the height of the Cold War some 80,000 nuclear weapons existed. Today there are 12,000. Governments have negotiated agreements and dismantled over 50,000 nuclear weapons. We must demand that they get rid of those that remain before they are used. **B**

References for this work can be found at bit.ly/bftb-references

“In the aftermath, there would be no electric grid, no cell phone, no internet, no food distribution system, no health care, no bank system, no system of law and order.

Most people who survived the attack would succumb over the following months from starvation, exposure, radiation poisoning and epidemic disease.”

*Dr. Ira Helfand
Past President of International Physicians for
the Prevention of Nuclear War, the recipient of
the 1985 Nobel Peace Prize*



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Back from the Brink is a national grassroots campaign of committed individuals, organizations, and elected officials advocating for common-sense policies to prevent nuclear war and abolish nuclear weapons from the planet.