



Nuclear weapons

Frequently Asked Questions



1. Hasn't the world already got rid of most of its nuclear weapons? What's all the fuss?

Since the end of the Cold War, as many as 55,000 nuclear weapons have been dismantled and destroyed from a worldwide peak of nearly 70,000. That still leaves a current global stockpile of nearly 15,000 nuclear weapons, of which around 4,000 are 'operationally deployed', many on hair-trigger alert, ready to be fired at very short notice.

Most of the nuclear weapons in service today have a destructive capacity of between 100,000 and 1,000,000 tonnes of TNT. By comparison, the bomb dropped on Hiroshima, which killed many tens of thousands of people in a single instant and tens of thousands more through radiation sickness and fatal injuries,¹ had a destructive capacity equivalent to 15,000 tonnes of TNT.²

¹ The total number killed by the Hiroshima bomb is not known. The original estimate of 68,000 dead and a similar number injured was based on a random survey of households in 1946. However this did not include up to 20,000 Korean prisoners of war nor an unknown number of refugees from other Japanese cities known to be in the city at that time. Many also died subsequently, although it is difficult to know how many of these should be attributed to the atomic bomb as opposed to other causes. Most sources now use the figure of 130,000 killed by the Hiroshima bomb, although the city of Hiroshima maintains a register of deaths from the atomic bomb right up to the present day, and that register now has more than 200,000 names.

² The exact yield of the Hiroshima bomb is unknown but estimated to be between 12-18 KT of TNT, giving an 'average' of 15 KT but sometimes a lower figure of 12.5 KT is also used.

Any one of these nuclear weapons going off – by accident or by design – would be a humanitarian catastrophe of unparalleled proportions. A ‘small’ nuclear war, say between India and Pakistan, or between North Korea and the United States, could kill tens of millions of people and affect the entire planet. Recent studies by the scientific community³ have suggested that the climatic effects of just 100 nuclear weapons could lead to starvation of up to two billion people. An all-out nuclear war between the US and Russia would almost certainly mean the end of human civilisation as we know it.

2. Aren't these weapons purely for deterrence? We are not going to actually use them, so there is no need for concern about the effects of radiation or the numbers of people that might be killed.

No weapon can act as a deterrent unless whoever is being deterred is sufficiently convinced that we are willing and ready to use those weapons, if and when the deterrence fails. It should be remembered that in 1914, the deterrent that was designed to prevent war in Europe took the form of a massive network of

³ See, for example: Harwell, M., and C. Harwell. 1986. “Nuclear Famine: The Indirect Effects of Nuclear War” In, Solomon, F. and R. Marston (Eds.). *The Medical Implications of Nuclear War*. Washington, D.C.: National Academy Press. 117-135. Robock, A., L. Oman, G. Stenchikov, O. Toon, C. Bardeen and R. Turco, 2007, *Climatic consequences of regional nuclear conflicts*. *Atm. Chem. Phys.*, 7: 2003-12. Helfand, I. 2007. *An Assessment of the Extent of Projected Global Famine Resulting from Limited, Regional Nuclear War*. Paper presented to the Royal Society of Medicine, London, UK, October 2007.

military alliances that would drag the whole of Europe into a suicidal war if any one country were so foolish as to attack another one. But the deterrence in that case failed spectacularly and Europe was quickly locked into a devastating war which took many millions of lives, directly as a result of the so-called deterrence.

3. Haven't nuclear weapons kept the peace for over 60 years?

They stopped the Soviet Union from invading Western Europe, they prevented a third world war and Europe has had the longest sustained period of peace in human history as a result. Why would we want to risk throwing all that away?

There is no evidence that the possession of nuclear weapons has protected any nuclear weapon state. Nuclear weapons did not stop Egypt or Syria from attacking Israel in 1973, or Argentina from invading the Falklands/Malvinas in 1982. They did not help France hold onto Algeria or save the US from defeat in Vietnam. They have not in any way affected the outcome of military interventions in Korea, Afghanistan, Kosovo, Libya, Sierra Leone or anywhere else where troops from nuclear weapon states have been deployed. Clearly, nuclear weapons did not stop suicide bombers from attacking the US on 9/11 or protect any other country from terrorist attack before or since.

The fact that the Cold War did not end in a nuclear holocaust is interpreted by some as proof that the policy of “Mutually Assured Destruction” worked. However it could also be interpreted as nothing more than good luck that saved the world on several occasions when we were literally hours and minutes away from a nuclear confrontation with the Soviet Union.⁴ A great many factors undoubtedly contributed to the easing of tensions between East and West during the Cold War period and the prevention of a nuclear holocaust. These included the rise of powerful civil society organisations committed to human rights, peace and social justice in both East and West; the scientific, cultural and educational exchanges taking place between East and West; the creation of international laws and structures for resolving international conflicts like the United Nations, the International Court of Justice, hotlines between the Kremlin and the White House; and the good sense of politicians and diplomats on all sides.

4. Nuclear weapons would only be used as an absolute last resort to protect this country from attack or invasion. Surely we need to have that backup capability, to defend ourselves from another Hitler?

⁴ For instance during the Cuban Missile Crisis in 1962, Kennedy gave Khrushchev a deadline and said he would launch a nuclear strike unless Khrushchev backed down. Literally at the 11th hour, Khrushchev backed down.

The argument which states that the US, UK or any other nuclear weapon state must retain its nuclear weapons as an ‘ultimate deterrent’ to protect them from future threats or blackmail is the same argument that could be made by any other country in the world – many of which have threats to their national security that are much more real and yet don’t have nuclear weapons.⁵ This argument directly contradicts and undermines the legal and public commitment to nuclear non-proliferation and actually encourages other countries to follow the example of nuclear weapon states and acquire their own nuclear weapons. If other countries were to follow this line of thinking, the whole world would become more dangerous and this would clearly make all of us less safe. Therefore, holding on to our own nuclear weapons and refusing to give them up actually makes the world *less* secure, not more secure.

5. The idea of annihilating whole cities is not a pleasant thought, but isn’t that why nuclear weapons are so important to our defence? No one wants to use them, and as long as we have them, we will not need to use them, because they are such a powerful deterrent to any potential invader.

⁵ Iran, for instance, is surrounded by hostile countries which have attacked and invaded it in the past and still threaten to do so, including a nuclear-armed Israel to the West, the US nuclear-armed Gulf fleet to the South, a nuclear-armed Pakistan to the East and a nuclear-armed Russia and nuclear-armed China to the North.

Threatening as a last resort to blow up another country with nuclear weapons if that country should pose a threat, is in effect no different from a suicide bomber with explosives strapped to his or her body threatening to blow us up unless we do what he/she says. The suicide bomber can kill at most a few dozens or hundreds of people. Nuclear weapons can kill, and are threatening to kill, many millions of people every single day, 365 days a year. What does it say about us as a society that we are willing to threaten the lives of millions of people to 'defend' ourselves against a potential invader? Is it acceptable to be making that threat, even if it is never carried out? Consider the contradictions here, when the sentence for attempted murder is in many cases the same as, or even more severe than, the sentence for actual murder.

6. Nuclear weapons are the cheapest and most effective means of defending countries from potential threats of the future. How else could we respond to nuclear blackmail, where a nuclear-armed country could threaten us into submission?

It is interesting to note that when someone else threatens *us* with nuclear weapons, it is called 'nuclear blackmail'. When we threaten someone *e/se* with nuclear weapons, it is called 'nuclear deterrence'. There is absolutely no difference between the two. Just as there is no evidence to indicate that nuclear weapons have actually deterred other countries from doing what they

wanted to do (see #3 above), neither is there any evidence to suggest that the nuclear weapons of other countries have deterred us from doing what we wanted to do. Chinese and Russian nuclear weapons did not stop the US, UK and others from attacking North Korea or North Vietnam, for instance, or from providing military support to countless regimes and insurgencies that were fighting Soviet-backed forces around the world.

Nuclear weapons force us to ask what kind of world we want to live in. Do we want to live in a world in which people threaten each other, ultimately with nuclear weapons and the threat of nuclear holocaust, in order to for us to feel 'safe' and to be able to do what we want to do, regardless of the impact it may have on people in other parts of the world? Or do we want to live in a world in which people treat each other with dignity and respect, in which we find peaceful ways to negotiate and resolve our differences and ultimately a world in which we work to make things fair and equitable for everyone? The only way to protect ourselves in such a world is through adherence to common norms and values, skilled diplomacy and the application of international law. Those are big steps, but not outside the realm of possibility even in today's divided world.

7. Surely, we should be thankful that the atom bomb ended World War II and saved the hundreds of thousands of

American and British lives that would have been lost if the Allies had invaded Japan?

That is one view, and it can be argued about by historians. Some historians argue that it was the Soviet entry into the war with Japan on 8 August, 1945, rather than the bombs dropped on August 6 and 9, which led to Japan's unconditional surrender on 15 August.⁶ What is beyond dispute is that Allied bombing had already flattened 67 Japanese cities, killing many hundreds of thousands of Japanese civilians and leaving millions homeless before the dropping of the atom bombs on Hiroshima and Nagasaki. The Japanese had already offered to surrender prior to the bombing of Hiroshima. Their principal condition was that the Emperor should be allowed to remain on his throne. The Allies refused this condition and accepted only unconditional surrender from Japan, but under the terms of the subsequent occupation, the Emperor was, in fact, retained.

The position of the Religious Society of Friends (Quakers) is that nuclear weapons are morally and ethically unacceptable and that war represents failure, no matter what weapons are used or how many people are killed.

Nuclear weapons are of particular concern because they are weapons of mass destruction, whose main or even sole effect (even if the 'purpose' is to deter attack) is to kill and maim

⁶ See, for example, Tsuyoshi Hasegawa, *Racing the Enemy* (2005), which makes this case very strongly although other historians are divided on the issue.

countless numbers of innocent civilians. Like chemical weapons and biological weapons, nuclear weapons violate all the basic norms of human decency, they violate the human rights of civilians and they violate the laws of war which are supposed to protect civilians and to ensure that war is fought only between combatants.

8. The US, UK and France are civilized, peaceful and democratic nation states. Are we not responsible enough to safely protect ourselves? Other countries and states cannot be depended upon to have nuclear weapons because they are not democratic, they do not have the structures in place to safely manage a weapon like this, and they may have hostile intent.

The world's nuclear powers do have a very important role to play in the world. They can show leadership and demonstrate what democracy and the rule of law and true statescraft are able to achieve in a world based on principles of human rights and human decency. They also have a moral responsibility, as one of the leading architects of the nuclear era, to take a lead in moving the world out of that era and into the post-nuclear era.

No country, however, has an unblemished record of handling nuclear weapons safely. In the US, there have been more than 32 nuclear weapon accidents since 1950. There have been plane crashes, missile explosions, and lost ships and submarines. There are as many as 50 nuclear weapons at the bottom of the

sea. The 2014 Chatham House report, *Too Close for Comfort: Cases of Near Nuclear Use and Options for Policy*, examines 13 incidents between 1962 and 2002 when the world came close to all-out nuclear war. The UK has had at least 16 collisions, 266 fires and numerous other safety shortfalls involving nuclear-armed submarines since 1979. And between 2000 and 2011 there were 158 fires at the Atomic Weapons Establishment in England.⁷ The risks of a serious nuclear accident are with us every day while we maintain nuclear stockpiles and nuclear weapons ready to be fired.

9. The UK needs its own independent nuclear deterrent because we can't necessarily rely on the USA to defend us. Would it be right to leave them with the heavy responsibility of deterring potential aggression?

Around 30 countries are members of North Atlantic Treaty Organisation (NATO) or other alliances with the US which put them under the American 'nuclear umbrella'. The UK and France are the only members of NATO with their own nuclear weapons in addition to those of the United States. If the UK needs to retain its

⁷ See Nick Ritchie, *Nuclear Risk: The British Case*, Article 36 Briefing Paper, February 2014. <http://www.article36.org/wp-content/uploads/2013/06/Nuclear-risk-paper.pdf>.

For a general assessment of the risks involved in maintaining UK's nuclear weapons, see Patricia Lewis et al, *Too Close for Comfort*, Chatham House, April 2014. http://www.chathamhouse.org/sites/files/chathamhouse/home/chatham/public_html/sites/default/files/20140428TooCloseforComfortNuclearUseLewisWilliamsPelopidasAghlani.pdf

own nuclear arsenal, why should not Denmark and Belgium and every other NATO country have their own arsenal of nuclear weapons also? Interestingly, one NATO member, Norway, took the lead in calling for a new treaty to ban all nuclear weapons.⁸ Three other NATO members – Germany, Belgium and the Netherlands – have ‘hinted’ that they will no longer carry NATO nuclear weapons on their own aircraft as those aircraft are retired over the next 10 years.⁹ New Zealand, also in military alliance with the United States, has refused to allow US nuclear weapons to enter its waters.

10. You can’t un-invent the Bomb. Surely, as it exists, we have to learn to live with it?

Many countries until very recently maintained stockpiles of chemical and biological weapons and were continuing to research and develop ever more deadly forms of these weapons because these too were considered ‘essential’ to our national defence. These types of weapons are now universally banned, along with landmines and cluster munitions, which also kill and maim civilians disproportionately and indiscriminately. By that same

⁸ See papers of the Oslo conference on the Humanitarian Impact of Nuclear Weapons, hosted by the Norwegian Foreign Ministry: http://www.regjeringen.no/en/dep/ud/selected-topics/humanitarian-efforts/humimpact_2013.html?id=708603

⁹ According to Global Security Newswire, 26 March, 2014: <http://www.nti.org/gsn/article/aircraft-could-be-given-nato-tactical-nuclear-arms-mission/>

logic, nuclear weapons, the last remaining class of weapons of mass destruction, must also be universally banned.

Five out of the world's 195 nation states are officially recognised as having nuclear weapons (US, Russia, UK, France and China), another four now also have them (India, Pakistan, Israel and North Korea). That leaves 186 countries which do *not* have nuclear weapons, most of which have no intention of getting nuclear weapons. There is every indication that the non-nuclear states do not feel less safe or more vulnerable as a result of not having nuclear weapons and many of them are active in working to rid the world of all nuclear weapons as soon as possible. Currently, 115 countries are inside nuclear-free zones that outlaw nuclear weapons, including the whole of South America, the whole of Africa and most of Southeast Asia and the Pacific.

11. The nuclear weapon states are already committed to participate in multilateral negotiations. Why not give it time?

The nuclear weapon states are legally and morally bound, under Article 6 of the Nonproliferation Treaty,¹⁰ to negotiate – in good faith and at an early date – the total elimination of their nuclear weapons. This commitment was made in 1968 and they have still not fulfilled that obligation. In fact, these countries continue to vote against multilateral nuclear disarmament proposals in the UN

¹⁰ <http://www.iaea.org/Publications/Documents/Infocircs/Others/infocirc140.pdf>

General Assembly, to boycott multilateral nuclear disarmament negotiations that are currently taking place and to obstruct the efforts of the vast majority of the world's non-nuclear countries to achieve a global ban on nuclear weapons.¹¹ In 2000, at the Review Conference of the Nonproliferation Treaty, the nuclear weapon states gave an 'unequivocal undertaking' to work towards the elimination of their nuclear arsenals. Since then, all nine of them have committed to spending many billions of dollars to renew and upgrade their nuclear arsenals. These are not steps towards nuclear disarmament.

At the 2015 Review Conference of the Nonproliferation Treaty, 190 countries spent four weeks thrashing out detailed agreements on a wide range of issues designed to further global progress towards nuclear disarmament and nuclear non-proliferation. At the 11th hour, because of objections from Israel,¹² three countries – USA, UK and Canada – blocked the consensus on a final agreement and so no outcome was reached on any of the issues that had been discussed.

¹¹ The US, UK and France continue to be the only countries voting against many of the nuclear disarmament resolutions that come before the UN General Assembly every year. In October 2014, 155 countries voted to congratulate the Austrian government for holding a conference on the humanitarian consequences of nuclear weapons and the UK could not even support that resolution.

¹² Israel is one of only 4 states who have not signed the NPT, so in effect it was a non-signatory who was not even present at the meeting who prevented a final agreement from being reached. Their objection was to a timetable for holding a conference to discuss the establishment of a Nuclear-Weapons Free Zone for the Middle East – a conference which was promised in 1995 and which the UK has consistently said they supported until this year.

12. Russia's aggression towards Ukraine and Crimea

demonstrates the risks of disarmament. If Ukraine had kept its own nuclear weapons, wouldn't it have been able to defend itself?

It is worth noting the difference between the Cold War of 1945-1991 and the current tensions (2014-15) between Russia and the 'West', particularly over Ukraine. The battlefield of the Cold War was a very costly and dangerous nuclear arms race between East and West, creating the concept of 'mutually assured destruction' in which neither side could launch a nuclear attack against the other without being totally destroyed by the ensuing counter-attack. This was a war between two fundamentally opposing ideologies which were each intent on destroying the other. Both sides had detailed plans for attacking and overrunning the other across Central Europe, despite the threat of mutually assured destruction which hung over their heads.

All of that is now gone – there are no competing ideologies between East and West, there are no plans for attacking each other or invading central Europe. While we may dislike what Russia is doing, or could do, in Ukraine or elsewhere, no one seriously suggests that Russia intends to, or would ever consider, attacking or invading the West for any reason.

The argument is sometimes made that if only Ukraine had had nuclear weapons or had been a member of NATO and protected by its 'nuclear umbrella', the Russians would never have dared to

intervene in support of Ukrainian separatists in the southeast of Ukraine. One can only imagine, in a highly volatile and rapidly deteriorating environment approaching civil war, what the presence of nuclear weapons might actually mean in such a situation. There cannot be many scenarios more dangerous to the whole world than the possibility of nuclear weapons getting into the hands of separatist guerrillas or even pro-government forces no longer under full control of a government.

13. Sooner or later, Iran or another fundamentalist state or group could get hold of nuclear weapons and threaten us. Surely they *do* have competing ideologies which include the aim of destroying the West and all it stands for?

The uncomfortable truth is that nothing can protect us from a nuclear attack, especially if it is coming from a state or non-state organisation that wants to destroy us. Having nuclear weapons to launch back at them only encourages the other side to strike first, and has no defensive effect once the attack has already been launched. What world do we leave behind if the last act of an already destroyed, radioactive state is to destroy and irradiate another state in revenge?

We are more likely to prevent other states from acquiring nuclear weapons by ensuring that all states adhere to the Nonproliferation Treaty. Unless the nuclear states fulfil their side of the bargain,

that is get rid of their nuclear weapons, other states will increasingly want to acquire their own. Humanity lives on a small, vulnerable and highly interdependent planet and the long-term security of everyone depends on nation-states and international institutions working together for the common good.

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