

**NUCLEAR NON-PROLIFERATION AND DISARMAMENT:
SHIFTING THE MINDSET**

**A BRIEFING BOOKLET FOR THE 2010
NON-PROLIFERATION TREATY REVIEW CONFERENCE**

By David Krieger

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ACRONYMS

ABM Treaty:	Anti-Ballistic Missile Treaty
CTBT:	Comprehensive Test Ban Treaty
FMCT:	Fissile Material Cutoff Treaty
IAEA:	International Atomic Energy Agency
IRENA:	International Renewable Energy Agency
MAD:	Mutual Assured Destruction
NATO:	North Atlantic Treaty Organization
NGO:	Non-Governmental Organization
NPT:	Nuclear Non-Proliferation Treaty
P5:	Permanent Five Members of the UN Security Council
START:	Strategic Arms Reduction Treaty
UN:	United Nations

Executive Summary

Throughout the Nuclear Age, leaders of the United States, Russia, United Kingdom, France and China – the five permanent members of the United Nations Security Council, known as the P5 – have been locked in old ways of thinking about security. They believe that nuclear deterrence in a two-tier structure of nuclear haves and have-nots can hold indefinitely without significant nuclear proliferation and further use of nuclear weapons. This way of thinking continues to place not only the P5 and their allies in danger of nuclear annihilation, but threatens global catastrophe for civilization, the human species and most forms of life.

The policies of the nuclear weapon states have favored going slow on achieving a world free of nuclear weapons, preferring arms control and non-proliferation measures to nuclear disarmament. They have placed emphasis on small steps rather than taking a comprehensive approach to the elimination of nuclear weapons. While reducing their nuclear arsenals, they have simultaneously modernized them, and thus have demonstrated their continued reliance upon these weapons in their security policies.

However, cracks in this old and dangerous way of thinking have begun to show in the statements of former high-level policy makers in the United States and other countries and in the vision of a nuclear weapon-free world expressed by U.S. President Barack Obama.

This briefing booklet explores new ways of thinking in relation to the 2010 Non-Proliferation Treaty (NPT) Review Conference. It presents the case that nuclear weapons abolition is the only rational and sane position to adopt toward current nuclear threats. In light of the overwhelming threat posed by nuclear weapons, all conference participants are urged to bear in mind the following in preparing for their deliberations:

- Nuclear weapons continue to present a real and present danger to humanity and other life on Earth.
- Basing the security of one's country on the threat to kill tens of millions of innocent people, perhaps billions, and risking the destruction of civilization, has no moral justification and deserves the strongest condemnation.
- It will not be possible to prevent proliferation of nuclear weapons without fulfilling existing legal obligations for total nuclear disarmament.
- Preventing nuclear proliferation and achieving nuclear disarmament will both be made far more difficult, if not impossible, by expanding nuclear energy facilities throughout the world.
- Putting the world on track for eliminating the existential threat posed by nuclear weapons will require new ways of thinking about this overarching danger to present and future generations.

The briefing sets forth a spectrum of perspectives on nuclear weapons, from Nuclear Believers at one end to Nuclear Abolitionists at the other. Between them are three other groups, the largest being the Nuclear Disempowered. This group is composed

of most of the general public who are often ignorant, confused and apathetic about nuclear weapons as a result of government secrecy and manipulation of information about the role of these weapons in security policies and the consequences of persisting plans for their use. It is this critical group that must be made more aware of the nuclear threats to our common future and must make their voices heard in a new and vigorous global dialogue on nuclear policy.

The booklet reviews a number of proposals to achieve a world free of nuclear weapons and sets forth five priorities for agreement at the 2010 NPT Review Conference:

1. Each signatory nuclear weapon state should provide an accurate public accounting of its nuclear arsenal, conduct a public environmental and human assessment of its potential use, and devise and make public a roadmap for going to zero nuclear weapons.
2. All signatory nuclear weapon states should reduce the role of nuclear weapons in their security policies by taking all nuclear forces off high-alert status, pledging No First Use of nuclear weapons against other nuclear weapon states and No Use against non-nuclear weapon states.
3. All enriched uranium and reprocessed plutonium – military and civilian – and their production facilities (including all uranium enrichment and plutonium separation technology) should be placed under strict and effective international safeguards.
4. All signatory states should review Article IV of the NPT, promoting the “inalienable right” to nuclear energy for peaceful purposes, in light of the nuclear proliferation problems posed by nuclear electricity generation.
5. All signatory states should comply with Article VI of the NPT, reinforced and clarified by the 1996 World Court Advisory Opinion, by commencing negotiations in good faith on a Nuclear Weapons Convention for the phased, verifiable, irreversible and transparent elimination of nuclear weapons, and complete these negotiations by the year 2015.

The briefing then considers issues of double standards and concludes that such standards will result in predictable catastrophes. A more just and secure future for humanity will require leaders of all countries, and especially those in the nuclear weapon states, to exercise sound judgment and act for the benefit of all humanity. A thorough rethinking of nuclear policy is needed, with the goal of moving from minimal acceptable change to a comprehensive plan for achieving a nuclear weapon-free future.

I. Introduction

The parties to the Non-Proliferation Treaty meet in May 2010 for the eighth NPT Review Conference. The meeting will occur soon after the 40th anniversary of the entry into force of the treaty and shortly before the 65th anniversary of the U.S. atomic bombings of Hiroshima and Nagasaki. The world cannot afford another failed NPT Review Conference such as occurred in 2005. Nor can it be complacent in the face of the threats that nuclear weapons continue to pose to all humanity.

Previous NPT Review Conferences focused far too much effort on minimalist steps that offer some superficial appearance of progress. They have failed to address the overarching problem of the persisting threat of annihilation that requires a comprehensive solution. This may be characterized as old and ineffective thinking, which in reality increases the possibility of nuclear proliferation and potential use.

A shift in mindset to a new way of thinking about the nuclear dilemma confronting humankind is needed. The specific steps that the parties to the treaty agree to at the 2010 NPT Review Conference will not be as important as the mindset they bring to their work. In preparing for this Review Conference, parties to the treaty are therefore urged to come together in a cooperative spirit for the benefit of humanity, and bear in mind the following five fundamental points:

- **Nuclear weapons continue to present a real and present danger to humanity and other life on Earth.** Apart from the destruction and prolonged health effects resulting from nuclear weapons use, recent research chronicled by Steven Starr confirms that a nuclear war could lead to the Earth becoming uninhabitable. Starr summarizes the latest literature on climate change resulting from nuclear war: “The detonation of a tiny fraction of the operational nuclear arsenals within cities would generate enough smoke to cause catastrophic disruptions of the global climate and massive destruction of the protective stratospheric ozone layer. Environmental devastation caused by a war fought with many thousands of strategic nuclear weapons would quickly leave the Earth uninhabitable.”
- **Basing the security of one’s country on the threat to kill tens of millions of innocent people, perhaps billions, and risking the destruction of civilization, has no moral justification and deserves the strongest condemnation.** Virtually all religious organizations have recognized the nuclear weapons threat to humanity and have condemned it as a threat to all creation.
- **It will not be possible to prevent proliferation of nuclear weapons without fulfilling existing legal obligations for total nuclear disarmament.** The current two-tiered structure of nuclear haves and have-nots will not hold indefinitely and is close to the breaking point.
- **Preventing nuclear proliferation and achieving nuclear disarmament will both be made far more difficult, if not impossible, by expanding nuclear energy facilities throughout the world.** The historical record shows

that many nuclear weapon states developed their nuclear arsenals secretly behind the cover of so-called “peaceful” research or energy reactors.

- **Putting the world on track for eliminating the existential threat posed by nuclear weapons will require a shift in thinking** about this overarching danger to present and future generations. Thinking must shift from a strategy of threatening mutually assured destruction to a strategy of global cooperation for peace with justice.

The Nuclear Proliferation Record. There are currently nine nuclear weapon states: the United States, Russia, United Kingdom, France, China, Israel, India, Pakistan and North Korea. The United States created nuclear weapons during World War II and used two of them on the Japanese cities of Hiroshima and Nagasaki in August 1945, killing over 200,000 people. Since then, the weapons have proliferated to many other countries.

In addition to the nine nuclear weapon states, five European countries allow U.S. tactical nuclear weapons on their territory, which would be turned over to the host countries in a time of war. These countries are: Belgium, Germany, Italy, the Netherlands and Turkey. U.S. nuclear weapons were also kept in Canada until 1984, Greece until 1991 and the UK until 2008. U.S. nuclear weapons were also kept formerly in Japan and South Korea.

When the Soviet Union broke apart in the early 1990s, its arsenal was divided between Russia, Ukraine, Kazakhstan, and Belarus. The latter three countries possessed nuclear weapons for a short time and agreed to turn their arsenals over to Russia for dismantlement. Russian nuclear weapons were briefly introduced into Cuba in 1962. South Africa also developed an arsenal of six nuclear weapons, but dismantled their weapons by the early 1990s.

In total, 23 countries, as described above, are thought to have had nuclear weapons on their territory. Currently, 14 of these countries still do. Among the nine nuclear weapon states, six (all but India, Pakistan and North Korea) have the capability to launch some of their arsenal from submarines, and India is building a nuclear submarine for this purpose. Thus, the world’s oceans, the common heritage of humankind, are also home to nuclear weapons carried on submarines.

CTBT Tensions. The Comprehensive Test Ban Treaty (CTBT), which was opened for signatures in 1996, required that all nuclear-capable states sign and ratify the treaty in order for it to enter into force. At the time, 44 states were understood to have the technological capability to become nuclear weapon states. Although the CTBT has been signed by 182 states with 151 ratifications, there remain nine of the nuclear-capable states that have yet to ratify the treaty. India, Pakistan and North Korea have neither signed nor ratified the treaty. The U.S., China, Israel, Indonesia, Egypt and Iran have signed but have not ratified.

While the CTBT is promoted by the nuclear weapon states as an important disarmament measure to cut off further nuclear weapons development, the more technologically advanced nuclear weapon states have continued to test their weapons and develop new nuclear weapons with computer simulations coupled with “sub-critical” nuclear tests at underground test sites. In these tests, plutonium is blown up with chemicals without causing a chain reaction, allowing the testing states to argue that they are not performing nuclear tests. Thus, the nuclear weapon states continue to violate the spirit and purpose of the CTBT. Unless the nuclear test sites are closed and weapons research and development is halted at the nuclear laboratories, it is unlikely that the holdout countries will join the CTBT.

The Size of the Problem. Experts estimate the world’s nuclear arsenals to contain approximately 23,000 nuclear weapons, with some 95 percent of the total in the arsenals of the United States and Russia. Although their arsenals have decreased by two-thirds from some 70,000 nuclear weapons at the height of the Cold War, they still contain enough explosive power to destroy civilization and most complex forms of life on Earth. Some of the larger nuclear weapons have more explosive power than all the explosive force used during World War II, including the Hiroshima and Nagasaki bombs. The total power of all explosives detonated in World War II equaled three megatons, the equivalent explosive power of ten average size nuclear weapons. The largest nuclear weapon ever tested was the Tsar Bomba by the Soviet Union in 1961, with an explosive force estimated at around 50 megatons. The explosive power of the operational strategic nuclear weapons in current nuclear arsenals, 5,850 weapons, equals 2,225 megatons, more than 700 times greater than the total explosive force used in World War II.

The detonation in a regional war of even 100 Hiroshima-size weapons on cities is predicted to have profound environmental consequences that could cause up to a billion people to die from nuclear famine. Nuclear firestorms would cause millions of tons of smoke to rise and form a stratospheric smoke layer, which would block warming sunlight from reaching the Earth’s surface and create the coldest average surface temperatures in the last 1,000 years. The protective ozone layer would be severely damaged, causing massive increases of harmful ultraviolet light. Long-term food shortages would ensue, which would likely cause most of the world’s already hungry peoples to die of starvation. This is as good a measure as any of the insanity of the nuclear weapons policies of the five recognized nuclear weapon states and the other states that have joined, or aspire to join, the nuclear “club.”

II. The Non-Proliferation Treaty

Non-Proliferation and Disarmament. Although the NPT carries the concept of “non-proliferation” in its title, it is also importantly about nuclear disarmament. The NPT is the only international treaty that contains a legally binding provision for nuclear disarmament; it would have been better named the Nuclear Non-Proliferation and Disarmament Treaty.

There is understandable confusion in the public mind between the concepts of nuclear non-proliferation, disarmament and arms control. Non-proliferation is the prevention of the spread of nuclear weapons. Proliferation can take place horizontally, spreading the weapons to other countries or to non-state actors; or vertically, increasing the quantity or quality of weapons in the arsenals of existing nuclear weapon states. Disarmament is about reducing and eventually eliminating nuclear weapons. An in-between category is arms control, which includes agreements to reduce the size of nuclear arsenals and/or reduce the threat of arms races, weapons use or proliferation.

The relationship between nuclear non-proliferation and disarmament has been at the NPT’s heart since it was opened for signatures in 1968 and entered into force in 1970. The nuclear weapon states have always distorted the spirit of the treaty by emphasizing non-proliferation, when the central bargain is that, in exchange for the non-nuclear weapon states’ agreement not to proliferate, the nuclear weapon states agreed to negotiate in good faith to achieve nuclear disarmament.

The Problem of Nuclear Energy. The relationship between non-proliferation and disarmament has also been complicated by the treaty’s provision in Article IV referring to the peaceful uses of nuclear energy as an “inalienable right” for all parties to the treaty. The current drive for more nuclear electricity generation throughout the world makes preventing proliferation and assuring nuclear disarmament far more complex and difficult. More nuclear power plants mean more plutonium production. Neither non-proliferation nor disarmament can be assured without far stronger and more reliable international controls than currently exist. This remains a major challenge to the international community.

While rightful concerns about climate change demand energy policies that reduce carbon emissions into the atmosphere, the expansion of nuclear energy is emphatically not the answer to this problem. There are other less capital intensive, less expensive and more reliable forms of energy available. These include solar, wind, wave and tidal energy sources that are sustainable without the proliferation and long-term health, accident and terrorist risks associated with nuclear energy. The relatively new international agency, the International Renewable Energy Agency (IRENA) has the mandate to help develop and promote the use of these broadly available and environmentally benign forms of sustainable energy.

The 1995 NPT Review and Extension Conference. When the treaty was extended indefinitely in 1995, there were promises in the Final Document of that NPT

Review and Extension Conference of “determined pursuit by the nuclear-weapon States of systematic and progressive efforts to reduce nuclear weapons globally, with the ultimate goals of eliminating those weapons, and by all States of general and complete disarmament under strict and effective international control.” There was also an undertaking to develop “nuclear-weapon-free zones, especially in regions of tension, such as in the Middle East...” In addition, the parties to the NPT agreed that “further steps should be considered to assure non-nuclear-weapon States party to the Treaty against the use or threat of use of nuclear weapons.” The Final Document suggested that such steps “could take the form of an internationally legally binding instrument.”

Many representatives of non-governmental organizations went to the 1995 NPT Review and Extension Conference to argue against the indefinite extension of the treaty. They believed that an indefinite extension would be like giving a blank check to the nuclear weapon states. They argued instead that the treaty should be extended for periods of time with extensions contingent upon the nuclear weapon states making concrete progress on their commitment to attain nuclear disarmament goals. Following the conference, after the treaty was extended indefinitely, these non-governmental organizations joined together in forming the Abolition 2000 Global Network to Abolish Nuclear Weapons.

The Founding Statement of Abolition 2000 Global Network, shown in Appendix A, remains a prescient roadmap to achieving the global elimination of nuclear weapons. It begins with a simple statement of warning: “A secure and livable world for our children and grandchildren and all future generations requires that we achieve a world free of nuclear weapons and redress the environmental degradation and human suffering that is the legacy of fifty years of nuclear weapons testing and production.” In its first demand, it called for the negotiation of a treaty to eliminate nuclear weapons in a time-bound framework.

The statement also challenged the NPT’s promotion of nuclear energy as an “inalienable right” and inspired grassroots action that contributed to the founding in 2008 of the International Renewable Energy Agency. IRENA has grown rapidly and already has as signatories over 140 countries and the European Union. The Abolition 2000 Founding Statement declares, “We must move toward reliance on clean, safe, renewable forms of energy production that do not provide the materials for weapons of mass destruction and do not poison the environment for thousands of centuries. The true ‘inalienable’ right is not to nuclear energy, but to life, liberty and security of person in a world free of nuclear weapons.”

Non-governmental organizations within the Abolition 2000 Global Network subsequently produced a Model Nuclear Weapons Convention, an enforceable treaty to prohibit nuclear weapons. It has become an official United Nations document after being submitted to the United Nations General Assembly by Costa Rica and Malaysia. The Model Convention was cited by UN Secretary-General Ban Ki-moon on October 24, 2008 when he called upon the parties to the NPT to fulfill their obligations for negotiations leading to nuclear disarmament by an agreement on a framework of

mutually reinforcing instruments or by negotiating a Nuclear Weapons Convention such as that submitted to the United Nations by Costa Rica and Malaysia. The newly issued report of the International Commission on Nuclear Non-Proliferation and Disarmament convened by Australia and Japan also cites the Model Convention.

The 2000 and 2005 NPT Review Conferences. Prior to the 2000 NPT Review Conference, 50 prominent individuals, including 35 Nobel Laureates – among them Mikhail Gorbachev, Jimmy Carter, Oscar Arias, Archbishop Desmond Tutu and the Dalai Lama – signed an appeal that appeared in the *New York Times* on the opening day of the conference. The appeal, organized by the Nuclear Age Peace Foundation and shown in Appendix B, stated, “We cannot hide from the threat that nuclear weapons pose to humanity and all life. These are not ordinary weapons, but instruments of mass annihilation that could destroy civilization and end all life on Earth.” It called upon the leaders of the world’s nations, and particularly the leaders of the nuclear weapon states, to act for the benefit of all humanity by taking the following steps:

- *Ratify the Comprehensive Test Ban Treaty and reaffirm commitments to the 1972 Anti-Ballistic Missile Treaty.*
- *De-alert all nuclear weapons and de-couple all nuclear warheads from their delivery vehicles.*
- *Declare policies of No First Use of nuclear weapons against other nuclear weapons states and policies of No Use against non-nuclear weapons states.*
- *Commence good faith negotiations to achieve a Nuclear Weapons Convention requiring the phased elimination of all nuclear weapons, with provisions for effective verification and enforcement.*
- *Reallocate resources from the tens of billions of dollars currently being spent for maintaining nuclear arsenals to improving human health, education and welfare throughout the world.*

At the 2000 NPT Review Conference, the parties to the NPT made significant progress, at least in terms of commitment, by agreeing to 13 Practical Steps for Nuclear Disarmament. These steps, shown in Appendix C, were adopted by consensus. They included “An unequivocal undertaking by the nuclear-weapon States to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States parties are committed under Article VI.” The 13 Practical Steps also included “early entry into force of the Comprehensive Nuclear-Test-Ban Treaty,” applying the “principle of irreversibility” to nuclear disarmament, “early entry into force and full implementation of START II,” and “preserving and strengthening the ABM Treaty as a cornerstone of strategic stability.”

Virtually all of these important steps were set aside or ignored during the U.S. presidency of George W. Bush. Most egregiously, he abrogated the Anti-Ballistic Missile Treaty, opening the way for implementation of missile defenses and the weaponization of outer space. The 2005 NPT Review Conference became deadlocked

and was generally considered a major failure. This was the legacy bequeathed to Barack Obama when he became the U.S. president in January 2009.

III. Changing Our Thinking

Calls for new thinking in the Nuclear Age have a long history. Almost immediately after the bombing of Hiroshima, the great French writer Albert Camus argued, “Before the terrifying prospects now available to humanity, we see even more clearly that peace is the only battle worth waging.” Early in the Nuclear Age, Albert Einstein expressed his fear that the enormous power within the atom was leading the world toward unparalleled catastrophe. He saw no commensurate change in human thinking capable of bringing these new nuclear dangers under firm control. Although Einstein did not specify the needed changes in thinking, he did join with Bertrand Russell and other prominent signatories of the 1955 Russell-Einstein Manifesto in calling not only for the abolition of nuclear weapons but for the abolition of war. In 1986, Rajiv Gandhi and Mikhail Gorbachev issued the Delhi Peace Declaration, in which they warned that the Nuclear Age requires the development of new political thinking “... which provides sound guarantees for the survival of mankind.”

What are the new ways of thinking that are needed? And how do we change our ways of thinking? The first question relates to how we relate to one another in the world and our means of resolving conflicts. The overriding dangers of nuclear warfare require that we expand our understanding of citizenship and patriotism from the nation to the world. We need to view ourselves as members of one human species, whose continued existence on this fragile and precious planet is in doubt. We are linked to one another by bonds of human community and shared destiny. We must forego our outmoded and destructive tribal and national attachments in favor of embracing our common humanity.

Einstein reflected upon the nature of human consciousness in this way: “A human being is a part of the whole called by us universe, a part limited in time and space. He experiences himself, his thoughts and feeling as something separated from the rest, a kind of optical delusion of his consciousness. This delusion is a kind of prison for us, restricting us to our personal desires and to affection for a few persons nearest to us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole of nature in its beauty.”

It follows from this perspective that we must find ways of solving our shared problems, dealing with our common threats and resolving our differences through cooperation and diplomacy. War and violence are no longer viable solutions to any conflict. Because of nuclear weapons, all wars now contain the seeds of planetary destruction. Additionally, all significant global problems require global cooperation to reach satisfactory solutions. In line with such shifts in thinking, we must recognize that our very survival demands our cooperative efforts to end the truly apocalyptic threats posed by nuclear weapons.

The question of *how* we change our ways of thinking is not easily answered. We need to think about how we think, and also use our imaginations to project possible futures, including no future at all, which are potential consequences of reliance on nuclear weapons for security by some states. The kernel of an answer lies in our correct

understanding of the threat we face from such bankrupt policies. Also, we must recognize that our old ways of thinking focus on perceptions of narrowly defined patriotism and fatalistic acceptance that “we are separate,” “war is part of human nature,” “power prevails,” and “the nuclear genie cannot be put back in the bottle,” or “nuclear weapons cannot be dis-invented.”

To change such thinking, we must come to understand that we are required to do what has perhaps never before been done. Faced with potential extinction, we must find ways to cooperate in creating a common future that is just and peaceful, beginning by eliminating nuclear weapons. In global climate negotiations, including at the December 2009 Climate Conference in Copenhagen, political leaders have so far failed to reach a legally binding agreement to control greenhouse gases that threaten major environmental damage to the planet. On many critical issues, political leaders remain prisoners of old ways of thinking that place greed and narrow self-interest ahead of cooperation.

Since it is the massively destructive power of nuclear weapons that make new ways of thinking essential, it seems reasonable to explore the ways people think about these weapons.

IV. A Spectrum of Perspectives on Nuclear Weapons

There are at least five categories across a spectrum of perspectives, from believing nuclear weapons are essential assets at one end to seeking their total elimination at the other.

1. Nuclear Believers

In this category are those who believe that nuclear weapons are essential assets for keeping the peace, because there has not been a war between major powers since the Nuclear Age began. They believe that nuclear deterrence always works, and that nuclear weapons provide the ultimate deterrent force. Inherent in this mindset is the belief that leaders act rationally, and that it would not be rational to attack a country that possessed nuclear weapons – yet nuclear weapons must be held ready for immediate use for deterrence doctrine to be credible. At the most extreme, people in this category believe that nuclear weapons should spread to more countries, because this would make the world safer. Thus, proponents of this position would argue that nuclear proliferation has benefits that should not be overlooked. They would not favor the NPT. In this category, nuclear weapons are also viewed as an indispensable symbol of national prestige.

2. Nuclear Advantage Seekers

Those in the second category, moving across the spectrum, believe that nuclear weapons provide their possessors with advantages in their relations with other sovereign nations. A nuclear arsenal is viewed as a trump card for deterring attack by other states. However, possession of nuclear weapons by Israel did not prevent 38 Iraqi Scud missile attacks in 1991; and in 1982 Argentina was not deterred by British nuclear weapons from invading the Falkland Islands. Nuclear Advantage Seekers also see value in the coercive power of nuclear weapons; one example is Israel's use of its opaque nuclear arsenal to influence the U.S. to provide it with conventional military aid, or to uncritically support its military operations. Also, India's government believes that nuclear weapon possession has been rewarded by preferential U.S. agreements. Proponents of this perspective support non-proliferation efforts, including the NPT, and arms control not as a matter of principle, but only when they think the outcome would provide their country or alliance with relative advantage.

Nuclear Advantage Seekers may also be motivated by personal or institutional profit from support of nuclear weapons. In the United States, for example, there are scientists and technologists who have prestigious and well-paid positions working at the nation's nuclear weapons laboratories. The University of California profits from managing the laboratories. Corporations profit from making parts for the weapons. There are politicians who gain

support by their advocacy of specific weapons systems, such as the intercontinental ballistic missiles or nuclear powered submarines, systems that provide jobs in their jurisdictions.

3. Nuclear Disempowered

The third, and probably largest, category is composed of members of the general public who have been manipulated and disempowered. They have often been misled or, at a minimum, confused by the complex arguments of policy makers who have framed the debate on nuclear policy in such a way as to induce ignorance, confusion and apathy. Nuclear policy debates have often been classified as secret and the information kept from the public, leading to a sense of powerlessness and a tendency to defer to experts with more knowledge. Many in this category have no real knowledge of nuclear weapons and policies pertaining to their use.

Many of these individuals may be in denial about the consequences of using nuclear weapons, or may simply believe that they could never have any influence on nuclear disarmament, but accept that nuclear weapons pose a grave danger to humanity. Those in this category may justify their lack of engagement with the fatalistic argument that if the nuclear genie cannot be put back in the bottle, it is not worth trying. They are unlikely to take much interest in the NPT or the possibilities for change and prefer to avoid the debate. People in this group need to be awakened, empowered and mobilized. This group could change the terms of debate on this issue of fundamental importance to their future and that of their countries and the world.

4. Nuclear Controllers

Moving to the more positive side of the spectrum, the fourth category includes those who believe that nuclear weapons can be controlled through bilateral and multilateral agreements on arms control and non-proliferation. They may speak about achieving a world without nuclear weapons as a desirable aspiration, but favor only cautious progress in disarmament. Regarding themselves as realists, they view this approach as making the world, including their countries, more secure. They believe, despite their awareness of human fallibility, that political leaders are capable of managing nuclear dangers.

5. Nuclear Abolitionists

Those in the fifth and final category have concluded that nuclear weapons are the most immediate and serious threat to civilization and potentially all life. They take seriously the dire scientific assessments that nuclear war could annihilate large portions, if not all, of humankind. Regarding themselves as the true realists, they therefore support the total elimination of nuclear weapons by the application of treaty-based international law. They believe

that this must be accomplished as soon as possible before these weapons further proliferate and are used again. The more facts individuals have about the threat from nuclear weapons, the more likely they will be to join this category and engage in seeking the abolition of nuclear weapons. Albert Einstein, Bertrand Russell, and their distinguished colleagues who signed the Russell-Einstein Manifesto were in this category.

V. Where Countries Stand on the Spectrum

The idea of the NPT was the brainchild of Ireland's Foreign Minister, Frank Aiken, in 1958. The initial nuclear-armed signatory states were the United States, Soviet Union and United Kingdom. Their goal was to prevent the further spread of nuclear weapons beyond the countries that had them at the time the treaty was being negotiated. A nuclear weapon state is defined in the NPT as "one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to January 1, 1967." By this definition, only five countries qualified as nuclear weapon states: the U.S., USSR, UK, France and China. However, France and China did not join the treaty until 1992.

The overwhelming majority of non-nuclear weapon states were not happy with this designation of a special status for the nuclear weapon states and negotiated for the nuclear disarmament clause in Article VI of the NPT. The initial nuclear weapon states parties to the NPT would be classified as Nuclear Believers or Advantage Seekers, while trying to deny nuclear weapons to others. The U.S. in particular has applied pressure to its allies to vote against United Nations General Assembly resolutions calling for progress toward nuclear disarmament.

The non-nuclear weapon states that signed the NPT, excepting the thirty or so allied to nuclear weapon states, fall overwhelmingly into categories four and five, being either Nuclear Controllers or Abolitionists. They believe that the magnitude of the nuclear threat demands a sense of urgency in fulfilling the nuclear disarmament obligation of the NPT in order to remove the threat and achieve equal treatment for all countries of the world.

VI. Signs of New Thinking on Nuclear Weapons

In recent years, many former high-level policy makers of the nuclear weapon states have shifted their positions from Nuclear Believers and Advantage Seekers to Nuclear Controllers with an Abolitionist vision. In January 2007, four former leading U.S. policy makers – former Secretaries of State George Shultz and Henry Kissinger, former Secretary of Defense William Perry and former Chair of the Senate Armed Service Committee Sam Nunn – published an opinion piece in the *Wall Street Journal* calling for a new vision of eliminating nuclear weapons. In doing so, they created some political space for the abolitionist vision and helped legitimate broader discussion of abolition by other policy makers and the media.

These former advocates of nuclear deterrence now agreed with the Nuclear Abolitionists: “[R]eliance on nuclear weapons for this purpose [deterrence] is becoming increasingly hazardous and decreasingly effective.” They warned that the world was now “on the precipice of a new and dangerous nuclear era...that will be more precarious, psychologically disorienting, and economically even more costly than was Cold War deterrence.” They then stated: “We endorse setting the goal of a world free of nuclear weapons and working energetically on the actions required to achieve that goal....” Among the actions they proposed, all arms control or non-proliferation measures, were:

- Changing the Cold War posture of deployed nuclear weapons to increase warning time and thereby reduce the danger of accidental or unauthorized use.
- Continuing to reduce substantially the size of nuclear forces.
- Eliminating short-range nuclear weapons designed to be forward-deployed.
- Initiating a bipartisan process in the U.S. Senate, including understandings to increase confidence and provide for periodic review, to achieve ratification of the Comprehensive Test Ban Treaty, taking advantage of recent technical advances, and working to secure ratification by other key states.
- Providing the highest possible standards of security for all stocks of weapons, weapons-usable plutonium, and highly enriched uranium everywhere in the world.
- Achieving control of the uranium enrichment process, combined with the guarantee that uranium for nuclear power reactors could be obtained at a reasonable price, first from the Nuclear Suppliers Group and then from the International Atomic Energy Agency (IAEA) or other controlled international reserves. It will also be necessary to deal with proliferation issues presented by spent fuel from reactors producing electricity.
- Halting the production of fissile material for weapons globally; phasing out the use of highly enriched uranium in civil commerce and removing weapons-usable uranium from research facilities around the world and rendering the materials safe.
- Redoubling efforts to resolve regional confrontations and conflicts that give rise to new nuclear powers.

A number of their proposals concern gaining control of nuclear materials for use in nuclear energy generation. They seek to facilitate the “peaceful” use of the atom, while reducing the possibilities of its warlike use. They also note that “[a]chieving the goal of a world free of nuclear weapons will also require effective measures to impede or counter any nuclear-related conduct that is potentially threatening to the security of any state or peoples.”

A year later, in January 2008, these same four published a second opinion piece in the *Wall Street Journal*. On this occasion, they further strengthened their position in support of eliminating nuclear weapons by incremental means. They began their article by sounding a stronger alarm: “The accelerating spread of nuclear weapons, nuclear know-how and nuclear material has brought us to a nuclear tipping point. We face a very real possibility that the deadliest weapons ever invented could fall into dangerous hands.” However, they failed to add that nuclear weapons in any hands are dangerous.

The group of four then recommended further steps – again all arms control or non-proliferation measures – that might be taken to move toward a world free of nuclear weapons. These included:

- Extending key provisions of the Strategic Arms Reduction Treaty of 1991.
- Increasing the warning and decision times for the launch of all nuclear-armed ballistic missiles, thereby reducing risks of accidental or unauthorized attacks.
- Discarding any operational plans for Mutual Assured Destruction remaining from the Cold War era.
- Undertaking negotiations toward developing cooperative multilateral ballistic-missile defense and early warning systems, as proposed by Presidents Bush and Putin at their 2002 Moscow summit meeting.
- Accelerating measures to secure nuclear weapons and materials against seizure by terrorists.
- Starting a dialogue, including within NATO and with Russia, on consolidating the tactical nuclear weapons designed for forward deployment to enhance their security, and as a first step toward careful accounting for them and their eventual elimination.
- Strengthening ways to monitor compliance with the NPT.
- Adopting a process to bring the CTBT into effect.
- Broadening the U.S.-Russian dialogue to include other states, nuclear and non-nuclear.

The former policy makers envisioned the goal of a world without nuclear weapons as being located at the top of a tall mountain: “From the vantage point of our troubled world today, we can’t even see the top of the mountain, and it is tempting and easy to say we can’t get there from here. But the risks from continuing to go down the mountain or standing pat are too real to ignore. We must chart a course to higher ground where the mountaintop becomes more visible.” This perspective is consistent with their

cautious yet determined approach, holding promise in the longer term of their moving from a position of incremental progress to more fully embrace nuclear weapons abolition.

In January 2010, the group of four authored a third *Wall Street Journal* opinion piece. In this article, “How to Protect Our Nuclear Arsenal,” they disappointingly reverted to the old way of thinking upon which their careers were built. They wrote, “But as we work to reduce nuclear weaponry and to realize the vision of a world without nuclear weapons, we recognize the necessity to maintain the safety, security and reliability of our own weapons.” The article applauded the U.S. nuclear weapons laboratories and the scientists who work in them. They quoted one of their own, William Perry, who called for moving along two parallel paths, one based on arms control and non-proliferation and the other based upon “maintaining our deterrence.” But by strengthening the deterrence path, perceptions in other nations that the U.S. seeks long-term nuclear advantage will be reinforced, U.S. leadership for a nuclear weapon-free world will be undermined and, as a result, the U.S. will be made less secure.

Since the four former U.S. policy makers’ first joint opinion piece in 2007, former high-level officials in the Australia, Belgium, Germany, Italy, the Netherlands, Norway, Poland and the UK have come out in support. Four former statesmen from the Netherlands, including ex-Prime Minister Ruud Lubbers, wrote of the significance of the initial statements by Shultz, Perry, Kissinger and Nunn. They argued that, in having displayed brinkmanship by threatening to use nuclear weapons in seeking “to maintain peace,” the four U.S. policy makers were now better qualified by their experience to call for the elimination of the weapons. The Dutch statesmen went on to argue: “As a member of NATO, the Netherlands should also make itself clearly heard in the upcoming revision of NATO’s Strategic Concept... Given the clear indications that the United States takes nuclear disarmament very seriously and that the original objective of deterrence has lost its validity, we need to ensure that neither the United States nor the other NATO allies wait for each other. The Netherlands should play an active role so that the revision of the Strategic Concept will lead to the withdrawal of American nuclear weapons from the territories of non-nuclear weapon states.” This is the sort of new thinking and leadership that is needed.

VII. Problems with Nuclear Deterrence

Those who justify nuclear weapons generally do so on the basis of *nuclear deterrence*, the threat of nuclear retaliation. However, as a growing number of former high-level policy makers, such as Shultz, Perry, Kissinger and Nunn, have realized, there are many problems with nuclear deterrence in the current realities of the world. These include the following, for which I am grateful to former British Royal Navy Commander Robert Green, whose mindset shifted as a bombardier-navigator in carrier-borne nuclear strike jets and anti-submarine helicopters equipped with nuclear depth-bombs in the period 1968-1977:

- 1. A nuclear weapon is the ultimate terror device.** Nuclear weapons are not weapons at all. The uniquely indiscriminate, long-term effects of radioactivity, such as genetic damage, on top of almost unimaginable explosive violence, make them the most unacceptable terror devices yet invented – far worse than chemical or even biological weapons, with which they are fallaciously and disingenuously linked. Nuclear weapons are in a league of their own regarding mass destructiveness.
- 2. The greatest threat is nuclear-armed terrorists.** President George W. Bush rightly stated that the greatest threat to Americans is extremists armed with weapons of mass destruction. Among these, nuclear-armed terrorists would be by far the worst. However, he was the first U.S. President to admit publicly that he doubted nuclear deterrence would work against terrorists.
- 3. Terrorists are undeterrable with nuclear weapons.** Deterrence of terrorist groups presents some unique problems. They may operate on their own and on a very small scale, or as agents of a state, in which case they could pose a larger and more sophisticated threat. Terrorists (especially suicide bombers) generally operate within a value system that is not susceptible to deterrence. As Henry Kissinger said, “nothing can deter an opponent bent on self-destruction.” Also, the targeted state may not know the source of a terrorist attack, and thus there may be nowhere to direct retaliatory threats.
- 4. Nuclear deterrence is state-sponsored nuclear terrorism.** Nuclear deterrence should more accurately be called *state-sponsored nuclear terrorism*. Richard Falk is uncompromising: “Nuclear weaponry and strategy represent terrorist logic on the grandest scale imaginable.”
- 5. Nuclear deterrence is not credible.** It is impossible for a rational leader to make a credible nuclear threat when directed against a nuclear adversary capable of a retaliatory second strike, because he would be committing his country and citizens effectively to posthumous revenge. Any rational leader, therefore, would tend to be self-deterred from “breaking the nuclear taboo.” Also, nuclear weapon states would first use the territory of their forward-

based allies as a nuclear battlefield, making a mockery of the alleged security benefits of extended nuclear deterrence.

- 6. Extended nuclear deterrence is ineffective and counterproductive.** The so-called U.S. “nuclear umbrella” has enabled the U.S. to maintain its military alliances and foreign military bases for its foreign policy purposes. However, the U.S. risks being pushed into first use of nuclear weapons when its own security is not threatened, for example, North Korea threatening a nuclear strike on Japan, but being unable to strike the U.S. Far from sheltering anyone, the “nuclear umbrella” becomes a lightning rod for insecurity because of the near-certainty of rapid, uncontrollable escalation to full-scale nuclear war.
- 7. Nuclear deterrence is unlawful.** The 1996 Advisory Opinion of the International Court of Justice confirmed that any threat or use of nuclear weapons that violated international humanitarian law would be illegal under international law. The Court cited the uniquely terrible characteristics of modern thermonuclear weapons, which alone have the “ability to cause damage to generations to come,” and “the potential to destroy civilization and the entire ecosystem of the planet.” The Court implicitly confirmed, therefore, that nuclear deterrence is unlawful.
- 8. Nuclear deterrence undermines security.** Security cannot be obtained by threatening the security of others. Nuclear deterrence directly threatens the security of both those who depend on it and those whom it is meant to dissuade. Nuclear weapons are in fact a security problem, not a solution. These weapons undermine a possessor’s security by making a threatening country also a target of nuclear retaliation and by increasing the possibilities of proliferation to undeterrable extremist groups.

VIII. Omnicide and Abolition

Omnicide is a word coined by philosopher John Somerville. It is an extension of the concepts of suicide and genocide. It means the death of all, the total negation and destruction of all life. Omnicide is effectively suicide for all, the genocide of humanity. It is what Rachel Carson began to imagine in her book, *Silent Spring*, published in 1962. This is what we face with nuclear war. The unfortunate truth is that we have been far too complacent in the face of the omnicidal potential of nuclear weapons.

Carried to its extreme but logical conclusion, nuclear deterrence became Mutual Assured Destruction (MAD). This is in reality the threat of omnicide in the name of security.

Nuclear weapons cannot provide physical protection for their possessors. The threat of retaliation is not protection. Unfortunately, these weapons, like other human endeavors, are subject to human fallibility. With nuclear weapons in human hands, there are no guarantees that nuclear war will not be initiated by accident, miscalculation or human error, as well as by intention. Mikhail Gorbachev, a former president of the Soviet Union who once had responsibility for his country's nuclear arsenal, has stated, "[I]t is my firm belief that the infinite and uncontrolled fury of nuclear weapons should never be held in the hands of any mere mortal ever again, for any reason."

An Appeal of Scientists for a Nuclear Weapons-Free World, created by the International Network of Engineers and Scientists for Global Responsibility in 2009 and signed by more than 30 Nobel Laureates, made reference to human fallibility. The Appeal stated in part, "Human fallibility and nuclear weapons are a dangerous and unacceptable mix. We rely upon human theories concerning nuclear weapons, such as the theory of nuclear deterrence, at our peril."

The Appeal continued: "Nuclear weapons were created by humans, and it is our responsibility to eliminate them before they eliminate us and much of the life on our planet. The era of nuclear weapons must be brought to an end. A world without nuclear weapons is possible, realistic, necessary and urgent." The full Appeal is in Appendix D.

The starting point for ending the omnicidal threat of nuclear weapons is the recognition that the threat is real and pervasive, and requires action. Each of us is threatened. All we love and hold dear is threatened. The future is threatened. We are called upon to end our complacency and inaction and to respond to this threat by demanding that our leaders develop a clear pathway to the total elimination of nuclear weapons and to the elimination of war as a means of resolving conflicts.

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Imagining Omnicide

Can you imagine omnicide? No people. No animals. No trees. No friendships. No one to view the mountains, or the oceans, or the stars. No one to write a poem, or sing a song, or hug a baby, or laugh or cry. With no present, there can be no memory of the past, nor possibility of a future. There is nothing. Nuclear weapons make possible the end of all, of omnicide.

From the beginning of the universe some 15 billion years ago, it took 10.5 billion years before our planet was formed, and another 500 million years to produce the first life. From the first life on Earth, it took some four billion years, up until 10,000 years ago, to produce human civilization. It is only in the last 65 years, barely a tick of the cosmic clock, that we have developed, deployed and used weapons capable of omnicide.

It took nearly 15 billion years to create the self-awareness of the universe that we humans represent. This self-awareness could be lost in the blinding flash of a thermonuclear war and the nuclear winter that would follow.

IX. Further Arguments for Abolition

For those who are not sufficiently moved by the threat of omnicide posed by nuclear weapons and require further convincing, additional reasons for abolishing these weapons include the following:

- They are long-distance killing devices incapable of discriminating between soldiers and civilians, the aged and the newly born, or between men, women and children.
- They threaten the destruction of cities, countries and civilization; of all that is sacred, of all that is human, of all that exists.
- They threaten to foreclose the future, negating our common responsibility to future generations.
- They make cowards of their possessors, and in their use there can be no decency or honor.
- They divide the world's nations into nuclear haves and have-nots, bestowing false and unwarranted prestige and privilege on those that possess them.
- They are a distortion of science and technology, siphoning off our scientific and technological resources and twisting our knowledge of nature to destructive purposes.
- They mock international law, displacing it with an allegiance to raw power.
- They waste our resources on the development of instruments of annihilation. The United States alone has spent over \$7.5 trillion on nuclear weapons and their delivery systems since the onset of the Nuclear Age.
- They concentrate power in the hands of a small group of individuals and, in doing so, undermine democracy. They give over to a few individuals, usually men, greater power of annihilation than at any previous time in history.
- They are morally abhorrent, as recognized by virtually every religious organization, and their mere existence corrupts our humanity. If we are willing to tolerate these weapons and their indiscriminate power of annihilation, then who are we? What do these weapons say about our humanity, our human decency?

X. Omnicidal Thinking

Much of the public thinking on nuclear weapons, particularly in the nuclear weapon states and their allies, is influenced by nuclear policy makers with a vested interest in the nuclear strategies they propose and support. Their thinking is often presented in an overly complex and confusing manner to the public, and some aspects of nuclear policy are hidden behind walls of secrecy. The public is led to believe that nuclear strategy is a realm reserved for experts and government officials, where ordinary citizens are not qualified to have an opinion or to engage in policy debate. To the extent that members of the public do have opinions on nuclear policy issues, they are denied ways to express them. Even dissenting nuclear policy analysts are often not given access to mainstream media sources. This has led to a substantial degree of disempowerment on nuclear policy issues among the general public.

In a treatise on omnicide, Somerville argued that “those who take no action against these weapons will, in effect, be casting their votes for omnicide.” In exploring what they described as an “omnicidal personality,” social scientists Lisl Marburg Goodman and Lee Ann Hoff found that “people who believe that nuclear war in their lifetime is either absolutely inevitable or – on the contrary – absolutely impossible, both maintain that they hardly ever think about it. They are both likely to view nuclear war as causing only limited damage, and they are unwilling to invest any energy in efforts to prevent a nuclear disaster.” Thus, acceptance of such old thinking leads to dismissal, disempowerment and disengagement.

Goodman and Hoff used an analogy of a “sheep syndrome,” in which a flock of sheep “have been known to drown in the flooding of rivers, for want of a shepherd to lead them to higher ground. At times they would have been saved by moving just a few yards, but instead they stood there and let it happen.” They found such omnicidal thinking “marked by inaction, passivity, and apathy (seen in the lack of participation in any preventive measures); dependence (expressed by trust in government, the president, God); lack of imagination and of knowledge (as in claiming that nuclear war cannot occur or that it would only cause limited damage); and fatalism (the overriding sense of no control over one’s own destiny, and in this case the Earth’s as well).”

The dangers posed by nuclear weapons make such psychological responses understandable, but it is clear that they avoid the problem. The challenge is to move from ignorance, apathy, alienation and confusion to awareness, engagement and action. The disempowered must be educated and empowered to act in their own interest and those of humanity. Needed actions fall into the areas of both non-proliferation and disarmament with the goal of abolition.

XI. Abolitionist Thinking

If there is a way of thinking that makes omnicide more likely, might there not also be a way of thinking reflecting characteristics at the opposite end of the psychological spectrum? If old thinking uses psychological mechanisms to create distance from the threat of omnicide, and thus attempts to avoid the issue, would not new thinking seek to engage the issue in order to find a solution? If the response would be to face the problem and seek a solution, would this not make the abolitionist the realist under the circumstances? Would abolitionist thinking not be a reflection of a mature response to a situation of catastrophic and continuing threat?

Perhaps abolitionist thinking is best exemplified by the behavior of the survivors of Hiroshima and Nagasaki. These survivors, known in Japan as *hibakusha*, have made it their life's passion to end the nuclear weapons threat to humanity. They have spoken out about what they experienced and witnessed, attempting to bring the enormity of the danger to the attention of others. They have sought to eliminate nuclear weapons before they destroy other cities. From the depths of their personal tragedies, they have arisen to engage the issue of species annihilation.

Of course, others who have not experienced nuclear catastrophe firsthand have also joined the call to abolish these weapons of overwhelming destructive power. Their behavior might include compassion and concern for the welfare of others both within and beyond the tribe or nation, commitment to building a better world for present and future generations, and the courage to engage in an issue of global and omnicidal proportions.

The NPT Review Conferences present a paradox. The conferences are conducted by politicians and diplomats working for the perceived best interests of their countries. Yet the problem they confront requires that they approach it not only from a national, but a global perspective. Those representing nuclear weapon states may believe that nuclear weapons further their country's interests, but this is perhaps more delusional than real. Could it be that many seemingly normal national leaders are indoctrinated to the point that they are willing to risk the future of the world, including that of their own families, on short-term power interests? Have we lived so long with the threat of nuclear annihilation that we accept it as normal rather than insane? And if so, how do we return to sanity?

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A Return to Sanity

During the 2008 presidential election year, the Nuclear Age Peace Foundation published A Briefing for the New President, “A Return to Sanity: United States Leadership for a Nuclear Weapons-Free World.” In this booklet, the Foundation called for U.S. leadership in the following five areas:

First, educate the American people about the true dangers that nuclear weapons pose to them and the increased security that will be a consequence of reducing and eliminating nuclear arsenals. No one is better positioned to effectively do this than the president of the United States.

Second, take unilateral policy steps, such as a declaration of No First Use of nuclear weapons, to show the world that the U.S. is serious about reducing its own reliance on nuclear arms. By taking away the option of using nuclear weapons preemptively or preventively, the U.S. will be demonstrating the requisite political will and setting a tone far more conducive to bilateral and multilateral negotiations for nuclear disarmament.

Third, work closely with the Russians in achieving major reductions in the nuclear arsenals of the two countries, in reducing the risks of accidental nuclear war, and in establishing protocols for controlling nuclear materials globally.

Fourth, focus on achieving universal and global standards and avoiding double standards in U.S. nuclear policies related to other states, ending the practice of applying one set of standards to ourselves and our friends and allies and another set of standards to our perceived enemies.

Fifth, use the convening power of the U.S. to bring together the nuclear weapons states and then all of the world’s nations to negotiate a roadmap to a world free of nuclear weapons in the form of a Nuclear Weapons Convention.

Redirecting U.S. nuclear policy toward achieving a world free of nuclear weapons is not a matter of politics or political gain; it is an issue of human survival. In the words of retired U.S. Air Force General George Lee Butler, former commander in chief of the U.S. Strategic Command, “By what authority do succeeding generations of leaders in the nuclear weapons states usurp the power to dictate the odds of continued life on our planet? Most urgently, why does such breathtaking audacity persist at the moment when we should stand trembling in the face of our folly and united in our commitment to abolish its most deadly manifestation?” Only the president of the United States can exert the necessary leadership to end this folly.

XII. The Obama Promise

Barack Obama made nuclear non-proliferation and disarmament important goals during his campaign for the presidency. He exhibited new ways of thinking, except in his reference to “a strong deterrent,” in a “Statement on Call for a World without Nuclear Weapons” on January 17, 2008: “As President, I will set and seek the goal of a world with no nuclear weapons. We will always maintain a strong deterrent as long as nuclear weapons exist. But we will move forward down the long road toward eliminating nuclear weapons by securing all loose nuclear materials within four years; stopping the development of new nuclear weapons; working with Russia to take U.S. and Russian ballistic missiles off hair trigger alert; seeking dramatic reductions in U.S. and Russian stockpiles of nuclear weapons and material; and setting a goal to expand the U.S.-Russian ban on intermediate-range missiles so that the agreement is global.”

Since assuming office in early 2009, President Obama has continued to speak out for a world free of nuclear weapons. He devoted a speech to the subject in Prague in April 2009. In this speech the president said, “I state clearly and with conviction America’s commitment to seek the peace and security of a world without nuclear weapons.” In doing so, he demonstrated a new way of thinking. The president qualified this remark, however, and switched back to an old way of thinking when he continued, “I’m not naïve. This goal will not be reached quickly – perhaps not in my lifetime. It will take patience and persistence.” He then again jumped back to a new way of thinking, stating, “But now we, too, must ignore the voices who tell us that the world cannot change. We have to insist, ‘Yes, we can.’”

In his Prague speech, the president also reflected other tensions between new and old ways of thinking. “To put an end to Cold War thinking,” he said, “we will reduce the role of nuclear weapons in our national security strategy and urge others to do the same.” Seeking such reduction in the role of nuclear weapons in security strategy reflects new thinking. He followed this statement, however, with the old thinking on nuclear deterrence strategy, stating, “Make no mistake: as long as these weapons exist, we will maintain a safe, secure and effective arsenal to deter any adversary, and guarantee that defense to our allies....”

The president spoke in his Prague speech about the United States, “as the only nuclear power to have used a nuclear weapon,” having “a moral responsibility to act.” He recognized that the United States “cannot succeed in this endeavor alone, but we can lead it, we can start it.” In accord with this approach, President Obama may yet demonstrate such leadership by taking unilateral steps to reduce nuclear dangers, as did the first President Bush in the early years following the end of the Cold War. Among the steps that President Obama could take either unilaterally as commander-in-chief, or bilaterally with the Russians, are:

- Taking the nuclear arsenal off high-alert, quick-launch status.
- Ending the current dangerous policy of launch-on-warning.
- Committing to no preemptive use of nuclear weapons.

- Providing negative security assurances of No Use of nuclear weapons against non-nuclear weapon states.
- Pledging No First Use of nuclear weapons against other nuclear weapon states.
- Convening other states to begin negotiations for a new treaty, a Nuclear Weapons Convention, encompassing a plan for the elimination of all nuclear weapons.

President Obama indicated in Japan in late 2009 that he hopes to visit Hiroshima and Nagasaki in the future. This would be the first visit of an American president in office to these cities. It would be a welcome sign that an American leader is ready to face squarely the damage that was done to these cities by the wartime use of nuclear weapons and, by implication, a fraction of the damage that could be done to other cities and to the Earth's ecosystems in the future.

Shortly after assuming office, the president initiated negotiations with the Russians to extend the START I treaty and reduce the nuclear arsenals on both sides below current levels. The 1991 START agreement limited the number of deployed strategic nuclear weapons on each side to 6,000. This number was lowered by the Strategic Offensive Reductions Treaty, under the Bush administration in 2002, to between 2,200 and 1,700 deployed strategic nuclear weapons by the year 2012, when that agreement would lapse. Expectations in the current negotiations are for modest reductions in deployed strategic warheads to between 1,500 and 1,675 warheads and of warhead delivery vehicles to between 500 and 1,100 by the year 2016. The two countries, however, have also indicated that they plan to continue with negotiations seeking more dramatic reductions in strategic weapons, and to start eliminating thousands of tactical nuclear weapons.

In September 2009, President Obama demonstrated leadership in initiating and chairing a summit meeting of the United Nations Security Council, which resulted in a unanimous resolution (UN Security Council Resolution 1887) to act with resolve to prevent the proliferation of nuclear weapons and to make progress in achieving nuclear disarmament. The resolution seeks “a safer world for all and to create the conditions for a world without nuclear weapons, in accordance with the goals of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), in a way that promotes international stability, and based on the principle of undiminished security for all....”

Appendix E contains the resolution's 29 operational paragraphs. The resolution is tilted toward preventing proliferation far more than achieving nuclear disarmament, a tilt that has hampered the NPT from the outset. While referring to nuclear disarmament, the resolution reiterates the importance of the NPT's “three pillars,” putting “the peaceful uses of nuclear energy” on an equal footing with non-proliferation and disarmament – a recipe for failure. Most of what the resolution proposes is merely suggestions with no teeth to assure compliance. This is a tragic missed opportunity, deeply rooted in old ways of thinking. New ways of thinking demand international cooperation and effective mechanisms of enforcement. This will challenge President Obama to provide far more

than vision, and to seek to remold and strengthen the international system so that the UN Security Council is vested with the authority to assure compliance of all nations for the sake of international peace and security.

The final operational paragraph of the resolution states that the UN Security Council will “remain seized of the matter,” meaning it will oversee progress in achieving the goals set forth in the resolution. This will require ongoing leadership and vigilance.

XIII. The United Nations Secretary-General's Action Plan

Showing powerful evidence of new thinking, United Nations Secretary-General Ban Ki-moon has been courageously outspoken on the need for action on nuclear non-proliferation and disarmament. He has stated, “My Action Plan on Nuclear Disarmament and Nuclear Non-proliferation is founded on a fundamental principle: nuclear disarmament and nuclear non-proliferation are mutually reinforcing and inseparable. They should be pursued together.” His plan has five points:

1. A call for all NPT parties to pursue negotiations in good faith – as required by the treaty – on nuclear disarmament either through a new convention or through a series of mutually reinforcing instruments backed by a credible system of verification.
2. A call for the United Nations Security Council's permanent members to consider other ways to strengthen security in the disarmament process and to assure non-nuclear-weapon states against nuclear weapons threats.
3. Strengthening the rule of law by achieving universal membership in multilateral treaties, supporting regional nuclear weapons-free zones, and agreeing to a treaty controlling fissile materials.
4. Providing greater accountability and transparency to reveal what countries are doing to fulfill their disarmament commitments, making disarmament visible to the public.
5. Establishing complementary measures, including the elimination of other types of weapons of mass destruction, and limits on missiles, space weapons and conventional arms.

The Secretary-General has been persistent in his calls for achieving a world free of nuclear weapons. His plan is comprehensive and shows important leadership on the issues of nuclear non-proliferation and disarmament. Rather than focusing on one step or another, the Secretary-General proposes creating an overarching approach to nuclear disarmament, a Nuclear Weapons Convention, or a framework of reinforcing treaties. He recognizes the importance of strengthening international law and legal obligations. He also underlines the importance of accountability and transparency in moving ahead. Finally, he recognizes that controls or bans on other weapons systems, including the weaponization of space, are needed to achieve the elimination of nuclear weapons.

Secretary-General Ban argues, “Global security challenges are serious enough without the risks from nuclear weapons or their acquisition by additional states or non-state actors. Of course, strategic stability, trust among nations, and the settlement of regional conflicts would all help to advance the process of disarmament. Yet disarmament has its own contributions to make in serving these goals and should not be postponed.”

XIV. Ending Nuclear Double Standards

How can the desire for nuclear weapons abolition be translated into action? The pressure must come from below. As Frederick Douglass pointed out in the 19th century, in an earlier successful abolition movement against slavery, “Power concedes nothing without a demand. It never did and it never will.” Nuclear weapon states are unlikely to concede their perceived tools of dominance without a strong demand from below.

U.S. leadership is needed to achieve the abolition of nuclear weapons, but how can the need for this leadership be given a sense of urgency? The U.S. must begin by ending nuclear double standards. As with so many of the world’s seemingly insurmountable problems, these double standards are most clear in the Middle East, where the U.S. and other countries turn a blind eye to Israel’s nuclear weapons while seeking to assure that there is no nuclear weapons proliferation to other Middle Eastern countries, such as Iran, Egypt and Syria.

Today the desire for nuclear energy is spreading in the Middle East. This is the camel’s nose under the tent of nuclear proliferation and is supported by Article IV of the NPT. Why should Middle Eastern countries take seriously their obligations under the NPT to refrain from acquiring nuclear weapons, when one state in the region, Israel, has acquired them with impunity? Granted, Israel, like India and Pakistan, never became a party to the NPT, but that is not a reason for it to be allowed to develop and continue to possess a nuclear arsenal in a world that seeks to prevent nuclear weapons proliferation. Indeed, Israel has provided the pretext for Iraq, Libya and now Iran to seek to acquire nuclear weapons.

Middle Eastern countries have made clear in meetings of the parties to the NPT that they expect progress on achieving a Middle East Nuclear Weapon-Free Zone, a pledge made at the 1995 NPT Review and Extension Conference. What are these countries to do? How can they trust an international system that allows double standards and plays favorites? How can they be expected to continue indefinitely to sit by idly while the current nuclear weapon states, including Israel, retain their nuclear arsenals? Why, they may ask, should the current nuclear weapon states have special privileges in the international system? In the end, double standards cannot hold; they cannot bear the weight of the inequities they reflect.

It is the non-nuclear weapon states, particularly those with strong ties to the nuclear weapon states, that must summon the political will to demand an end to double standards. Some must reject reliance on extended deterrence. They must articulate what should be obvious: either all nuclear weapon states must acknowledge their arsenals, provide an accounting of their weapons, and present a roadmap to abolition, or there will be further proliferation. They must demand that the nuclear weapon states commit to moving with a sense of urgency to a world without nuclear weapons and demonstrate by their actions their intentions to achieve this goal.

Should President Obama choose to lead by action, a first step would be for the U.S. to end its own double standards and insist that its allies do so as well. Political traction will be furthered by strong citizens' movements within the nuclear weapon states, particularly in the U.S., which must provide leadership. Civil society groups throughout the world are challenged to move large segments of their societies from nuclear complacency to support for nuclear abolition.

The Nagasaki Appeal 2010 from the 4th Nagasaki Global Citizens' Assembly for the Elimination of Nuclear Weapons, issued on February 8, 2010, concluded with some strong comments to the leaders of nations possessing nuclear weapons and those that wish to have them: "You cannot be proud of possessing nuclear weapons or seeking to have them in the future. It means that you are conspirators in a shameful offence against humanity. From Nagasaki, an atomic bombed city, as global citizens, we demand that you take immediate steps towards the realization of a world without nuclear weapons."

XV. Recommended Steps for Consideration by the Parties to the 2010 Non-Proliferation Treaty Review Conference

A successful 2010 NPT Review Conference will require reclaiming the progress made in the 1995 and 2000 NPT Review Conferences. To do this, the parties to the treaty should reaffirm their commitment to both nuclear non-proliferation and nuclear disarmament by agreeing to take the following actions:

Reduce the Role of Nuclear Weapons in Military Policy

- Take nuclear weapons off high-alert status, and end policies of launch on warning.
- Pledge No First Use of nuclear weapons against other nuclear weapon states.
- Pledge No Use of nuclear weapons against non-nuclear weapon states.

Nuclear Disarmament

- Provide an accurate public accounting by each nuclear weapon state of its nuclear arsenal, conduct a public environmental and human assessment of its potential use, and devise and make public a roadmap for going to zero nuclear weapons.
- Negotiate major reductions by the U.S. and Russia in their nuclear arsenals to below 500 nuclear weapons each, deployed and reserve, by the year 2015.
- Commence negotiations by all states party to the NPT, as required by the treaty, for nuclear disarmament; specifically, for a Nuclear Weapons Convention for the phased, verifiable, irreversible and transparent elimination of nuclear weapons, and complete these negotiations by the year 2015. The opening session of these negotiations could be held in Hiroshima, the first city to have suffered nuclear devastation. The final session of these negotiations could be held in Nagasaki, the second and, hopefully, last city to have suffered atomic devastation.
- Reallocate the funds spent on nuclear weapons to meeting the United Nations Millennium Development Goals, including ending poverty and hunger and providing basic preventive health care and primary education to all of the world's children.

Arms Control Measures

- Complete ratifications of the Comprehensive Test Ban Treaty (CTBT) so that it can enter into force.
- Negotiate a Fissile Material Cutoff Treaty (FMCT) to assure international control of all nuclear weapons materials.
- Negotiate Nuclear Weapon-Free Zones in the Arctic, Central Europe, the Middle East, and Northeast Asia, and complete a Southern Hemisphere Nuclear Weapon-Free Zone.

- Negotiate a ban on space weaponization.
- Negotiate limits leading to a ban on long-range missiles.
- Negotiate limits on the deployment of missile defense systems.

Preventing Proliferation

- Place all enriched uranium and reprocessed plutonium – military and civilian – and their production facilities (including all uranium enrichment and plutonium separation technology) under strict and effective international safeguards.
- Achieve universal adherence to the Additional Protocol, strengthening the safeguards agreement with the International Atomic Energy Agency, by countries party to the NPT.
- Peacefully resolve the existing proliferation issues with North Korea and Iran.
- Take all necessary steps to assure that nuclear weapons are not obtained or used by non-state extremist groups.

Nuclear Power

- Conduct a global assessment by a United Nations Commission of Experts of the impact of the expansion of nuclear power generation on nuclear non-proliferation and disarmament efforts.
- Review Article IV of the NPT by all signatory states in light of the proliferation problems posed by nuclear electricity generation.
- Create an international fund in support of the International Renewable Energy Agency's plans to help developing countries to use alternate sustainable energy forms rather than nuclear energy.

XVI. Priorities

There is much that needs to be done to achieve a nuclear weapon-free world. It is possible to debate endlessly about which steps are most essential. What is most needed, and foundational to any list of serious actions, is the political will to achieve a world without nuclear weapons. That political will must be rooted in a strong multilateral commitment to go to zero nuclear weapons. Such political will would reflect new ways of thinking, away from the approach that seeks advantage for one country at the expense of risking catastrophe. Having said this, however, the requisite political will is best expressed not only in words but in actions. The five priorities which seem to me most urgent are:

1. Each signatory nuclear weapon state should provide an accurate public accounting of its nuclear arsenal, conduct a public environmental and human assessment of its potential use, and devise and make public a roadmap for going to zero nuclear weapons.
2. All signatory nuclear weapon states should reduce the role of nuclear weapons in their security policies by taking all nuclear forces off high-alert status, pledging No First Use of nuclear weapons against other nuclear weapon states and No Use against non-nuclear weapon states.
3. All enriched uranium and reprocessed plutonium – military and civilian – and their production facilities (including all uranium enrichment and plutonium separation technology) should be placed under strict and effective international safeguards.
4. All signatory states should review Article IV of the NPT, promoting the “inalienable right” to nuclear energy for peaceful purposes, in light of the nuclear proliferation problems posed by nuclear electricity generation.
5. All signatory states should comply with Article VI of the NPT, reinforced and clarified by the 1996 World Court Advisory Opinion, by commencing negotiations in good faith on a Nuclear Weapons Convention for the phased, verifiable, irreversible and transparent elimination of nuclear weapons, and complete these negotiations by the year 2015.

XVII. Conclusions

Many lists of needed actions to prevent nuclear proliferation and achieve nuclear disarmament have been created during the six and a half decades of the Nuclear Age. However, to achieve a world free of nuclear weapons, what is most needed is a change in mindset. We must recognize that, since Hiroshima and Nagasaki, the old ways of pursuing security no longer work – if they ever did. By threatening other countries with nuclear weapons, leaders create insecurity for their own people. We must therefore educate and empower a majority of citizens in the nuclear weapon states and their allies to shift their thinking across the nuclear spectrum to support nuclear weapons abolition. We must educate and empower the larger public, awakening them to the threat of nuclear omnicide and to the fact that better, safer ways to achieve security are available. This will require new ways of thinking and vision, leadership and persistence.

There are encouraging signs that the required shift in mindset has begun among some influential leaders. In addition to former high-level U.S. and European policy makers, UN Secretary-General Ban Ki-moon has shown courageous leadership. President Obama has stepped up, acknowledging that the U.S., as the only country to have used nuclear weapons, has a moral responsibility to lead and to act. He needs support for his vision, facing powerfully entrenched vested interests, and encouragement to approach the task with a far greater sense of urgency, taking into account the continuing threat of omnicide.

It is not sufficient to assure that nuclear weapons do not proliferate. It is also necessary to assure that existing nuclear weapons be dismantled and destroyed within years rather than decades or centuries. Mayors for Peace, a fast growing global network with more than 3,500 members, has launched its 2020 Vision Campaign for the elimination of nuclear weapons. With nuclear weapon threats to their cities in mind, this campaign calls for the elimination of nuclear weapons by 2020, a reasonable and feasible goal.

Some states, such as Iran and North Korea, have been designated as “states of concern” as proliferators. To dissuade them, incentives must be offered. In addition, all current nuclear weapon states, which are “states of concern” as obstacles to nuclear disarmament, must commit to dismantling their nuclear arsenals. Article VI of the NPT requires that states engage in “good faith” negotiations for nuclear disarmament. The commencement of these negotiations is essential.

In a recent review of the literature on the potential for climate change caused by nuclear war, Steven Starr concluded: “Nuclear weapons cannot ultimately provide ‘national security’ when a single failure of nuclear deterrence can end human history. Unless deterrence works perfectly forever, nuclear arsenals will eventually be used in conflict. We must abolish these arsenals – before they abolish us.” His last sentence echoes the humble and recurrent plea of the survivors of Hiroshima and Nagasaki, who have fought to assure that their past does not become our common future.

In the past, key parties to the NPT have come to the Review Conferences, held every five years, seeking some advantage, seeking to limit change to incremental measures, or seeking to point the finger at other states. Such mindsets will doom the treaty to failure and may doom humankind to annihilation.

Seeking a nuclear advantage is a recipe for disaster. Seeking to uphold the current double standards of nuclear haves and have-nots is another. In the end, humanity will either create a world that is just for all, or we will face the prospect of perishing together in a nuclear conflagration. We have the choice, but without concerted action prospects for the latter outcome are too great.

Article IV of the NPT, designating “peaceful” nuclear power as an “inalienable right,” also requires reassessment. The attempt to spread nuclear power while also seeking to control nuclear proliferation creates conflicting goals that endanger the possibility of obtaining a world free of nuclear weapons.

For the sake of our children and all future generations, we must cease to view one another as enemies. Our greatest enemies today are our own technologies that could destroy us. We can, and must, courageously render them harmless. For ourselves, for each other, and for future generations, we must seek justice and human dignity for all. In such a world, security will not be maintained by mutual threat, but rather by mutual respect. Such a world is possible. Nuclear weapons continue to pose a common threat to us all. However, they also present us with the opportunity to put new ways of thinking into action and thus stop the drift toward omnicidal catastrophe.

It has always been those with vision, leadership and persistence in the pursuit of a more just and secure future for humanity who have changed the world. The world is looking to the leaders of member states of the NPT to exercise sound judgment and act for the benefit of all humanity. The stakes could not be higher. The time to act is now.

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Appendix A

Abolition 2000 Founding Statement April 1995

A secure and livable world for our children and grandchildren and all future generations requires that we achieve a world free of nuclear weapons and redress the environmental degradation and human suffering that is the legacy of fifty years of nuclear weapons testing and production.

Further, the inextricable link between the “peaceful” and warlike uses of nuclear technologies and the threat to future generations inherent in creation and use of long-lived radioactive materials must be recognized. We must move toward reliance on clean, safe, renewable forms of energy production that do not provide the materials for weapons of mass destruction and do not poison the environment for thousands of centuries. The true “inalienable” right is not to nuclear energy, but to life, liberty and security of person in a world free of nuclear weapons.

We recognize that a nuclear weapons free world must be achieved carefully and in a step by step manner. We are convinced of its technological feasibility. Lack of political will, especially on the part of the nuclear weapons states, is the only true barrier. As chemical and biological weapons are prohibited, so must nuclear weapons be prohibited.

We call upon all states particularly the nuclear weapons states, declared and de facto to take the following steps to achieve nuclear weapons abolition. We further urge the states parties to the NPT to demand binding commitments by the declared nuclear weapons states to implement these measures:

1. Initiate immediately and conclude* negotiations on a nuclear weapons abolition convention that requires the phased elimination of all nuclear weapons within a timebound framework, with provisions for effective verification and enforcement.**
2. Immediately make an unconditional pledge not to use or threaten to use nuclear weapons.
3. Rapidly complete a truly comprehensive test ban treaty with a zero threshold and with the stated purpose of precluding nuclear weapons development by all states.
4. Cease to produce and deploy new and additional nuclear weapons systems, and commence to withdraw and disable deployed nuclear weapons systems.
5. Prohibit the military and commercial production and reprocessing of all weapons-usable radioactive materials.
6. Subject all weapons-usable radioactive materials and nuclear facilities in all states to international accounting, monitoring, and safeguards, and establish a public international registry of all weapons-usable radioactive materials.
7. Prohibit nuclear weapons research, design, development, and testing through laboratory experiments including but not limited to non-nuclear hydrodynamic explosions and computer simulations, subject all nuclear weapons laboratories to international monitoring, and close all nuclear test sites.

8. Create additional nuclear weapons free zones such as those established by the treaties of Tlatelolco and Raratonga.
9. Recognize and declare the illegality of threat or use of nuclear weapons, publicly and before the World Court.
10. Establish an international energy agency to promote and support the development of sustainable and environmentally safe energy sources.
11. Create mechanisms to ensure the participation of citizens and NGOs in planning and monitoring the process of nuclear weapons abolition.

A world free of nuclear weapons is a shared aspiration of humanity. This goal cannot be achieved in a non-proliferation regime that authorizes the possession of nuclear weapons by a small group of states. Our common security requires the complete elimination of nuclear weapons. Our objective is definite and unconditional abolition of nuclear weapons.

* The 1995 Abolition 2000 Statement called for the conclusion of negotiations on a Nuclear Weapons Convention “by the year 2000.” Recognizing that the nuclear weapons states would likely fail in their obligations to conclude such negotiations, this phrase was removed at the end of the year 2000 after member organizations voted and agreed upon its removal.

** The convention should mandate irreversible disarmament measures, including but not limited to the following: withdraw and disable all deployed nuclear weapons systems; disable and dismantle warheads; place warheads and weapon-usable radioactive materials under international safeguards; destroy ballistic missiles and other delivery systems. The convention could also incorporate the measures listed above which should be implemented independently without delay. When fully implemented, the convention would replace the NPT.

Appendix B

Nuclear Age Peace Foundation Appeal to End the Nuclear Weapons Threat to Humanity (April 2000)

We cannot hide from the threat that nuclear weapons pose to humanity and all life. These are not ordinary weapons, but instruments of mass annihilation that could destroy civilization and end most life on Earth.

Nuclear weapons are morally and legally unjustifiable. They destroy indiscriminately - soldiers and civilians; men, women and children; the aged and the newly born; the healthy and the infirm.

The obligation to achieve nuclear disarmament “in all its aspects,” as unanimously affirmed by the International Court of Justice, is at the heart of the Non-Proliferation Treaty.

More than ten years have now passed since the end of the Cold War, and yet nuclear weapons continue to cloud humanity's future. The only way to assure that nuclear weapons will not be used again is to abolish them.

We, therefore, call upon the leaders of the nations of the world and, in particular, the leaders of the nuclear weapons states to act now for the benefit of all humanity by taking the following steps:

- *Ratify the Comprehensive Test Ban Treaty and reaffirm commitments to the 1972 Anti-Ballistic Missile Treaty.*
- *De-alert all nuclear weapons and de-couple all nuclear warheads from their delivery vehicles.*
- *Declare policies of No First Use of nuclear weapons against other nuclear weapons states and policies of No Use against non-nuclear weapons states.*
- *Commence good faith negotiations to achieve a Nuclear Weapons Convention requiring the phased elimination of all nuclear weapons, with provisions for effective verification and enforcement.*
- *Reallocate resources from the tens of billions of dollars currently being spent for maintaining nuclear arsenals to improving human health, education and welfare throughout the world.*

Appendix C

Thirteen Practical Steps for Nuclear Disarmament (From Final Document of 2000 NPT Review Conference)

The Conference agrees on the following practical steps for the systematic and progressive efforts to implement Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons and paragraphs 3 and 4(c) of the 1995 Decision on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament”:

1. The importance and urgency of signatures and ratifications, without delay and without conditions and in accordance with constitutional processes, to achieve the early entry into force of the [Comprehensive Nuclear-Test-Ban Treaty](#).
2. A [moratorium](#) on nuclear-weapon-test explosions or any other nuclear explosions pending entry into force of that Treaty.
3. The necessity of negotiations in the [Conference on Disarmament](#) on a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices in accordance with the statement of the Special Coordinator in 1995 and the mandate contained therein, taking into consideration both nuclear disarmament and nuclear non-proliferation objectives. The Conference on Disarmament is urged to agree on a programme of work which includes the immediate commencement of negotiations on such a treaty with a view to their conclusion within five years.
4. The necessity of establishing in the Conference on Disarmament an appropriate subsidiary body with a mandate to deal with nuclear disarmament. The Conference on Disarmament is urged to agree on a programme of work which includes the immediate establishment of such a body.
5. The principle of irreversibility to apply to nuclear disarmament, nuclear and other related arms control and reduction measures.
6. An unequivocal undertaking by the nuclear-weapon States to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States parties are committed under Article VI.
7. The early entry into force and full implementation of [START II](#) and the conclusion of [START III](#) as soon as possible while preserving and strengthening the ABM Treaty as a cornerstone of strategic stability and as a basis for further reductions of strategic offensive weapons, in accordance with its provisions.
8. The completion and implementation of the Trilateral Initiative between the [United States of America](#), [Russian Federation](#) and the [International Atomic Energy Agency](#).

9. Steps by all the nuclear-weapon States leading to nuclear disarmament in a way that promotes international stability, and based on the principle of undiminished security for all:

- Further efforts by the nuclear-weapon States to reduce their nuclear arsenals unilaterally
- Increased transparency by the nuclear-weapon States with regard to the nuclear weapons capabilities and the implementation of agreements pursuant to Article VI and as a voluntary confidence-building measure to support further progress on nuclear disarmament
- The further reduction of [non-strategic nuclear weapons](#), based on unilateral initiatives and as an integral part of the nuclear arms reduction and disarmament process
- Concrete agreed measures to further reduce the operational status of nuclear weapons systems
- A diminishing role for nuclear weapons in security policies to minimize the risk that these weapons ever be used and to facilitate the process of their total elimination
- The engagement as soon as appropriate of all the nuclear-weapon States in the process leading to the total elimination of their nuclear weapons

10. Arrangements by all nuclear-weapon States to place, as soon as practicable, fissile material designated by each of them as no longer required for military purposes under IAEA or other relevant international verification and arrangements for the disposition of such material for peaceful purposes, to ensure that such material remains permanently outside of military programmes.

11. Reaffirmation that the ultimate objective of the efforts of States in the disarmament process is [general and complete disarmament](#) under effective international control.

12. Regular reports, within the framework of the NPT strengthened review process, by all States parties on the implementation of Article VI and paragraph 4(c) of the 1995 Decision on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament,” and recalling the [Advisory Opinion of the International Court of Justice of 8 July 1996](#).

13. The further development of the verification capabilities that will be required to provide assurance of compliance with nuclear disarmament agreements for the achievement and maintenance of a nuclear-weapon-free world.

Appendix D

Scientists for a Nuclear Weapons-Free World International Network of Engineers and Scientists for Global Responsibility

Scientists and engineers bear a heavy burden of responsibility to society for the creation of nuclear weapons.

The immense destructive power of these weapons was demonstrated on the Japanese cities of Hiroshima and Nagasaki, and in over 2,000 atmospheric and underground nuclear tests on the lands of indigenous peoples.

Thermonuclear weapons are capable of destroying cities, countries and civilization. They could end intelligent life on Earth.

Humanity has been warned again and again of the perils of nuclear weapons and nuclear war.

We recall the Russell-Einstein Manifesto, issued on July 9, 1955. The Manifesto warned, “Here, then, is the problem which we present to you, stark and dreadful and inescapable: Shall we put an end to the human race; or shall mankind renounce war?”

Human fallibility and nuclear weapons are a dangerous and unacceptable mix. We rely upon human theories concerning nuclear weapons, such as the theory of nuclear deterrence, at our peril.

Since Nagasaki, humankind has been spared nuclear war far more by good fortune than by sound planning. This good fortune will not be possible to maintain indefinitely – particularly, as is foreseeable, if nuclear weapons continue to proliferate and fall into the hands of non-state extremist groups.

Nuclear weapons were created by humans, and it is our responsibility to eliminate them before they eliminate us and much of the life on our planet. The era of nuclear weapons must be brought to an end. A world without nuclear weapons is possible, realistic, necessary and urgent.

Therefore, we the undersigned scientists and engineers, call upon the leaders of the world, and particularly the leaders of the nine nuclear weapons states, to make a world free of nuclear weapons an urgent priority.

We further call on these leaders to immediately commence good faith negotiations, as required by the nuclear Non-Proliferation Treaty and the 1996 Advisory Opinion of the International Court of Justice, with the goal of achieving a Nuclear Weapons Convention for the phased, verifiable, irreversible and transparent elimination of nuclear weapons by the year 2020.

Finally, we call upon scientists and engineers throughout the world to cease all cooperation in the research, development, testing, production and manufacture of new nuclear weapons.

Appendix E

United Nations Security Council Resolution 1887 (Operational Paragraphs)

1. *Emphasizes* that a situation of non-compliance with non-proliferation obligations shall be brought to the attention of the Security Council, which will determine if that situation constitutes a threat to international peace and security, and *emphasizes* the Security Council's primary responsibility in addressing such threats;

2. *Calls upon* States Parties to the NPT to comply fully with all their obligations and fulfill their commitments under the Treaty;

3. *Notes* that enjoyment of the benefits of the NPT by a State Party can be assured only by its compliance with the obligations thereunder;

4. *Calls upon* all States that are not Parties to the NPT to accede to the Treaty as non-nuclear-weapon States so as to achieve its universality at an early date, and pending their accession to the Treaty, to adhere to its terms;

5. *Calls upon* the Parties to the NPT, pursuant to Article VI of the Treaty, to undertake to pursue negotiations in good faith on effective measures relating to nuclear arms reduction and disarmament, and on a Treaty on general and complete disarmament under strict and effective international control, and *calls on* all other States to join in this endeavour;

6. *Calls upon* all States Parties to the NPT to cooperate so that the 2010 NPT Review Conference can successfully strengthen the Treaty and set realistic and achievable goals in all the Treaty's three pillars: non-proliferation, the peaceful uses of nuclear energy, and disarmament;

7. *Calls upon* all States to refrain from conducting a nuclear test explosion and to sign and ratify the Comprehensive Nuclear-Test-Ban Treaty (CTBT), thereby bringing the treaty into force at an early date;

8. *Calls upon* the Conference on Disarmament to negotiate a Treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices as soon as possible, *welcomes* the Conference on Disarmament's adoption by consensus of its Program of Work in 2009, and *requests* all Member States to cooperate in guiding the Conference to an early commencement of substantive work;

9. *Recalls* the statements by each of the five nuclear-weapon States, noted by resolution 984 (1995), in which they give security assurances against the use of nuclear weapons to non-nuclear-weapon State Parties to the NPT, and *affirms* that such security assurances strengthen the nuclear non-proliferation regime;

10. *Expresses* particular concern at the current major challenges to the non-proliferation regime that the Security Council has acted upon, *demands* that the parties concerned comply fully with their obligations under the relevant Security Council resolutions, and *reaffirms* its call upon them to find an early negotiated solution to these issues;

11. *Encourages* efforts to ensure development of peaceful uses of nuclear energy by countries seeking to maintain or develop their capacities in this field in a framework that reduces proliferation risk and adheres to the highest international standards for safeguards, security, and safety;

12. *Underlines* that the NPT recognizes in Article IV the inalienable right of the Parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with Articles I and II, and *recalls* in this context Article III of the NPT and Article II of the IAEA Statute;

13. *Calls upon* States to adopt stricter national controls for the export of sensitive goods and technologies of the nuclear fuel cycle;

14. *Encourages* the work of the IAEA on multilateral approaches to the nuclear fuel cycle, including assurances of nuclear fuel supply and related measures, as effective means of addressing the expanding need for nuclear fuel and nuclear fuel services and minimizing the risk of proliferation, and *urges* the IAEA Board of Governors to agree upon measures to this end as soon as possible;

15. *Affirms* that effective IAEA safeguards are essential to prevent nuclear proliferation and to facilitate cooperation in the field of peaceful uses of nuclear energy, and in that regard:

- a. *Calls upon* all non-nuclear-weapon States party to the NPT that have yet to bring into force a comprehensive safeguards agreement or a modified small quantities protocol to do so immediately,
- b. *Calls upon* all States to sign, ratify and implement an additional protocol, which together with comprehensive safeguards agreements constitute essential elements of the IAEA safeguards system,
- c. *Stresses* the importance for all Member States to ensure that the IAEA continue to have all the necessary resources and authority to verify the declared use of nuclear materials and facilities and the absence of undeclared activities, and for the IAEA to report to the Council accordingly as appropriate;

16. *Encourages* States to provide the IAEA with the cooperation necessary for it to verify whether a state is in compliance with its safeguards obligations, and *affirms* the Security Council's resolve to support the IAEA's efforts to that end, consistent with its authorities under the Charter;

17. *Undertakes* to address without delay any State's notice of withdrawal from the NPT, including the events described in the statement provided by the State pursuant to Article X of the Treaty, while noting ongoing discussions in the course of the NPT review on identifying modalities under which NPT States Parties could collectively respond to notification of withdrawal, and *affirms* that a State remains responsible under international law for violations of the NPT committed prior to its withdrawal;

18. *Encourages* States to require as a condition of nuclear exports that the recipient State agree that, in the event that it should terminate, withdraw from, or be found by the IAEA Board of Governors to be in non-compliance with its IAEA safeguards agreement, the supplier state would have a right to require the return of nuclear material and equipment provided prior to such termination, non-compliance or withdrawal, as well as any special nuclear material produced through the use of such material or equipment;

19. *Encourages* States to consider whether a recipient State has signed and ratified an additional protocol based on the model additional protocol in making nuclear export decisions;

20. *Urges* States to require as a condition of nuclear exports that the recipient State agree that, in the event that it should terminate its IAEA safeguards agreement, safeguards shall continue with respect to any nuclear material and equipment provided prior to such termination, as well as any special nuclear material produced through the use of such material or equipment;

21. *Calls for* universal adherence to the Convention on Physical Protection of Nuclear Materials and its 2005 Amendment, and the Convention for the Suppression of Acts of Nuclear Terrorism;

22. *Welcomes* the March 2009 recommendations of the Security Council Committee established pursuant to resolution 1540 (2004) to make more effective use of existing funding mechanisms, including the consideration of the establishment of a voluntary fund, and *affirms* its commitment to promote full implementation of resolution 1540 (2004) by Member States by ensuring effective and sustainable support for the activities of the 1540 Committee;

23. *Reaffirms* the need for full implementation of resolution 1540 (2004) by Member States and, with an aim of preventing access to, or assistance and financing for, weapons of mass destruction, related materials and their means of delivery by non-State actors, as defined in the resolution, *calls upon* Member States to cooperate actively with the Committee established pursuant to that resolution and the IAEA, including rendering assistance, at their request, for their implementation of resolution 1540 (2004) provisions, and in this context *welcomes* the forthcoming comprehensive review of the status of implementation of resolution 1540 (2004) with a view to increasing its effectiveness, and *calls upon* all States to participate actively in this review;

24. *Calls upon* Member States to share best practices with a view to improved safety standards and nuclear security practices and raise standards of nuclear security to reduce the risk of nuclear terrorism, with the aim of securing all vulnerable nuclear material from such risks within four years;

25. *Calls upon* all States to manage responsibly and minimize to the greatest extent that is technically and economically feasible the use of highly enriched uranium for civilian purposes, including by working to convert research reactors and radioisotope production processes to the use of low enriched uranium fuels and targets;

26. *Calls upon* all States to improve their national capabilities to detect, deter, and disrupt illicit trafficking in nuclear materials throughout their territories, and *calls upon* those States in a position to do so to work to enhance international partnerships and capacity building in this regard;

27. *Urges* all States to take all appropriate national measures in accordance with their national authorities and legislation, and consistent with international law, to prevent proliferation financing and shipments, to strengthen export controls, to secure sensitive materials, and to control access to intangible transfers of technology;

28. *Declares* its resolve to monitor closely any situations involving the proliferation of nuclear weapons, their means of delivery or related material, including to or by non-State actors as they are defined in resolution 1540 (2004), and, as appropriate, to take such measures as may be necessary to ensure the maintenance of international peace and security;

29. *Decides* to remain seized of the matter.

AUTHOR

David Krieger is a founder of the Nuclear Age Peace Foundation and has served as its president since 1982. He has lectured throughout the world and written widely on issues of peace, international law and nuclear weapons abolition. Among his books are *The Challenge of Abolishing Nuclear Weapons* (New Brunswick, NJ: Transaction Publishers, 2009); *At the Nuclear Precipice: Catastrophe or Transformation?* with Richard Falk (New York: Palgrave Macmillan, 2008); and *Nuclear Weapons and the World Court* with Ved Nanda (New York: Transnational Publishers, 1998). He is also the author of a 2008 Nuclear Age Peace Foundation Briefing Booklet, "A Return to Sanity: United States Leadership for a Nuclear Weapons-Free World." Dr. Krieger is a founder of the Abolition 2000 Global Network, a member of the International Steering Committee and Executive Committee of the Middle Powers Initiative, chair of the Executive Committee of the International Network of Engineers and Scientists for Global Responsibility, and a Councilor on the World Future Council and Chair of its working group on Disarmament and Demilitarization. He has received many awards for his work.