

Christian Peacemaking: Eliminating the Nuclear Scandal VI

Let us have the courage to believe in the bright future and in a God who wills it for us-- not a perfect world, but a better one. The perfect world, we Christians believe, is beyond the horizon, in an endless eternity where God will be all in all. But a better world is here for human hands and hearts and minds to make."

U.S. Catholic Bishops, *The Challenge of Peace*, 1983 #337

Many years ago I was asked why I spent so much time in study, conferences, writing, and activism concerning nuclear weapons and peacemaking. My answer then as it is now was pretty simple; "because we are called to do so by virtue of our baptism and ordination." I would also add that any responsible adult must attend to this issue to protect the children and people of the world. However, as we are more than aware the great majority of human beings have little understanding of the issue, and to our disgrace, so few clerics in the Catholic Church. Sometimes one gets the impression that the struggle to secure a more just and peaceful world is not essential to ministry, when in fact it is essential to the service ministry of the Church as spelled out in the *Pastoral Constitution on the Church in the Modern World*, 1965, issued by the Second Vatican Council. In the words of King Chulalonghorn from the *King and I*, "It is a puzzlement!" This being said, what exactly are we confronting in the modern world concerning this issue?

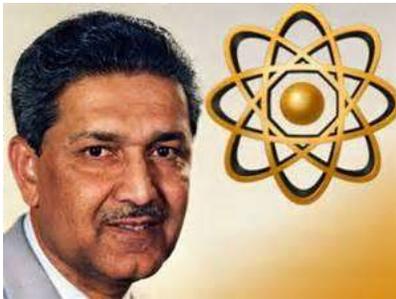


Firstly, the United States and Russia continue to keep thousands nuclear weapons on 15 minute alert despite the end of the Cold War over two decades ago. Such a condition is an unacceptable risk. Weapons on alert status have a higher probability of being launched under conditions of international crisis, miscalculation, or madness. One weapon detonated on one city would be an unimaginable catastrophe; many detonations could be globally terminal. While it must be admitted that the overall probability of an accident occurring, or intentional launch of these weapons, is low, the longer such risks remain the greater the probability (to a mathematical certainty) that something will go wrong and there will be a use of these weapons.¹ Secondly, as noted in previous articles, the proliferation of these weapons to nations in regions of prolonged dispute and conflict, such as, India and Pakistan, the Middle East, and Korea, and most likely Iran, creates the possibility that these weapons will be used in some future regional conflict. Recently, Pakistan announced that it was going ahead with the development and deployment of tactical nuclear weapons to offset the superior conventional forces of its rival, India—hence,

lowering the *nuclear threshold or firebreak* between nuclear and conventional war. Also, many fear that Pakistan's political instability could lead to stolen or *loose nukes*.



Other developments of concern include the spread of missile technology to as many as 40 nations. This further exacerbates the proliferation problem that was fueled by A.Q. Khan, a Pakistani nuclear engineer who was able to steal nuclear secrets and the necessary materials to help Pakistan become a nuclear power, and to make such technology available in the worldwide illegal nuclear trade. Combined with these developments is the possible spread of such technology to terrorists groups that would have no compunction about destroying a city of people.



A.Q. Khan

Some people point out that nuclear weapons are not the only weapons of mass destruction that we need to be concerned about. What about biological and chemical weapons? Yup, they are a real concern. Between the United States and the former Soviet Union in the 1960's both nations possessed the capacity to wipe out the population of the world many times over with biological weapons, which were later banned by the *Biological Weapons Treaty, 1972*. The United States destroyed its stockpiles but retained research capability. The Soviet Union continued to build these weapons and so did its successor state, Russia, well into the 1990's. As deadly as such weapons are, biological and chemical, they do not compare with nuclear weapons. The following statement summarizes this nicely:

The term, weapons of mass destruction, conflates very different threats from weapons that differ greatly in lethality, consequence of use, and the availability of measures that can protect against them. Chemical weapons are easy to manufacture, but they inflict relatively limited damage over small areas and dissipate fairly quickly. Biological weapon agents can be made in most medical laboratories, but it is very difficult to turn these weapons into effect weapons, and prompt inoculation and quarantine could limit the victims and the areas affected. Nuclear weapons are difficult to produce, but one weapon can destroy an entire city, killing

*hundreds of thousands instantly and leaving lingering radiation that would leave large areas uninhabitable for years.*²



Nuclear weapons are more than weapons; they are measures of national power and technological prowess. They are declarations that a nation is now a major power broker in the world and demand a voice in international decision-making. Nukes are also the most destructive of weapons combining blast, thermal, radiation and electro- magnetic pulse effects. Nuclear weapons not only have the capacity to destroy billions of people, they destroy the very edifices of civilization, creating a smoldering radioactive ruin of a planet. Also, these weapons threaten the viability of life on the planet; using only 4-5% of all warheads could set off a *nuclear winter* and destroy much of the protective atmosphere of earth—threatening the existence of all life. For the person of faith such an outcome is sin at its zenith. More importantly, to threaten such an action is sinful as well, holding the earth and the Creator in contempt.



While there are no easy answers to the overall problem, there are steps that can be taken to better ensure that these weapons not get loose because of miscalculation or accident. One such step favored by many former generals and political figures is to *de-alert* the many thousands of nuclear weapons the nuclear powers have on 15 minute alert status. Here are some steps to do so:

Why is it important to De-Alert Nuclear Weapons?

The elimination of first strike threats and of large-scale nuclear war by accident or miscalculation are the most urgent reasons for de-alerting. As Russia's nuclear infrastructure deteriorates, nuclear risks are rising. De-alerting would also represent progress toward nuclear disarmament and hence to the fulfillment of Article VI of the Nuclear Non-Proliferation Treaty (NPT), which requires nations to move toward disarmament. Such progress will be important to prevent the

NPT from becoming an "empty shell". It is also important in helping to convince other nations not to "go nuclear".

What are Some of the Ways to De-Alert Nuclear Weapons?

- + Store warheads separately from their delivery systems. This requires secure storage areas and containers. Complete de-alerting of all warheads by this method may therefore take some time.
- + Pin open the switches used to fire missile motors;
- + Remove the pneumatic mechanisms that open missile silo covers;
- + Remove the guidance systems of missiles;
- + Cover land-based missile silos with large mounds of dirt that would have to be removed before a missile could be fired;
- + Remove the tritium bottles from warheads. This does not completely de-alert a warhead, but dramatically reduces its explosive power, greatly diminishing the consequences should an accident occur. Reducing explosive yields also eliminates the potential of an effective first strike against missile silos. This would make the rest of the de-alerting process more secure.

What is the Difference Between De-Alerting and Nuclear Arms Reduction and Disarmament? What are the Connections Between Them?

De-alerting can be carried out in parallel with initiatives such as START II and START III and *New Start*. It means fewer weapons have to be verified and is therefore compatible with nuclear arms reduction. Unlike weapons that have been removed from an arsenal by an arms reduction or disarmament process, a de-alerted weapon can be re-introduced into an arsenal. Some methods of de-alerting, such as pinning open firing switches, are relatively easy to reverse. Others, such as storing warheads separate from their delivery systems at remote locations under multilateral monitoring, would be more difficult to reverse because there would be political as well as technical barriers. The more politically and technically difficult it is to reverse de-alerting and the more verifiable it is by multilateral monitoring, the more closely connected de-alerting will be to nuclear disarmament.

De-alerting Submarine-based Weapons

The force of U.S. submarines kept at sea is reduced from about a dozen ships to five or six, and these submarines patrol in parts of the ocean far from Russia. The number of missiles per submarine is reduced from 24 to 12.

Crucial SLBM electronic components such as guidance systems are removed, stored onboard, and electronically sealed. Reinstalling these components in one submarine requires about 18 to 36 hours.

For verification purposes on a rotating basis, individual submarines surface or release a radio buoy to send an encrypted signal (using codes provided by Russia) proving that the electronic component seals have not been broken. These transmissions also demonstrate that the submarines have not left their remote patrol areas.

After Russian forces have been verifiably de-alerted, the United States takes one or more steps to further lengthen nuclear launch time. For example, all the warheads could be removed from missiles and stored in empty launch tubes in the same submarine. The warheads could be reinstalled if necessary, but not without surfacing, and only in calm seas or a shelter harbor. This operation would be time-consuming and readily observable through National Technical Means.

De-alerting ICBM (Silo-based missiles)

- +Pin open the switches of missile motors so they cannot be started by remote electronic command.

- +Take launch keys away from missile officers so they can't act independently.

- +Shut off missile launch circuits.

- +Deploy submarines out of range of their targets.

- +Remove warheads from the delivery systems, storing them, and putting them under international monitoring.

- +Reduce the yields of all warheads by removing components known as tritium bottles and storing them separately.

Getting from Here to There: Specific De-alerting Steps

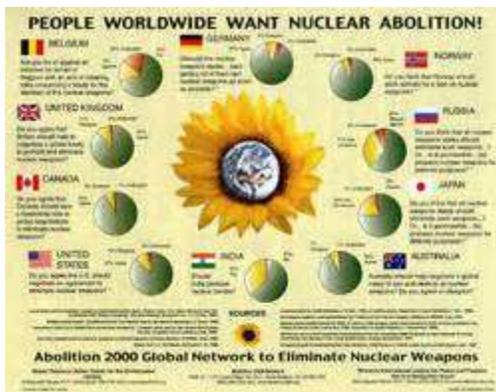
The United States realistically assesses its entire alerted, deployed arsenal. Even at 80% reduction from the current U.S. arsenal of more than 2,000 fully alerted warheads would maintain a wide margin of overkill. As it reduces its ready-to-launch arsenal, the United States calls upon Russia to make similar reductions.

The U.S. President initiates de-alerting by ordering that all U.S. ballistic missile submarines assume a low level of alert. The four U.S. submarines currently on 15-minute notice-to-fire adopt the same low-level alert stance as the other eight U.S. submarines routinely kept at sea. Submarines are deployed out of range of their targets, where they periodically surface for observation by satellites or aircraft. Vital components from their missiles are removed or stored onboard. The U.S. President invites Russia to reciprocate.

The smaller U.S. retaliatory arsenal is allocated entirely to submarines, and all land-based nuclear missiles are fully de-alerted by such measures as shutting off their launch circuits and detaching their warheads. Many of the warheads are stored in nearby empty silos where they are monitored.

The presidents of the United States and Russia eliminate *launch-on-warning* from the repertoire of options in their countries war plans and immediately order changes in command systems and emergency war order procedures, thus doing away with the need for weapons on hair-trigger alert.

Both presidents engage the other nuclear powers in establishing a full-scale de-alerting and verification regime and agree to put their entire arsenals under international observation on the condition that the other nuclear powers follow suit in a transparent manner.



1. *Securing nuclear materials to prevent catastrophic nuclear terrorism.* Materials necessary for building a nuclear bomb today are stored at hundreds of sites in 28 countries—down from over 40 countries just 10 years ago. But many of these sites aren't well secured, leaving the materials vulnerable to theft or sale on the black market. Important commitments were undertaken to secure nuclear materials and improve cooperation during the 2010 and 2012 Nuclear Security Summits. These could improve security for generations to come. Yet no global system is in place for tracking, accounting for, managing and securing all weapons-usable nuclear materials.

2. *Changes in the deployment patterns of the two largest nuclear powers to increase decision time for leaders.* In the 2008 campaign, then-Sen. Obama said: "Keeping nuclear weapons ready to launch on a moment's notice is a dangerous relic of the Cold War. Such policies increase the risk of catastrophic accidents or miscalculation. I will work with Russia to end such outdated Cold War policies in a mutual and verifiable way." The U.S. should work with nuclear-armed nations world-wide to remove all nuclear weapons from the prompt-launch status in which nuclear-armed ballistic missiles are deployed to be launched in minutes. To jump-start this initiative, the U.S. and Russia should agree to take a percentage of their nuclear warheads off prompt-launch status—remembering Ronald Reagan's admonition to "trust but verify."

3. Actions following New Start. The progress in the strategic field has been considerable.

Washington should carefully examine going below New Start levels of warheads and launchers, including the possibility of coordinated mutual actions. Such a course has the following prerequisites:

a) strict reciprocity; b) demonstrable verification; and c) providing adequate and stable funding for the long-term investments required to maintain high confidence in our nuclear arsenal.

Consolidating and reducing U.S. and Russian tactical nuclear weapons not covered under New Start should also be a high priority. It must be recognized that as some other nuclear-armed states are building up their inventories, or if new nuclear powers emerge, U.S. and Russian nuclear reductions face an inherent limit. The nuclear programs of North Korea and Iran undermine the Non-Proliferation Treaty and pose a direct threat to regional and global stability. Unless these two states are brought into compliance with their international obligations, their continued nuclear programs will erode support for nonproliferation and further nuclear reductions.

4. Without verification and transparency, nuclear-security agreements cannot be completed with confidence. The U.S. should launch a "verification initiative" that involves the U.S. nuclear weapons laboratories and global scientific experts in developing essential technologies and innovations for reducing and controlling nuclear weapons and materials. The principle of enhanced transparency could also be applied to missile defense so long as it doesn't risk capabilities. Taking the lead in fostering greater transparency sets an important base line for all nations and can facilitate future verification of nuclear materials and weapons.

This strategy focused on immediate steps would give leaders greater confidence to take measures to improve security in the near-term. It would boost prospects for support by legislatures. Close consultations with Congress are crucial.

We also need a new dialogue. In our January 2007 op-ed on these pages, we identified practical steps toward the goal of a world free of nuclear weapons. These steps will involve many nations, not just those currently in possession of nuclear weapons. Progress will require greater cooperation. The U.S. must work with other key states to establish a joint enterprise with common objectives to achieve near-term results. Russia and the U.S., with the largest nuclear stockpiles, have a special responsibility in this regard.

- ***A coalition of the willing.*** The Nuclear Security Summits could provide a model for leaders working together to create a joint enterprise that would generate a coalition of willing states to establish priorities and achieve progress on specific steps. Essential subjects should be identified in which many nations have a stake, and to which many must make a contribution. A timetable for meetings between heads of government would help build a diplomatic structure for engagement, within which foreign ministers, defense ministers and others can work together between the meetings of government leaders.
- ***Regional dialogues.*** Such a joint enterprise should include and be reinforced by regional dialogues. Top political, defense and military leaders should explore with their counterparts a range of practical steps on core security issues. The Euro-Atlantic region—an area that includes Europe, Russia and the U.S., four nuclear weapon states

and over 90% of global nuclear inventories—will need to play a central role. China and other key states will need to be engaged both on multilateral issues and within their own regions.

These steps would be a good start to moving to a more just and peaceful world. Please go to www.nti.org for easy ways to make you voice heard.



Notes

1 Scott Sagan, *The Limits of Safety* (New Jersey: Princeton University Press, 1993).

2 Joseph Cirincione, et al, *Deadly Arsenals: Nuclear, Biological and Chemical Threats*, Second Edition, (Washington, D.C.: Carnegie Endowment for International Peace, 2005), p.3; Also, Robert Jervis, *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon* (Cornell Studies in Security Affairs)

Deacon Bob Pallotti