

Reducing the role of nuclear weapons: A global and regional security imperative

There are two kinds of nuclear tipping point – the one that tips towards proliferation and terrorist access to nuclear capabilities and the one that tips towards nuclear disarmament and a world free of the dangers and threats that nuclear weapons might be detonated by accident or intention. Through the cold war and up to the present, nuclear weapons have been assigned high value and a variety of different roles by those that have, seek or aspire to them - for security, deterrence, power projection, regional or international status, or to wreak terror and mass destruction. To increase the likelihood of tipping towards nuclear abolition rather than nuclear use will depend on whether the roles and perceived value of nuclear weapons are fundamentally minimized and, to all intents and purposes, eliminated.

Since the end of the cold war, most of the major nuclear arsenals have been substantially reduced, taking global totals from over 50,000 during the cold war to around 20,000, with less than 6,000 fully deployed. The New-START treaty, signed by President Obama and President Medvedev on 8 April committed to further verifiable cuts in the deployed strategic arsenals of both countries. This treaty, and the commitment by these two largest nuclear powers to continue negotiations on aggregate numbers, including stored and non-strategic weapons, are very welcome and necessary. For such reductions to affect the decision-making of potential proliferators and the smaller nuclear-armed states, however, more must also be done to demonstrate that there is no legitimate or lawfully accepted role for nuclear weapons at all.

The purpose in calling for the nuclear role to be reduced is to draw attention to nuclear doctrines and encourage a re-thinking of the military and security utility of nuclear weapons. Two decades after the end of the Cold War, a high proportion of the nuclear forces of Britain, France, Russia and the United States remain operationally alert and able to be launched in less than 15 minutes. In 2000, States Parties to the NPT undertook that there would be a “diminishing role for nuclear weapons in security policies to minimize the risk that these weapons will ever be used and to facilitate the process of their total elimination” and pledged “Concrete agreed measures to further reduce the operational status of nuclear weapons systems”. These two commitments acknowledged and went beyond both the P-5 nuclear-weapon states’ joint statement to the 2000 Review Conference that their nuclear forces would be de-targeted, and the British government’s 1998 decision to put its Trident nuclear forces at “several days readiness” to fire, a position now also adopted by France.

Concerns about the need to de-alert nuclear strike forces to minimise, in particular, the risks of knee-jerk responses to unintentional or accidental attacks have been raised in the NPT regularly since the extension of the Treaty in 1995, and in the UN General Assembly since India sponsored a resolution on “reducing nuclear dangers” in 1998. In 2008 and 2009 a group of states led by Chile, Malaysia, New Zealand, Nigeria and Switzerland, submitted a more substantive resolution to the UN General Assembly on “decreasing the operational readiness of nuclear weapons systems”, which essentially deals with de-alerting. On the grounds that reducing alert levels in compliance with commitments undertaken in 2000 would reduce nuclear dangers, increase confidence and contribute to nuclear disarmament, the ‘De-alerting 5’ have submitted a working paper to the 2010 NPT Review Conference calling for further practical measures to take nuclear weapons off high alert and for the nuclear-weapon states to report regularly on the steps they are taking to lower the operational readiness and role of nuclear weapons.

De-alerting was traditionally conceived as reversible physical changes to a nuclear weapon system to increase the time between a warning, a decision to use and an actual launch. It can be thought of as an operational manifestation of policies to reduce the role of nuclear weapons, and would involve some form of separation of warheads from delivery means to prevent hair-trigger, prompt or launch on warning reactions and create a safety gap for assessing threats, dangers and alternatives to nuclear retaliation. Focussing on de-alerting also draws attention to a needless danger that is being courted by the possessors of nuclear arsenals. Devaluing these weapons and responding to the practical risks that stem from the manner in which many are primed for prompt use are important steps in building the conditions for nuclear disarmament.

Reducing the nuclear role in national postures

In his speeches as a candidate and as US President in Prague, Barack Obama seemed to understand the importance of reducing the role and value of nuclear weapons as well as reducing the numbers. But though the 2010 US Nuclear Posture Review (NPR) carries a chapter titled “Reducing the role of U.S. Nuclear Weapons”, the changed message is found more in the positive tone than in actual operational changes. The NPR refers to narrowing the role of nuclear weapons in deterring non-nuclear attack and declares that the “United States will not use or threaten to use nuclear weapons against non-nuclear weapons states that are party to the Nuclear Non-Proliferation Treaty (NPT) and in compliance with their nuclear non-proliferation obligations.” Though such expressions are a welcome improvement over the 1994 and 2001 Nuclear Posture Reviews of Presidents Bill Clinton and George W. Bush respectively, the devil is in the detail. While asserting that the “fundamental role” of US nuclear weapons is to “deter nuclear attack on the United States, our allies, and partners”, the Obama administration did not take the advice of Jan Lodal, Ivo Daalder and others that it should declare that the “sole purpose” of nuclear weapons is to deter nuclear attacks. Instead, the NPR notes that a “narrow range of contingencies” would remain with regard to deterring attacks with conventional, biological or chemical weapons. In this regard, the US would only consider using nuclear weapons “in extreme circumstances to defend the vital interests of the United States or its allies and partners”.

In 2009, the UK Foreign Office (FCO) issued a report titled “Lifting the Nuclear Shadow: Creating the Conditions for Abolishing Nuclear Weapons”, which recognised that there were “some powerful arguments for reducing the role of nuclear weapons solely to deterring the use of nuclear weapons by others”. The FCO argues that narrowing the role in this way would require that states feel secure in other than nuclear means to deter superior conventional weapons. The Obama administration’s revival of the Rumsfeld plan to put conventional warheads onto long range ballistic missiles hitherto associated only with nuclear strikes (a programme called “Prompt Global Strike”) is presented as reducing the role of US nuclear weapons because it would increase the role of strategic conventional weapons, but this dangerously misses the point. Such long-range ICBMs would be profoundly destabilising and if fired by the United States could provoke launch-on-warning nuclear retaliation, as there would be no way for an adversary to know which warheads were being carried. Such conventional-for-nuclear replacements would likely have a counterproductive effect on the nuclear policies of others, particularly Russia and China, making them more, not less, reliant on their nuclear forces.

China’s nuclear posture has from the beginning appeared to have a narrower role for nuclear weapons, and includes pledges of no use against non-nuclear-weapon states and no-first-use of nuclear weapons. China has been generally understood to keep its nuclear missiles on low alert, whether for political reasons (consistent with its declaratory policy) or technical reasons, for safety. India has also stated its commitment to no first use and is understood to keep nuclear warheads separate from the missiles. Pakistan retains the option of nuclear first use, on grounds that it faces India’s superior conventional forces, but is also believed to keep its warheads and missiles separate. Too little is known about Israel’s nuclear forces and doctrine to speculate.

Russia and the United States have a bilateral initiative to establish a Joint Centre for the Exchange of Data from Early Warning Systems and Notification of Missile Launches, which could play an important role in confidence-building and operational status reduction processes. Though Russia reversed an earlier Soviet position on no first use in the early 1990s, its new military doctrine, published in February 2010, appears neither to have reduced nor increased the role of nuclear weapons to any significant degree: “Russia reserves the right to use nuclear weapons in response to a use of nuclear or other weapons of mass destruction against it and/or its allies, and in a case of an aggression against Russia with conventional weapons that would put in danger the very existence of the state.”

Taking nuclear weapons off high alert and prompt launch

“Launch-on-warning” is a quick-response system that uses satellites to detect a missile launch, reconfirms the launch through long-range radars and provides assessments to political leaders including judgments as to the payload – nuclear, not conventional – of the incoming missile. The short flight time of such missiles allows minutes, not hours, for deciding whether immediate retaliation is warranted.

In 2009, members of the ‘De-alerting 5’, together with the EastWest Institute, held a high-level seminar with policymakers, technical experts, scholars and military professionals, particularly from Russia and the United States. This next part of the briefing draws on the

Preventing the further spread of nuclear weapons will require practical steps to be taken to reduce the role and launchability of nuclear weapons in military doctrines, operations and security policies



Trident Missile

Non-proliferation is unsustainable without significant progress towards reducing the value attached to nuclear weapons

published report of this seminar, titled “Reframing Nuclear De-alert”. This discusses four levels of alert: high alert meaning ready to fire within minutes; medium alert meaning ready to fire within hours; low alert meaning ready to fire on several days notice; and de-alerted, which means that nuclear weapons cannot be fired for a much longer period, even weeks. In noting that technical solutions exist and can be multilateralized, the report argues that the most effective approach would emphasize de-alerting as a strategic step to diminish the military role of nuclear weapons and not just a technical fix to a nuclear safety or security problem.

If decreasing the operational readiness of nuclear weapons is reframed in this way, the report suggests that a number of concrete steps become possible. These include: including de-alerting discussions in the context of the US-Russian process to follow-on from the New START Treaty; increasing the capabilities of warning systems with regard to false attack assessment and command and control; data exchange and launch notifications, including discussions with other nuclear-weapon states on multilateralizing the Joint Data Exchange Centre and other communications and confidence-building mechanisms; and undertaking broader dialogue on reducing the role and salience of nuclear weapons, in order to facilitate progress on nuclear disarmament and non-proliferation.

Practical examples and research suggest there are a number of different physical steps that would make it technically impossible to launch strategic weapons on short notice, including lockable barriers to close silos or missile tubes, pinning open safety switches, separation or removal of guidance or control modules from missiles, or separating with a barrier or physically removing nose cones from missiles. A less reversible approach, known as ‘de-activation’ might involve removing warheads from delivery vehicles and strategic bombers and confining them to storage, which could be made irreversible by sending them for complete dismantlement. While de-alerting and de-activation do not necessarily need to be verifiable, some approaches include measures that could be verified, such as seals on missile tubes and silos, participation of inspectors in military exercises of strategic forces, or even a permanent presence of liaison officers at strategic command posts.

Rationales for reducing the role of nuclear weapons

The debate about strengthening and sustaining the non-proliferation regime is now being reframed in terms of building peace and security in a world free of nuclear weapons—as in the 2007 and 2008 editorials by George Shultz, William Perry, Henry Kissinger and Sam Nunn, as well as in President Obama’s recent speeches. This is not because disarmament is an ethical objective (though some may regard it as a moral endeavour), but because non-proliferation is unsustainable without significant progress towards reducing the value attached to nuclear weapons. In other words, preventing the further spread of nuclear weapons will require practical steps to be taken to reduce the role and launchability of nuclear weapons in military doctrines, operations and security policies. This needs to be part of a process to reinforce the generally effective norm against the use of nuclear weapons pending their total elimination.

One of the most important findings of the EastWest Report was that “alert levels are a function of political will”, not an intrinsic technical or military requirement. Current alert levels have inherent risks and are inconsistent with efforts to fulfil the NPT’s nuclear disarmament commitment. They do not accord with the present relationship between the United States, Russia and China or any foreseeable threats faced by Britain or France.

De-alerting the physical weapons and narrowing the circumstances in which their use would be contemplated would undoubtedly be useful confidence-building steps, but as long as the nuclear deterrence mindsets persist, they are likely to be resisted with arguments harking back to questions of ‘survivability’, ‘re-alerting races’ and ‘crisis instability’. To reduce the roles assigned to nuclear weapons by future proliferators, potential terrorists, the smaller nuclear-weapon states and the non-NPT nuclear-armed states as well as by the United States and Russia will – sooner or later – require a new approach to the role and use of nuclear weapons altogether. As preparations begin towards negotiating a comprehensive nuclear weapons convention, it will be important to codify restrictions on the use of nuclear weapons in international law, through a new approach to universalizing security assurances and by stigmatizing nuclear weapons use as a war crime and crime against humanity.



Acronym Institute for Disarmament Diplomacy

What needs to be done?

The 2010 Review Conference should reaffirm commitments to diminish the role of nuclear weapons in security policies, and affirm that, pending their total elimination, the sole purpose for nuclear weapons is to deter the use of nuclear weapons.

The commitments to lower the operational status of nuclear forces and implement practical steps to take nuclear weapons off prompt launch, high alert and continuous deployment configurations should also be reaffirmed, with consideration of the practical steps put forward in the EastWest Institute's report and further seminars involving technical experts from all the nuclear-armed states as well as relevant non-nuclear countries.

In addition, as discussed in Acronym's briefings on tactical nuclear weapons and security assurances, the role of nuclear weapons would be reduced by policies to end deployments of nuclear weapons outside the territory of possessor states, phase out extended nuclear deterrence, strengthen a range of non-nuclear deterrence approaches and regional cooperative security mechanisms, and universalise positive and negative security assurances, extending the legally binding obligations on all nations and individuals not to use nuclear weapons, to come to the aid of people and countries threatened or attacked with nuclear weapons, and to hold perpetrators and their suppliers to account under international law.

Further reading

EastWest Institute, Swiss Confederation and Government of New Zealand, 'Reframing Nuclear De-Alert: Decreasing the operational readiness of U.S. and Russian arsenals', (New York: EastWest Institute, 2009)

<http://www.ewi.info/reframing-nuclear-de-alert-decreasing-operational-readiness-us-and-russian-nuclear-arsenals>

US Department of Defense, Nuclear posture Review Report, Washington D.C. April 2010

<http://www.defense.gov/npr/docs/2010%20Nuclear%20Posture%20Review%20Report.pdf>

Rebecca Johnson, Nicola Butler and Stephen Pullinger, *Worse than Irrelevant? British Nuclear Weapons in the 21st Century*, (London: Acronym Institute for Disarmament Diplomacy, October 2006)

http://www.acronym.org.uk/uk/Worse_than_Irrelevant.pdf

Bruce G. Blair, Harold A. Feiveson and Frank N. von Hippel, 'Taking Nuclear Weapons off Hair-Trigger Alert', *Scientific American* vol. 277 no. 5, November 1997

<http://www.cdi.org/aboutcdi/SciAmerBB.html>

This briefing is the copyright of the Acronym Institute for Disarmament Diplomacy. It is part of an Acronym Institute series originally produced for the 2010 NPT Review Conference. Drawing on the knowledge and experience of key thinkers, analysts and experts in the field of multilateral arms control and international security, we address some of the core issues relating to the NPT, non-proliferation and disarmament with the aim of enhancing the conference outcome and developing collective strategies to move towards security in a world free of nuclear weapons.

To reprint please contact info@acronym.org.uk