

DISCUSSION PAPER: NUCLEAR RISK REDUCTION

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I. Introduction

This paper focuses on identifying tangible actions, primarily for the Nuclear Weapon States (NWS) within the Treaty on the Non-proliferation of Nuclear Weapons (NPT), to reduce risk, build trust and confidence amongst them, and make concrete progress towards disarmament, all of which could be reportable by the five NWS at the 2020 NPT Review Conference (RevCon). Selection of some of these actions in support of immediate risk reduction should not be construed as diminishing the importance or relevance of the other actions in support of the broader objectives of the NPT, including disarmament steps.

While the NPT has successfully limited the number of nuclear-armed states to just nine (although the NPT formally recognises just five), the risk posed by the continued existence of nuclear weapons has remained tangible and is arguably once more increasing. The United States and Russia have declared their intent to re-expand the role of nuclear weapons in their security policy and pursue new nuclear capabilities for new nuclear missions. In addition, the DPRK, has recently become nuclear-weapons capable, joining the other three non-NPT nuclear-armed states India, Pakistan, and Israel, and has used some of the most alarming escalatory language from a nuclear-armed state since the Cuban missile crisis. It is clear that nuclear strategists in some nuclear-weapons-capable states (NWCS) are once more considering nuclear weapons as legitimate tools of wider statecraft.

Against this backdrop, there has been a steady increase in dissatisfaction amongst most Non-Nuclear Weapon States (NNWS) with what they see as continual evasion by the NPT NWS of their obligations under Article VI of the NPT, which requires the parties to pursue negotiations in good faith on measures toward disarmament. This concern fuelled the series of humanitarian conferences, which in turn galvanised the International Campaign to Abolish Nuclear Weapons (ICAN) movement to pursue and eventually achieve a level of agreement on the Treaty on the Prohibition of Nuclear Weapons (TPNW) in 2017 (although the TPNW has not yet entered into force). While the TPNW is a potent symbol of the frustration and dissatisfaction at the slow progress in the disarmament pillar of the NPT, it is

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effectively toothless as it is unable to mandate change upon the nine NWCS and therefore risks diverting focus and primacy from the NPT as the established vehicle for coordination of its three pillars, particularly progress on disarmament.

What is urgently needed is some tangible movement to improve nuclear strategic stability, to reverse the recent negative trends in nuclear policy, posture, and doctrine, and then to achieve and sustain positive momentum within the NPT. The 50th anniversary of the Treaty's entry into force at the next RevCon adds an urgency, but also provides an opportunity to identify concrete actions in support of the commitments agreed at the 2010 RevCon in the Action Plan. All the actions agreed remain important milestones to full achievement of the NPT's objectives, but early progress on some of the key actions would have an immediate positive effect on nuclear strategic stability, could reduce the increasing risk of breach of the nuclear taboo in place since 1945, as well as shore up continued support for the NPT itself among NNWS.

II. Defining risk reduction

This paper primarily addresses the reduction of risks of use of a nuclear weapon by an existing nuclear-armed state.

Given that there are four nuclear-armed states outside the NPT regime, solely dealing with nuclear risks in the NPT context – that is by the direct involvement only of the five recognised NWS – will never be an effective approach to achievement of a world without nuclear weapons in the long term and would not address the full scope of security concerns of the five NWS that are conditions of nuclear disarmament. Comprehensive risk reduction will only be achieved by a tapestry of actions which seek to involve all nine NWCS. This will require engagement between the five NWS and the four other NWCS, sanctioned by and in direct pursuit of NPT action steps. The recommendations in this paper are first directed at the NWS in the context of the NPT RevCon but are as applicable as voluntary options to the other four.

In this context, **risk reduction can be defined as any action, statement, or agreement, whether unilateral, bilateral, multilateral or omnilateral, which reduces the risk of use of a nuclear weapon.** Risk reduction addresses the immediate and increasing danger of nuclear weapons and, as these measures are channelled through already agreed actions from the 2010 RevCon, will continue to contribute to the achievement of NPT objectives and increase the chance of a successful RevCon in 2020.

There are three main themes of necessary risk reduction:

- Policies and Declaratory Statements: Reversing the increasing salience of nuclear weapons in a nation's security policy;
- Assurances: Improving transparency of nuclear policies, postures, and doctrines;

- Capabilities: Addressing capabilities in support of the first two areas, including reducing the number and breadth of non-strategic nuclear weapons (NSNW).

III. Exploring possible options

The following seven risk reduction options would follow the three main themes introduced above. For each measure, there is a brief discussion and recommendations couched predominantly in the form of challenges to the NWS. In some cases, similar challenges would be appropriate for NATO as a nuclear alliance.

A. Policies and declaratory statements

Option 1: Code of Nuclear Responsible Ownership

A recent paper written for the Council on Strategic Risks explored “Improving Nuclear Strategic Stability Through a Responsibility-Based Approach.”¹ The paper proposed the following working definition of Nuclear Strategic Stability, which is equally relevant for this risk reduction work:

Nuclear Strategic Stability (NSS) is a metric of international relations and is high where the risk of any conflict being initiated using nuclear weapons or escalated to the nuclear level is as low as is achievable. Every posture, capability or declaratory change should be assessed against this metric; nuclear weapons capable states (NWCS) should always strive to improve NSS.

In the paper, a 10-point code of responsible nuclear weapon ownership was proposed based on six fundamental elements of nuclear strategic stability, which, if adopted by NWS, would constitute progress on six of the most immediate and valuable steps from the 2010 Action Plan (Actions 1, 2, 4, 5, 7 and 8).

Adoption of a Code of Responsible Nuclear Weapon Ownership (the “Code”), similar to the one proposed in the CSR paper and reprinted below, would be a strong indication by the NWS of their commitment to risk reduction on the path toward eventual disarmament.

Note that elements could also be extracted as individual risk reduction actions that any NWCS could take unilaterally, bilaterally, or multilaterally.

¹ Improving Nuclear Strategic Stability Through a Responsibility-Based Approach: A Platform For 21st Century Arms Control, Council on Strategic Risks, J Gower, 7 Jan 2019

Code of Responsible Nuclear Weapon Ownership	
Restraint	
1.	NWCS will always, and in all circumstances, exercise maximum restraint in rhetoric, posture, activity and readiness, in steady state and especially in crisis.
2.	NWCS will ensure that sufficient unambiguous communication pathways exist at the level of the National Control Authority for crisis communications between NWCS.
Relevance	
3.	NWCS will not employ nuclear weapons as levers of statecraft, except as strategic deterrents to other NWCS.
Reassurance	
4.	NWCS posture will reassure non-NWCS of the veracity of their declaratory policy, particularly regarding political control of systems and release procedures.
5.	NWCS will adjust NSAs, posture, and ORBAT to maximise reassurance to non-NWCS.
Readiness	
6.	NWCS undertake to move strategic weapons systems to the lowest readiness matching their declaratory policy, which in turn matches reassurance and restraint.
Reciprocity	
7.	NWCS will look for areas of mutual reciprocity in posture, policy, and doctrine that bolster strategic stability and reduce salience of nuclear weapons in their security and defence metrics.
8.	NWCS will seek an agreement isolating strategic sensor and C3 systems from attacks which could lead to misinterpretation and escalation into the nuclear domain.
Reduction	
9.	NWCS will sketch out likely reduction paths and progress them when multilateral and omnilateral opportunities allow.
10.	NWCS will seek further opportunities-unilateral, multilateral, and omnilateral-to reduce complexity and variety of nuclear arsenals towards the most stable-single capability system, politically controlled, strategic and most invulnerable.

Option 2: Discussions at 5 plus 4

As earlier identified, finding a means to undertake meaningful government-government discussions between all the nine NWCS without falling foul of the non-proliferation restrictions of the NPT would create a forum for increased transparency and trust. This is

not a simple task, as it is necessary not to reward proliferation, but the 2018 decision of the U.S. President to talk directly with his DPRK counterpart on nuclear issues weakened logical opposition to this. In addition, engagement among the nine nuclear-armed states would allow further meaningful dialogue between NNWS and any of or all the NWCS.

States Party to the NPT should seek a meaningful way forward on this during the next RevCon. A meaningful outcome would be an approach from the RevCon to the four NWCS outside the NPT on this issue.

Option 3: Discussions between NWS and NNWS on Universalising the Reagan-Gorbachev Doctrine

In his State of the Union in 1984, President Reagan opined, “*A nuclear war cannot be won and must never be fought. The only value in our two nations possessing nuclear weapons is to make sure they will never be used. But then would it not be better to do away with them entirely?*”²

For some or all the NWS to include such a statement in their national declaratory policies would be a significant step and bring pressure on them to consider early retirement of weapons which have a warfighting capability (see below). Such a doctrine would not invalidate strategic deterrence at a stroke. Making such a statement is likely to be more challenging for NWS who maintain or aspire to a broad spectrum of types of nuclear weapons.

NWS should embrace this doctrine, ideally by making a statement at the RevCon, and to include further and meaningful discussions on collaborative mitigation of the effects of any use.

Option 4: Dialogue in International Fora on Role of Nuclear Weapons; Weapons of Last Resort

While almost all NWS include language in their declaratory policies about the extreme circumstances surrounding their use of nuclear weapons, other indicators (capabilities, readiness, and rhetoric) by some NWS lead an observer swiftly to doubt the veracity of the declaration.

In order to strengthen these assurances NWS should be persuaded to adhere to a global norm whereby they promise explicitly never to threaten nuclear use against states without nuclear weapons.

NWS already issue some form of negative security assurances (NSAs) or have a policy of no first use, but these are weakened considerably by the exceptions that accompany them.

Taking the UK as an example, it uses two factors releasing itself from such a blanket

² President Reagan State of the Union address to a joint session of the 98th United States Congress on January 25, 1984

assurance. Firstly, states that are judged to be in breach of their NPT obligations (but who do not deploy nuclear weapons) are denied the guarantees. This exception signals that nuclear weapons are a legitimate form of statecraft and geopolitical pressure. This is not only dangerous (it can incentivise a state to acquire nuclear weapons) but could harm the legitimacy of the global order. In addition, this automatically excludes a state not a signatory of the NPT, whether it has nuclear weapons or not.

Secondly, the UK (in common with the United States and France) retains the right to deny this assurance to a future NNWS which acquires a significant chemical weapons (CW) or biological weapon (BW) capability. There has been a long-standing belief by the NWS that this implied deterrent effect of nuclear weapons deters acquisition of these capabilities, and even in extremis, their use. In the 21st century, however, the only significant use of CW was neither deterred by a potential nuclear response, nor “punished” by an actual nuclear response. NWS should re-examine the cost (in nuclear nonproliferation terms) of such exceptions versus the clearly limited benefit (in suppression of other weapons of mass destruction).

These simplifications will be challenging for most NWS who have always considered their nuclear weapons to have broader deterrence effect than simply against other nuclear weapons (i.e., those not having a sole purpose doctrine). Maintaining these caveats, however, weakens their declarations of “last resort.”

A simplification of the NSA by caveat removal would go a long way to show a willingness to make progress towards NPT Article VI goals, and would come close to an effective “sole use” declaration.

NWS should work to make universal a declared policy that nuclear weapons are weapons exclusively of last resort, through an open dialogue in international fora about what that might mean, and thus establish and underpin a norm against warfighting with nuclear weapons.

Option 5: Consider Possible Value of Reducing Ambiguity in Declaratory Policy

Ambiguity has been deemed an essential component of nuclear deterrence for NWS without a no first use policy since policies and doctrine were first formulated. Ambiguity both in scale and location of capability and in when and how a NWS would use its nuclear weapons has been considered to contribute to initial stability by complicating any calculus by a potential first-user. This has been perceived as necessary for several reasons, including:

- freedom of action in unforeseen circumstances;
- comfort to adversaries to operate below the ‘red line,’ or even to test resolve by calling bluff; and
- irreversibility when options are taken off the table.

On the other hand, too much ambiguity can weaken deterrence effects because it can:

- confuse the signalling at the heart of deterrence;
- weaken the assurance of allies and of NNWS; and
- weaken the declaratory policy itself if it is interpreted as resistance to restraint.

It should be clear, therefore, that ambiguity has its limitations, that there is no static, perfect 'sweet spot,' and that it requires regular reassessment. Thus, there are some areas where self-imposed restrictions could increase confidence and add to stability, if declared by a more progressive NWS. Other NWS may follow suit when they see the positive effects which come with no significant impact on the security benefits of strategic deterrence.

NWS should consider whether it is necessary and/or useful to retain ambiguity across their declaratory policies.

B. Assurances

NWS, and the most progressive amongst them, should consider further unilateral self-imposed measures of restraint to improve the confidence of NNWS and each other.

Option 6: National Nuclear Decision Protocols - Increased Transparency and Restraint

According to the declared policies of the NWS that make these public, the decision to use nuclear weapons rests solely with the political head of the State (Presidents and Prime Ministers). Each country has protocols in place to both verify the legitimacy of any order to launch nuclear weapons and to guard against any attempt to decapitate the decision capacity. On the plus side, this concentration of the decision at the highest political level is a bulwark against militarisation of the decision process in crisis.

It raises a concern, however, that the character or judgment of an individual might be the decisive factor in a decision to use a nuclear weapon, particularly in NWS where the political head has direct authority over the military.

Taking the United Kingdom as an example, once more, a public declaration that, while the ultimate decision rests with the Prime Minister, he or she would not consider that decision unless a triumvirate of (for example) the Prime Minister, the Foreign Secretary, and the Defence Secretary had agreed that the situation was one in which such a decision was necessary would bolster restraint, by maintaining the positive and diminishing the negative of one-person political decision-making³. While additional protocols would be needed to prevent a simpler "decapitation" pre-emption, this policy would add considerable extra

³ The Lieu-Markey proposal in 2016³, to make a U.S. first-use decision contingent upon Congressional approval, is another example of such a unilateral measure of restraint, should it ever be adopted. <https://lieu.house.gov/media-center/press-releases/congressman-lieu-senator-markey-introduce-restricting-first-use-nuclear>

restraint on the UK in a developing crisis and add reassurance to other states.

NWS should be challenged to declare their current decision protocols and institute nuclear decision protocols which emphasise and improve restraint.

C. Capabilities

Option 7: Work to Reduce and Eliminate Destabilising Capabilities

The most effective risk reduction measures would be to curtail development of, and declare plans to remove from service, those classes of nuclear weapon that are most destabilizing.

With a growing number of nuclear armed countries with widely differing world views and actions, a level of nuclear deterrence at the strategic level remains currently necessary. History since 1945 strongly indicates that nuclear deterrence, alongside of all the risks inherent in the existence of nuclear weapons has exerted a continued suppressive force upon major inter-state conflict. In addition, since 1962, the existence of nuclear weapons has proven to be a distinct down ratchet on inter-nuclear weapons state crises.

These factors are likely to remain at least partially beneficial until new security paradigms are realised, but that does not mean that all nuclear weapons contribute to these residual stability positives.

Nuclear weapons currently contribute to the relationship between states at the strategic level and should not be a pawn in minor disputes or rhetoric. Unfortunately, the use of nuclear weapons in this way is on the rise. Nuclear arsenals exist to deter nuclear weapon use, which at any scale would be a game-changing strategic event. Only strategic weapons are ESSENTIAL to such deterrence.

Non-Strategic Nuclear Weapons (NSNW) do not contribute to stability:

- They open paths for nuclear weapon use at lower thresholds;
- They invite doctrine and mindsets which allow, or even plan for, feasible use of nuclear weapons as extensions of conventional conflict;
- The weapons are often forward deployed, in vulnerable systems, often with intent to delegate release authority in crisis or conflict;
- The need to have equivalence in capability, range and payload in order to deter is a myth. You need equivalence to fight a nuclear war, not to deter.

NSNW are thus inherently less stabilising than strategic nuclear weapons. Dual-capable systems, like nuclear-armed cruise missiles, bring particular risks to stability. Full adoption of a Code of Responsible Nuclear Weapon Ownership and the earlier risk reduction measures in this paper would make the changes of national mindset necessary to implement these

capability reductions either alone or multilaterally.

This is undoubtedly the most challenging for all NWS except the UK, which - alone among the NWS - has reduced to a single strategic system operating at a minimum level.

NWS should be challenged to implement the recommendations of William Perry and others to take concrete steps to reduce or remove these weapon types from current and future arsenals.

IV. Exploring Recommendations before, during and beyond the 2020 RevCon

This paper has made seven recommendations, including the concept and model of a Code of Responsible Nuclear Weapon Ownership. There is a clear need to move beyond the current reversal of progress made to 2010 in all these areas. The 2020 RevCon provides an important opportunity to address these recommendations, although each of the recommendations brings challenges to the NWS, and to each NWS in different degrees, as well as the NNWS. It may not be conducive to success at the RevCon to demand discussion and action of every one of them.