Ending Nuclear Threat via a Northeast Asia Nuclear Weapons-Free Zone

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Peter Hayes

Nautilus Institute

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I. Summary

This background paper sketches how nuclear threat is woven into inter-state relations in the Northeast Asian region, and the case for reducing and ending such threats against non-nuclear weapons states (hereafter NNWSs). It then outlines how a regional nuclear weapons-free zone could bring about an end to such nuclear threats, and describes how the DPRK's active participation might be an integral part of such a zone from the outset. The paper also addresses the central issue of nuclear extended deterrence in the region, and suggests that it is possible to square the circle—that is, to end nuclear threats by nuclear weapons states (hereafter NWSs) in the region against NNWSs by creating a NWFZ—but maintaining strategic deterrence between the NWS should one of them threaten to use or attack a NNWS party to the zone, or should a NNWS party to the treaty break out and proliferate nuclear weapons. Finally, the paper argues that it is the interests of all states in the region to create a NWFZ because all of them are subject to nuclear threat today; and, it is the only way whereby they can create a stabilizing framework within which to manage, reduce, and eventually abolish nuclear threat in Northeast Asia, including those aimed at and coming from the DPRK.

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II. Special Report by Peter Hayes

1. Nuclear Threats

Nuclear weapons enable states to project threats, the scale and type of effects of which are qualitatively and quantitatively greater than other weapons, by orders of magnitude. Some qualitative aspects—their speed of delivery, their ability to instantly annihilate whole cities, their radiological effects, etc., are unique to nuclear weapons. It is primarily the scale and speed of nuclear weapons that ensures that states recognize the risks run if nuclear weapons are involved in a conflict—although the interpretation of the nature of this involvement may differ greatly in a specific case. In short, nuclear weapons command decision-makers' attention; and give them pause when the risk of nuclear war is present in a conflict relationship. Nuclear threat is one of the most extreme forms of hostility present in the region. A non-hostility agreement that is not accompanied by measures to reduce nuclear threat would lack credibility.[1]

2. Impact of Nuclear Threats

States use nuclear weapons to project threats to affect the calculations of adversaries, third parties, and allies. They use nuclear threat for "deterrence" (a statement or action designed to force another state to refrain from its intended action); for compellence (a statement or action designed to force a state to stop doing what it is doing already); and for reassurance (a statement or action designed to persuade an ally or neutral party that deterrence or compellence is functioning or to persuade an adversary that it will not be attacked if it complies with a deterrent or compellent threat); and is the basis of what is called "nuclear arms control" in the West).

Deterrence, compellence, and reassurance are credible depending on the resolve and capability of the state projecting nuclear threat, and the ability of the threatened state to respond in kind or asymmetrically, to offset these threats. All three types of effects are almost always present in a nuclear threat made by one party to another; sometimes all three effects may be in play at the same time, either in the intention of the state projecting nuclear threat, or in the perception of the state

that is the target of the threat, or in the perceptions of third parties. It is rare for the intentions and perceptions of these two or more affected states to be the same. Therein lies much of the risk of misperception, misunderstanding, and inadvertent escalation to nuclear war.

This risk arising from miscalculation is compounded by the accidental risks of nuclear war because of technical or computer malfunctions, misinterpreted signals of an impending attack, problems in communication systems, problems in fail-safe and control systems, and cybernetic organizational feedbacks that could lead to loss-of-control of conventional and nuclear forces.[2]

3. Nuclear Threat in Northeast Asia

All states in the Northeast Asia region fall under the shadow of the threat of nuclear war. Sometimes, this threat is intended, manipulated, and calibrated, by a variety of signals—nuclear testing, delivery system testing, visible transiting deployments, forward deployment in host countries, declaratory doctrines, operational doctrines, political statements, propaganda statements, sharing via deliberate open line communications, or even what is not done or said at a particularly tense moment. Nuclear threat is one of the bases of interstate relations between the long-standing NWSs in this region, the United States, China, and Russia, forming a triangle of strategic nuclear deterrence, compellence, and reassurance that operates continuously and generally; and sometimes becomes part of an immediate confrontation. Accordingly, these types of threat are termed *general* and *immediate* in western literature.[3] Thus, general and strategic nuclear deterrence may be said to operate to ensure that NWSs avoid actions that might suggest that they could involve nuclear weapons and intentions to use them—thereby creating a cautionary behavior that operates all the time.

4. Immediate Nuclear Deterrence

Conversely, immediate nuclear deterrence only arises in specific crisis, when intentions are perceived to be in play. Historical examples include the 1958 Quemoy-Matsu crisis and the August 1976 crisis in Korea. Of course, if there is no intention in the targeted party, there can be no deterrence achieved by a nuclear threat (or if there is no existing action, there can be no compellence of that party, no matter what the threatening party thinks). But because perceptions matter so much in this world of imagined nuclear war, often intentions are attributed to be present all the time in the shorthand conversations that occur about nuclear threat. This habit leads to stereotyping and mistaken interpretations by policy advisors, and even disastrous decisions by leaders that risk starting an actual nuclear war in action-reaction mobilization or arms racing.

5. US Nuclear Threats to the DPRK

The DPRK has been the target of general and immediate nuclear threats since the Korean War. Some of these US nuclear threats were aimed at Russia or China as part of the bilateral, and then trilateral nuclear war. Some were aimed more directly at Pyongyang, as in the August 1976 crisis during Operation “Paul Bunyan.” For most of this early period, however, American nuclear threats were not specific to the DPRK, but included it as part of planning and preparing for an all-out war between the United States and China and/or Russia (depending on the period). US nuclear threat became specific to the DPRK only in the 1970s, at which time the United States and its allies, especially the ROK, feared that the DPRK might launch a conventional attack that could only be deterred by the threat of nuclear war, or stopped by use of nuclear weapons if deterrence failed. From 1975 onwards through the early 1990s, US nuclear threats were aimed at the DPRK specifically for deterrence and compellence purposes, both immediate and general at various times. Over the same period, US nuclear threats aimed at the DPRK were also intended to reassure US allies that Soviet, Chinese nuclear attacks or North Korean conventional attack would face possible US nuclear retaliation; and to compel (in the case of the ROK) and to deter (the modern term is

dissuade) Japan from not proliferating their own nuclear weapons. This was particularly important in the case of the ROK that observed the DPRK starting to acquire a nuclear fuel cycle that was suitable for production of plutonium and implicitly threatened future DPRK nuclear armament (as of 1986, when the Yongbyon reactor was observed to be under construction).

6. Withdrawal of US Tactical and Theater Nuclear Weapons

In the early 1990s, the circumstances shifted dramatically due to the collapse of the former Soviet Union. The United States unilaterally withdrew all forward-deployed non-strategic nuclear weapons from the ROK (about 200, mostly gravity bombs, all of which were removed by February 1992), as well as declaring that no tactical or theater nuclear weapons were deployed on US surface warships.[4] In this move, announced on September 28, 1991, President George Bush transformed the strategic landscape overnight.[5]

7. Reduced Reliance on Nuclear Threat in Korea

This change transformed American nuclear deterrence in Korea from immediate (due to proximity of weapons to battleground) to general in nature; and made the notion of extended nuclear deterrence far less salient to overall US extended deterrence. Henceforth, American war-plans and deployments in Korea relied almost exclusively on conventional forces, not nuclear weapons which were effectively recessed (whereas in Europe, tactical nuclear weapons remain forward-deployed and NATO has never stopped relying upon them in relation to Russian conventional forces).[6] The United States reserved the right to redeploy nuclear weapons in a contingency,[7] but thereafter, nuclear targeting, war-planning, and delivery of nuclear weapons was conducted from the United States, not from Korea. Given the increase in the lethality and precision of conventional weapons in the nineteen nineties and 21st century, the notion of fighting wars with crude nuclear weapons was viewed by the US military as well as its political leadership as improbable, likely disproportionate, and increasingly surreal. Indeed, delivery of nuclear weapons against North Korea would be slow via long range bombers as it would be difficult for many reasons to use long range sea or land based missiles to attack the DPRK.

In many respects, American nuclear weapons were now reserved for countering only existential threats, that is, when the United States or its ally faced a threat to its national existence, in particular, from a nuclear attack. Many American experts believe that it is likely that even that contingency would be responded to with a countervailing conventional campaign.[8] After the 1991 withdrawal, however, the United States and its allies deliberately left ambiguous how they would respond to nuclear aggression and attempted to extract marginal deterrence and compellence from nuclear threats from home-based nuclear weapons above that already obtained from advanced conventional forces. Thus, the “nuclear umbrella” was maintained in principle, but in reality, began to recede in the nineteen nineties.

8. US-DPRK Nuclear Compellence

Both the United States and the DPRK used actual or implicit nuclear threat throughout the nineties to attempt to compel the other to change its policies and actions in specific ways.[9] Not surprisingly, this mutual threat exchange was not conductive to engagement and cooperation, and helped to poison the well of improved US-DPRK relations. Both parties failed to realize their objectives with respect to each other.

9. DPRK Nuclear Armament

Since 2000, hostility has dominated the US-DPRK relationship, and the increasing acrimony has seen

increased reliance on nuclear threat by all parties to the Korean conflict, albeit in different ways. For its part, the DPRK shifted its phrasing and increasingly referred directly to nuclear weapons as against more ambiguous terms such as “massive deterrent.” Then, it tested nuclear weapons in 2006, 2009, and 2013. It also tested long range space launch rockets that have dual use technological application to long range nuclear warhead delivery missiles, succeeding finally in putting a small satellite into circumpolar orbit in 2012. In 2012, the DPRK articulated its own nuclear doctrine, stating it did not care if it was viewed as a “nuclear weapons state” as recognized under the Nuclear Non Proliferation Treaty, from which it had departed, only that it had nuclear weapons for its own purposes. In 2013, the DPRK threatened to use nuclear weapons to attack cities in the ROK and the United States, and suggested that it might do so pre-emptively.

10. American Recalibration of Nuclear Threat

For its part, the United States adjusted its declaratory posture as stated in the *Nuclear Posture Review* (2010). In this text, nuclear weapons are reserved for deterring only nuclear attack on the United States or its allies. Specifically to accommodate the DPRK, the 2010 Review also changed the longstanding US policy that states that the United States will not attack a NNWS in good standing with its NPT and IAEA safeguards obligations unless it was in an alliance relationship with a NWS and engaged in aggression. This latter phrase previously had rendered moot US negative security assurances to the DPRK given that it was in an alliance relationship with China. By the time this change was made, the DPRK had committed unambiguously to nuclear armament.[10]

In 2010, after the clashes between DPRK and ROK military forces, the United States increased its symbolic commitment to using nuclear threat to deter the DPRK, forming an Extended Deterrence Committee with the ROK. In 2013, it also deployed nuclear-capable bombers to the ROK to reinforce this commitment, presumably with an intention of “tailoring” its threats to what the United States perceived to be a stream of nuclear threats issued from the DPRK. Much of US Forces Korea effort on the Extended Deterrence Committee was devoted to ensuring that ROK revision of its rules of engagement did not lead to rapid escalation, and to increasing South Korean understanding that the US was not planning to fight a war in Korea with nuclear weapons. However, these US and US-ROK nuclear threat interrupted the gradual trend towards eventual nuclear recession by the United States begun in 1991.

This state of mutual nuclear threat subsided by April 2013, but rhetorical reference is made constantly to nuclear war and nuclear attack by DPRK agencies. For its part, the United States continues to conduct exercises with nuclear elements, either tabletop, or involving real nuclear delivery systems (not nuclear weapons, these remain rear-deployed except for mid-Pacific deployed ballistic missile submarines that run silent, deep, and are not used actively as part of the signaling for nuclear threat against the DPRK or to reassure the ROK).

In military terms, it remains quite implausible that either the United States or the DPRK would escalate to use of nuclear weapons. As noted above, it is quite difficult given over-flight and lack of early warning systems in Russia and China for the United States to fire land or sea-based long-range nuclear missiles at North Korea, and using strategic bombers would be slow relative to a fast-moving battlefield should war break out in Korea. The DPRK would likely find it very risky to fire unreliable missiles and warheads to deliver nuclear weapons outside of its borders; sea or land delivery would risk discovery and loss-of-control; use inside the DPRK’s territory is plausible but likely would be militarily more self-disabling than effective against US-ROK combined forces.

11. Triangular Strategic Nuclear Deterrence

The nuclear threat relationship between the United States and the DPRK exists in a wider context of

triangular strategic nuclear deterrence between Russia, China, and the United States.[11] Russia has increased its reliance on nuclear threat since the end of the Cold War, in part to substitute it for its ailing conventional forces. China is modernizing its nuclear forces, making them mobile or subterranean and thereby harder to target and to distinguish from land-based intermediate range but conventional missiles, thereby complicating possible escalation decisions by the United States. This may be intended to reduce the propensity of the United States to use conventional force in the Taiwan Straits by increasing the risk of nuclear use by both parties. There appear to be no other immediate conflicts in which American and Russian nuclear weapons are in play in the region today. From an American perspective, all other conflicts are more than adequately covered by US and allied conventional forces. Thus, apart from the DPRK, US nuclear extended deterrence to the ROK, Japan, and Taiwan is only in play to counter potential Chinese first or retaliatory use of American nuclear weapons, in the context of a larger US-China standoff or war. As the prospect of such a war is real, so nuclear extended deterrence is real…but equally, because the probability of such a war is remote, so the salience of nuclear extended deterrence to the countering of Chinese nuclear targeting of the ROK, Japan and Taiwan is also very low.

12. US-DPRK Nuclear Threat is Most Dangerous in the Region

The most urgent and dangerous nuclear threat relationship is between the United States and the DPRK. The state of war, the immense military standoff and proximity of conventional forces at the Demilitarized Zone, and the lack of any common concepts or shared understandings related to nuclear weapons makes it easiest to envision the next-use of nuclear weapons in the Korean Peninsula. The nuclear weapons of the United States, China, Russia, and the DPRK are all involved in this regional threat system. Although starting a nuclear war would be quite hard (see section 10 above), decision-making in a renewed Korean War would be compressed in time and likely degraded by stress on both sides of the DMZ, and could lead to irrational and premature use decisions, assuming control could be maintained, even if inadvertent use and accidental use avoided by all parties.

13. Ending US-DPRK Nuclear Threat Requires Multilateral Framework

Because the US-DPRK mutual nuclear threat relationship involves all states in the region, including the NNWSs the ROK and Japan, ending nuclear threat is beyond the power of the United States and the DPRK acting alone or even bilaterally. Instead, what is needed is a robust adaptive strategy that reshapes the role of nuclear weapons in the range of possible multipolar, bipolar, and unipolar future regional orders. Rather than shaping behaviors incrementally, as was tried and failed at the Six Party Talks, future negotiations need to focus on creating a new “comprehensive” security settlement in a treaty format that meets the needs of all states in the region to reduce reliance on nuclear threat, and wherever possible, to end it. By reshape, we mean that a comprehensive security settlement should create a new regional framework that

a) Recognizes that all parties have pledged to eliminate nuclear weapons as a basis of their security relationships;

b) Reflects the reality that nuclear weapons are of decreasing political and military value; and

c) Facilitates reduction of the role of nuclear weapons in their respective political and military policies and postures.

14. Nuclear Weapons-Free Zone

The long-standing and well-tested framework for such a commitment is a legally binding nuclear

weapons-free zone, for which there are many precedents around the world spanning four decades.[12] It is therefore timely to discuss the negotiated, multilateral, and legally binding end to nuclear threats by NWSs to NNWSs in the context of a comprehensive security settlement in Northeast Asia. Such a settlement requires a regional treaty framework, not just a political agreement, if it is to be meaningful to all the parties including the DPRK.[13] Anything less likely will fail and leave the states in the region to ride the roller coaster of confrontation and standoff, of semi-permanent crisis.

15. Only a NWFZ Legally Terminates Nuclear Threat

The DPRK insists that US nuclear threat towards it must cease before it will revert to non-nuclear weapons status; and that this guarantee must be legally binding. The only framework in which this combination is possible is a NWFZ. Last July, the UN Secretary General urged states in the region to consider appropriate action to establish a nuclear-weapon-free zone in North-East Asia, "including by promoting a more active role for the regional forums in encouraging transparency and confidence-building among the countries of the region."[14] On October 21, 2014, the DPRK announced via KCNA that it proposed "building a nuclear-free zone through peaceful dialogue and negotiations…combined with the method of removing the U.S. nuclear threat by relying on international law."[15] The United States is in favor of nuclear weapons-free zones in principle, but does not know what the DPRK means in its October 21, 2014 and earlier proposals along these lines.

16. Comprehensive Security Settlement Treaty

This treaty, which might be titled A Northeast Asia Treaty of Amity and Cooperation, would have six key elements, all of which are necessary.

1. Termination of state of war
2. Creation of a permanent security council on security to monitor and verify compliance and deciding on violations
3. A mutual declaration of no hostile intent
4. Provisions of assistance for nuclear and other energy
5. Termination of sanctions
6. A nuclear weapons free zone.

Within this comprehensive framework, a Northeast Asian nuclear weapons-free zone (NWFZ) would be created to manage three of the hardest security issues facing the region, viz, nuclear threats by the NWSs to NNWSs in Northeast Asia, the provision of US nuclear extended deterrence to its allies in the region, and the DPRK's nuclear armament.

17. Purposes of a NEA-NWFZ Treaty

As noted above, a nuclear weapons-free zone (NWFZ) is a treaty, affirmed in the Nuclear Non Proliferation Treaty, whereby states freely negotiate regional prohibitions on nuclear weapons.[16] Its main purposes are to strengthen peace and security, reinforce the nuclear non-proliferation regime, and contribute to nuclear disarmament. A NEA-NWFZ would provide a stabilizing framework in which to manage and reduce the threat of nuclear war, eliminate nuclear threats to NNWSs which are in compliance with their NPT-IAEA obligations, and facilitate abolition of nuclear weapons. (It would apply to nuclear weapons only, not to other "WMD.") It would also enable the DPRK to freeze expansion, start to reverse, and ultimately dismantle its nuclear arms; build

confidence that no party in the region will use nuclear weapons for political coercion or to fight wars; and reassure NNWSs that they are secure, thereby deepening commitment to non-nuclear weapons-status.

18. Differential Obligations

In a NEA-NWFZ, states would undertake differential obligations.[17] Non-nuclear weapons states (that is, NPT NNWSs) undertake not to research, develop, test, possess, or deploy nuclear weapons, and not to allow nuclear weapons to be stationed on their territory.[18] Nuclear-Weapons States (that is, NPT NWSs) give negative security assurances not to use or threaten to use nuclear weapons against the NNWSs party to and in compliance with the NWFZ treaty.[19]

19. NEA-NWFZ Membership

In early "3+3" proposals,[20] 3 NWS (US, China, FSU then Russia) + 3 NNWS (2 Koreas, Japan) were proposed as parties. In 2010, Nautilus Institute proposed a 3+2 version (starting with ROK and Japan, leaving an open door for the DPRK to join later or, should the two Koreas reunify peacefully and the DPRK eliminate its nuclear forces, be integrated into the zone). Today, it seems sensible (and consistent with other NWFZs) for all five NPT-NWSs to join, and at least 4 NPT-NNWSs join at the outset (Japan, ROK, Canada, Mongolia); and possibly DPRK in a contingent status (explained below). This "5 + 4.5," later "5+5" (ignoring Taiwan, see below) model of a NEA-NWFZ takes time (but not without limit) to integrate fully the DPRK.

20. Monitoring and Verification

A NEA-NWFZ would require a stringent monitoring and verification regime satisfactory to all parties. At minimum, all NNWS in a NEA-NWFZ should accept the IAEA Additional Protocol. Specific monitoring and verification provisions would be needed during and after dismantlement in the DPRK.[21] The DPRK would also need to meet the requirements of the IAEA to restore "confidence" in its nuclear weapons intentions, as has South Africa since it dismantled its nuclear weapons. Conversely, the DPRK (and other parties) could demand inspection of US facilities in the ROK and Japan. Specific arrangements will be needed to control the DPRK's nuclear weapons-capable personnel. Challenge inspections might be built into the NWFZ treaty itself. Non-intrusive inspections of transiting ships and aircraft might use state-of-the-art anti-terrorist monitoring techniques at airfields and in ports but not in innocent oceanic or aerial transit. The treaty may want to invite parties to adopt more stringent inspection arrangements as technology evolves. For example, parties to a NWFZ could create a regional nuclear forensics network and database to control non-state actor nuclear proliferation. Also, plutonium-based fuel cycles as in Japan and under discussion in the ROK may require more stringent transparency in real-time than current safeguards systems allow to preserve a meaningful diversion-detection to response-time ratio. The parties would need to create a regional inspectorate, as has occurred in the Latin American NWFZ, or determine that non-compliance would be determined by the council governing a regional treaty of amity and cooperation; or refer non-compliance to the UN Security Council.

21. Enforcement by States Parties

The existing toolkit of sanctions, interdiction, and coercive diplomacy combined with engagement may not be sufficient to maintain compliance with a NEA-NWFZ. Nuclear threats against non-NNWSs by nuclear armed states or by NPT-NWSs should be met in accordance with the 1994 UNSC resolution whereby the NWSs undertook to respond to "nuclear aggression" against NNWSs. A NWFZ places the legal onus on all NWSs party to the NWFZ to respond, not merely those in bilateral alliances (US-ROK, US-Japan, PRC-DPRK). Thus, it provides NNWSs with a *multilateral*, *legally-*

binding guarantee that they make invoke if they are subjected to nuclear threat or attack. States generally are loath to break treaties, and a treaty-based commitment is more likely to be observed than one based on unilateral or executive branch declaratory policies which may vary between Administrations and even abandoned overnight.

As was noted above, a NWFZ treaty must specify if the conference of parties is unable to resolve a dispute how non-compliance should be dealt with. The options would be to refer non-compliance to a superordinate regional council if such is created concurrently as part of a regional treaty of amity and cooperation; or to the IAEA (if the matter relates to a nuclear fuel cycle activity); or direct to the UNSC if it relates directly to nuclear weapons acquisition, deployment, or threats by NNWSs or aimed at these states.

No monitoring and verification system will provide absolute confidence; and no means of guaranteed enforcement of a NWFZ treaty is possible. What is important is whether sufficient confidence can be achieved that monitoring and verification systems will work and that enforcement is credible. This confidence should be compared with the security outcomes and confidence associated with these outcomes of not controlling nuclear threat and nuclear weapons via a NEA-NWFZ, not with an abstract ideal world in which nuclear weapons simply do not exist.

22. Continuation and Transformation of Nuclear Extended Deterrence in a NEA-NWFZ

It is worth emphasizing that such a NWFZ would *not* end completely US nuclear extended deterrence. It would continue to operate for the ROK and Japan to counter the general nuclear threat arising from Chinese and Russian nuclear forces, assuming that the DPRK were to disarm and revert to full NPT NNWS status. In effect, this arrangement requires the ROK and Japan to recast their perceptions of what constitutes nuclear extended deterrence from a Cold War concept based on forward-deployed weapons and instant nuclear retaliation to a post-Cold War concept that was termed above as “existential nuclear deterrence;” and for the ROK, Japan and the DPRK to accept that such existential deterrence exists, no matter what a NWS says or does, so long as strategic nuclear weapons exist.

Separate to the general operation of nuclear deterrence between the United States, China, and Russia, and to the continuing existence of nuclear existential deterrence that arises from the former with regard to the NNWSs in a NEA-NWFZ, the question arises of whether nuclear extended deterrence would exist should a NEA-NWFZ be violated, either by nuclear threats from a NWS against a NNWS party to the treaty, or by a NNWS breaking out of its non-nuclear weapons status.

Should a state renege on their commitments under a NEA-NWFZ treaty, then all the NWSs party to that treaty are committed to countering this breakout. Should the DPRK either halt its denuclearization to comply with a NWFZ or commence a new breakout having re-established its non-nuclear status, then US guarantees (and likely those of the other NWSs) to not use nuclear threat or attack would be rendered moot.[22] If China or Russia threaten to use nuclear weapons against the DPRK, the ROK or Japan, then the United States and other NWSs would be free to extend nuclear deterrence to these non-nuclear parties. The same logic would apply in reverse if the United States threatened to use nuclear weapons against a non-nuclear armed DPRK in compliance with its NPT and IAEA obligations. Alternately, if the ROK or Japan made their own nuclear weapons, then China and Russia (and the United States and any other NWS party to the treaty) would be bound to come to the DPRK’s assistance, or would no longer be bound by the NWFZ treaty to not use nuclear weapons against the non-nuclear parties.

Because of the significance of this issue for the ROK and Japan, further reassurance for all parties could be addressed by including a clause in the negative security protocols of a NWFZ treaty stating

that in the event of a verified breach of the obligations, the five guarantor NWS recognized under the NPT would be free to re-establish previous extended deterrence guarantees--as indeed is already explicit in number of reservations NWS have already made to other NWFZs.

One risk that should be addressed in dialogue concerning a prospective NEA-NWFZ is how serious transgression of such a zone by a NWS or a NNWS could induce some NNWSs to develop their own nuclear forces rather than reverting to the status quo ante of dependence on US nuclear extended deterrence, even in a stronger form that exists today. There may be creative ways to ameliorate this risk that have not been considered before because the security circumstances of preceding NWFZs did not have to address such issues in a stark manner as is the case in Northeast Asia.

23. The DPRK's Nuclear Weapons and a NEA-NWFZ

As a self-declared nuclear-armed state, the DPRK's nuclear weapons and delivery systems are the most obvious major obstacle to realization of a NEA-NWFZ, although they are not the only one. The main reason to establish a NEA-NWFZ, however, is not just to respond to the DPRK, but also to address the proliferation potential of Japan, the ROK, and Taiwan, and to create a stabilizing framework in which to manage strategic deterrence among the NWSs. The DPRK is only one state that affects the strategic environment, including its nuclear dimension, in Northeast Asia, and a relatively small one at that, including in terms of nuclear weapons. A sound strategic environment should be created that shapes the DPRK's choices in constructive ways, but it must also serve the interests of all states in the region, many of which may be affected more by considerations pertaining to each other than by those related to the DPRK, irrespective of the DPRK's nuclear capacities.

24. Could and if so, How Would the DPRK Join a NEA-NWFZ?

In a legal sense, there are two ways to deal with the DPRK and its nuclear weapons in a NEA-NWFZ treaty. The first is to simply leave the door open for NNWSs to join the treaty. Thus, if only Japan, the ROK, and possibly Mongolia were to sign at the outset, the DPRK could later join after denuclearization or integration into a non-nuclear, peacefully re-unified Korea. More desirably, the DPRK could join the NEA-NWFZ treaty at the outset, but not waive the provision that the treaty only come into force when all parties have ratified it, while the other parties would waive this provision.[23] The DPRK thereby would reaffirm its commitment to become a NNWS in compliance with its NPT-IAEA obligations, but would take time to comply fully.

The other NNWSs could set a time limit and specify milestones for the DPRK to come into compliance. The entry into force provision could allow them to reserve the right to abandon the treaty if the DPRK has not denuclearized sufficiently by that time. Concurrently, the NWSs (hopefully all of them, not just the US) would qualify their guarantees to not use nuclear weapons to attack the NNWSs party to the treaty so as to specifically exclude the DPRK from the guarantee, or would calibrate their guarantee to the extent that it has come into full compliance.

25. Equal Treatment for all Non-Nuclear Parties

In a NEA-NWFZ, the DPRK's nuclear armament, such as it is, would not be recognized as legitimate in any manner under the Nuclear Non Proliferation Treaty (which it disavows in any case).[24] The standards that it must meet when denuclearized would equal or exceed those for all non-NNWSs in the NWFZ, including monitoring and verification requirements. Most important, the DPRK would be offered a legally binding, multilateral guarantee by all the NWSs that it will not face nuclear threat or the use of nuclear weapons against it, but would have to earn this guarantee by actually coming into full compliance within the specified time. These considerations would be important to the

political process that would be required to implement a NEA-NWFZ.

26. The Taiwan Problem

Designing, negotiating and implementing a NEA-NWFZ would not be easy. Indeed, there are many difficult issues that would require a NWFZ to be tailored to the region's specific circumstances. Taiwan for example, presents a special problem for a NWFZ. However, Taiwan could solve this problem by declaring that it will fulfill the NNWSs' obligations in NEA-NWFZ treaty. China can declare that its commitment covers Taiwan as part of China (NWSs have made such declarations in other NWFZs with regard to trust territories).

27. Key Questions for a NEA-NWFZ

A regional NWFZ should be tailored to the specific needs and circumstances of the region to be covered. Thus, past NWFZs offer precedents and lessons-learned, but do not constrain Northeast Asian states from introducing innovations or specific approaches to achieve the basic goals of a NWFZ in their region—the avoidance of nuclear war, the reversal of nuclear proliferation, and the eventual elimination of all nuclear weapons. Following are some key questions that states would need to resolve before negotiating and implementing a NWFZ. An Eminent Persons Group might be a good vehicle by which to obtain preliminary answers before states commence official dialogue.

a) What are the risks of potential accidental**,** miscalculated, or unintended use of nuclear weapons in the region, and how may such risks be reduced or eliminated through the processes and phases of establishing a NWFZ?

b) Should nuclear fuel cycle cooperation be included as part of the NWFZ treaty or as a separate set of parallel side agreements (some regional in scope, some likely DPRK-specific)?

c) Would a NWFZ need to head off rocket programs that prefigure long-range missile development in NNWSs in NEA; if so would a parallel agreement on regional space launch cooperation program or consortium under the regional comprehensive security settlement treaty facilitate Japanese, ROK and DPRK commitment to a NEA-NWFZ?

d) Are side agreements needed to restrain arms racing with offensive conventional weapons that undermine strategic stability and even restore the threat of mass destruction, only this time, by non-nuclear weapons?

e) Would a NEA-NWFZ commit NWSs not to fire nuclear weapons out of a zone, as well as not to station them in the Zone or to transit them through via innocent passage?

f) Should NWSs impose on their own territory a geographic restriction on deployment of nuclear-armed ground-launched ballistic and cruise missiles in a verifiable zone as part of the NWFZ—in effect, the price charged by the US and Russia to China for delivering Japan, the ROK, and *de facto*, Taiwan, into a NWFZ?

g) What provisions for emergency redeployment, as apparently exist in the case of Japan and were implied in the 1991 US nuclear weapons withdrawal from the ROK, would be allowed? (Otherwise, wittingly or unwittingly, a NNWS can become party to nuclear threat or nuclear use, transgressing its non-nuclear status in the treaty and opening the way for others to accuse it of non-compliance and to cite it as a basis for their own non-compliance or even withdrawal?

h) What are the geographical boundaries of a NEA-NWFZ (at first glance, it would appear to cover only the national territories of the NNWSs party to the treaty, including only maritime areas

encompassed by their respective territorial seas extending 12nautical miles offshore**)**

i) How would a NEA-NWFZ complement adjacent NWFZs, and how would it facilitate a Middle East-NWFZ (and vice versa)?

III. Notes and References

[1] A good primer on nuclear weapons and nuclear threats in international affairs is found in "Doctrines and Strategies Concerning Nuclear Weapons," in UN Secretary General, *Nuclear Weapons: A Comprehensive Study,* chapter 4, pp. 41-56, Department for Disarmament Affairs, United Nations, New York, 1991, at: http://www.un.org/disarmament/HomePage/ODAPublications/DisarmamentStudySeries/PDF/SS-21.pdf which updates earlier UN expert studies on nuclear weapons dating back to the original study, ***Effects of the Possible Use of Nuclear Weapons and the Security and Economic Implications For States of the Acquisition and Further Development of These Weapons****, Report of the Secretary-General, United Nations, New York, Sales No. E.68.IX, New York, 1968.*

[2] Paul Bracken, *The Command and Control of Nuclear Forces* Yale University Press, New Haven, 1983; P. Lewis etal, Too Close for Comfort: Cases of Near Nuclear Use and Options for Policy, Chatham House, *The Royal Institute of International Affairs*, London, 2014, at: http://www.chathamhouse.org/sites/files/chathamhouse/home/chatham/public_html/sites/default/files/20140428TooCloseforComfortNuclearUseLewisWilliamsPelopidasAghlani.pdf

[3] The distinction between immediate and general nuclear deterrence was made by Patrick Morgan, *Deterrence: a conceptual analysis,* Sage Publications, 1977.

[4] US Pacific Command, *Command History, 1991*, Office of the Historian, volume 1, released under US FOIA to Nautilus institute, p. 90 *et passim*, at: https://nautilus.org/wp-content/uploads/2011/12/koreawithdrawal.pdf

[5] Susan Koch, *The Presidential Nuclear Initiatives of 1991-1992*, WMD Case Study 5, Center for the Study of Weapons of Mass Destruction, National Defense University, Washington DC, October 1, 2012, at: http://wmdcenter.dodlive.mil/files/2012/10/CSWMD-Case-Study-5-for-web.pdf

[6] Here, recession means progress along the following spectrum of reduction of reliance on nuclear weapons: slow but continuous minimization of various elements of nuclear extended deterrence including maintaining studious silence on public on the topic, substitution of conventional for nuclear forces in allied doctrine and postures, development of regional security institutions, resolution of major security dilemmas between states, and the lessening of residual salience of nuclear weapons over time to the point where they fade away. See P. Morgan, "Considerations Bearing on a Possible Retraction of The American Nuclear Umbrella Over the ROK," prepared for Nautilus Institute, June 21, 2009 and published by National Committee on North Korea, Washington DC, in October 2009 at: http://www.ncnk.org/resources/publications/Morgan%20Considerations%20Bearing_on_a_Possible_Retraction_of_the_American_Nuclear_Umbrella.pdf

[7] Eric Schmitt, "Bush's Arm Plan; Cheney Orders Bombers Off Alert, Starting Sharp Nuclear Pullback," *New York Times*, September 29, 1991, at: http://www.nytimes.com/1991/09/29/world/bush-s-arm-plan-cheney-orders-bombers-off-alert-starting

-sharp-nuclear-pullback.html?pagewanted=all&src=pm

[8] T. Nichols, “The Case for Conventional Deterrence,” *The National Interest*, April 20, 2014, at: http://nationalinterest.org/commentary/the-case-conventional-deterrence-9381

[9] Patrick Morgan notes that US and the DPRK used nuclear threat primarily for compellence in the 1991-2002 time frame in “Deterrence and System Management: The Case of North Korea,” *Conflict Management and Peace Science* 2006; 23; 121-138. The DPRK’s nuclear threats from 2008 onwards have been primarily compellent in nature, not deterrent, as documented in the following studies: P. Hayes, S. Bruce, “North Korean Nuclear Nationalism and the Threat of Nuclear War in Korea,” *Pacific Focus*, 26, 2011, pp. 65–89, at: http://onlinelibrary.wiley.com/doi/10.1111/j.1976-5118.2011.01056.x/abstract

and P. Hayes, R. Cavazos, “North Korean and US Nuclear Threats: Discerning Signals from Noise,” *The Asia-Pacific Journal*, 11:14:2, April 8, 2013, at: http://japanfocus.org/-Roger-Cavazos/3924#

[10] P. Hayes, J. Lewis, “The DPRK and the Warsaw Clause: An Unnoticed Change in US Nuclear Policy", NAPSNet Policy Forum, July 28, 2011, https://nautilus.org/napsnet/napsnet-policy-forum/t-e-dprk-and-the-warsaw-clause-an-unnoticed-change-in-us-nuclear-policy/

[11] See C. Twomey *et al*, *Approaching Critical Mass, Asia’s Multipolar Nuclear Future,* National Bureau of Asia Research, Asia Policy, 13, January 2015, p. 3, at: http://www.nbr.org/publications/element.aspx?id=795

[12] K, Vignard, *ed*, *Nuclear Weapons Free Zones*, UNIDIR, *Disarmament Forum*, 2: 2011, Geneva, at: http://www.unidir.org/files/publications/pdfs/nuclear-weapon-free-zones-en-314.pdf “As of late 2011, 138 out of 193 UN member states have entered into, and ratified, legally binding treaties to reduce or constrain nuclear weapon proliferation, development and basing in their own regions (or other regions over which they have territorial claims)1. These include the 1959 Antarctic Treaty (47 states with interests in Antarctica), the 1967 Tlatelolco Treaty (33 Latin American states), the 1985 Rarotonga Treaty (13 South Pacific States), the 1995 Bangkok Treaty (10 Southeast Asian states), the 1996 Pelindaba Treaty (30 African states, with a further 21 signed but not yet ratified), and the 2006 Semipalatinsk Treaty (5 Central Asian States). NWFZs now cover almost the entire Southern Hemisphere, and wide swathes of the Northern Hemisphere, including the most recent Central Asian zone, which is entirely in the Northern Hemisphere.” Hamel-Green, M., *Regions That Say No: Precedents and Precursors for Denuclearizing Northeast Asia*, East Asia Nuclear Security Workshop, Tokyo, Japan (November 2011) at: http://nautilus.wpengine.netdna-cdn.com/wp-content/uploads/2011/12/Hamel-Green---TOKYONEANWFZPAPERvs5.pdf

Other treaties also denuclearize geographic areas, viz: the Outer Space Treaty, the Moon Agreement, and the Seabed Treaty. Mongolia’s 1992 self-declared nuclear-weapon-free status has been recognized internationally through the adoption by consensus of UN General Assembly Resolution 53/77D in December 1998 on "Mongolia's international security and nuclear weapon free status."

Arguably, *the Korean Joint Denuclearization Declaration* (1992) also established a limited NWFZ in Korea, now moribund.

Thousands of cities and provinces have established local NWFZs, and some states (New Zealand) have written their non-nuclear status into their legal system or (The Philippines) into their constitution. However, these are not treaty-based zones nor recognized by the UN under international treaty law. The Comprehensive Test Ban Treaty, not yet in force, will ban nuclear

explosions, and prohibit and prevent any such nuclear explosion at any place under a state party's jurisdiction or control.

[13] B. Kampmark et al, *A New Approach to Security in Northeast Asia: Breaking the Gridlock*, Summary Report, Breaking the Gridlock Workshop, October 9-10, 2012, Woodrow Wilson International Center for Scholars, Washington, D.C., at: https://nautilus.org/napsnet/napsnet-specia--reports/gridlockworkshopsummary/#axzz31SQamTGM

[14] *Work of the Advisory Board on Disarmament Matters, Report of the Secretary-General to UN General Assembly*, A/68/206, July 26, 2013, at: https://disarmament-library.un.org/UNODA/Library.nsf/a45bed59c24a1b6085257b100050103a/f82ba7fcf1be289085257bce006a670a/$FILE/A%2068%20206.pdf

[15] KCNA, "U.S. Can Never Evade Blame for Blocking Solution to Nuclear Issue: Rodong Sinmun," October 21, 2014 at: http://www.kcna.co.jp/item/2014/201410/news21/20141021-11ee.html

[16] United Nations, "Establishment of nuclear-weapon-free zones on the basis of arrangements freely arrived at among the States of the region concerned," Annex 1, *Report of the Disarmament Commission*, General Assembly, 54th session, Supplement No. 42 (A/54/42), United Nations, New York, 1999, p. 7, at: http://www.opanal.org/Docs/Desarme/NWFZ/A54_42iAnnexI.pdf

[17] This section draws on Peter Hayes and Richard Tanter, "Key Elements of Northeast Asia Nuclear-Weapons Free Zone (NEA-NWFZ)", *NAPSNet Policy Forum*, November 13, 2012, https://nautilus.org/napsnet/napsnet-policy-forum/key-elements-of-northeast-asia--uclear-weapons-free-zone-nea-nwfz/

[18] The exact mix of these prohibitions varies across zones. Recent zones prohibit more activities. Two issues are important in the NEA context. The first is *stationing* of nuclear weapons. Secret US-Japan agreements provided for US storage and/or re-introduction of nuclear weapons. President George Bush's 1991 statement that "under normal circumstances, our ships will not carry tactical nuclear weapons," and that land and sea-based warheads not withdrawn, dismantled and destroyed "will be secured in central areas where they would be available if necessary in a future crisis" also left open the possibility that the US might, presumably subject to consultation with allies, redeploy such weapons into Japan and the ROK. At the time, then Chairman of the Joint Chiefs Colin Powell said that only 24 hours would be needed to reverse the order. Note: since 1991, many of the tactical and theater nuclear weapons in the US arsenal no longer exist. The only salient non-strategic weapon today is the now old B-61 thermonuclear warhead that is stored in the US and forward-deployed in some NATO countries. Practically speaking, re-deployment and forward stationing of nuclear weapons would be very difficult to achieve. Home-porting strategic nuclear submarines in allied ports is physically possible, but politically difficult, and would affect greatly a US second strike capability by increasing the vulnerability of these submarines to first strike.

The second important issue is *transit*. To avoid conflict between Japan's domestic non-nuclear principles and transit of its narrow straits leading from the Sea of Japan/East Sea of Korea to the Pacific Ocean by US and then-Soviet warships, Japan limited its coastal jurisdiction in these straits to three nautical miles, allowing free international passage through a narrow strip of international waters. Leaving aside apparently commonplace past transit of US nuclear weapons transit via airfields and ports, not just innocent passage in the territorial waters of Japan, the adoption of a zone-wide 12 mile nautical limit for a NEA-NWFZ would change current Japanese legal treatment of the straits and the related legal regime under which transit could occur. President Bush's statement is "BUSH'S ARMS PLAN; Remarks by President Bush on Reducing U.S. and Soviet Nuclear Weapon s," New York Times, September 28, 1991, at:

http://www.nytimes.com/1991/09/28/us/bush-s-arms-plan-remarks-president-bush-reducing-us-soviet-nuclear-weapons.html?pagewanted=all&src=pm Powell is cited in Eric Schmitt, "Bush's Arm Plan; Cheney Orders Bombers Off Alert, Starting Sharp Nuclear Pullback," New York Times, September 29, 1991, at: http://www.nytimes.com/1991/09/29/world/bush-s-arm-plan-cheney-orders-bombers-off-alert-starting-sharp-nuclear-pullback.html?pagewanted=all&src=pm

On Japan's transit policy and territorial waters, see Chi-Young Pak, *The Korean Straits*, Martinis Nijhoff, *1988, pp. 79-81; on recent Chinese naval surface and submarine transit of the straits and Japanese response, see* Peter Dutton, *Scouting, Signaling, and Gatekeeping, Chinese Naval Operations in Japanese Waters and the International Law Implications*, China Maritime Studies Institute, U.S. Naval War College, Newport, Rhode Island, at: www.usnwc.edu/cnws/cmsi/default.aspx

[19] Article 2 of the Protocol of the Southeast NWFZ specifies that: "Each State Party undertakes not to use or threaten to use nuclear weapons against any State Party to the Treaty. It further undertakes not to use or threaten to use nuclear weapons within the Southeast Asian Nuclear-Weapon-Free Zone." To date, the NWSs have resisted this provision, partly because the SEA-NWFZ covers the Exclusive Economic Zone, but also because it implies restrictions on the use of nuclear weapons from within the zone against adjacent zones. Eventually, the mosaic of such stringent zones could reinforce each other to prohibit all threat and all use of nuclear weapons, as envisioned by S.W. Cheon as a "Pan-Pacific nuclear weapon free zone (PPNWFZ), encompassing East Asia, South Pacific and Latin America." In S.W. Cheon, "The Limited Nuclear Weapon Free Zone in Northeast Asia: Is It Feasible?" *The Mongolian Journal of International Affairs*, 14, 2007, p. 115, at: http://www.mongoliajol.info/index.php/MJIA/article/viewFile/31/31

[20] Endicott's 15 year series of workshops first proposed a 1,000 km range from the Korean DMZ that covered parts of Alaska, China, Mongolia, and Russia as well as Korea and Japan; and later, an ellipse that covered NE China, Mongolia, the Russian Far East, part of Alaska, the two Koreas, Japan, and Taiwan at the southern end. See J. Endicott, "Limited nuclear-weapon-free zones: the time has come," *Korean Journal of Defense Analysis*, 20: 1, 2008, p. 17, at: http://dx.doi.org/10.1080/10163270802006305.

Endicott's concept was reviewed critically by S. W. Cheon, *op cit*, pp. 106-115.

The 3+3 concept is advanced by H. Umebayashi, "A Northeast Asia Nuclear-Weapon-Free Zone with a Three Plus Three Arrangement," East Asia Nuclear Security Workshop, Tokyo, Japan, November 2011, at: http://nautilus.wpengine.netdna-cdn.com/wp-content/uploads/2011/12/UMEBAYASHI---A-NEA-NWFZ-with-3-3-Arrangement-_2011--Tokyo_.pdf; and similarly, Kumao Kaneko, "Japan needs no umbrella," *Bulletin of the Atomic Scientists*, March/April 1996, pp. 46-51, at: http://www.thebulletin.org/

The first proposal phased implementation of a 3+3 concept is found in S. W. Cheon and T. Suzuki, "The Tripartite Nuclear-Weapon-Free Zone in Northeast Asia: a Long-Term Objective of the Six Party Talks," *International Journal of Korean Studies*, 12, 2, 2003, pp. 41-68, at: http://www.kinu.or.kr/eng/pub/pub_03_01.jsp?page=2&num=42&mode=view&field=&text=&order=&dir=&bid=DATA03&ses=&category=11

Nautilus' 3+2 concept was advanced in: *Korea-Japan Nuclear Weapon Free Zone (KJNWFZ) Briefing Paper*, May 6, 2010, in English, Korean, and Japanese, at: https://nautilus.org/projects/by-name/korea-japan-nwfz/

[21] There is extensive precedent in the case of South Africa, Iraq, and Libya for documenting such dismantlement. See D. Albright, C. Hinderstein, *Cooperative Verified Dismantlement of Nuclear Programs: An Eye Toward North Korea*, June 1, 2003, at: http://isis-online.org/conferences/detail/cooperative-verified-dismantlement-of-nuclear-programs-an-eye-toward-north-/10 and Andre Buys, *Proliferation Risk Assessment of Former Nuclear Explosives/Weapons Program Personnel: South African Case Study*, *NASPNet Special Report*, July 14, 2011, at: https://nautilus.org/wp-content/uploads/2012/01/Buys-research-report-final.pdf and A. Buys, *Tracking nuclear capable individuals***,** NAPSNet Special Report, Nautilus Institute, April 19, 2011, at: http://nautilus.wpengine.netdna-cdn.com/wp-content/uploads/2011/12/Tracking_Nuclear_Individuals_Buys.pdf

[22] Actual arrangements between NWSs and NNWSs vary from zone to zone. Dhanapala argues that they cannot do so in J. Dhanapala, "NWFZS and Extended Nuclear Deterrence: Squaring the Circle?" *NAPSNet Special Report*, May 1, 2012, at: https://nautilus.org/napsnet/napsnet-specia--reports/nwfzs-and-extended-nuclear-deterrence-squaring-the-circle/ The experts cited in the 1975 UN study of NWFZs split on whether nuclear deterrence could be extended to NNWSs party to a NWFZ. See *Comprehensive Study Of The Question Of Nuclear-Weapon-Free Zones In All Its Aspects*, Special report of the Conference of the Committee on Disarmement , UN Doc. A/10027/Add. 1, New York,
1975
http://www.un.org/disarmament/HomePage/ODAPublications/DisarmamentStudySeries/PDF/A-10027-Add1.pdf

[23] This approach is transposed from the Tlatelolco Treaty which established an ingenious and innovative legal mechanism by which reluctant states could be encouraged to join the zone at a later date. It consists of a provision in Article 28 (3) that allows a signatory state to "waive, wholly or in part" the requirements that have the effect of bringing the treaty into force for that state at a particular time.11 As Mexican diplomat Alfonso Garcia Robles noted in his commentary on Article 28: "An eclectic system was adopted, which, while respecting the viewpoints of all signatory States, prevented nonetheless any particular State from precluding the enactment of the treaty for those which would voluntarily wish to accept the statute of military denuclearization defined therein. The Treaty of Tlatelolco has thus contributed effectively to dispel the myth that for the establishment of a nuclear-weapon-free-zone it would be an essential requirement that all States of the region concerned should become, from the very outset, parties to the treaty establishing the zone. In this way, the normative framework for a non-nuclear region can be established before all states are ready to actually implement the framework." M. Hamel-Green, "Implementing a Korea–Japan Nuclear-Weapon-Free Zone: Precedents, Legal Forms, Governance, Scope, Domain, Verification, Compliance and Regional Benefits," *Pacific Focus*, 26:1, April, 2011, pp. 97-98, at: http://onlinelibrary.wiley.com/doi/10.1111/pafo.2011.26.issue-1/issuetoc

[24] KCNA, "FM Spokesman on Right to Bolster Nuclear Deterrent" May 26, 2010
at: http://www.kcna.co.jp/item/2010/201005/news24/20100524-15ee.html

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Nautilus Institute
608 San Miguel Ave., Berkeley, CA 94707-1535 | Phone: (510) 423-0372 | Email: nautilus@nautilus.org