

Issues for the Scope of a Northeast Asia Nuclear Weapon Free Zone (NEA-NWFZ) Treaty

Michael Hamel-Green

(Emeritus Professor, Victoria University Melbourne)

Current nuclear issues on the Korea Peninsula have prompted comparison with the 1962 Cuban Missile Crisis when the Soviet Union deployed nuclear-armed missiles in Cuba within range of the whole US mainland.¹ The present situation again involves US Administration perceptions that the US mainland will be targeted by an adversary's nuclear missiles. US concern has mounted following five North Korean nuclear weapon tests since 2006 (two in 2016), and a recent spate of ballistic missile tests indicating gradual expansion of missile target range, with the prospect of eventually reaching the US mainland.² As at the time of the Cuban Missile Crisis, there is a parallel in the US decision to dispatch naval forces to the region. In the current context the Trump Administration deployed two aircraft carriers (Carl Vinson and Ronald Reagan) and two submarines to the region, conducted high profile drill flights of B-1B Lancer bombers over South Korea, and installed a THAAD ballistic-missile-defence system in South Korea. Meanwhile North Korea appears determined to continue with its ballistic missile and nuclear weapon tests.³

The Cuban Missile Crisis ended without a catastrophic nuclear war after decision-makers on both sides decided to show constraint, although former US Defence Secretary William Perry, who was directly involved in US intelligence analysis for that crisis, believed that this was "as much by good luck as by good management".⁴ However, it does seem clear that the two leaders at the time, President Kennedy and Chairman Khrushchev, were prepared to entertain, and did successfully pursue, a diplomatic resolution rather than persist with military escalation, despite pressures for such escalation from their own military commanders.

By comparison, President Trump, in authorizing not only the dispatch of a carrier group to Northeast Asia but also a recent US cruise missile strike in Syria, and the first operational use of a GBU-43/B Massive Ordnance (12 tons TNT) Air Blast (MOAB) bomb in Afghanistan, seems more attracted to military rather than diplomatic means of responding to international conflicts. Nevertheless, in the case of North Korea, the Trump Administration's senior State Department official responsible for North Korean issue, Joseph Yun, sought, on 25/5/17, to clarify with South Korean politicians that President Trump had authorised a four-point plan involving: (1) not recognizing North Korea as a nuclear state; (2) imposing every possible sanction and pressure; (3) not seeking regime change; and (4) resolving the problem with dialogue.⁵ Further, US Secretary of State Rex Tillerson recently stated "We do not seek regime change, we do not seek a collapse of the regime, we do not seek an accelerated reunification of the peninsula. We seek a denuclearised Korean peninsula - and that is entirely consistent with the objectives of others in the

region as well” and that direct talks with North Korea would be “preferable”⁶ (although earlier, on a March 17th visit to Seoul, he had ruled out negotiations with North Korea to freeze its nuclear and missile programs, and declared that the US might be forced to take pre-emptive action “if they elevate the threat of their weapons program” to an unacceptable level)⁷. The immediate goal of the Trump Administration, according to a recent New York Times assessment by David Sanger and William Broad, is to “Apply overwhelming pressure on the North, both military and economic, to freeze its testing and reduce its stockpile” and “Then use that opening to negotiate, with the ultimate goal of getting the North Koreans to give up all their [nuclear] weapons”.⁸

While such a policy suggests that the US is not immediately proceeding to military strike options on North Korea territory (as distinct from a military build-up in the region), the Trump Administration appears to be primarily relying on China to conduct negotiations with the Democratic People’s Republic of Korea (DPRK). President Trump has explicitly sought to put pressure on China to secure DPRK denuclearization, threatening “If China doesn’t do it, we will”, while remaining unclear about the timelines before potential resort to military options.⁹

Somewhat inconsistently, the US, at the same time as seeking Chinese diplomatic cooperation on constraining or reversing DPRK nuclear proliferation, has severely strained its relations with China by installing the THAADs BMD system in South Korea. The move is seen by China (the only nuclear weapon state to have adopted a no-first-use policy) as undermining its own second strike nuclear deterrence capabilities, inevitably forcing deployment of greater numbers of nuclear weapons in order to overwhelm such BMD systems. At the same time, the Trump Administration has sent a US destroyer on 24/5/17 to patrol within 12 miles of a contested South China Sea artificial island being constructed by China. Further, the Trump Administration does not appear to be moving to assist China diplomatically in such negotiations, as, for example, it might have done by complementing sanctions by also offering of positive incentives to induce North Korea to freeze or reverse its nuclear weapon and ballistic missile programs. Such positive incentives, as previously canvassed in earlier Six-Party Talks with North Korea, might include security guarantees, a non-aggression pact, a peace settlement of the Korean War, confidence-building measures, and economic assistance.

In the context of these contradictory aspects of US Administration policy and practice on North Korea, 64 Democrat legislators, led by Representative John Conyers Jr. (Michigan), felt impelled on 23/5/17 to warn President Trump against taking any pre-emptive military action, to remind him that any such strike would need congressional approval, and to call on him to clarify “the steps your administration is taking to advance the prospects of direct negotiations that could lower the potential for catastrophic war and ultimately lead to the denuclearization of the peninsula”.¹⁰ The legislators also noted a recent Economist/YouGov Poll conducted from April 29 to May 2 that found that 60% of Americans, regardless of political preference, supported direct negotiations between the US and North Korea.

What appears to have gone unnoticed in recent comparisons between nuclear threats on the Korean Peninsula and those occurring during the Cuban Missile Crisis is that the Cuban crisis galvanized important, and ultimately very successful, regional diplomatic efforts to eliminate such threats from South America. The two nuclear superpowers in the crisis may not themselves have learnt much from the Cuban Missile Crisis (going on to further increase their nuclear stockpiles) but the crisis certainly served to concentrate the minds of Latin American leaders on the need to address regional nuclear weapon threats, whether from outside or inside the region.

Latin American regional diplomacy following the Cuban Missile Crisis culminated in the 1964-67 negotiation of the Tlatelolco Latin American Nuclear-Weapon-Free Zone (NWFZ) Treaty¹¹, and the eventual bilateral negotiation of the ABACC agreement between the two largest nuclear-capable states, Brazil and Argentina¹². The model was successfully adopted in a number of other regions and single states, so that today there are now six internationally recognised regional NWFZs covering almost all of the Southern Hemisphere and several parts of the Northern Hemisphere, together with some single state NWFZs (such as Mongolia). The regional NWFZs include the South Pacific (Rarotonga) NWFZ, the Southeast Asia (Bangkok) NWFZ, the African (Pelindaba) NWFZ, and the Central Asian (Semipalatinsk) NWFZ. In conjunction with the central Nonproliferation Treaty (NPT), all have been reasonably successful to date in preventing nuclear weapon acquisition, proliferation, and stationing.¹³ Such regional zones have gone beyond NPT requirements in the sense of preventing NWS from stationing nuclear weapons within their zones (although have not, as yet, prevented sea and air transit of such weapons through such zones). . Even more importantly, such NWFZs have sought to go further than both the NPT and the new UN *Treaty on the Prohibition of Nuclear Weapons* in regional efforts to secure binding negative security guarantees from the five NPT-recognised nuclear weapon states not to use or threaten to use nuclear weapons against the NWFZ member states; and to foster establishment of regional nuclear weapon verification and compliance agencies to strengthen international IAEA verification systems.

NWFZ precedents from previous regions faced by nuclear weapon threats, stationing, testing, or proliferation, offer persuasive reasons for pursuing similar NWFZ treaty arrangements for Northeast Asia as part of current efforts to resolve the nuclear crisis in Northeast Asia.

Such NWFZ approaches serve to strengthen central measures such as the NPT, CTBT, and the new UN *Treaty on the Prohibition of Nuclear Weapons*. Regional NWFZs do so by tailoring nuclear prohibitions to the specific conditions of each region, incorporating the kind of specific negative security guarantees unavailable through existing central measures, and establishing regionally-based verification systems that complement and strengthen those of the International Atomic Energy Agency (IAEA).

Japan's Peace Depot, the Nautilus Institute, Nagasaki University's Research Center for Nuclear Weapons Abolition (RECNA), and experts, diplomats and researchers on the Panel on Peace and Security of Northeast Asia (PLNA), have conducted detailed studies on the applicability and feasibility of a regional Northeast Asia NWFZ. As outlined in the RECNA 2015 *Proposal for a Comprehensive Approach to a Northeast Asia Nuclear Weapon-Free Zone*¹⁴, one particularly relevant approach, building on the work of Hiromichi Umebayashi (2004)¹⁵ and Morton Halperin (2011, 2012, 2014)¹⁶ is the proposal to pursue a framework peace and security agreement, involving a 'Three plus Three' NEANWFZ (Japan and the two Koreas, guaranteed by China, the US, and Russia). This would build upon the previous negotiating efforts (and possibilities opened up) in the 2003-2008 Six-Party Talks. Such an approach could also seek to embrace the already declared NWFZ single state of Mongolia if it sought to join such an arrangement. Key features of this new comprehensive approach would be the adoption of a framework agreement that would involve the concomitant negotiation of not only a NWFZ treaty but also a wider agreement on: a final Korean War peace treaty and normalization of relations; establishment of a Northeast Asia Energy Cooperation Committee; and creation of a permanent regional security forum in the form of a Northeast Asia Security Council. In the case of the Northeast Asia NWFZ as proposed by RECNA and Halperin, this would include a flexible entry into force arrangement under which North Korea would not be obliged to immediately bring the NWFZ treaty into force but might well be encouraged or induced to do so in the context of incentives associated with NWFZ security guarantees, a Korean War settlement, and economic/energy assistance. Previous NWFZs, such as the Tlatelolco Treaty, have over a number of years succeeded despite key states (eg Brazil and Argentina) not at first being ready to bring the NWFZ Treaty into force.¹⁷

The following discussion focuses on issues affecting the scope of a future Northeast Asian NWFZ (NEANWFZ) in the context of current developments and the new 2017 UN *Treaty on the Prohibition of Nuclear Weapons*.¹⁸

In terms of the scope of a future NEANWFZ, the minimum UN-defined requirement is a guarantee of the absence of all nuclear weapons from the zone. As set out in the 1999 NWFZ guidelines of the UN Disarmament Commission, agreed by consensus, NWFZs should include prohibition of the development, manufacturing, control, possession, testing, stationing and transporting by treaty parties of any type of nuclear explosive device for any purpose, and should prohibit stationing of such weapons in the zone by countries outside the zone.¹⁹ Such zones should also include provisions for effective verification and compliance, and include protocols under which nuclear-weapon-states would undertake legally binding commitments not to use or threaten to use nuclear weapons against states party to the zone. In practice, these minimum requirements have generally been met in the existing six established regional NWFZ treaties for Latin America, the South Pacific, Southeast Asia, Africa and Central Asia. It was also envisaged under the UN guidelines, that specific zones would take into account the special characteristics of each region. As a result, those regions where nuclear weapons were present before or at the time of treaty negotiation have special

provisions for ensuring the absence of nuclear weapons and the dismantlement of facilities associated with manufacturing and storing nuclear weapons. Any future NEANWFZ would obviously need to embrace these minimum UN elements. At the same time, it would benefit from drawing upon some specific strengths in the previous zones and, equally, avoiding particular weaknesses.

Since nuclear proliferation has already occurred in Northeast Asia, there would clearly be a need to include IAEA verified dismantlement of existing nuclear weapon stocks and production facilities as part of any NEANWFZ. Such provisions might be similar to Article 6 of the Pelindaba African NWFZ Treaty under which each party “undertakes to (a) declare any capability for the manufacture of nuclear explosive devices; (b) to dismantle and destroy any nuclear explosive device that is manufactured prior to the coming into force of this Treaty; (c) to destroy facilities for the manufacture of nuclear explosive devices... and (d) to permit the IAEA to verify the process of dismantling and destruction”.²⁰ More detailed requirements for dismantlement of existing nuclear weapons are provided under Article 4 of the new UN *Treaty on the Prohibition of Nuclear Weapons*, requiring: “elimination or irreversible conversion of all nuclear-weapon-related facilities”; a time-bound plan for verified destruction of nuclear weapons and facilities; and conclusion of the relevant International Atomic Energy Agency safeguards agreements.²¹

In terms of the actual scope of nuclear-weapon-related activities prohibited as part of a NEANWFZ, two of the more recent NWFZs, the African and Central Asian zones, go further than previous such zones in prohibiting not only acquisition and stationing of nuclear weapons but also nuclear-weapon-related research. In view of the nuclear weapon research facilities present in North Korea, former such research programs in South Korea, and Japan’s advanced scientific and technical capabilities coupled with its large stockpile of plutonium, there would be need to be strong provisions against new or resumed nuclear weapon research programs or involvement with such nuclear weapon research programs in countries outside the Northeast Asian region. These previous precedents for prohibition on nuclear weapon-related research activities are potentially strengthened by a universal prohibition on “developing” nuclear weapons under Article 1(a) in the new UN *Treaty on the Prohibition of Nuclear Weapons*. Further, Article 2 of the new treaty requires the elimination of “all nuclear weapon programmes” and “nuclear-weapon-related facilities”, additional categories under which nuclear-weapon-related research would be prohibited.

Rigorous verification mechanisms would need to be established that would extend not only to ongoing civilian nuclear industries, reprocessing of nuclear fuels, and other stages fuel cycle but also to sites of nuclear research. One important strength of the newest NWFZ, that of Central Asia, is that it requires adoption of the more rigorous IAEA safeguards Additional Protocol which allows for expanded rights of access to information and locations within participating states.²²

All previous zones prohibit the use, or threat of use, of nuclear weapons against zone member states. However, the Southeast Asian zone has the additional strength of not only prohibiting the targeting of zone countries but also the firing of nuclear weapons from anywhere in the zone, including within its 200-mile EEZ boundaries, as, for example, might be possible if a transiting external nuclear armed craft were to fire such weapons from within such EEZs.²³ This is particularly relevant in Northeast Asia, which is bounded by several major nuclear-weapon states, including China, Russia, and the US. Security guarantees from each of the nuclear powers envisaged in a 3+3 NEAWFZ would have more credibility, and the zone be far more respected by all three nuclear powers, if there were no possibility of its waters becoming a launch arena for either the use or threat of use of nuclear weapons targeted at nuclear adversaries. Again, the new *UN Prohibition of Nuclear Weapons Treaty* (PNWT) provides support for including such wider prohibitions on the use of any zone for the launching of nuclear weapons since Article 1(d) obligates states never to “use or threaten to use weapons”; and Article 1(e) additionally requires parties not to “assist, encourage or induce, in any way, anyone to engage in any activity prohibited to a State Party under this Treaty”. In the case of a NWFZ, a policy of allowing military allies from outside the zone to continue to use either territorial or EEZs for the launch or threatened launch of nuclear weapons would almost certainly be a case of “assisting” an external nuclear weapon state.

Given the current tensions, level of distrust, and heightened military confrontation associated with concerns over the recent spate of North Korean ballistic missile tests, and, from the North Korea fear-of-invasion perspective, the large scale US and allied military exercises and US deployment of an aircraft carrier task force and submarines to the region, a NEANWFZ would also be more effective, and create greater confidence in and beyond the region, if it included a ban on nuclear-capable intermediate and long-range ballistic missile systems, for example, with a range exceeding 70km (compared with the 150km limit imposed on Iraq at the time of the 1991 Gulf War). There would, of course, be serious technical difficulties in distinguishing between civilian space launch missiles and nuclear-armed missiles, but these could potentially be addressed by both aerial and space surveillance coupled with an intrusive inspection regime overseen by a regional verification commission. Such an inspection regime would reach beyond nuclear sites to include inspection and transparency procedures relating to missile manufacture, testing, use, and deployment. There has, of course, been considerable international experience and success in implementing and monitoring the dismantlement and absence of intermediate and long-range missiles as a result of the verification and compliance provisions of the 1987 Intermediate Range Nuclear Forces (INF) and the 1991/1993 START 1 and 2 treaties. Such a missile ban would be a major innovation in NWFZ treaty arrangements since previous NWFZs have not included such a prohibition. However, the prospect of North Korea acquiring intermediate and long-range nuclear- weapon-capable systems, and potential reciprocal moves on the part of other NEA states, would seem to warrant inclusion of a missile ban as an integral part of a regional NWFZ. This would also go some of the way to overcoming the inherent discrimination in the 1987 Missile Control

Technology Regime which assumes a division between missile “haves” and “have nots”.

A weakness of some zones, like the South Pacific and the Central Asian NWFZs, is that they do not unambiguously forego the use or threat of use of nuclear weapons in defence of zone members by nuclear weapon states who have military alliances with zone states under implicit or explicit extended deterrence or nuclear umbrella arrangements. Article 1(d) of the new UN *Treaty on the Prohibition of Nuclear Weapons* prohibits any use, or threat of use, of nuclear weapons. Together with Article 1 (e), under which any party is also constrained from “assisting” any other country in the use or threat of use of nuclear weapons, this means that parties to a NEANWFZ treaty would need to embody this principle by explicitly foregoing any reliance on the use or threat of use of nuclear weapons by external military allies in defending zone members. Less preferably, if the NEANWFZ treaty were to be silent on extended nuclear deterrence (as in the case of the Rarotonga NFZ Treaty), then parties might declare and pass binding national legislation to the effect that they would not rely on extended nuclear deterrence for their defence (as New Zealand has chosen to do). In the case of national legislation, the new UN PNWT envisages and requires under Article 5 that each party would adopt national implementation measures to implement its obligations, and impose penal sanctions aimed at preventing activities prohibited under the treaty.

The nature of the security guarantees sought under a NEANWFZ also needs to be considered. The minimum guarantee sought by all the previous zones is a negative security one under which nuclear weapon states undertake legally binding obligations not to use or threaten to use nuclear weapons against zone states. The nature of security guarantees is a particularly important one in the Northeast Asian context in the absence of a final peace treaty for the Korean War, and the current heightened distrust and hostility between the North Korean leadership and the US Trump Administration. The need for a guarantee against not only use but also threat of use of nuclear weapons is now an obligation under Article 1(d) of the new UN NWPT. In the Northeast Asian context, nuclear weapon states have made use of nuclear threats in the past, especially the US immediately after the Korean War²⁴, and most recently North Korean threats of missile attack on the continental US in response to potentially being invaded.

A further useful precedent established under both the South Pacific and African NWFZs would be for a NEANWFZ to include bans on radioactive waste dumping, given the advanced nuclear industry and nuclear fuel cycle activities present in all three major Northeast Asian states.

Since civilian nuclear installations can be turned into “in-situ” nuclear radiation dispersal “bombs” if targeted by conventional weapons, it would also seem prudent for a NEANWFZ to include bans on any armed attack on nuclear power plants and civilian research reactors. There is already a precedent for such a ban in the Pelindaba African NWFZ Treaty. A recent analysis of the potential impact of an attack on North Korea’s Yongbyon nuclear reactors by David von Hippel and Peter Hayes, has discussed radioactive fallout risks

from attacks on North Korea's Yongbyon reactors; and, in the event of military escalation to reciprocal attacks on South Korean nuclear reactors, the likely greater impacts that South Korea would experience..²⁵

A further issue for the scope of a NEANWFZ is raised by the US siting of a THAAD system in South Korea in the dying days of the Park Genu-hye Government after President Park was impeached and dismissed, just before the new president, Moon Jae-In (who had voiced reservations about THAAD), was elected on May 9 2017. Following an initial siting of two THAAD interceptor-rocket launchers, the US has apparently sited a further four launchers after President Moon came to office and without his authorization.²⁶ Meanwhile, US Congressional Republicans are earmarking funds for the purpose of the US, Japan, South Korea and Australia undertaking joint BMD exercises in the region.²⁷

While such systems may seem outside the scope of a NWFZ, and may continue to be pursued as an ostensible "defence" against conventionally-armed missile attack, they have an inherent function of accelerating arms races between adversaries because of the need to overwhelm any ballistic missile defence system with increased numbers of missiles and/or MIRVing (increasing the number of warheads on each missile). In the Northeast Asia context, any retention of THAAD or other BMD systems would have a destabilizing effect both in and beyond the region. Even with the zone region completely denuclearized, THAAD, with its long range radar surveillance system (and triangulation with two other such US systems close to China) would also be perceived as a threat to China's second strike nuclear deterrence capability and prompt the need for increased Chinese nuclear warheads and missile "MIRVing".²⁸ This, in turn, would no doubt be seen as reciprocal justification for increasing US nuclear arsenals and missiles. In relation to any kind of nuclear war-fighting control and weapons launch systems, it would be important for any NEAWFZ to be consistent with obligations under the new UN *Treaty on the Prohibition of Nuclear Weapons*. One of these obligations is "never under any circumstances to... Receive the transfer or control over nuclear weapons or other nuclear explosive devices directly, or indirectly" (Article 1c). Clearly, real-time BMD radar systems are very much part of the control over nuclear weapon launch systems, and pose particular risks in the acceleration of both nuclear and conventional arms races. In the case of the THAAD system in South Korea, its radar reach extends to neighbouring China and would therefore have a continuing role as a nuclear weapon control system relating to US-China nuclear weapon systems even if the Korean Peninsula itself was denuclearized. As such it would seem necessary to include a ban on such BMD systems as part of a future NEANWFZ.

As former US Defense Secretary William Perry has recently warned, ABM systems merely create a dangerous sense of complacency and self-deception:

"...the offense-defense dialectic goes on in the post Cold War in a different form, with the deployment of American ground-based BMD systems,

stimulating Russia and China to build decoys and more ICBMs. When I think of the persistent history of the forlorn idea of defense against a nuclear attack, I am tempted to think that the notion especially typifies Einstein's grim and painfully realistic observation that 'the unleashed power of the atom has changed everything save our modes of thinking'. It has certainly been normal in history to think of fashioning defences against evolving military threats. But nuclear weapons, unleashed in a large-scale attack, bring a sure destruction, one so massive as to rule out any successful defence. Defense-in-conflict, a traditional mode of thinking, is here no longer plausible. In a nuclear war, the long-standing 'norm' of reliance on defense has become a self-deception, a most human and understandable one, and one that is rooted in an aversion to the new reality".²⁹

Effective verification would be a *sine que non* for a NEANWFZ. All the Northeast Asian countries have the technical and scientific capacities, and access to the necessary fissile materials and technologies, to acquire nuclear weapons. The history of conflict and distrust in the region places a premium on very rigorous and transparent verification and compliance mechanisms, exceeding those in place for already established zones.

Of all the existing NWFZs, the Tlatelolco Latin American NWFZ Treaty, with its permanent OPANAL regional agency, complemented by the bilateral ABACC Argentina-Brazil monitoring agency, offers the best precedent for Northeast Asia. As in the case of Tlatelolco it would be necessary for a NEANWFZ to establish a Commission and monitoring agencies with fully-fledged powers to conduct fact-finding missions and site inspections on the request of any parties, the Commission itself, or the IAEA; and to require regular and timely quarterly reports to ensure transparency and details of nuclear infrastructure developments.

A NEANWFZ would need to develop a similar set of complementary verification and compliance mechanisms to the Tlatelolco Treaty. This would involve not only an obligation under the Treaty itself to enter into full-scope IAEA safeguards agreements, including the Additional Protocol IAEA Safeguards, but also the establishment of a Commission with the technical and professional skills and resources required to fully monitor all aspects of compliance and to undertake fact-finding visits and on-site inspections.

Further, the treaty could envisage and encourage the establishment of a verification organization analogous to ABACC in Argentina and Brazil. The Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials (ABACC) was established by the two countries in 1991, and has the organizational form of a Commission and Secretariat. The Commission is composed of two representatives from each of the countries, while the Secretariat involves all the technical and support staff. The latter in turn has six sectors: planning and evaluation; operations; accounting of nuclear materials; technical support; institutional relations; and administration and finance. The organization is independent in its conclusions, has highly qualified staff, and possesses state of the art monitoring equipment. As noted by Seongwhun Cheon, the ABACC example has much application to the

Korean context. As in the case of the two potential nuclear rivals in Latin America, Brazil and Argentina, the negotiation and formation of a bilateral agency can serve to reinforce central IAEA safeguards arrangements, reduced suspicion about each other's nuclear programs, and through the practical and scientific cooperation and confidence-building involved, facilitate and form an integral part of wider denuclearization arrangements.³⁰ While Cheon has proposed a Korean equivalent of ABACC, a NEANWFZ would obviously need to include Japan. Such an agency, in Cheon's view, would have the right to conduct its own special inspections, and thereby "increase the organization's credibility and reduce international suspicions of the two Korea's nuclear programs". Cheon has also proposed the establishment within such an agency of a division in charge of nuclear materials to be called the "Nuclear Material Supply Division", which would take control of all nuclear materials and equipment imported, exported, or produced by the parties, and would establish a single unified system of accounting, control and supply of nuclear materials and equipment.

As in the case of ABACC, such an agency would work in tandem with the proposed NEANWFZ Commission and with the existing IAEA safeguards regime and with the NPT treaty provisions. In the event of a violation detected through any of the above verification mechanisms, whether through the NEANWFZ Commission or through a bilateral monitoring agency, or through the IAEA, a NEANWFZ should provide clear and timely ways of seeking compliance with the treaty, as for example, through immediate referral mechanisms by any party or any of the detecting agencies to either the International Court of Justice or to the UN Security Council as appropriate.

A key aspect in all NWFZ treaties is the entry into force requirements and processes. While the small number of states in Northeast Asia would seem to warrant a simple entry into force requirement of concurrent signature and ratification by all three of the major states, Japan and the two Koreas, Morton Halperin has argued for a more flexible entry into force mechanism.³¹ Halperin notes: "The provisions in the [NWFZ] treaty relating to entry into force and possible transition period should be structured so as to maximize the pressure on the DPRK and to give both China and North Korea the greatest incentives to accept the framework...One way to achieve this is to have a provision in the treaty which permits the ROK and Japan to sign and ratify the treaty on a conditional basis...with...the right to withdraw from the treaty after 3 to 5 years unless the provisions are being enforced effectively throughout the Korean Peninsula".³²

In the context of negotiations for a wider comprehensive agreement on peace and security in Northeast Asia (involving not only a NWFZ but also final settlement of the Korean War, creation of a permanent regional security council, mutual declarations of non-hostile intent, economic aid and assistance, and ending of the current sanctions regime), a flexible entry into force mechanism would allow time for North Korea to re-assess and reconsider the cooperative security benefits, guarantees, and economic value of such a wider framework agreement. The Tlatelolco Treaty, negotiated at a time of military regimes in both Brazil and Argentina, included a flexible entry

into force mechanism that enabled the treaty to come into force progressively.³³ In the case of Latin America, rather than experience an immediate deadlock and collapse of the whole Tlatelolco Treaty by insisting that all parties immediately bring the treaty into force, the flexible entry into force mechanism allowed Brazil and Argentina to bring the treaty into force at a later date. It now enjoys universal membership amongst the regional states, and negative security guarantees from all five of the NPT nuclear-weapon-states.

A further issue for a future NEANWFZ is the presence of other types of weapons of mass destruction in the region. North Korea is not a party to the Chemical Weapons Convention, and is believed to possess a stockpile of between 2,500-5,000 metric tons of chemical weapons.³⁴ South Korea is party to the CWC under which it declared its chemical weapon stockpiles, now all destroyed. In the case of biological weapons, all three major regional states are members of the Biological Weapons Convention. However, in the case of North Korea, there has been concern over the role of dual use technologies in relation to possible production of weaponised anthrax. At the minimum, it would seem important to include a requirement for membership of both the CWC and BWTC as part of a NEANWFZ. Alternatively, the treaty might be expanded to become a NEA-WMDFZ treaty, with particular provisions and verification measures extending to dismantling of all chemical and biological weapon production facilities. Such expansion of a NEANWFZ treaty would certainly serve to reinforce and strengthen CWC and BWTC compliance mechanisms (particularly weak in the case of the BWTC).

There are finally the issues of war by miscalculation, accident, or escalation from conventional armed conflict. As the UN PNWT Preamble warns, nuclear weapon use would result in “catastrophic humanitarian consequences”; and the risks of war “by accident, miscalculation or design...concern the security of all humanity...and... all States share the responsibility to prevent any use of nuclear weapons”.³⁵

All three major states have military alliances with nuclear weapon states, Japan and South Korea with the United States, and North Korea with China. In the case of North Korea, China and North Korea are allied under the 1961 Sino-North Korean Mutual Aid and Cooperation Friendship (Beijing) Treaty (renewed most recently in 1981 and 2001). Under the Treaty’s Article 2, China is required to “immediately render military and other assistance by all means at its disposal” in the event that North Korea is attacked.³⁶ Even in the event of denuclearization of the region under a nuclear-weapon-free-zone treaty, there remains the problem of inadvertent or miscalculated nuclear war affecting the region but precipitated between external nuclear weapon states allied to NEA-NWFZ states. While such threats cannot be eliminated until the nuclear weapon states themselves agree to dismantle their nuclear arms, a NEANWFZ could prohibit nuclear-weapon-related command, control and intelligence facilities (prime targets for nuclear strikes) operating from anywhere within the territorial and EEZ limits of the zone. The move to pre-emptive strike strategies on the part of both North Korea and the US poses particular risks of war by miscalculation as one side or the other senses, quite

possibly mistakenly, that the other side is about to strike first, or makes incorrect assumptions about triggering military alliance obligations to intervene. In this context, it would be important, whether as a part of a NEANWFZ arrangement, or as part of a wider Northeast Asia Peace and Security Treaty, to include a range of confidence-building measures, including advance notifications of all military exercises, exchanges of military observers, hot lines, and dispute resolution forums.

The above discussion has focused primarily on aspects of the scope of a future NEANWFZ that would need to be considered both in relation to what has been learned from other such regional NWFZs and in terms of the particular features of nuclear weapon problems and dilemmas currently facing Northeast Asia, especially on the Korean Peninsula. Obviously, in the current context of a ramping up of military tests and shows of force, both on the part of North Korea and on the part of the new US Trump Administration, any consideration of a regional NWFZ would depend critically on diplomatic initiatives to pursue the wider need for a comprehensive peace and security agreement for the region.

While there is some uncertainty about the seriousness of the new US Administration in pursuing diplomatic negotiations rather than military options, there have been recent positive signs of interest amongst key actors in pursuing such negotiations. The new South Korean President, Moon Jae-in has indicated a preparedness to visit North Korea “under the right conditions”; and, despite DPRK’s recent successful July 4 2017 test of a Hwasong-14 intercontinental ballistic missile (altitude 2,802 km, distance 933km)³⁷, has proposed holding military talks with the North, aimed at stopping “all hostile activities that raise military tension”.³⁸ Both the Chinese and Russian Foreign Ministers, meeting on May 26 2017, have called for “resolving the issue through peaceful means including dialogue and negotiations”. North Korea, for its part, has, through one of its senior diplomats, Choe Son Hui, North Korea’s Foreign Minister Director General for US Affairs, affirmed that “We’ll have dialogue if the conditions are there”.³⁹ And, in recent comments, US Secretary of State, Rex Tillerson, has noted that “direct talks” with North Korea would be “preferable” and that a “nuclear-free Korean Peninsula” is the US goal; and the new US Secretary of Defense, James Mattis, has cautioned that a military solution to the conflict with North Korea over its nuclear weapons program would be “tragic on an unbelievable scale”.⁴⁰ It would seem that, despite the recent heightening of tensions, the possibilities for negotiation remain open.

In the event of such negotiations, there will be a need to resume negotiations on the full range of regional peace and security issues, including consideration of the need and benefits to be gained from establishing a Northeast Asian NWFZ to both denuclearize the region and provide legally binding security guarantees to all member states. Current US Trump Administration consideration of unilateral or pre-emptive military moves (including the potential shooting down of North Korea test missiles) risks deadly miscalculation on either side as to who should go first in any pre-emptive attack. Even if confined to conventional warfare, any outbreak of war

between North and South Korea would entail massive casualties and destruction even within the first 48 hours, particularly in Seoul and Pyongyang⁴¹.

Needless to say, any escalation to a nuclear war would have catastrophic consequences in and beyond the whole region. As the new UN PWNT Treaty Preamble warns “the catastrophic consequences of nuclear weapons cannot be adequately addressed, transcend national borders, pose grave implications for human survival, the environment, socioeconomic development, the global economy, food security and the health of current and future generation, and have a disproportionate impact on women and girls, including as a result of ionizing radiation”.

In June 1954, there was a significant meeting at the height of the Cold War between the British Prime Minister, Winston Churchill, and the American President, Dwight D. Eisenhower. The meeting took place just one year after the July 27 1953 Korean War armistice that ended armed hostilities on the Korean Peninsula, and in the middle of the 1954 Geneva Peace Talks to seek an end to the war in Vietnam between former colonial power, France, and the Viet Minh communist forces seeking independence. On the recommendations of his Joint Chiefs of Staff, Eisenhower had threatened the use of tactical nuclear weapons against Chinese forces shortly after the end of the Korean war,⁴² a threat that no doubt concentrated the minds of the Chinese Communist leaders on the urgency of developing their own nuclear weapons (as they went on to do in 1964). Churchill, for his part, and despite his strong support for US and British nuclear weapon possession, had become more “wary” in the early 1950s of the risks of nuclear weapon use.⁴³ In December 1953 he expressed his concerns to Eisenhower about any use of nuclear weapons in Korea.⁴⁴ Then, after Stalin’s death in March 1953, Churchill encouraged Eisenhower to seize the opportunity to end the Cold War.⁴⁵ Eisenhower did, indeed, six weeks later, give an inspired peace-oriented speech on April 17 1953, declaring that “Every gun that is made, every warship launched, every rocket fired signifies a theft from those who hunger and are not fed, those who are cold and are not clothed...Under the cloud of threatening war, it is humanity hanging from a cross of iron”.⁴⁶ On July 20 1954, the Geneva Accords ended the First Indochina War between France and the Vietminh. In the space of twelve months, two major armed conflicts costing millions of lives in Northeast Asia and Southeast Asia were brought to an end through negotiations.

Speaking in the House of Commons about his June 1954 meeting with Eisenhower, Churchill noted: “We proclaimed our desire to reduce armaments and to turn nuclear power into peaceful channels” and “confirmed our support of the United Nations and of subsidiary organisations designed to promote and preserve the peace of the world”.⁴⁷ Eisenhower was under political attack at the time from fellow Republicans for the 1949 “loss of China to communism” and for taking part in the 1954 Geneva peace talks.⁴⁸ At the two leaders’ June 26 1954 press conference while the Geneva peace talks were still underway, Churchill memorably came to the support of President Eisenhower on the need to engage in such talks. He observed (although he had not

always practiced what he now preached): “to jaw jaw is always better than to war war”.⁴⁹ The lesson, it seems, may still not have been learnt.

¹ For instance, see David E. Sanger & William J. Broad, “A ‘Cuban Missile Crisis in Slow Motion’ in North Korea”, *New York Times*, April 16 2017.

² David E. Sanger & William J. Broad, “As North Korea Speeds Its Nuclear Program, U.S. Fears Time Will Run Out”, *New York Times*, April 24 2017.

³ James Martin Center for Nonproliferation Studies, Middlebury Institute of International Studies at Monterey, *North Korea: Overview (Updated May 2017)*, <http://www.nti.org/learn/countries/north-korea/> (accessed June 3 2017).

⁴ William J. Perry, *My Journey at the Nuclear Brink*, Stanford University Press, Stanford, 2015, p.3.

⁵ Yonhap, “Trump finalizes 4-point strategy on N.Korea: lawmaker”, 26 May 2017.

⁶ BBC. “Trump fears ‘major, major conflict’ with North Korea”; Rick Gladstone, “Democrats Warn Trump Against Pre-emptive Attack on North Korea”, *New York Times*, May 23 2017.

⁷ David E. Sanger, “Rex Tillerson Rejects Talks With North Korea on Nuclear Program”, *New York Times*, 17 March 2017.

⁸ David E. Sanger & William J. Broad, “As North Korea Speeds Its Nuclear Program, U.S. Fears Time Will Run Out”, *New York Times*, April 24 2017.

⁹ Donald Trump, tweet, 4 April 2017, ABC News, <http://abcnews.go.com/Politics/trump-urges-china-solve-north-korea-problem/story?id=46725640>.

¹⁰ Rick Gladstone, “Democrats Warn Trump Against Pre-emptive Attack on North Korea”, *New York Times*, May 23 2017.

¹¹ Alfonso Garcia Robles, *The Latin American Nuclear-Weapon-Free Zone* (Muscatine, Iowa: The Stanley Foundation, 1979); John R. Redick, “Regional Nuclear Arms Control in Latin America,” *International Organization* 29, no.2 (Spring 1975), pp. 415-445; John R. Redick, “The Tlatelolco Regime and Nonproliferation in Latin America,” *International Organization* 35, no.1 (Winter 1981), pp. 103-134; Monica Serrano, *Common Security in Latin America: The 1967 Treaty of Tlatelolco* (London: Institute of Latin American Studies, London University, 1992); John R. Redick, “Precedents and Legacies: Tlatelolco’s Contribution to the 21st Century,” in Pericles Gasparini Alves and Daiana B. Cipollone, eds. *Nuclear-Weapon-Free Zones in the 21st Century* (Geneva: United Nations Institute for Disarmament Research, 1997), pp. 39-48.

¹² For a detailed account and analysis of the negotiations that led up to the ABACC agreement and Brazil and Argentine decision to bring the Tlatelolco Treaty into force for their countries, see Redick, John R., *Nuclear Illusions: Argentina and Brazil*, The Henry L. Stimson Centre, Occasional Paper No.25, December 1995.

¹³ For overviews of NWFZ initiatives, see Jozef Goldblat, *Arms Control: the New Guide to Negotiations and Agreements*, Chapter 13, Second Edition, SAGE, London, 2002; Michael Hamel-Green, “Cooperating Regionally, Denuclearizing Globally: Multilateral Nuclear-Weapon-Free-Zone Initiatives”, in Jeffrey W. Knopf, (ed.), *International Cooperation on WMD Nonproliferation*, University of Georgia Press, Athens, Georgia, 2016, pp.206-228.

¹⁴ Satoshi Hirose, Keiko Nakamura, Tatsujiro Suzuki & Hiromichi Umebayashi, *Proposal: A Comprehensive Approach to a Northeast Asia Nuclear Weapon-Free Zone*, Research Center for Nuclear Weapons Abolition, Nagasaki University (RECNA), Nagasaki, March 2015.

¹⁵ Hiromichi Umebayashi, *Proposal of A Model Treaty on the Northeast Asia Nuclear-Weapon-Free Zone*, Peace Depot, Working Paper No.1, Yokohama, November 2005.

¹⁶ Morton H. Halperin, "A Proposal for a Nuclear Weapons-Free Zone in Northeast Asia", *Global Asia*, vol.6, no.4, winter 2011; and Morton H. Halperin, "A New Approach to Security in Northeast Asia: Breaking the Gridlock", *The Asia-Pacific Journal*, vol.10, Issue 34, no3, August 19 2012; Morton H. Halperin, "Time to strike a comprehensive security deal in Northeast Asia", *Point of View, Asia & Japan Watch*, September 11, 2014).

¹⁷ For a further discussion of successful NWFZ implementation over time, see Hamel-Green, Michael, "Cooperating Regionally, Denuclearizing Globally: Multilateral Nuclear-Weapon-Free-Zone Initiatives", in Jeffrey W. Knopf, (ed.), *International Cooperation on WMD Nonproliferation*, University of Georgia Press, Athens, Georgia, 2016, pp.206-228.

¹⁸ United Nations General Assembly, *Treaty on the Prohibition of Nuclear Weapons*, United Nations, A/CONF.229/2017/8, 7 July 2017.

¹⁹ United Nations, *Report of the Disarmament Commission* (New York: UN General Assembly Official Records, 54th Session, Supplement No.42, A/54/42, Annex 1, 16 May 1999), pp. 7-10.

²⁰ Oluyemi Adeniji, *The Treaty of Pelindaba on the African Nuclear-Weapon-Free Zone*, United Nations Institute for Disarmament Research, Geneva, 2002, pp.324-325.

²¹ UN, *Treaty on the Prohibition of Nuclear Weapons*, *ibid.*, p.4—5.

²² Marco Roscini, "Something Old, Something New: The 2006 Semipalatinsk Treaty on a Nuclear Weapon-Free Zone in Central Asia," *Chinese Journal of International Law* 7, no.3 (2008),

²³ Protocol Article 2 of the Bangkok Southeast Asian NWFZ Treaty for ratification by the five NPT-recognised nuclear weapon states (US, Russia, China, France and UK) states : "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 Asia Nuclear Weapon-Free Zone" (Thomas Graham, Jr & Damien J. LaVera, *Cornerstones of Security: Arms Control Treaties in the Nuclear Era*, University of Washington Press, Seattle, 2003, p.79.

²⁴ Oliver Stone and Peter Kuznick, *The Untold History of the United States*, Ebury Press, UK, p.250.

²⁵ David von Hippel & Peter Hayes, *Potential Impacts of Accident At Or Attack On The DPRK's Yongbyon Nuclear Reactors*, NAPSNet Special Report, Nautilus Institute, May 22 2017, <http://nautilus.org/napsnet/napsnet-special-reports/potential-impacts-of-accident-at-or-attack-on-the-dprks-yongbyon-nuclear-reactors/> (accessed June 2 2017).

²⁶ Choe Sang-Hun, "South Korea Leader Orders Investigation Into Unreported U.S. Launchers", *New York Times*, 30 May 2017.

²⁷ David Wroe, "US Overture on N Korea Missile Threat", *The Age*, 31 May 2017, p.2

²⁸ Ankit Panda, "Thaad and China's Nuclear Second-Strike Capability", *The Diplomat*, 8 March 2017.

²⁹ William J. Perry, *My Journey at the Nuclear Brink*, Stanford University Press, Stanford, 2015, p.68.

³⁰ Seongwhun Cheon, *Applying ABACC Experiences to the Korean Peninsula: Possibilities and Action Plans*", paper presented to Institute for Science and International Security (ISIS) conference, "Building Nuclear Confidence on the Korean Peninsula", 23 July 2001, at <http://www.isis-online.org/publications/dprk/cheon.pdf>, accessed 26/8/10.

³¹ Morton H. Halperin, "A New Approach to Security in Northeast Asia: Breaking the Gridlock", *The Asia-Pacific Journal*, vol.10, Issue 34, no3, August 19 2012.

³² *Ibid.*

³³ The text of this provision is as follows: "Article 28 (2). All signatory States shall have the imprescriptable right to waive, wholly or in part, the requirements laid down in the preceding paragraph. They may do so by means of a declaration which shall be annexed to their respective instrument of ratification and which may be formulated at the time of deposit of the instrument or subsequently. For those States which exercise this right, this Treaty shall enter into force upon deposit of the declaration, or as soon as those requirements have been met which have not been expressly waived." (Robles, Alfonso Garcia, *The Latin American Nuclear-Weapon-Free Zone*, The Stanley Foundation, Muscatine, Iowa, Occasional Paper 19, May 1979, p.29). Since the treaty under Article 28 (1) required the treaty to come into force for all countries in the zone, almost all countries except Brazil and Argentina chose to waive the Article 28(1) requirement, thereby bringing the treaty into force for their countries.

³⁴ Nuclear Threat Initiative (NTI), *North Korea – Chemical*, <http://www.nti.org/learn/countries/north-korea/chemical/> (accessed June 2 2017).

³⁵ United Nations General Assembly, *Treaty on the Prohibition of Nuclear Weapons*, United Nations, A/CONF.229/2017/8, 7 July 2017, p.3

³⁶ Jesse Johnson, "For North Korea and China, defense pact proves a complicated document", *Japan Times*, April 18, 2017.

³⁷ BBC World News, <http://www.bbc.com/news/world-asia-40497972>, accessed 17/7/17.

³⁸ BBC World News, <http://www.bbc.com/news/world-asia-40627608>.

³⁹ *Australian Broadcasting Commission News*, 13/5/17.

⁴⁰ Associated Press, "Mattis: Military Solution to N Korea Would Be 'Tragic'", *New York Times*, May 19 2017.

⁴¹ Estimated by US Department of Defence to surpass 100,000 Seoul and US military casualties within the first two days of a conventional war, and comparable numbers of North Korea casualties (Franz-Stefan Gady, "What Would the Second Korean War Look Like?", *The Diplomat*, April 19 2017.

⁴² Oliver Stone and Peter Kuznick, *The Untold History of the United States*, Ebury Press, UK, p.250.

⁴³ *Ibid.* p.249.

⁴⁴ *Ibid.* p.255

⁴⁵ *Ibid.* p.249

⁴⁶ Ibid. p.249

⁴⁷ UK Parliament, Hansard, House of Commons, 12 July 1954, vol.530, cc34-49.

⁴⁸ George McTurnan Kahin and John W.Lewis, *The United States in Vietnam*, Dial Press, New York, 1967, p44.

⁴⁹ *New York Times*, 27 June 1954, p.1.