### **REGIONAL SECURITY FRAMEWORK IN NORTHEAST ASIA**

Peter Hayes Nautilus Institute May 21, 2019 Draft Paper to Session 4: Regional security framework in North East Asia—As a parallel endeavor, what regional security framework should be envisaged and constructed?" Joint ROK-Japan Workshop "From Peace on Korean Peninsula to North East Asia Nuclear Weapon Free Zone" The Sejong Institute and Research Center for Nuclear Weapons Abolition, Nagasaki University (RECNA) In cooperation with Panel on Peace and Security of Northeast Asia (PSNA) Seoul June 2, 2019

### Summary

This paper examines the dialectic between Korean Peninsula denuclearization and regional great power nuclear threat reduction. It reviews briefly the necessary steps and current state of play in DPRK nuclear disarmament and talks between the United States and North Korea. It then examines the regional security context and argues that the use of nuclear threat among the nuclear weapon states is the backdrop for short-term gains in the Korean denuclearization process; but in the long run, presents enormous risks to Korea and the entire region if left untrammeled. In proposing a comprehensive regional security zone that includes the key elements of a nuclear weapons free zone, the paper suggests that there are a set of urgent research questions on the relationship between nuclear threat, nuclear extended deterrence, and security assurances and commitments made by the parties to a possible zone that bear heavily on a zone's credibility and plausibility.

#### Korean Denuclearization Roadmap

I am sure that my colleagues on this panel will address the relatively straightforward Korean Peninsula denuclearization roadmap. However structured, however it is phased, the specific steps that must be taken are well known.<sup>1</sup> Some, such as John Bolton, argue that denuclearization may be achieved rapidly—in as little as one year.<sup>2</sup>. Others much more knowledgeable technically and

<sup>&</sup>lt;sup>1</sup> Morton Halperin, Peter Hayes, Thomas Pickering, Leon Sigal, "GENERAL ROADMAP AND WORK PLAN FOR NUCLEAR DIPLOMACY WITH NORTH KOREA", NAPSNet Special Reports, April 10, 2018, <u>https://nautilus.org/napsnet/napsnet-special-reports/general-roadmap-and-work-plan-for-nuclear-diplomacy-with-north-korea/</u>

<sup>&</sup>lt;sup>2</sup> M. Vazquez, "Bolton says there's a one-year plan for North Korea to denuclearize, stays mum on WaPo report," CNN, July 2018 at: <u>https://www.cnn.com/2018/07/01/politics/john-bolton-north-korea-nuclear-weapons/index.html</u> Bolton also suggested before becoming National Security Advisor to President Trump, perhaps flippantly, that DPRK nuclear weapons be transferred to Oak Ridge in Tennessee. Of course, this would be dangerous and incredibly irresponsible. Only North Korean technicians in North Korea should

politically than Bolton have suggested it may take as long as a decade.<sup>3</sup> My view is that it is somewhere in-between, with irreversible steps that would make reconstituting a nuclear arsenal in the DPRK extremely challenging possible in one year with verification; but a complete denuclearization including return to good standing with the IAEA and re-entry into the NTP, at minimum, five years, or more likely longer.

Elsewhere,<sup>4</sup> I argue that there is now an integral link between the rate, pace, and sequencing of DPRK denuclearization with that of the inter-Korean peace building and operational arms control and disarmament process.

Still invisible to most within the latter is the prospective transformation of the current role of UN Command from sole focus on maintaining the readiness and military capabilities of UNC and Combined Forces Command forces, to also in facilitating trilateral, collaborative steps involving the three militaries such MIA recovery, removal of guard posts, reconfiguring the Joint Security Area, demining, even ensuring Kim Jong Un's personal safety when he crosses the MDL, and other measures under consideration.

UN Command's newly active and enhanced role prefigures that US Forces Korea may shift from being a solely partisan deterrent force in Korea to becoming a pivot deterrent, one that provides reassurance to both Koreas that neither will attack the other; and that facilitates communication, cooperation, and collaboration between UNC, UNC allies, and the two Korean military forces to reconfigure their respective forces, and to employ them in constructive ways to support peacemaking and the formation of trust between political and military commanders, rather than preparing for war and ultimately, mutual annihilation.<sup>5</sup>

Thus, in Korea itself, denuclearization on the one hand, and the military dimension of inter-Korean conflict resolution on the other, will move in-tandem, with the latter calibrated carefully with respect to the former, but with small steps on one front making the task easier on the other.

### Next Summit Breakthrough

At a strategic level, it is patently obvious that there will be a third summit in the next six months unless President Trump is driven from office, or Kim Jong Un dies from diabetes or some other disease. Trump needs a success with Kim to avoid war and put maximum pressure on Iran, and fueling his domestic base. Kim knows that a conservative or progressive democratic president would likely not engage with him and that he must come to terms with Trump while he holds the

dismantle North Korean warheads. J. Lind, "North Korea's Nukes Should Be Tennessee Bound: Bolton," *Patch,* May 15, 2018, at:

https://patch.com/tennessee/knoxville/north-koreas-nukes-should-be-tennessee-bound-bolton

<sup>&</sup>lt;sup>3</sup> Siegfried Hecker, Robert Carlin, and Elliot Serbin, North Korea's Denuclearization: Status and Prospects, CISAC, Stanford University, April 2019, at: <u>https://fsi-live.s3.us-west-1.amazonaws.com/s3fs-public/april 2019 dprk report v3.pdf</u>

<sup>&</sup>lt;sup>4</sup> P. Hayes, "ENDING THE KOREAN WAR AND DENUCLEARIZING THE KOREAN PENINSULA: NO BULLETS, NO BOMBS NEEDED," Paper to Panel on Peace Building and Provision for Denuclearization of Korean Peninsula, Nuclear Weapon-free Future of the North East Asia

Nagasaki Peace Hall, at 6th Nagasaki Global Citizens Assembly for the Elimination of Nuclear Weapons, November 16, 2018.

<sup>&</sup>lt;sup>5</sup> MORTON HALPERIN, PETER HAYES, THOMAS PICKERING, LEON SIGAL, PHILIP YUN, "FROM ENEMIES TO SECURITY PARTNERS: PATHWAYS TO DENUCLEARIZATION IN KOREA", NAPSNet Policy Forum, July 06, 2018, <u>https://nautilus.org/napsnet/napsnet-policy-forum/from-enemies-to-security-partners-pathways-to-denuclearization-in-korea/</u>

White House.

The two sides clashed in Hanoi over what would be traded up front and by whom, over nuclear facilities versus sanctions relief. Both sides are likely to stick to a hard line on this issue, which means that the next cooperative step forward will likely not be on the nuclear-sanctions nexus, but on the peace regime and provision of negative security assurances, leading to a fourth summit. Exactly how and on what aspect of these two agendas the two sides will find common ground is impossible to predict as both sides are subject to many tactical considerations and pressures. But find it they will.

Ultimately, as is explained well by Chaesung Chun,<sup>6</sup> there are limits on how far and fast this process can go without addressing the impact that Korea, by virtue of its location at the intersection of the great powers in East Asia, has on great power competition; and reciprocally, the continued vulnerability of the Korean peninsula to instabilities and insecurities created by the great powers that afflict Koreans irrespective of what they do or say.

The regional security environment has many pertinent dimensions—political, military, economic, energetic, cultural, historical, ideational, and ecological.<sup>7</sup> Here, I will focus on the nuclear dimension of this insecurity.

# Great Power Nuclear Competition and Risk-Taking

In fact, the threat of nuclear war arising from the nuclear weapons states' policies and deployed nuclear forces in this region is far greater than that posed by North Korea's relatively tiny nuclear force. These exist irrespective of North Korean nuclear armament—and in fact, removal of the DPRK has a nuclear armed state may enable the nuclear-armed great powers to focus their nuclear force posture and targeting even more on each other than they do already, distracted as they are to a minor extent by the US-DRPK standoff and the inter-Korean conflict.

Russia's redeployment of ballistic missile firing submarines into the region, based in Kamchatka and deployed into the open ocean, its testing of long-range ballistic missiles for nuclear warheads to Kamchatka, its basing and operation of strategic bombers in the Far East, its deployment of intermediate range nuclear missiles in the Far East, and its modernization of its nuclear command, control, and communications (NC3) system, all pose a threat to the other nuclear great powers and to the non-nuclear states in the region.

The United States remains forward-deployed with submarines carrying nuclear-armed long range missiles, operating far outside US territorial waters; with US and allied anti-submarine forces operating in the air, on land (supported by signals intelligence, maritime and underwater intelligence systems and bases), and at sea across the entire region; with strategic bombers flying into and across the region from their homes bases in the United States; with missile tests into the region; with ballistic missile defense tests and deployments in the region; and with modernizing NC3 systems in the region, and with its allies, especially with Australia and Japan.

China too is accelerating its nuclear force expansion and modernization, albeit from a relatively small

http://www.eai.or.kr/main/english/publication 01 view.asp?intSeq=10014&board=eng report

<sup>&</sup>lt;sup>6</sup> Chaesung Chun, "On the Way to the Third US-North Korea Summit: South Korea's Diplomatic Task for 2019," East Asia Institute paper, May 20, 2019, in Korean, and in English here:

<sup>&</sup>lt;sup>7</sup> For an overview of these countervailing factors, see Peter Hayes, Chung-in Moon, "Circling the Square: The Imagining of an East Asian Community," pp. 1-17, in Peter Hayes, Chung-in Moon, edited, *The Future of East Asia*, Palgrave Macmillan, Singapore, 2017

base compared to the global and regional deployments of the United States and Russia. It has added many new intermediate range nuclear missiles, strategic bombers, and may soon deploy ballistic missile firing submarines accompanied by its own anti-submarine warfare force. It is also deploying missile defenses, anti-satellite capabilities, and modernized NC3 systems—including early introduction of artificial intelligence and quantum technologies into NC3.

In many ways, these great power nuclear forces operate as if they are in worlds of their own, oblivious to the fact that each holds the other's fate in the palms of their hands, and unconcerned that by virtue of their own nuclear deployments, they rely on their nuclear adversary to protect them against acting on their own worst impulses.

# Pentapolar Complexity and Nuclear Crisis Learning

In what Paul Bracken terms the Asian pentapolar great power security system that consists of China, Russia, the United States, Japan, and India, instability today does not arise from bilateral shifts in relative throw-weight or missile accuracy or numbers, but from imbalances of power in new nuclear coalitions employing mobile missiles, missile defenses, anti-satellite systems, and new, disruptive technologies already introduced into the modernization of legacy NC3 systems. This pentapolar system is far more complex than the bipolar Cold War threat system. It is far more complex than the Cold War tripolar standoff. As Bracken states, "Whole new kinds of emergent system behavior are developing, driven by the extension of nuclear arms to more countries and to new domains of conflict."<sup>8</sup>

During the Cold War, the two key nuclear armed states, the United States and the former Soviet Union, learned how to avoid nuclear war, from crisis and control failures that skirted with first use. They had to create common vocabulary, invent rules of the road, and eventually, adopt the very arms control treaties that are now unravelling.

"Learning on the job" this time around, with new technologies, and with no less than 35 states owning, using, or relying upon nuclear weapons, is a far more dangerous process than was the Cold War. That period gained a stability rooted in the "delicate" balance of terror. Today, there is much more instability and little balance found in the flux of international relations laden with nuclear threat. In a four- or five- or six-way nuclear standoff, it is not even clear what constitutes strategic stability, and it is imprudent to rely on it as a foundation of a global or regional security system.

### Korean Peninsula of Peace in an Ocean of Nuclear War Preparation

Thus, even when it is denuclearized, the Korean Peninsula will not be peninsula of peace in the midst of these great power dynamics in East Asia. Unless something additional is done, it will be surrounded by an ocean and neighboring continent of preparations to fight a nuclear war.

To survive, both Koreas must use agile diplomacy and locational leverage to align and act in ways that ameliorate the risks of great power nuclear war, to create time and space in those places where the great powers might collide and activate nuclear threat and bring weapons into play, to avoid nuclear threat mongering and risk-taking; and to strive to create a regional, not just a bilateral framework that builds on the inter-Korean peace and denuclearization processes to curb the use of

<sup>&</sup>lt;sup>8</sup> Paul Bracken, "NC3 IN A MULTIPOLAR NUCLEAR WORLD: BIG STRUCTURES AND LARGE PROCESSES", NAPSNet Special Reports, May 14, 2019, <u>https://nautilus.org/napsnet/napsnet-special-reports/nc3-in-a-multipolar-nuclear-world-big-structures-and-large-processes/</u>

nuclear threat by the great powers.<sup>9</sup>

One such scheme—a nuclear weapons free zone in the region, buttressed by other comprehensive security measures at a regional level, is an important option to explore, although it may be better framed as a comprehensive regional security zone that incorporates the key elements of a nuclear weapons-free zone, rather than a standard multilateral nuclear weapons-free zone. It's fair to say that we all know now the necessary if not sufficient six elements<sup>10</sup> of a comprehensive security zone, first spelled out by Mort Halperin,<sup>11</sup> and updated since.<sup>12</sup>

PENINSULA: BILATERAL VERSUS MULTILATERAL APPROACHES", NAPSNet Special Reports, April 08, 2019, <u>https://nautilus.org/napsnet/napsnet-special-reports/reducing-nuclear-dangers-on-the-korean-peninsula-bilateral-versus-multilateral-approaches</u>

<sup>10</sup> These are:

1. Termination of the state of war This is clearly a major objective of North Korea. This section of the treaty should be adhered to by the armistice nations and by South Korea. It should provide for the normalization of relations while providing support for the eventual unification of the Peninsula. The agreement should provide for opening the border between the North and South and the pulling back of military forces in the demilitarized zone. The territorial disputes between the North and South, including at sea, should either be settled or the two parties should commit to a peaceful resolution of the disputes.

2. Creation of a permanent council on security: The treaty should transform the Six-Party talks into a permanent council and support organization to monitor the provisions of the treaty and to provide a forum to deal with future security problems in the region. In addition to the six parties to the treaty, other states from the region could be invited to join as full participants or observers. The treaty might take the form of a Treaty of Amity and Cooperation in Northeast Asia, leaving the "peace treaty" that terminates the Korean War Armistice to a side agreement, or simply to national declarations or bilateral peace treaties.

3. Mutual declaration of no hostile intent: This is a key objective of North Korea, which put great stock in getting such a statement from US President Bill Clinton's administration. It was flummoxed when the administration of President George W. Bush simply withdrew it and when President Barrack Obama's administration continued this policy. To be credible, this commitment must be embodied in the treaty and affect all the parties' relations with each other.

4. Provisions of assistance for nuclear and other energy: The right of all parties to the treaty to have access to necessary sources of energy including nuclear power will need to be affirmed. Any limitations on North Korea will need to apply equally to the other non-nuclear parties to the treaty. A new multilateral framework might be appropriate to deal with the fuel cycle. North Korea will also want assurances that its energy needs will be subsidized. Beyond a general commitment this will probably need to be negotiated as a separate agreement.

5. Termination of sanctions/response to violations of the treaty: The parties to the treaty will need to commit to refrain from the use of sanctions on any other party to the treaty and to remove them from its list of state sponsors of terrorism. The parties would reserve the right to collectively impose sanctions on any state that violates its commitments under the treaty.

6. A nuclear weapons-free zone: The treaty would contain a chapter that would create a nuclear weapons-free zone in Northeast Asia, tailored to the specific circumstances of the region.

<sup>11</sup> Morton H. Halperin, "A Proposal for a Nuclear Weapons-Free Zone in Northeast Asia", NAPSNet Special Reports, January 03, 2012, <u>https://nautilus.org/napsnet/napsnet-special-reports/a-proposal-for-a-nuclear-weapons-free-zone-in-northeast-asia/</u>

<sup>12</sup> Morton Halperin, Peter Hayes, Leon Sigal, "A KOREAN NUCLEAR WEAPONS-FREE ZONE TREATY AND NUCLEAR EXTENDED DETERRENCE: OPTIONS FOR DENUCLEARIZING THE KOREAN PENINSULA", NAPSNet Special Reports, April 12, 2018,

https://nautilus.org/napsnet/napsnet-special-reports/a-korean-nuclear-weapons-free-zone-treaty-and-nuclear-extended-deterrence-options-for-denuclearizing-the-korean-peninsula/

<sup>&</sup>lt;sup>9</sup> Thomas Graham, "REDUCING NUCLEAR DANGERS ON THE KOREAN

A critically important lacuna to these proposals is how nuclear deterrence, including a diluted but still present form of nuclear extended deterrence, operates in such a zone. Some deny that a nuclear weapons-free zone is compatible at all with a nuclear extended deterrence.<sup>13</sup> Some states in some zones—New Zealand in the South Pacific zone, Mongolia in its national zone for example— categorically reject that they have any dependence on nuclear extended deterrence, and states that adopt the Nuclear Weapons Prohibition Treaty will join this group in the near future.

Yet the situation is not so clear for existing zones. Even North Korea invoked massive nuclear retaliation should it be attacked by American nuclear weapons during the Cold War, all the while declaring that it had no nuclear weapons and never identifying whose nuclear weapons would retaliate in response to an attack on the DPRK. A no-first policy or negative security assurance cannot do away with the fact that the weapons exist, so long as they are maintained by a state; and they continue to exert "nuclear existential deterrence" by inducing cautionary effects into how leaders think and how states act, irrespective of declaratory policies.

## Role of Nuclear Threat in Nuclear Weapons-Free Zones-a Research Agenda

Ascertaining more clearly how nuclear weapons affect the security postures of parties to nuclear weapons-free zones is an urgent research priority for developing a politically viable and ethically acceptable zone in Northeast Asia that also accords with the spirit if not yet the letter of the nuclear weapons prohibition treaty, including the rights of all states under universal jurisdiction to hold nuclear commanders and their supporters accountable for manifestly illegal nuclear threats and nuclear use under international law.<sup>14</sup> Some of the issues that we need to explore in depth are:

a) the variation of reliance on or rejection by zones and states party to a zone of nuclear extended deterrence.<sup>15</sup>

b) the extent to which non-nuclear states party to existing zones intended the zone to end forward deployment by nuclear weapons states of nuclear weapons in order to signal the ending or dilution of nuclear extended deterrence; and/or the use of territory encompassed in the zone to exert nuclear deterrence threats against other nuclear weapons states which may or may not be party to the treaty.

b) the contingent nature of the non-threat and non-attack guarantees made by nuclear weapons states to the non-nuclear weapons states party to a zone whereby if one or more of the latter break out of their obligations to remain nuclear weapons-free, or if a nuclear weapons state party to the treaty threatens or uses nuclear weapons against non-nuclear weapons states party to the zone, then the treaty becomes moot, either as a matter of fact, or legally (if this contingency is written into the

<sup>&</sup>lt;sup>13</sup> Jayantha Dhanapala, "NWFZS and Extended Nuclear Deterrence: Squaring the Circle?", NAPSNet Special Reports, May 01, 2012, <u>https://nautilus.org/napsnet/napsnet-special-reports/nwfzs-and-extended-nuclear-deterrence-squaring-the-circle/</u> See also V. Mantels, "Extended deterrence and a Nuclear weapon Free Zone in NE Asia Can extended nuclear deterrence coexist with a Nuclear weapon Free Zone in NE Asia?" RECNA paper...date, p. 6.

<sup>&</sup>lt;sup>14</sup> See P. Hayes, A. Colangelo, "An International Tribunal for the Use of Nuclear Weapons," forthcoming in *Journal of Peace and Nuclear Disarmament*, July 2019.

<sup>&</sup>lt;sup>15</sup> Alyn Ware provides a good overview of this variation in "NEA-NWFZ and Extended Nuclear Deterrence," paper to A Comprehensive Approach to a NEA-NWFZ workshop, Nagasaki, December 6, 2012, pp. 43-46 at: <u>http://www.recna.nagasaki-</u>

<sup>&</sup>lt;u>u.ac.jp/recna/bd/files/f305e6df030be7a56ba2e47ed8f30f308.pdf</u> The standard international relations and nuclear strategic literature is almost devoid on this question in spite of the prevalence of nuclear weapons-free zones over much of Earth.

treaty).

c) the degree to which nuclear extended deterrence can be explicitly reinstated by a nuclear weapons state and an allied non-nuclear weapons states still in the zone but now threatened use or afflicted by actual nuclear attack; and whether this possible not only represents a scaffolding that supports the existence of a zone, but entails the maintenance of a credible nuclear capability by nuclear weapons states.

c) the extent to which continued use of nuclear threat among the nuclear weapons states party to the treaty underpins the negative security assurances provided in a zone to the non-nuclear weapons states that constitute the zone. In a sense, this continued nuclear threat system of the nuclear weapons states is the scaffolding from which the zone hangs; without it, their negative security assurances would be less credible because breakout by a non-nuclear weapons state party to the zone would not or would be less likely to incur a countervailing response by a nuclear weapons state; and, the multilateral nature of the great power negative security assurances provides a multilateralized form of diluted, contingent nuclear extended deterrence to all the non-nuclear weapons states in the zone--so long as it holds. This effect is buttressed by the explicit and binding nature of zonal negative security assurances. Thus, China's declaratory no first use posture would become a legally binding commitment to the non-nuclear weapons states and the other nuclear weapons states in relation to their allies. If China were, for example, to transgress this commitment by making nuclear threats against the ROK or Japan, then it would be not only relieving the non-nuclear weapons states in the zone to some extent of their non-nuclear weapons commitment under the treaty; it would give the other nuclear weapons states party to the treaty a legal basis to respond in kind by explicitly reactivating nuclear extended deterrence.

d) The flip side is that if a state with near-term nuclear weapons latency like Japan uses a "technological deterrent" to send a nuclear threat message against a party to the treaty, whether nonnuclear or nuclear-armed, it could find itself more exposed as a result to countervailing and explicit nuclear threat from nuclear weapons states from which the treaty protected it. In general, states are less likely to break legal commitments due to reputational effects than they are to behave unilaterally in unregulated domains. Thus, a state that exploits its non-nuclear status to send a form of nuclear threat might forfeit real restraint of countervailing threat against it, making it more expensive to use its nuclear proliferation potential for coercive purposes.

d) the continued cautionary effect of nuclear weapons, so long as they exist, irrespective of declaratory use or non-use policy of the nuclear weapons states, even if they remove all nuclear weapons from a zone, and even if they declare non-threat, non-use to the non-nuclear parties and other nuclear weapons states.

e) the use transit as an ongoing signalling device as to the stringency of the demands made by the non-nuclear weapons states in a zone

f) the existence, or not, of constraints on firing nuclear weapons out of a zone, not just against a non-nuclear weapons state in the zone

g) the existence, or not, of contingency-driven reintroduction of nuclear weapons agreements or prerogatives (as in the case of Japan and the ROK today)

h) the mosaic effect, that is, the extent to which contiguous zones reduce reliance on nuclear threat in relations between nuclear weapons states, thereby reducing the risk of nuclear war; but also the potentially increased reliance on conventional deterrence and its extension to allies. The

presumption is that global and regional cooperative security and peace-keeping institutions will supplant this risk that conventional deterrence may fail, and that a global mosaic of zones will serve as steps on the stairway down to zero nuclear weapons.

Related to this question is the degree to which existing zones were driven by security imperatives

versus the extent to which zones were adopted as a form of security free-riding in zones not afflicted by insecurity that drive states to seek nuclear weapons or nuclear extended deterrence in the first place.<sup>16</sup>

g) the existence of nuclear weapons-free zones in which nuclear threat between the states does not form the necessary condition or backdrop? Antarctica? Arctic? seabed? space? Moon? other?

Some of the questions on this research agenda are theoretical in nature. For others, survey and review of empirical data is needed to evaluate the relationship between nuclear threat and the creation and maintenance of nuclear weapons free zones. The point here is to simply argue that we have a lot of work to do to really come to grips with how nuclear extended deterrence operates-or doesn't—in a nuclear weapons-free zone, and that there is no simple answer at hand today for policy makers to consider in developing and appraising policy options.

### Conclusion

In conclusion, the Korean gift to the great powers may be the creation of a comprehensive regional security zone in the region. This may be brought into being to manage the denuclearization of the Peninsula.

But doing so will require that the nuclear great powers commit to a binding framework of negative security assurances and limiting of the use of nuclear threat against the region, and from within or around the region against each other, thereby reducing the role played by nuclear weapons in great power relations. It would also clear the way to address non-nuclear, urgent conventional and non-traditional insecurity in the region that are currently suppressed or displaced by reliance on nuclear threat.

A research agenda is outlined in relation to the role of nuclear threat in the creation and sustenance of a comprehensive security zone that bear heavily on the desirability and plausibility of such a zone in this region.

<sup>&</sup>lt;sup>16</sup> See for example, Atsushi Tago, "The Origins of Nuclear Weapons Free Zones: Security Communities or Substitutes for a 'Nuclear Umbrella'?" Graduate School of Law, Kobe University, no date, at: <u>https://www.belfercenter.org/sites/default/files/legacy/files/uploads/Tago\_Nuclear\_Weapons\_Free\_Zones\_.pdf</u>