WHAT SHOULD BE DONE? PRACTICAL POLICIES TO PREVENT NUCLEAR CATASTROPHE



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VAN JACKSON

MARCH 29 2024

I. INTRODUCTION

This report by Van Jackson argues that Northeast Asia is the epi-center of global nuclear tension with high “nuclear precarity” due to nuclear arms racing, reliance on nuclear signally, and evolving

nuclear postures. The report offers practical policy recommendations for avoiding nuclear war aimed at the governments of Japan, the ROK and the DPRK, the United States, and China.

Van Jackson is Senior Lecturer in International Relations at Victoria University of Wellington and a Senior Research Adviser at APLN.
This Executive Summary may be downloaded **here** (PDF 5MB) in English, **here** in Japanese; **here** in Korean, **here** in Chinese, **here** in Russian; and the full report **here** (6MB).

The report is the culmination of a three-year joint project on Reducing the Risk of Nuclear Weapon Use in Northeast Asia (NU-NEA) between the Asia-Pacific Leadership Network (APLN), the Nautilus Institute, and the Research Center for Nuclear Weapons Abolition (RECNA) at Nagasaki University. The first two years of the project identified possible pathways to nuclear use in Northeast Asia and evaluated the impacts and consequences of nuclear use in the region.

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Banner image: Byungdug Jun, Image processing of aerial photographs taken by the U.S. military before (left) and after (right) the atomic bombing of Nagasaki here

II. NAPSNET SPECIAL REPORT BY VAN JACKSON

WHAT SHOULD BE DONE? PRACTICAL POLICIES TO PREVENT NUCLEAR CATASTROPHE

MARCH 29 2024

EXECUTIVE SUMMARY

What Should Be Done? Pragmatic Policies to Prevent Nuclear Catastrophe

Reducing the Risk of Nuclear Weapons Use in Northeast Asia (NU-NEA) Project

The Project

In May 2021, a collaborative three-year research effort was launched with the Asia-Pacific Leadership Network for Nuclear Nonproliferation and Disarmament (APLN), the Nautilus Institute, the Research Center for Nuclear Weapon Abolition, Nagasaki University (RECNA), and the Panel on Peace and Security of North East Asia (PSNA) on a project entitled, “Reducing the Risk of Nuclear Weapon Use in Northeast Asia” (NU-NEA).

The project aim was to assist policymakers to identify ways to avoid a nuclear conflict and de-escalate tensions on the Korean Peninsula and in Northeast Asia[1].

Project Questions and Objectives:

1. Under what conditions might nuclear weapons be used (with or without intention) in Northeast Asia (NEA) and by whom? How might such first use of nuclear weapons escalate to a larger scale

of nuclear war? And which states might respond to a first nuclear use with nuclear weapons use of their own?

2. What are the possible consequences (fatalities, physical damages to key infrastructure, environmental damages, climate impacts, and more) of potential nuclear weapon use in Northeast Asia?
3. What are the possible measures to reduce the possibility of use of nuclear weapons in the region? That is, what lessons do analyses of use cases offer for the development and deployment of policies that will help to avoid nuclear weapons use?

In answering these questions, the first year of the project developed more than two dozen scenarios and pathways to nuclear use (the *how* and the *why*) in NEA, stressing especially the Korean Peninsula but also including potentialities involving nuclear use by Russia, China, and the United States.

The second year focused on the impacts and consequences of nuclear use, evaluating through extensive modeling the five use cases that best represented the fullest range of plausible nuclear use scenarios facing NEA.

Based on our findings from the first two years, this third-year report proposes what ought to be done and by whom if the world is to avoid a nuclear catastrophe.

The Crux of the Problem

Northeast Asia is experiencing "nuclear precarity." It is a site of 1) escalating arms competition and first-use nuclear incentives (structural risk), and 2) a high degree of reliance on coercive military signaling (situational risk).

In our year one and year two analyses, we found that nuclear and conventional military decision-making interacted to compound risks of nuclear use, which always involved one or more of the following factors:

- Miscommunication and poor communication.
- Misperception, both of enemy actions and enemy intentions.
- Overconfidence in the ability to coerce the enemy with military force.
- Insensitivity to the decision pressures of political and military leaders.

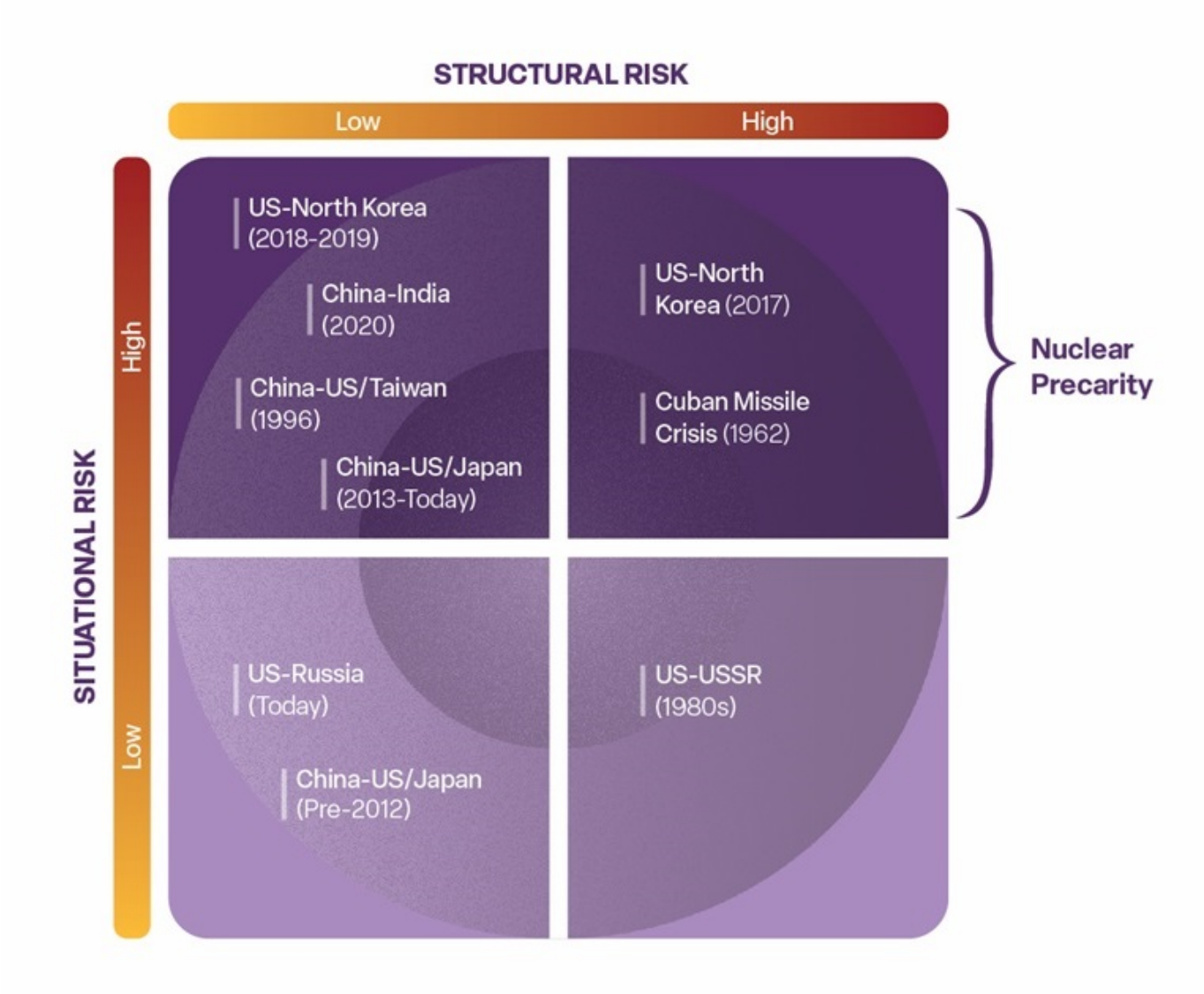
Any policy formulation that seriously seeks to reduce nuclear risk must respond to these factors, based on the following principles:

- Transparency
- Predictability
- Strategic empathy
- Rebalancing deterrence and reassurance

Key Policy Recommendations

Our collection of policies aim to move Northeast Asian relations toward the bottom-left quadrant in

the 2x2 grid below.



To do this, our recommendations approach risk reduction in two ways. One is by narrowing the space for nuclear use-case scenarios to arise in the first place, through forms of mutual threat reduction (structural risk reduction). The other is by helping to more responsibly manage within-scenario (situational) risks should they arise.

The former approach helps create a regional situation where stability does not have to hinge solely and permanently on threats that leave something to chance. The latter approach to reducing risk potentially applies both before and after nuclear weapons have been used, inhibiting nuclear-related escalation in the midst of a crisis or once a nuclear detonation has occurred.

Our policy proposals are phased in a logical progression that considers feasibility and desired impact—warming actions (rhetorical and diplomatic gestures); ripening actions (individual restraint); and reciprocal transformations (multilateral processes).

Warming actions are rhetorical and diplomatic gestures aimed at alleviating tension in the security environment and setting up frameworks for future confidence-building and cooperation. They entail no strategic costs—that is, in and of themselves, warming actions do not change the balance of nuclear forces or leave actors more vulnerable to attack.

Ripening actions are decisions that can be undertaken individually to improve the political feasibility

of future cooperation. These actions reduce risks of arms-racing- and crisis-instability without altering the fundamental balance of nuclear forces.

Reciprocal transformations are bilateral and multilateral cooperation; initiatives that can only follow from processes of mutual accommodation and compromise. These actions begin to build a different future whose security relies less on nuclear weapons and threats of annihilation in favor of transparency, predictability, reciprocity, and, ultimately, trust.

This report is a call to action. In order to reduce nuclear risk and transform the Northeast Asian security environment:

Warming Actions—Rhetorical and Diplomatic Gestures

1. Japan, the United States, and South Korea should propose and negotiate risk-reduction goals in extended deterrence-related engagements with Japan and South Korea. (Japan, ROK, US)

2. The United States should match the deeds prescribed in this report with words that reflect its changed outlook on nuclear weapons and its security issues. Specifically, the US government should publicly reiterate that it seeks mutual co-existence with China and North Korea, considers the Korean War to be over, and recognizes the reciprocal vulnerability of US and Chinese nuclear forces to each other's targeting capabilities. (US)

3. The United States and China should institutionalize a dialogue on nuclear strategy, stability, perceptions of NFU commitments, mutual vulnerability, and perspectives on deterrence. In the process of the dialogue, the US should well establish close communication with allies to address their security concerns for NFU while at the same time encouraging them to take a constructive approach. (China, US)

4. The governments of Japan, the United States and South Korea, as well as concerned philanthropic foundations, should sponsor a revival of "non-offensive defense" in strategic studies research. (Japan, US, ROK)

5. Given the increasing risk of accidental or unintended nuclear weapons use due to misperceptions or misunderstanding, the United States should propose an ongoing, multilevel strategic security dialogue with North Korean defense and intelligence counterparts aimed at complementing foreign ministry-led diplomatic talks and exchanging information about US and North Korean strategic thinking and threat perceptions. (US, DPRK)

6. The United States, in parallel with Northeast Asian governments, should commit to not targeting national leaders for preemptive or preventive assassination. (US, DPRK, China, ROK, Japan)

Ripening Actions—Individual Restraint

1. The US president should issue an executive order (EO) restricting nuclear-capable bomber deployments to the Korean Peninsula. (US)

2. Japan and South Korea should seek North Korean entry into the Comprehensive Nuclear Test-Ban Treaty (CTBT), Chinese ratification of the CTBT, and Russian re-entry into the CTBT. The US president should issue an executive order expressing the intent to ratify the CTBT and directing US compliance with the CTBT until then. (Japan, US, China, ROK, DPRK)

3. South Korea and the United States should jointly propose ways to regulate and restrain South Korea's "three-axis deterrence" policy linking precision-guided munitions, a doctrine of Korean

Massive Punishment and Retaliation (KMPR), and ballistic missile defenses. (ROK, US)

4. All states in the region should avoid targeting nuclear command and control systems in China, the DPRK, the United States and its allies, and Russia, including avoiding use of precision-guided munitions, drones, or facilitation of such attacks by technology export or sharing. (US, China, Japan, ROK, DPRK)

i. In order to avoid precision-guided munitions targeting nuclear weapons systems, which helps avoid inadvertent nuclear escalation, China should introduce end-use restrictions on its missile and drone sales. Japan and South Korea should pledge not to target Chinese or North Korean nuclear-related weapons systems with advanced cruise missiles or drones. And the United States should require end-use restrictions on the sale or transfer of any drone or cruise missile system capable of targeting Chinese or North Korean nuclear-related operations. (US, China, Japan, ROK)

ii. The United States should codify and expand its unilateral ban on direct-ascent anti-satellite (ASAT) missile testing. (US)

5. The US Congress should pass the *Restricting First Use of Nuclear Weapons Act*, asserting congressional war powers to restrict the US president's unilateral authority to launch nuclear weaponsexcept when Congress has authorized war. US allies should also support (or at least not to oppose) such move. China and North Korea should be encouraged to adopt similar legislation. (US, Japan, ROK, China, DPRK)

6. The US Congress should defund the SLCM-N and the Pentagon should reject making the SLCM-N a program of record in its defense budget submissions. (US)

7. The United States should pause—and evaluate the merits of a permanent end to—the development of all ground-launched, land-attack missiles with strike ranges between 500km and 5,500km. It should then propose China, North Korea, and South Korea also freeze development of missiles within this range capability. (US, China, ROK, DPRK)

8. North Korea and China should offer to furnish a full accounting of its nuclear warheads and fissile material. (DPRK, China)

9. The United States should reduce the risk associated with reliance on ICBMs as a "ground-based strategic deterrent" in three steps: cut the overall inventory of the ICBM force by at least 100 missiles; de-nuclearize them, placing only conventional warheads on ICBMs; and place remaining ICBMs on mobile platforms. (US)

Reciprocal Transformations—Bilateral and Multilateral Initiatives

1. Japan should lead a diplomatic effort to multilateralize the US moratorium on direct-ascent anti-satellite (ASAT) missile testing. (Japan, US, China, ROK, DPRK)

2. The United States should propose a 12-month freeze (with the possibility of extension) in the testing, production, and new deployment of advanced conventional weapons. The freeze would apply to the United States and all Northeast Asian militaries. (Japan, US, China, ROK, DPRK)

3. The US government, along with all Northeast Asian governments, should negotiate an agreement to have a common protocol of notification prior to all missile launches whose range exceeds 300 kilometers. (Japan, US, China, ROK, DPRK)

4. Propose that the United States, China, and North Korea forswear establishing “fail-deadly” perimeter detection systems that automatically trigger nuclear-armed missile launches based on radar identification of incoming missiles. (China, DPRK, US)

5. The United States should propose an accord with China and North Korea to ban low-yield “tactical” nuclear weapons. (China, DPRK, US)

6. Northeast Asian governments, as well as the United States, should agree to redirect two percent of their defense spending to a UN fund that addresses public health, climate adaptation, global poverty, and inequality. (Japan, US, China, ROK, DPRK)

7. The United States should move toward a nuclear-weapons-free zone in Northeast Asia by negotiating a monitored, mutual ban on nuclear weapons within the Exclusive Economic Zones (200 nautical miles) of the Korean Peninsula’s coastlines. (DPRK, China, US, ROK)

Conclusion

In our preceding recommendations, we have described the reasoning, plausibility, and potential impact of each. Still, some readers might find certain of these proposals far-fetched all the same. It is natural to scan a list of recommendations and dismiss the ones that seem impractical in the context of Northeast Asian security today—but the context of Northeast Asian security today is what must be reshaped in order to make meaningful risk-reducing policies possible.

Northeast Asia is barreling toward nuclear precarity. Policies oriented toward increased, stronger, or enhanced deterrence are making the region *less* secure. In a region facing compounding nuclear risks, accelerating militarization, and chauvinistic rhetoric, something must be done. To make ambitious cooperative measures aimed at bridling the threat of nuclear weapons politically feasible, governments must warm and ripen the regional security environment so that leaders are able to embrace a less destructive path. The declaration, “Let Nagasaki be the Last!” is an ambitious demand, matched by our ambitious proposals. We call on leaders from the United States and Northeast Asia to help the world ensure that Nagasaki will indeed be the last.

III. ENDNOTES

[1] “Northeast Asia” in this report refers to Japan, China, North Korea, and South Korea, as well as the United States as a significant extra-regional actor with allies in the region. To create a set of pragmatic policy recommendations at this time, given the complications posed by Russia's war with Ukraine, we have limited the scope of this report to these five countries. We hope to explore Russia’s role in regional nuclear risk reduction in a future report.

IV. NAUTILUS INVITES YOUR RESPONSE

The Nautilus Asia Peace and Security Network invites your responses to this report. Please send responses to: nautilus@nautilus.org. Responses will be considered for redistribution to the network only if they include the author’s name, affiliation, and explicit consent

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Nautilus Institute

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