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Nuclear Stability with Russia and North Korea Workshop Write-Up

Russia Maritime Studies Institute

Nuclear Stability with Russia and North Korea
U.S. Naval War College
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The views presented here are those of the workshop participants and do not represent those of the Naval War College or the U.S. Navy.

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Executive Summary: Nuclear Stability in North Korea and Russia

On January 12th, the Naval War College convened a group of nuclear stability and regional experts in Newport, Rhode Island for an unclassified discussion of the incentives U.S. adversaries might have for nuclear first use. Our aim was to identify the most probable and most dangerous pathways as well as the impetus for nuclear use. Based on these pathways, we generated a series of policy recommendations for the U.S. national security community and the U.S. Navy.

North Korea Pathways to Nuclear First Use

- High likelihood of nuclear war on the Korean peninsula after U.S./ROK attack.
    - Most likely: High-intensity war that develops from tit-for-tat crisis escalation (expect nuclear use against U.S./ROK conventional forces).
    - Second most likely: First use in response to U.S. or ROK preemptive strike against regime (most dangerous), nuclear arsenal, or conventional target (least dangerous).
- Low likelihood of North Korean nuclear first use without U.S. or ROK attack.
    - Most possible: Paranoia/fear convinces Kim regime of imminent U.S./ROK attack.
    - Possible: Kim uses nuclear demonstration in the case of domestic regime collapse.
    - Least likely: Proliferation of nuclear weapons to proxy or terrorist organizations to conduct attacks.
- *General Policy Recommendations:*
    - Strongly recommend no strikes against North Korea.
    - Keep nuclear counterforce operations/capability development clandestine.
- *Navy Recommendations:*
    - Prioritize clandestine development of counterforce options for Phase 1 of major war.
    - Focus peacetime operational efforts on ballistic missile defense and early warning (less on posturing with conventional strike platforms).

Russia Pathways to Nuclear First Use

- Low likelihood of Russian nuclear first use
    - Most possible: Conventional conflict that threatens Russia's nuclear force, territorial integrity, or ability of the state to carry out governance functions.
    - Less likely: Non-strategic nuclear weapon use for the purposes of de-escalation.
- *General Policy Recommendations:*
    - Nuclear deterrence is working; develop conventional deterrence options on lower rungs of the escalation ladder.
    - State unequivocally that U.S. and NATO do not seek to alter Russia's borders, threaten its nuclear deterrence force, or undermine Moscow's domestic legitimacy.
- *Navy Recommendations:*
    - Develop a warfighting strategy that focuses on denying Russia its strategic and operational objectives at the point of attack, and on limited horizontal escalation away from the Russian mainland.
    - Develop a warfighting strategy that reduces Russia's ability to target U.S./NATO forces, contains Russian naval forces in their bastions, and eschews engagements inside those bastions.

Introduction

On January 12th, the Naval War College convened a group of nuclear stability and regional experts in Newport, Rhode Island for an unclassified discussion of incentives U.S. adversaries might have for nuclear first use. The group discussed general pathways to nuclear first use as well as pathways to North Korean and Russian nuclear first use. Our aim was to identify the most probable and most dangerous pathways as well as the impetus for nuclear use. Are there patterns of crises, U.S. behavior, adversary actions, or domestic incentives that make nuclear first use more likely? Based on the answer to these questions, we generated a series of policy recommendations for the U.S. national security community and the U.S. Navy.

I. General Pathways to Nuclear First Use:

What qualifies as "nuclear use" will likely be a highly contextual and contested event. We conceptualized events that could potentially be viewed or presented as nuclear use as falling along two axes – according to the action's deliberateness and destructiveness, respectively – and assessed that only those scoring high on each variable would unambiguously be viewed as nuclear use. Beyond this narrow subset, how specific events are interpreted will likely vary widely depending on both the specific actors involved and the circumstances of the event, including its timing (peacetime/crisis/wartime) and location (on actor's own territory/at sea/ on target's territory).

At the broadest level, we divided pathways to nuclear use into two categories: instrumental and non-instrumental uses. Instrumental uses include all those in which the potential case of nuclear use is the result of a calculated effort on the actor's part to achieve objectives. There are a number of instrumental pathways to nuclear use, each with its own logic:

- *Preventive use* would occur in peacetime – the oft-mentioned "bolt from the blue" – and would be designed to reduce the target state's capabilities in advance of some expected future conflict;
- *Preemptive use* would occur during a crisis or in a war that had not yet escalated to the nuclear level and would be intended to blunt an imminent attack;
- *Inadvertent use* is a particular subset of preemption, occurring during a conflict that threatens the actor's nuclear forces, delivery systems, and/or command and control, and would be an effort to achieve some value from one's own nuclear forces while doing so was still possible; and
- *Coercive use* would occur during a crisis or war and would be designed to convince the other side either not to strike in the first place (*deterrent use*) or to halt an ongoing attack (*compellent use*). While nuclear weapons would more likely be used coercively against external threats, these pathways are also available as means of dealing with potential internal threats.

Non-instrumental uses include all those in which the potential nuclear event is not driven by goal-oriented decision making. There are a number of non-instrumental pathways to nuclear use, each of which could occur at any time and each with its own origins:

- *Unauthorized use* would be initiated either by official personnel acting contrary to orders or by non-official personnel who had obtained access to nuclear material, whether through theft, seizure, or sale;
- *Accidental use* would be the result of human error, technological malfunction, or natural disaster; and
- *Emotional use* would be the result of human decision driven not by strategic calculation but by feelings of fear, honor, anger, etc.

This discussion has several implications for U.S. strategy and policy. Policymakers should develop a hierarchy or other conceptualization of different types of nuclear use or related events to facilitate planning. U.S. actions – particularly military, though across the full range of instruments of national power – can influence the likelihood of adversaries choosing an instrumental pathway to nuclear use or finding themselves on a non-instrumental pathway. Accordingly, policymakers should ensure coordination and control to minimize the chances of our adversaries ending up on either type of pathway. We judged instrumental pathways more likely to lead to nuclear use than non-instrumental and, within the former, we judged inadvertent and coercive uses in the face of U.S. threats or conventional operations most likely. The Navy should include an evaluation of the escalatory potential of any action in its planning process.

II. North Korea Nuclear First Use:

Perhaps the most important finding from the day's discussion is that we found almost no pathway to limited, non-nuclear war on the Korean peninsula. There are compelling instrumental and non-instrumental incentives for North Korea to use nuclear weapons in crisis and war. Just as importantly, we also found almost no pathways to North Korean nuclear first use without external impetus. In other words, we found no status quo incentives for North Korea to use nuclear weapons preemptively to reunify the peninsula or to coerce objectives from the U.S. or South Korea. However, we found an extraordinary amount of incentives for North Korea to use nuclear weapons after almost any kind of limited attack or wartime scenario.

Instrumental Pathways to North Korean Nuclear First Use

The most likely pathway to North Korean nuclear use is a high-intensity war that develops from tit-for-tat crisis escalation. Because of the extraordinary conventional and nuclear asymmetry between North Korea and the U.S./South Korea, North Korea must use nuclear attacks early in the conflict if they have any hope of defeating a U.S. or South Korean offensive. We expected that the most likely nuclear use for North Korea in this major war type of scenario would be a

large scale concerted campaign of either counterforce nuclear attacks against U.S./South Korean staging areas, headquarters, or bases or countervalue nuclear attacks against U.S. cities, U.S. bases in Japan, or (least likely) South Korean cities. We expected this nuclear attack to occur very early in the fight.

The second most likely instrumental pathway to North Korean nuclear first use would be in response to a U.S. preemptive strike against the regime (most dangerous), nuclear/strategic arsenal, or conventional target (least dangerous). While we believed strikes against the regime would be the most likely to lead to a nuclear response, we believed that all of these targets had a high probability of leading to North Korean nuclear first use. The type of nuclear first use would be tied to how North Korea answered the following questions about the attack:

- *Does North Korea think that the strike is the edge of limited war (i.e. not the beginning of a larger war to replace the regime or reunify the peninsula)?*
- *Does North Korea think that they can take this strike and sustain their regime or their conventional/nuclear ability to defeat the U.S.?*

We were pessimistic that any type of strikes could effectively signal limited war even against a rational Kim Jong Un (and were much more pessimistic that an irrational and paranoid Kim Jong Un would believe a U.S. message of limited war). We were even more pessimistic about North Korean beliefs that they could withstand a strike and persevere (this goes back to the conventional asymmetry and is also exacerbated by an irrational paranoia). We believed that, based on our assessment of how the North Koreans might perceive the answers to the questions, nuclear first use was most likely to be against U.S. bases in the Pacific, potentially against the U.S. homeland, and finally (least likely) some kind of nuclear demonstration in international waters or airspace. We spent some time discussing if there were any types of U.S. or South Korean attacks that would be least likely to lead to a North Korean nuclear response and believed that cyber would be the potentially least dangerous. This was partly because of the lack of potential effectiveness but also because the ambiguity of the attack vector could create time and uncertainty that buffers attack responses.

Non-Instrumental Pathways to North Korean Nuclear First Use

We found few internal impetuses for nuclear first use and were highly pessimistic that North Korea would use nuclear attacks in an unprovoked bid to reunify the peninsula. Because of the extraordinary conventional asymmetry posed by the U.S. and South as well as sixty years of successful deterrence, we believed that North Korea would have to be unprecedentedly irrational to use nuclear weapons offensively. What then would be the irrational pathways to nuclear first use? We assessed that the greatest psychological impetus for irrational use of offensive nuclear weapons would be if paranoia and fear convinced the Kim regime that they were on the verge of imminent attack and therefore launched a preemptive nuclear attack. According to this logic, the

more fear the U.S. and South Korea create about a potential strike, the more likely Kim Jong Un is to use nuclear weapons preemptively. This is a heightened version of what we believed was the most likely instrumental pathway to war and therefore whether Kim is irrational or rational, the same incentives for nuclear first use remain.

We also explored domestic incentives for nuclear first use. With limited knowledge of internal elite politics and nuclear pre-delegation and control within North Korea, we assessed (with low certainty) that there was a low likelihood of a rogue coup that would lead to nuclear first use. We did think there was a possibility that the Kim regime would use a nuclear demonstration in the case of some sort of domestic regime collapse. In the case of a partial collapse, we believed that the Kim regime may conduct a nuclear demonstration in order to signal willingness to use and deter other states from intervening in the conflict. Finally, we cannot discount that, if faced with defeat (either internally or externally), Kim may launch a nuclear attack simply as a final act of vengeance against his enemies. There is of course always a potential for accidents and tests gone awry and we assessed that this could lead to the inadvertent use of nuclear weapons—originally intended for demonstration purposes—to have an impact on U.S. or allied force in the Pacific.

Finally, the most dangerous potential first use of nuclear weapons stemming from the North Korean regime would be the proliferation of nuclear weapons to proxy or terrorist organizations to conduct attacks. While this is potentially the most dangerous non-instrumental pathway to nuclear first use, there is currently no historical precedent and currently no technological capability to proliferate a smaller style portable bomb to a proxy to conduct a nuclear terrorist attack.

General Policy Recommendations

The most important policy implication that comes from this discussion is that there are both instrumental and non-instrumental, rational and irrational, incentives for North Korean nuclear first use, and they nearly all come back to the use of force against targets inside North Korea. Signaling restraint with force is almost impossible with a rational agent and a catalyst for war with an irrational or paranoid agent. We highly recommend against the use of limited strikes (or bloody nose attacks) to dissuade North Korea from further developing its nuclear arsenal. We also recommend that nuclear counterforce operations and nuclear counterforce capability development should be kept as clandestine as possible. This is an especially tricky dynamic as too much counterforce capability might convince North Korea that they must conduct a preemptive nuclear strike in order to survive. Meanwhile, too little counterforce capability means that North Korea will be more able to conduct nuclear attacks early in a Korean conflict. Because of these tricky dynamics, we cannot completely advocate against counterforce courses of action or capability development. However, we do recommend that these efforts remain as clandestine as possible and not part of an overt signaling strategy targeted at the Kim regime.

Finally, as the most dangerous option for nuclear first use may come from the proliferation of capabilities to proxies, we recommend that policy efforts focus on deterrence of nuclear proliferation to others, not on rolling back the North Korean nuclear program or "bloodying the nose."

Navy Specific Recommendations[1]

The Navy plays an important signaling and counterforce role against the Kim regime, as well as a highly flexible option for a limited strike against mainland North Korea. Because of these central roles, the Navy's operations, capability, and messaging are important elements to deterring, avoiding, and limiting a North Korean first use of nuclear weapons. First, the Navy should develop clandestine or covert counterforce options in the case of a major war with North Korea so as to not heighten paranoia in the Kim regime. The bulk of the Navy efforts in the initial stages of that war likely should be in the employment of these secretive options. Prior to large-scale conflict, the Navy should focus its efforts in the region on ballistic missile early warning and defense. Navy assets—especially aircraft carriers and the Aegis—are visible and visceral signals of U.S. extraordinary capability. The Navy should use these signals lightly as they significantly increase fear and paranoia in an irrational North Korea, and highlight conventional imbalances in a rational North Korea. Both of these pathways are highly dangerous for North Korean nuclear first use.

III. Russia Nuclear First Use:

Russia continues to emphasize the central role of nuclear forces in its strategic posture. Nevertheless, the last decade has seen a significant shift away from what might be characterized as a "hyper-reliance" on nuclear weapons, and toward the use of conventional, long-range, precision-guided munitions (LRPGM) for strategic effect. We concluded that Moscow has a high bar for nuclear first use, and that Russia's pathways to nuclear first use must be understood in the context of Moscow's thinking about strategic deterrence and its increasing reliance on LRPGM.

Instrumental Pathways to Russian Nuclear First Use

Instrumental pathways to Russian first use of nuclear weapons are limited. The most likely pathway to Russian first use is framed by a conventional conflict in which Russia's nuclear force and the ability of the state to carry out governance functions are in critical danger; in short, when all deterrence and compellence options short of nuclear use have failed. Moscow largely seeks deterrence of and in conflict through the use of whole-of-government approaches that include diplomacy, influence and information operations, and the use of conventional LRPGM, as well as nuclear weapons. Nevertheless, Russian nuclear doctrine reserves the right to use nuclear

[1] Navy recommendations contained in this paper are for the Navy to consider in the context of joint plans/operations and in the joint and interagency strategy discussion.

weapons in response to a nuclear attack, and when the existence of the Russian state (including the loss of territorial integrity) is in jeopardy. Workshop participants also noted that erosion by military means of Russia's nuclear arsenal and nuclear command and control also constitute, in Moscow's eyes, grounds for nuclear first use. While some Russian strategists discuss the use of nuclear weapons in other instrumental ways, the preponderance of evidence indicates that Russia views nuclear weapons as deterrence, not warfighting tools, and is likely to use nuclear weapons only *in extremis*.

While conventional force asymmetries between the U.S. and Russia are significant, we nevertheless considered non-strategic nuclear weapon use for the purposes of de-escalation to be less likely, particularly because Moscow has now reached the point where the use of LRPGM with conventional munitions can have the same strategic effect with significantly less escalatory risk. The use of tactical nuclear weapons during a conflict cannot be totally dismissed, but Russian strategic thinking has been very clear about the increased role that conventional munitions and non-traditional attacks (such as cyber warfare) can play in order to achieve strategic goals. This trend is likely to continue. Further, there is limited open-source evidence of Russia operationalizing an "escalate to de-escalate" strategy.

Finally, while domestic political priorities cannot be discounted, workshop participants concluded that Moscow is unlikely to use nuclear weapons to shore up political support – unless the Putin regime judged that an impending defeat during conflict would undercut the government's legitimacy and create an existential threat via domestic upheaval (through loss of territorial integrity or other pivotal wartime event).

Non-Instrumental Pathways to Russian Nuclear First Use

Non-instrumental pathways are even more limited. Russian senior political and military leadership has emerged from a Cold War strategic tradition that prized rational decision-making about the use and value of nuclear weapons. That intellectual framework continues to hold. Moscow is also unlikely to choose non-instrumental, irrational options such as a Samson Option – launching its nuclear weapons in an apocalyptic spasm in response to a conventional attack – particularly if its own nuclear force, territorial integrity, and ability to govern remain intact.

Policy Recommendations

Nuclear deterrence of Russia is working. Policymakers should continue to note that Moscow is not suicidal. President Putin and the coterie of leaders around him understand that there is no guarantee against U.S. escalation if Russia were to engage in a first use of nuclear weapons, either strategic or non-strategic. Russian nuclear doctrine sets a high bar for nuclear use and also emphasizes conventional deterrence, which reflects the premium that Moscow now places on using conventional weapons for strategic effect – something any strategic approach to Russian nuclear questions should keep in mind. We recommend any policy should state unequivocally

that the U.S. and NATO do not seek to alter Russia's borders, nor undermine Moscow's domestic legitimacy.

Navy Specific Recommendations

The U.S. Navy can develop strategic and operational approaches along these lines as well. Because nuclear first use by Moscow is most likely to come in the context of an ongoing conventional conflict, these recommendations focus more on options during kinetic operations. Moscow's conventional capabilities are now able to achieve the same military effect as a tactical nuclear weapon. What is the difference if Russia destroys a carrier strike group with a single nuclear weapon or a large volley of conventional missiles? The strategic effect is still the same. We recommend, therefore, that the Navy develop a strategy that reduces Russia's ability to target U.S./NATO forces, contains Russian naval forces in their bastions, and refuses engagements inside those bastions. Engaging forces inside nuclear bastions appreciably raises the prospect of Russian nuclear first use. Finally, a strategy that envisions all-out strikes on the Russian mainland is a losing one, both for its questionable military effect and extraordinary escalation risk. Instead, a warfighting approach that focuses on defending interests at the point of attack (or denying Russian military objectives at the operational level of war), rolling back Russian gains in a politically feasible time frame, and on limited horizontal escalation off of the Russian mainland can mitigate the risk of Russian first nuclear use.

IV. Conclusion

While the individual pathways to nuclear first use may differ between North Korea and Russia, in a conflict with the United States, the U.S. way of war may set these nations down a path to nuclear first use. The U.S. propensity for targeting adversary C2 architectures, decapitation strikes, and other tactics raises the risk of nuclear response by both nations. In the North Korean case, the pathways to nuclear first use, both instrumental and non-instrumental, are wide and varied, and it seems clear that even attempts at limited "bloody nose" strikes may trigger a disproportionate nuclear response. In the Russian case, those pathways are more limited and those triggers perhaps less sensitive, but they are arguably more dangerous for the existential threat they pose globally.

Diplomacy is the obvious response to these challenges prior to major crises or inadvertent conflict erupts. In the unlikely event of a conflict, however, military solutions to these similar challenges are much different. While counterforce options should be developed clandestinely, counter-intuitively, in a conflict against North Korea, a state with a small nuclear arsenal, an overwhelming conventional strike that destroys Pyongyang's nuclear weapons as quickly as possible may be the best kinetic option. Conversely, against Russia, more limited conventional strikes aimed at denying Moscow the object of its aggression, combined with limited horizontal escalation, may be more effective at short-circuiting a nuclear response.