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The Value of Nuclear Crisis Simulations

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Introduction

Reports over the past year about China's growing nuclear capabilities, to include the discovery of new land-based missile fields and the conduct of hypersonic missile tests, raise serious concerns about Beijing's intentions. The international landscape also includes Russia, a nuclear superpower, invading Ukraine; North Korea developing increasingly sophisticated delivery capabilities; and Iran edging ever closer to obtaining nuclear weapons. In light of these unsettling trends, senior U.S. leaders, especially civilians, must do a better job educating themselves on the *pluralistic nature* of today's nuclear environment as well as the demands of nuclear crisis management.

Too often, discussions about nuclear deterrence and decision-making are unduly focused on weapons systems and military hardware. Rarely do policymakers devote sufficient attention to the psychological components of deterrence. This is why strategic level simulations that focus on crisis decision-making are so important.

The Nature of Political-Military Simulations

To be sure, the Department of Defense runs plenty of wargames, from the tactical to the strategic level. Wargames play an important role developing military leaders and staff, though



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they are often narrow in scope and participation.¹ They seldom involve senior civilian leaders. Indeed, it is not unusual to have a colonel – or even a more junior officer – roleplaying senior civilian leaders in strategic-level wargames.

In contrast with highly scripted wargames, political-military simulations can provide civilian leaders with an effective, low-cost way of learning about strategic deterrence. Even modest investments in such simulations can provide significant returns.² They provide policymakers the opportunity to exercise decision-making skills while operating under severe time constraints. Moreover, the simulations give roleplayers the opportunity to delve deeper into adversary capabilities, and, equally important, our own deterrent capabilities. They also provide a venue for senior leaders to practice strategic messaging of both friends and adversaries in the event of a nuclear crisis.

Some senior political appointees with policy responsibilities come to their positions well-versed in the complexities of nuclear deterrence, but this is not always the case. Moreover, the majority of civilian leaders in the national security arena participate in strategic level simulations infrequently, if at all. Their “in-boxes” are always over-flowing with problems, and it is difficult to carve out time for exercises. In the post-Cold War era, the interagency has shown little interest in participating in political military simulations.³

The good news is that strategic level political-military simulations need not be expensive or overly time-consuming. A small team of experienced facilitators armed with well-crafted scenarios can, in short order, immerse senior civilian leaders into simulated nuclear crises, forcing them to reconcile political and military objectives that may be at odds with one another. For example, it may make military sense to disperse high value assets such as nuclear-capable bombers in the event of crisis, but such actions, even if taken for defensive reasons, may inadvertently send escalatory signals at the very moment political leaders are seeking to defuse tensions.

Such dilemmas often lie at the heart of simulations. They force participants to address key questions, such as:

- What does the United States seek to achieve in the crisis? What do our adversaries seek to achieve?
- How can the United States best signal resolve in a nuclear crisis?
- Will raising U.S. nuclear alert levels strengthen deterrence or inadvertently provoke aggression?
- How might changing the alert levels of conventional forces, or even selectively repositioning them, reinforce nuclear messaging?



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- What strategic-level messages should the United States seek to convey to the American public? Allies? Adversaries? How should these messages be sequenced? Who should deliver them?⁴

This list is meant to be illustrative, not exhaustive. Political-military crisis simulations should bring these—as well as other relevant questions—into sharp focus, forcing policymakers to make tough decisions based on imperfect knowledge and under severe time constraints.

Civilian-Military Dynamics

The ultimate responsibility for nuclear decision-making rests with our duly elected political leadership. Such leaders thus have an obligation to educate themselves for nuclear crises, even if such events have a low probability of occurring. In the event of a real nuclear crisis, civilian leaders will not have the luxury of time to take a deep dive into the capabilities and limitations of friendly and adversary strategic or theater-level systems. *They should seek to acquire and deepen their knowledge and understanding of nuclear dynamics as the most important part of their professional responsibilities.* Lacking such understanding, they are less likely to provide their military counterparts with firm direction and sound guidance during a real crisis.

The psychological pressures of nuclear crises should not be underestimated. The Cuban Missile Crisis took an extraordinary psychological toll on some members of President Kennedy's team. As Robert Kennedy noted, "That kind of crisis-induced pressure does strange things to a human being, even to brilliant, self-confident, mature, experienced men. For some it brings out characteristics and strengths that perhaps even they never knew they had, and for others the pressure is too overwhelming."⁵

Simulations cannot possibly replicate this type of real-world pressure, and it would be foolish to suggest otherwise. Nonetheless, they can at least give civilian leaders a taste of the extraordinary pressures a real crisis would entail. The important point is for senior leaders to develop their crisis decision-making muscles and exercise them regularly, lest they atrophy. Not exercising is akin to asking a team to play well in a championship game without the benefit of practice.

Through A Glass, Darkly

The United States is fortunate that it has not experienced more nuclear crises like the 1962 Cuban Missile Crisis. It would be unwise, however, to think that crises of this magnitude could not happen again. There are, after all, more nuclear weapons states today than ever before, and it is likely that future crises involving China or Russia will include a nuclear dimension.



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On this point it is worth noting that Russia often has its senior most political leaders engage in strategic nuclear exercises. For example, in 2017, the Russian government's press secretary called attention to President Vladimir Putin's personal involvement in a major strategic forces command and control exercise involving the launch of land- and sea-based intercontinental missiles, stating, "The Supreme Commander-in-Chief launched four ballistic missiles."⁶ In 2019, Putin supervised the Grom ("Thunder")-2019 strategic force exercise, directing the event from the Russian Defense Ministry headquarters. Russian Defense Minister Sergei Shoigu said that the purpose of the exercise – which was considered Russia's largest strategic nuclear force exercise ever – was to assess "the military's capability to fulfill tasks in an armed conflict and a nuclear war."⁷ And right before he invaded Ukraine, Putin participated in a strategic force exercise that involved the launch of ballistic and cruise missiles to ensure "the reliability of the strategic nuclear and conventional forces' weapons."⁸

The United States should take appropriate steps in light of Putin's revanchist behavior and propensity to make nuclear threats. Ideally, the National Security Council should recognize the value of political-military crisis simulations and corral senior departmental leaders into participating in them. If necessary, however, Congress should consider legislation requiring senior civilian leaders from across the interagency to participate in them on a regular basis. As a first step, the Congress, on a bipartisan basis, has recognized the importance of greater senior-level involvement in strategic force exercises. In particular, section 1631 of the fiscal year 2022 National Defense Authorization Act requires the Under Secretary of Defense for Policy and the Vice Chairman of the Joint Chiefs of Staff to participate in the annual strategic deterrence exercises conducted by U.S. Strategic Command over the next decade, and encourages senior staff in the Executive Office of the President, including the National Security Advisor and Deputy National Security Advisor, to participate as well.

The stakes are high. The involvement of senior leaders in nuclear crisis decision-making exercises will help to enhance the credibility of U.S. deterrent forces. The failure to do so will send a message of unpreparedness to our adversaries and leave senior U.S. leaders less well equipped to handle nuclear crises in the future.

Conclusion

U.S. civilian leaders are generally less well educated on nuclear issues than their military counterparts. This could put the United States at a significant disadvantage in the event of a nuclear crisis. Strategic-level nuclear simulations provide a low cost means to address this problem. To maximize their effectiveness, these simulations should 1) involve senior civilian leaders to the maximum extent possible; 2) draw upon scenarios that force leaders to make hard choices; 3) impose tight time constraints to increase the pressure; 4) interject cyber, space, and other elements of national power that likely would figure prominently in future nuclear crises; and 5) exercise the principle of civilian control over the military.



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¹ For an excellent historical treatment of wargames, see Matthew B. Caffrey, *On Wargaming: How Wargames Have Shaped History and May Shape the Future* (Newport, RI: Naval Institute Press, 2017), available at <https://digitalcommons.usnwc.edu/cgi/viewcontent.cgi?article=1043&context=newport-papers>.

² The author roleplayed the Secretary of Defense during a small portion of U.S. Strategic Command's October 2020 Global Thunder Exercise and found the experience highly instructive.

³ Caffrey, *op. cit.*, p. 99.

⁴ Research indicates that U.S. and Soviet efforts to signal nuclear intent often fell well short of their desired impact during the Cold War. "The empirical evidence indicates that communicating nuclear intent through military exercises was fraught with uncertainty, ambiguity, deception, and bluff. The intended message was rarely received. Unintended messages abounded." See James A. Blackwell, *Cognitive Hyper-Dissonance: Nuclear Signaling Through Military Exercises* (Alexandria, VA: Institute for Defense Analyses, March 2020), pp. iii and 28, available at <https://www.ida.org/-/media/feature/publications/c/co/cognitive-hyper-dissonance-nuclear-signaling-through-military-exercises/p-11014.ashx>.

⁵ Robert Kennedy, *Thirteen Days* (New York, NY: W.W. Norton & Company, 1969), p. 22.

⁶ "Putin launched four ballistic missiles during a training session on command and control of Russia's strategic nuclear forces – Peskov," Interfax, October 27, 2017, available at <https://www.militarynews.ru/story.asp?rid=1&nid=465172&lang=RU>.

⁷ President Putin has taken a clear interest in directing strategic nuclear exercises. See, for example, Vladimir Isachenkov, "Putin directs exercise of Russian nuclear forces," *Associated Press*, October 17, 2019, available at <https://apnews.com/article/europe-russia-vladimir-putin-moscow-international-news-2b34be248db8491397610ad110441f7e>. See also Olga Oliker, "Russian Nuclear Exercises Display Putin's Misguided Priorities," *The RAND Blog*, October 31, 2012, available at <https://www.rand.org/blog/2012/10/russian-nuclear-exercises-display-putins-misguided.html>; and Mark Scheinder, "Putin Nukes Biden," *RealClear Defense*, April 3, 2021, available at https://www.realcleardefense.com/articles/2021/04/03/putin_nukes_biden_771156.html.

⁸ "Russia to conduct strategic deterrence force drills under Putin's direction on February 19," TASS, February 18, 2022, available at <https://tass.com/defense/1405793>.

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