



*Image: Graphic artist, Sophia Mauro*

# **POTENTIAL IMPLICATIONS OF THE WAR IN UKRAINE FOR NORTHEAST ASIA**

**Paul K. Davis**

**October 27, 2022**

This report is published under a 4.0 International Creative Commons License the terms of which are found [here](#).

This report is simultaneously published by the [Asia-Pacific Leadership Network \(APLN\)](#), [Nautilus Institute](#), and the [Research Center for Nuclear Weapons Abolition, Nagasaki University \(RECNA\)](#).

The views represented herein are the author's own and do not necessarily reflect the views of the Asia-Pacific Leadership Network, RECNA-Nagasaki University, and Nautilus Institute, nor their staff or boards.

---

---

## **Acknowledgements**

This is a special report prepared for the project "Reducing the Risk of Nuclear Weapon Use in Northeast Asia." The research described in this paper was co-sponsored by the Research Center for Nuclear Weapons Abolition, Nagasaki University (RECNA), the Nautilus Institute for Security and Sustainability, and the Asia-Pacific Leadership Network for Nuclear Non Proliferation and Disarmament (APLN), with collaboration from the Panel on Peace and Security of Northeast Asia (PSNA). Additional funding was provided by the MacArthur Foundation.

---

---

---

---

## About the Author

Paul K. Davis is a professor of policy analysis at the Pardee RAND Graduate School and a retired adjunct Senior Principal Researcher at RAND. He received a B.S. in chemistry from the University of Michigan and a Ph.D. in chemical physics from the Massachusetts Institute of Technology. He worked in strategic warning technology and systems analysis before joining the U.S. government to work on strategic force planning and arms control. As a Senior Executive, he then headed analysis of global military strategy and related defense programs in the Office of Program Analysis and Evaluation. He then joined the RAND Corporation, where his research has dealt with strategic planning under deep uncertainty; deterrence theory; modeling; information fusion; and causal social science for policy applications. He has served on numerous national panels and journal editorial boards. He developed and conducted a prescient nuclear-crisis war game in Seoul in 2016. His most recent major work (co-edited) is *Social Behavioral Modeling for Complex Systems* (2019), Wiley & Sons. This essay represents his own analysis and is unrelated to RAND research.

---

---

---

---

## Abstract

In this Policy Forum essay, Paul Davis argues: “Anyone sensible worries that a first nuclear use might well lead to escalation and general nuclear war, but the adjective “inexorably” should no longer be included.” He concludes that the Ukraine war has made the range of nuclear-use cases in Northeast Asia that he identified in 2020 even more plausible.

Paul K. Davis is a professor of policy analysis at the Pardee RAND Graduate School and a retired adjunct Senior Principal Researcher at RAND. He received a B.S. in chemistry from the University of Michigan and a Ph.D. in chemical physics from the Massachusetts Institute of Technology. He worked in strategic warning technology and systems analysis before joining the U.S. government to work on strategic force planning and arms control. As a Senior Executive, he then headed analysis of global military strategy and related defense programs in the Office of Program Analysis and Evaluation. He then joined the RAND Corporation, where his research has dealt with strategic planning under deep uncertainty; deterrence theory; modeling; information fusion; and causal

social science for policy applications. He has served on numerous national panels and journal editorial boards. He developed and conducted a prescient nuclear-crisis war game in Seoul in 2016. His most recent major work (co-edited) is *Social Behavioral Modeling for Complex Systems* (2019), Wiley & Sons. This essay represents his own analysis and is unrelated to RAND research.

This essay is a contribution to the “Reducing the Risk of Nuclear Weapons Use in Northeast Asia” (NU-NEA) project, a collaboration between the Research Center for Nuclear Weapons Abolition, Nagasaki University, Nautilus Institute, and the Asia Pacific Leadership Network for Nuclear nonproliferation and Disarmament. The project’s goal is to reduce and minimize the risk that nuclear weapons will be used in the region by developing better understandings of the processes that could lead to the first use of nuclear weapons and the potential outcomes of such nuclear weapons use. In the first year of this three-year project, the NU-NEA project team identified over 25 plausible nuclear weapons “use cases” that could start in Northeast Asia, sometimes leading to broader conflict beyond the region. These nuclear use cases are described in the report [\*Possible Nuclear Use Cases in Northeast Asia: Implications for Reducing Nuclear Risk\*](#). The project has commissioned five contributions to update the cases in light of the Ukraine conflict, of which this essay is the third.

Keywords: United States, East Asia, Russia, Ukraine, Nuclear Use, Ukraine, NATO, Biden, Putin

---

## Plausibility of Nuclear-Use Cases

A recent paper laid out a taxonomy of nuclear-use cases for the Korean peninsula by considering both "logical" possibilities and possibilities arising from such psychological pressures in crisis as desperation, anger, a sense of destiny, or other non-rational considerations (Davis and Bennett, 2022). The paper drew on earlier work that looked afresh for lessons from the Cold War (Davis et al., 2016; National Research Council, 2014), and also on a recent study contemplating the role of nuclear weapons in deterring Russian aggression in the Baltic states (Davis et al., 2019). It seems that limited nuclear war is now all too plausible—a point made early by Paul Bracken (Bracken, 2000) and recently by Brad Roberts (Roberts, 2015). Reportedly, in-government wargames within the United States military and intelligence community before the Ukrainian war often led to the nuclear threshold and, if Putin saw his regime as threatened, to nuclear use (Chivvis, 2022).

What lessons does the war in Ukraine have for our thinking about such matters? They reinforce lessons of the work cited above. The vividness of the Ukrainian war, however, may be more effective than scholarly debate in changing minds.

Before the war, many officials, scholars, and normal people were *certain* that limited nuclear war was an oxymoron and that those who discussed it were addled or worse. Once Ukraine's heroic resistance to invasion began to frustrate Russian intentions, however, some of these same people began worrying about what Putin might do rather than accept failure. They recognized that he might use chemical or even nuclear weapons. They began to think about possible NATO responses: a limited nuclear use of a similar character, something a bit escalatory, or something dramatic using long-range precision weapons rather than nuclear weapons. What might bring an end to the Ukraine war? On what terms? Exhibiting a discontinuous change of judgment, they were recognizing that limited nuclear war *is* plausible. If Putin used nuclear weapons, it would likely be with the intention of bringing about an end to conflict. Perhaps Ukraine and NATO would quickly agree to a ceasefire, with Russia having captured significant territory--although recent Ukrainian gains against Russian-held territory may make that outcome less plausible. Putin would realize that the West might respond—but perhaps only in some face-saving manner that would allow it to terminate thereafter. If Putin were right, there would be a limited nuclear war with a winner (perhaps Pyrrhic) and a loser.

Certainly, no one would suggest that the U.S. President *should* initiate general nuclear war in response to limited Russian nuclear use. And, everyone would probably agree that all national leaders would be *trying* to avoid such ultimate escalation. Shouldn't everyone therefore acknowledge that limited nuclear war might actually occur? If so, they would be catching up to what Herman Kahn and others recognized in the late 1950s when they thought about the unthinkable (Kahn, 1960; Kahn, 1962).

Those previously *certain* that no rational leader would use nuclear weapons have seldom been willing to acknowledge that—gulp— a key leader might not necessarily be fully rational. Early in the conflict Mr. Putin has been rumored (albeit with weak evidence) to be physically ill—perhaps with cancer, Parkinson's, a bad back, or other ailments (Jack, 2022). These illnesses and medications might affect his reasoning. Further, Putin apparently has a mystical belief in a version of history favored by extreme Russian nationalists such as Aleksandr Dugin (Burton, 2022). Perhaps Mr. Putin would like to re-establish as much of the Russian empire as possible as his final legacy, a transcendent goal of almost religious significance. To borrow from another aspect of the psychological literature, perhaps Putin is operating in what Prospect Theory calls the "domain of losses" (in his eyes, the tragedy of the collapse of the USSR) and is correspondingly more willing to take risks (Kahneman and Tversky, 1979; McDermott, 2004).

Anyone sensible worries that a first nuclear use might well lead to escalation and general nuclear war, but the adjective "inexorably" should no longer be included. The range of nuclear-use cases discussed in an earlier work (Davis and Bennett, 2022) appears even more plausible.

## **Defense is Feasible for Smaller Nations**

One consequence of the Ukrainian war is that China is probably less confident that it could quickly and easily defeat Taiwan. A related consequence is that Taiwan, Japan, and the Republic of Korea (ROK) can all be more optimistic about defending themselves—if they do all the things that would need to be done. The United States is certainly encouraging doing exactly that. This includes urging Taiwan to drop purchase of more M1A2 tanks in favor of, for example, MH-60R Seahawk helicopters, smart mines, Stinger antiaircraft missiles, cybersecurity capability and special forces (Wong and Schmitt, 2022).

This line of reasoning suggests that the world is currently in a period of potential defensive dominance. Big invasions by classic mechanized forces after long marches or transit by sea are not obviously good ideas when faced with determined, well-prepared defenders. At long last, "classic" concepts of mechanized warfare from the 20th century may have come to an end as envisioned for decades.<sup>1</sup> To be sure, the cycle of competition between offense and defense will continue and offense may loom large again in the future, but now may be a period for defense.

Yet another insight for China may be that the economic consequences of a lengthy or failed aggression could be far greater than it has previously imagined. Although economic sanctions against an aggressive China would be even more difficult to organize than against Russia,

---

<sup>1</sup>Some late-1990s studies sought ways to make invasions by a Soviet style mechanized army obsolete (Defense Science Board, 1996; Defense Science Board, 1998). These and other studies of the period (Marshall, 1995; Davis et al., 1996; Davis et al., 1998) urged "transformation" of U.S. military forces. Andrew Marshall's Office of Net Assessment saw the potential for a new revolution in military affairs (Marshall, 1995). The U.S. Joint Staff issued a remarkable visionary document (Joint Staff, 1996) that was endorsed by the Secretary of Defense (Cohen, 1997).

significant world support for sanctions could be economically devastating to a China that has enjoyed rapid growth for decades.

## **U.S. Attention to NEA**

A guiding question in the current NU-NEA project asks whether the United States is likely to pay more or less attention to the Northeast Asia (NEA) region as the result of the war in Ukraine.<sup>2</sup> Predictions on this topic are fraught for a number of reasons.

- The full history of the Ukraine war has not yet been written. Will NATO intervention in the conflict, albeit not placing troops in combat positions in Ukraine or attacking Russians directly (at least, not as of this writing in June 2022), be perceived by the United States as having been a courageous and glorious success, a costly failure, or something else?
- US politics is notoriously volatile and US behavior toward NEA will depend on the President and the composition of Congress after the 2024 elections.
- US behavior toward NEA will be affected by China's behavior toward Russia in the context of Ukraine and by trends in China's aggressiveness in NEA.
- US behavior will depend on the behaviors of both the Democratic People's Republic of Korea (DPRK) and the ROK, as well as on the willingness of NEA nations to form partnerships that help keep China in check while encouraging peaceful commerce and foreign relations.
- Whether the long-promised United States "pivot to Asia" will amount to much militarily may depend on the extent to which the Russian threat to NATO is reduced by Russia's massive losses in Ukraine. Any such reduction of threat, however, will likely not be so clear-cut and irreversible as to free up additional US (or other NATO) resources for NEA. To the contrary, the war in Ukraine will leave persistent concerns about threats to NATO members in the Baltics and Eastern Europe. In any case, the pivot to Asia has always had a large component of rhetoric. Geography still matters, requiring continued U.S. attention on Russian threats to Europe.

---

<sup>2</sup> List of "Guiding Questions" in Email of Nautilus' David von Hippel, June 6, 2022

## What May Be Predicted?

Some things are more predictable than others. The Ukrainian war has dramatized the significance of behaviors by the defended state itself. The Ukrainian military prepared for the war mentally and materially (far more than was recognized by outsiders). It has exhibited fierce determination and has fought above its weight.

The United States will begin to demand comparably determined preparations by Taiwan, the ROK, and Japan. The notion of the United States protecting such states is perhaps giving way to a belief that it is plausible and appropriate for such states to largely defend themselves. The states might have support from the United States and other nations, but perhaps in the form of economic sanctions, intelligence, weapons, and supplies rather than direct involvement of US military forces (except in the ROK where US forces are already deployed).

Much discussion has been stimulated by President Biden's statements in May 2022 about U.S. willingness to engage in defense of Taiwan. Some have claimed that his assertions contradict past policy, but both Biden and White House staff insist that US policy has not changed. Secretary of State Anthony Blinken stated on May 26 that “We oppose any unilateral changes to the status quo from either side; we do not support Taiwan independence; and we expect cross-strait differences to be resolved by peaceful means” (Blinken, 2022). Biden may be sticking with the *policy of strategic ambiguity* but increasing clarity on the margins to increase deterrence. This would continue a trend that has been going on for some time (Sanger, 2021).

If Donald Trump or someone comparable succeeds Biden in 2025, U.S. willingness to defend Japan, Taiwan, and the ROK will surely depend on those states greatly and visibly improving their own capabilities. Significantly, however, even if Joseph Biden is reelected or someone comparable is elected, the United States will probably demand more high-quality defensive preparations by the allies themselves.

As for nuclear weapons, the Ukrainian war has demonstrated US fear of nuclear war and suggested limits on what the United States will do for friends and allies. Although responding massively and firmly, the United States and NATO have refused to use direct military force against Russian forces or to allow its weapons to be used for attacks into Russia. This caution has been due less to Ukraine not being in NATO than to fear of nuclear escalation. If so, then US restraint might be expected in its support of more formally allied countries. For example, US military actions might be restricted to the high seas and to the air space around Taiwan. First nuclear use by the United States seems implausible except after DPRK chemical or biological use or after a disaster such as the sinking of a U.S. aircraft carrier or destruction of its military forces in South Korea (see Table 3 in Davis and Bennett, 2022).



## U.S Nuclear Posture and Policy for NEA

Another guiding question posed by the NU-NEA project is "Is the United States likely to change the deployment or status of nuclear or non-nuclear weapons systems in NEA as a result of the war in Ukraine, including around Russian territory in NEA?"

It is not evident that the war in Ukraine will affect such decisions, but what *might* change is attitudes of top US policymakers regarding independent nuclear capabilities in Japan, Taiwan, and the ROK. Nonproliferation has been a dominant objective of US Presidents for decades, but that may no longer be the case. High officials will have to re-confront questions such as

Would Russia have invaded Ukraine if Ukraine still had nuclear weapons?

Would the DPRK be willing to invade the ROK if the ROK had nuclear weapons?

Would China invade Taiwan if Taiwan had nuclear weapons

Would the United States truly be willing to trade Los Angeles for Pyongyang in a nuclear exchange?

Arguably, Japan, Taiwan, and the ROK *could* all achieve high levels of deterrence against nuclear-armed adversaries without developing their own nuclear weapons. One lesson from the war in Ukraine, however, is that deterrence can fail because nations greatly overestimate their ability to invade quickly and easily. The US invasion of Iraq in 2003 and the Russian invasion of Ukraine in 2022 both come to mind. Would it not be wise for a vulnerable nation to have an independent nuclear deterrent? Would this not be especially wise if developing a truly good conventional deterrent (deterrence by denial) were difficult because of economic and social costs, public apathy, and politics? If a US President learned that one of its allies was developing such a deterrent hedge, would it not be far more likely than a decade ago that the action would be "tolerated" or even countenanced? The fervent goal of non-proliferation is still important consideration, but no longer overwhelming.

## Suggestions

Some suggestions for statesmen and scholars follow from this train of reasoning:

- Acknowledge the plausibility of war, the importance of nuclear weapons, and the potential usability of nuclear weapons for some purposes in war.
- Acknowledge the very questionable credibility of extended nuclear deterrence when the potential aggressor has nuclear weapons that can strike the United States.
- Embrace the opportunities for advanced allies to achieve conventional deterrence by denial with precision weapons and intelligence.

- Urge allied investments in effective self-defense that exploits this modern technology. Reallocate investments accordingly, shifting to investments with the most defensive leverage.
- Urge that such investments be as manifestly defensive as possible, so that it is difficult for China to see them as a security threat.<sup>3</sup> Publicize, exercise, and discuss the defensive nature of preparations at every opportunity.

Simultaneously, negotiate to establish rules of the road and better mutual understanding of realities, actions, and signals. Indeed, if the vulnerable states more actively prepare for stalwart self-defense, and perhaps for independent nuclear deterrents, prospects for regional arms control might improve.

## **Epilogue, October 22, 2022**

The above essay was written in September, 2022. and, aside from minimal editing, has not been updated despite the many developments. Those developments include Ukrainian success using advanced weapons such as HIMARS, massive attrition of Russian forces, Putin's doubling down with repeated nuclear threats and extensive attacks against infrastructure and civilian population, fake elections in and formal annexation of conquered territories, Ukrainian success in recovering some territory, Russian use of Iranian drones, and U.S. plans to deploy air defenses against them. As winter approaches, Russia has taken down a substantial portion of Ukraine's energy infrastructure. Simultaneously, however, Russia's troops are under increased pressure and may need to conduct more strategic retreats. Fresh Russian troops will become available due to the mobilization, but they will be of uncertain quality. Ukrainian determination remains high. The future, then, remains uncertain.

---

<sup>3</sup> This may seem hopeless because nations often interpret defensive actions as threatening. It is notable, however, that—late in the Cold War—Soviet leadership came to recognize that its military posture was understandably perceived by NATO as aggressively offensive and threatening, and that NATO did not pose a credible offensive threat to the Soviet Union (Garthoff, 1992; Garthoff, 1994). This shift probably contributed to Gorbachev's unilateral decision to pull many forces back from Eastern Europe. Of interest to readers outside governments, the shift was probably also influenced by the many informal non-governmental meetings held between Western and Soviet scholars in which the military balance was discussed candidly, sometimes at the political-military level and sometimes with discussion of nitty-gritty military analysis and even military modeling (Huber, 1990).

## References

- Blinken, Antony (2022), “The Administration’s Approach to the People’s Republic of China [Comments At George Washington University, May 26, 2022],” U.S. State Department, accessed at <https://www.state.gov/the-administrations-approach-to-the-peoples-republic-of-china>
- Bracken, Paul (2000), *Fire in the East: The Rise of Asian Military Power and the Second Nuclear Age*, Harper Perennial.
- Burton, Tara Isabella (2022), “The Far-Right Mystical Writer Who Helped Shape Putin’s View of Russia,” *Washington Post*, Outlook, Accessed at <https://www.washingtonpost.com/outlook/2022/05/12/dugin-russia-ukraine-putin/>
- Chivvis, Christopher S. (2022), “I’ve Studied the Possible Trajectories of the Russia-Ukraine War. None Are Good.,” *The Guardian*, Opinion, online. Accessed at <http://www.theguardian.com/commentisfree/2022/mar/08/russia-ukraine-war-possible-trajectories>
- Cohen, William (1997), *Report of the Quadrennial Defense Review*, Washington, D.C.: Department of Defense.
- Davis, Paul K. and Bruce W. Bennett (2022), *Nuclear-Use Cases for Contemplating Crisis and Conflict on the Korean Peninsula*, 5:sup 1, Taylor & Francis.
- Davis, Paul K. et al. (2019), *Exploring the Role Nuclear Weapons Could Play in Deterring Russian Threats to the Baltic States*, Santa Monica Calif.: RAND Corp. Accessed at [https://www.rand.org/pubs/research\\_reports/RR2781.html](https://www.rand.org/pubs/research_reports/RR2781.html)
- Davis, Paul K., David C. Gompert, Richard Hillestad, and Stuart Johnson (1998), *Transforming U.S. Forces: Suggestions for DoD Strategy*, Santa Monica, Calif.: RAND Corporation. Accessed at [http://www.rand.org/pubs/issue\\_papers/IP179.html](http://www.rand.org/pubs/issue_papers/IP179.html)
- Davis, Paul K., David C. Gompert, and Richard Kugler (1996), *Adaptiveness in National Defense: The Basis of a New Framework*, Santa Monica, Calif.: RAND Corporation. Accessed at [http://www.rand.org/pubs/issue\\_papers/IP155.html](http://www.rand.org/pubs/issue_papers/IP155.html)
- Davis, Paul K., Jeongeun Kim, Yunho Park, and Peter A. Wilson (2016), “Deterrence and Stability for the Korean Peninsula,” *Korean Journal of Defense Analyses*, 28(1), 1-23.
- Defense Science Board (1996), *Tactics and Technologies for 21-st Century Military Superiority*, Washington, D.C.: Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics.
- (1998), *Joint Operations Superiority in the 21-st Century: Integrating Capabilities Underwriting Joint Vision 2010 and Beyond*, Washington, D.C.: Office of the Under Secretary

of Defense for Acquisition and Technology.

Garthoff, Raymond (1994), *Detente and Confrontation: American-Soviet Relations from Nixon to Reagan*, Washington, D.C.: Brookings Institution Press.

Garthoff, Raymond L. (1992), “New Soviet Thinking on Conflict Initiation, Control, and Termination,” in Stephen J. Cimbala and Sidney R. Waldman, Eds. *Controlling and Ending Conflict*, New York: Greenwood Press, 65-94.

Huber, Reiner, Ed. (1990), *Military Stability: Prerequisites and Analysis Requirements for Conventional Stability in Europe*, Baden-Baden, Germany: Nomos Verlagsgesellschaft.

Jack, Victor (2022), “What’s Wrong with Vladimir Putin?,” *Politico*, June 2, online. Accessed at <https://www.politico.eu/article/backpain-cancer-and-covid-vladimir-putin-top-health-scaressthroughout-the-years/>

Joint Staff (1996), *Joint Vision 2010*, Washington, D.C.: Department of Defense.

Kahn, Herman (1960), *On Thermonuclear War*, Princeton University Press.

——— (1962), *Thinking About the Unthinkable*, New York: Horizon Press.

Kahneman, Daniel and Amos Tversky (1979), “Prospect Theory: An Analysis of Decision Under Risk,” *Econometrica*, 47263-91.

Marshall, Andrew M. (1995) “Revolutions in Military Affairs,” Statement for the Subcommittee on Acquisition & Technology, Senate Armed Services Committee, May 5 1995,” Washington, D.C.: U.S. Senate Armed Services Committee.

McDermott, Rose (2004), “Editor’s Introduction [to special volume on prospect theory and political science],” *Political Psychology*, 25(2-3).

National Research Council (2014), *U.S. Air Force Strategic Deterrence Analytic Capabilities: An Assessment of Methods, Tools, and Approaches for the 21st Century Security Environment*, Washington, D.C.: National Academies Press.

Roberts, Brad (2015), *The Case for U.S. Nuclear Weapons in the 21st Century*, Redwood City, Calif.: Stanford University Press.

Sanger, David E. (2021), “Biden Said the U.S. Would Protect Taiwan. But it’s Not That Clear-Cut,” *New York Times*, October 22, 2021, online. Accessed at <http://www.nytimes.com/2021/10/22/us/politics/biden-taiwan-defense-china.html>

Wong, Edward and Eric Schmitt (2022), “U.S. Speeds Up Reshaping of Taiwan’s Defenses to

Deter China,” *New York Times*, online. Accessed at [www.nytimes.com/2022/05/24/us/politics/china-taiwan-military.html](https://www.nytimes.com/2022/05/24/us/politics/china-taiwan-military.html)