William A. Chambers, Caroline R. Milne, Rhiannon T. Hutton, and Heather W. Williams, *No-First Use of Nuclear Weapons: A Policy Assessment* **(Alexandria, VA: Institute for Defense Analyses, January 2021), 84 pp.**

As the debate over U.S. nuclear weapons policy heats up and the Biden Administration begins its eagerly awaited review of U.S. nuclear posture, the issue of whether to adopt a "no first use" (NFU) nuclear policy is again emerging as a key point of contention. In this expert study by the Institute for Defense Analyses (IDA), the authors address the implications of changing U.S. declaratory policy from the longstanding and bipartisan support for "calculated ambiguity" to an NFU policy, and the pitfalls of declaring that the United States will not— under any circumstances—be the first to employ nuclear weapons.

This study—which was done in response to a congressional mandate in the Fiscal Year 2020 National Defense Authorization Act—assesses the impact of NFU on U.S. force posture, allied perceptions of U.S. credibility, adversary reactions, and nuclear nonproliferation goals and objectives. It concludes that "U.S. adoption of an NFU policy will not bring about a setting that is more conducive to positive behavior by adversaries or to strengthened relations with allies. In light of already-constrained U.S. policy and procedure governing nuclear use, the weight of the evidence indicates *significant potential for NFU to impart more harm than good*" (emphasis in original).

IDA's assessment is a clear-eyed and intellectually robust analysis that is refreshingly devoid of partisan political posturing—a trait that is increasingly common in the contemporary debate over nuclear weapons and strategy. While the authors note the "speculative" nature of determining the impact of an NFU policy on overall U.S. force posture, they highlight the fact that allies continue to view U.S. security guarantees as critical and conclude that adoption by the United States of an NFU policy would "dilute" the credibility of U.S. assurances. Further, they state that "NFU will not favorably alter adversary behavior nor affect the risk of miscalculation." Indeed, they argue that the risk of adversary miscalculation in a period of crisis "will not be lowered" by U.S. adoption of NFU.

Importantly, the study concludes that a U.S. NFU policy would have little to no effect on the proliferation behavior of other states. It makes the commonsense observation that "Nation-states make decisions about their security needs based less on U.S. policy and more on their own interests." This fundamental truth is often lost on those who see the United States as the driver of an action-reaction phenomenon and who argue that if only the United States would lead, others would willingly follow. Such an idealist view of international behavior is not borne out by the historical record.

No-First Use of Nuclear Weapons: A Policy Assessment is a readable and well-articulated analysis of a complex and controversial national security issue. The analysts at IDA should be commended for preparing such a useful and relevant document to inform the contemporary nuclear debate. Hopefully, the Biden Administration will review its conclusions with the seriousness and attention they deserve when considering whether and how to adapt U.S. nuclear policy to the full range of existing and prospective threats facing the United States and its allies.

Reviewed by David J. Trachtenberg
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Daniel P. Bagge, *Unmasking Maskirovka: Russia's Cyber Influence Operations* (New York, NY: Defense Press, 2019), 251 pp.

From election hacking to threatening U.S. allies, the Russian Federation appears to be back at the forefront of policymakers' interests. Bagge's book illuminates how the Russian government thinks about and executes influence operations and how it utilizes new technologies to make this ever so traditional tool of statecraft more potent than ever.

To understand Russia's influence operations, Bagge introduces the concept of "reflexive control." The purpose of reflexive control is to model, understand, and disrupt the opponent's decision-making processes. Wars are to be waged not only between respective militaries, but between their decision-making processes even before forces clash. The concept was born out of the Soviet Union's realization that it was inferior to the United States in economic and technological fields starting in the 1950s and 1960s and its subsequent efforts to level the playing field via less expensive means. Influence operations are a critical component of "reflexive control" because they seek to alter a target's perception of reality and shape his decision-making processes in ways beneficial to the Russian Federation.

Bagge lists four prerequisites for "reflective control": manipulation of the target's sensory awareness; hiding one's true intentions; influencing the target's information resources; and tampering with filters (data processors) and sensory awareness (images of the outside world). The campaign to change the target's perceptions is long-term. The goal of feeding an adversary deceptive or distorted information is to impact his moral values, psychological state, or even his character so that he would make decisions beneficial to the Russian Federation without being cognizant of it.

While the technique could not quite reach its full potential during the Cold War due to limits in information distribution, modern technologies are perfectly suited for the kind of manipulation that has the potential to change the target's calculus and change his decisions.

Even though deception as a tool of statecraft is not new, the spread of modern technologies and their accessibility allows for a significant qualitative (and quantitative) difference from past practices. To drive the point home, Bagge documents in detail influence operations that Russia conducted concurrent with its invasion of Ukraine. Ukraine was likely made more vulnerable to Russia's attacks because of its pre-war cooperation with Russia in this area, which allowed Russia to understand Ukraine's information systems and networks. But pro-Russian hacker attacks, conceivably with support of the Russian government, were not limited to Ukraine but targeted other countries too, including the United States and its allies. For example, hackers released U.S. diplomats' and an Estonian minister's communications relevant to Russia's attack on Ukraine; attacked governments' computers with spyware and malware; hacked U.S.-made UAVs in Ukraine; and stole satellite imagery of the battlefield from a Ukrainian general's emails.

Another beneficial aspect of the book that is relevant for policymakers is its explanation of where cyber-conducted influence operations fit into Russia's military and strategic doctrine. The short answer is everywhere—unlike in the United States where the traditional focus is on protecting the infrastructure and developing hardware capabilities. And unlike the United States, the Russian Federation's strategic documents make clear that Moscow does not distinguish between peacetime and wartime; its operations against the West are ongoing. Russia sees this convergence between military and non-military means as desirable and exploitation worthy. In other words, we are at war against Russia regardless of our own desire for peace.

What is the best way to counter Russia's malicious activities? As Bagge states, "The critical component of any recommendation is [...] the individual. Individuals are the common denominator of the processes and decision-making, and are the ultimate targets of information-psychological and, in case the aim is not the infrastructure itself, information-technical attacks. If the individual is resilient, then the activities he participates in are resilient, be it analysis, information processing or decision-making." The book is somewhat short on concrete actionable policy recommendations, but that can be forgiven because in its stated purpose--to make individuals aware and cognizant of how the Russian government approaches influence operations--the book succeeds admirably.

Reviewed by Michaela Dodge
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George Perkovich and Pranay Vaddi, *Proportionate Deterrence: A Model Nuclear Posture Review* (Washington, D.C.: Carnegie Endowment for International Peace, 2021), 144 pages.

As the Biden administration begins its process of writing policy guidance documents, perhaps including a new *Nuclear Posture Review*, it will no doubt conduct a review of the non-government literature that is friendly to its inclinations, and – one would hope – the literature that challenges its assumptions. Among the officials the Biden administration has appointed to serve in the Pentagon, the State Department, the National Security Council, and other offices with responsibilities in crafting a new *Nuclear Posture Review*, there appears to be a mix of those who wish to make relatively minor changes to the policies, priorities, and programs from the 2018 *Nuclear Posture Review*, call them "reformers;" and then there are those who appear more willing to consider radical changes in U.S. nuclear policy and posture, call them "revolutionaries." During the Obama administration, much to the revolutionaries' dismay, the reformers ultimately carried the day on most issues – but it is far too early to predict the outcome of the Biden administration's process.

The new report by Perkovich and Vaddi (now a Senior Adviser at the State Department) reads as though they are "reluctant reformers," who would ideally like to see broader changes to U.S. nuclear policy and programs, but who recognize the political obstacles and the negative shift in the threat environment as making those changes either unwise or too unlikely to succeed, and thus not worth pursuing.

Supporters of the 2018 *Nuclear Posture Review* will find areas of disagreement with the authors, but it will generally be thoughtful disagreement as Perkovich and Vaddi anticipate counterarguments – a practice sorely missing from other non-government reports on the subject. For example, their support of a change in U.S. nuclear declaratory policy to an "existential threat policy" is ultimately unpersuasive to this reviewer because of the potential speed and ambiguity in identifying when a threat transitions from "severe" to "existential;" but the "existential threat policy" is a novel suggestion that recognizes the flaws in "sole purpose" and "no first use" policies and at least deserves debate. Perkovich and Vaddi's discussion of the law of war and its implications for nuclear strategy also usefully contributes to the debate, although this reviewer found their conclusion regarding the U.S. duty under international law to reduce the role of nuclear weapons in its strategy to be several steps too far.

Perkovich and Vaddi spend a significant portion of the report summarizing the U.S. need to modernize its nuclear command, control, and communication (NC3) systems – a point on which most everyone will nod in unison. More controversially, however, they recommend canceling the nuclear-armed sea-launched cruise missile proposed in the 2018 NPR and pausing the development of the replacement intercontinental ballistic missile for Minuteman III, the Ground-Based Strategic Deterrent – opting instead for life-extending Minuteman III.

Regrettably, the authors do not discuss the arms control implications of life-extending an already 50-year-old missile system, while Russia and China – which base the majority of their warheads on ICBMs – are investing heavily in building new ICBMs. On arms control, Perkovich and Vaddi are open to some limits on U.S. missile defenses while pursuing parallel efforts with Russia and China to reduce and cap their arsenals respectively.

Many of the authors' recommendations stem from their desire to reduce the role of nuclear weapons in U.S. defense policy and decrease the chances for misperception and miscalculation. While they should be commended for including a section on the threat environment in their report – again, a rarity in reports by those who generally support U.S. nuclear reductions – the section lacks much substantive discussion of chemical, biological, or non-strategic nuclear threats. This relative silence is especially concerning given the geographic position of U.S. allies neighboring multiple states with these capabilities and a revisionist mindset.

Perkovich and Vaddi appear to have let their desire to reduce the role of nuclear weapons in U.S. strategy override their concerns for the threat environment by insisting that fewer U.S. nuclear weapons within a more narrowly restricted role in U.S. defense strategy will make the United States and its allies safer. Were that the United States blessed with such compliant potential adversaries, but, after all, China and Russia "get a vote" in whether the United States can choose to de-emphasize nuclear weapons in its defense strategy. One would think that the Chinese and Russian increased reliance on, and possession of an increasing number of, nuclear weapons would at least caution against any premature U.S. reduction in role or number of its nuclear weapons.

The Obama administration chose to reduce the role of nuclear weapons in U.S. defense strategy (in a very different threat environment) by increasing the number and quality of regional missile defenses and conventional strike capabilities – options given relatively short shrift in *Proportionate Deterrence* in favor of reducing nuclear capabilities. The authors' recommendation in this regard for merely life-extending Minuteman III ICBMs appears especially questionable when six months after the report's publication U.S. media began reporting multiple public discoveries of hundreds of new Chinese ICBM silos. One wonders what Chinese and Russian defense officials think of U.S. nuclear deterrence when they see a raging U.S. debate about whether a 50 year-old ICBM should be life-extended, and possibly phased out. Disproportionate indeed.

Although not emphasized in their report, Perkovich and Vaddi would have benefited from a more objective look at the debate surrounding U.S. homeland missile defense. They take for granted the vintage Cold War belief that the "action-reaction" dynamic is at play in U.S. homeland missile defense and lightly rebuke missile defense proponents for not recognizing the, supposedly, obvious connection. But turnabout is fair play, and Perkovich and Vaddi do not consider the myriad of other factors, beyond a mechanistic action-reaction cycle

supposedly led by the United States, of why Russia and China have built the forces they have, including: hedging against each other, expressions of great power capabilities, strategies of coercion, and the creation of jobs in the military industrial centers of power. Once the action-reaction myth is busted, their recommendation about exploring trades in U.S. missile defense for arms control progress appears short-sighted.

In *Proportionate Deterrence*, Perkovich and Vaddi explain their views on nuclear employment, nuclear and missile defense systems, arms control, and a number of other topics – a span of subjects appropriate for any top-level view of the role of nuclear weapons in U.S. defense strategy. If readers are looking for a general overview of the issues the Biden administration will likely confront in writing their NPR, especially from the left-of-center perspective, then *Proportionate Deterrence* will be instructive. Should the Biden administration accept each of the conclusions in the report, however, it would lead to substantial breaks with bipartisan precedent in previous Nuclear Posture Reviews – indicating to this reviewer that U.S. officials should look beyond *Proportionate Deterrence*.

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