Twenty-First Century Nuclear Deterrence
Operationalizing the 2018 Nuclear Posture Review

By Ryan W. Kort, Carlos R. Bersabe, Dalton H. Clarke, and Derek J. Di Bello

The power to hurt—the sheer unacquisitive, unproductive power to destroy things that somebody treasures, to inflict pain and grief—is a kind of bargaining power, not easy to use but used often.

—Thomas Schelling, Arms and Influence

A distinction must be made between lessons learned and fighting yesterday’s war. The French experience in World War I led to the construction of the Maginot Line series of fortifications. The French neglected to adapt to changes in the operational environment, and their monolithic method for deterrence, based on established convictions that the next war would be similar in critical aspects to World War I, failed.
catastrophically during World War II. The United States risks a similar misappraisal of the operational environment in how it understands, plans, and executes nuclear deterrence.

The 2018 Nuclear Posture Review (NPR) clearly lays out the challenge: “This rapid deterioration of the threat environment since the 2010 NPR must now shape our thinking as we formulate policy and strategy, and initiate the sustainment and replacement of U.S. nuclear forces.” However, an examination of the NPRs since 1994 demonstrates the Nation’s reliance on legacy nuclear deterrence concepts despite changes in the operational environment; that reliance, when juxtaposed against a current understanding of U.S. nuclear threats, exposes a wide “say-do” gap between stated deterrence policy and deterrence in practice. The United States must eliminate its nuclear deterrence say-do gap by operationalizing the 2018 NPR through the development of doctrinal and operational concepts that enable the joint force to acquire and integrate a broad variety of deterrence activities and capabilities, ultimately delivering the tailored and flexible deterrence posture needed to succeed in the 21st century.

Atrophy of U.S. Nuclear Conceptual Thinking: 1994 to Present

The operational environment before the fall of the Soviet Union differed from the one the United States faces today. Whereas the Nation chiefly contended with mutually assured destruction in the former, it now faces multiple actors of concern that present unique threats across the spectrum of conflict—with each one deterred in a different way.

An analysis of the 1994, 2001, and 2010 NPRs clearly illustrates this transition and contrasts with the 2018 NPR assertions that seek to remedy the decline within U.S. nuclear force doctrines and capabilities.

The post–Cold War’s optimistic caution underpinned the 1994 NPR. The United States accommodated reductions in its nuclear arsenal, accompanied by the so-called peace dividend. Mild successes in nonproliferation and disarmament also marked the first half of this decade. Without an aggressive nuclear adversary and with the perception of a more stable nuclear operational environment, the 1994 NPR advocated a “Lead but Hedge” strategy. In other words, the United States would lead the world in nonproliferation and arms reduction efforts, while also hedging against future uncertainty by retaining what it considered adequate nuclear deterrence capability under the assumption of a more benign security environment compared to the Cold War era. Figure 1 illustrates the Nation’s ambitious focus on arms reduction via the first Strategic Arms Reduction Treaty.

This trajectory remained largely unchanged in the 2001 NPR, despite obvious shifts in the operational environment. As observed by Senate Foreign Relations Committee members regarding the 2001 NPR, potential U.S. adversaries changed, but post–Cold War strategic objectives remained the same. The continued marginalization of nuclear deterrence led to the formulation of the “New Triad,” which affirmed efforts to reduce nuclear capabilities and aspired to increase conventional capacities. Additionally, this strategy shifted away from the previous threat-based employment guidance and transitioned to a capabilities-based approach in defense planning. The critical shortcoming of adopting the capabilities-based approach was the development of generic capabilities and doctrine, which proved incongruous with the gradual reemergence of peer and near-peer competitors.

The 2010 NPR aimed to further reduce U.S. national security policy reliance on nuclear weapons. Indeed, it trumpeted the fact that the United States and Russia reduced operationally deployed strategic nuclear weapons by approximately 75 percent from Cold War levels. While U.S. policy shifted further away from nuclear deterrence—with its attention still fixated on executing two lower intensity conflicts—Russia, China, and North Korea advanced their operational concepts and developed new or enhanced capabilities. While the United States delayed modernizing its nuclear inventory, other global competitors seized the initiative.

U.S. thinking about deterrence stagnated and regressed, evidenced by a lack of joint doctrine on nuclear operations from 2006 to the present. The United States has attempted to execute deterrence largely the same way since the Cold War, with the presumption that our Cold War-era doctrine and concepts would suffice with the grave exception of devaluing its role. The implicit danger of failing to
rethink doctrinal concepts is the assumption that they will continue to work in the future. Per strategist and theorist Colin Gray, correlation is not causality, and the greatest non-event in history is not necessarily proof that our previous deterrence concepts worked.14

The Competitive Space

What academic circles have termed the “Second Nuclear Age” largely describes the nuclear power vacuum created by continued U.S. deemphasis of nuclear operations. Among the numerous actors of concern, Russia, China, and North Korea stole the opportunity and advanced their nuclear operational concepts and capabilities.15 Since 2010, despite decades of U.S. leadership to reduce the number and role of nuclear weapons on the geopolitical stage, other international actors moved in the opposite direction, presenting an “unprecedented range and mix of threats” that left the United States in an operational nuclear lurch.16 While the Nation identified the need to recapitalize its strategic nuclear forces, a critical gap exists at the operational level with limited numbers of low-yield nuclear weapons intended for use on the battlefield. Figure 2 illustrates this disparity.

Russia. Russia poses the greatest near-term and existential threat to America.17 Moscow capitalized on the last 15 years, modernizing nuclear operations and equipment for achieving its aims through a variety of methods, including nuclear coercion. It violated the Intermediate-Range Nuclear Forces Treaty in 2014 by fielding a new road-mobile missile and recently began fielding its most capable missile, the RS-28 Sarmat, which Western analysts call the Satan-2. President Vladimir Putin boasted that Russian advances in nuclear technology were unmatched and unprecedented in world history.18

The 2018 NPR clearly highlights the challenge posed by Russia: “Most concerning are Russia’s national security policies, strategy, and doctrine [emphasizing] the threat of limited nuclear escalation, and its continuing development and fielding of increasingly diverse and expanding nuclear capabilities.”19 This concept is called “escalate to deescalate,” whereby Russia would seek to employ a low-yield nuclear attack in such a fashion as to make a proportional U.S./North Atlantic Treaty Organization (NATO) response politically unacceptable or impractical.20 In this sense, the deescalation would be the result of Western “capitulation on terms favorable to Moscow.”21

In turn, U.S. and NATO reliance on the air-delivered B61 gravity bomb for in-theater (operational level) nonstrategic nuclear deterrence highlights the dilemma posed by the potential lower nuclear first-use threshold. In order to deter and respond to the potential use of nonstrategic nuclear weapons by Russia, the United States and NATO can only counter with fourth-generation Western fighter aircraft against highly capable...
North Korea continues to possess nuclear
weapons in any number, a very real
and present danger still persists. With
its economy largely dependent on its
relationship with China, the much more
impoverished North Korea views its pos-
session and pursuit of nuclear weapons
capabilities as existential to the preserva-
tion of the Kim Jong-un regime.

Assuming that North Korea does not
dismantle its nuclear enterprise in the
near future, there are inherent difficul-
ties in shaping its behavior. The United
States spent the better part of the last two
decades attempting to end North Korea’s
nuclear weapons program through
sanctions, frameworks/agreements,
and United Nations Security Council
resolutions, which all sought to coax or
coerce North Korea into arms reduction
in exchange for goods, energy, and food.
In each instance, North Korea balked and
restated its programs with limited repercus-
sions. If left unchecked, North Korea
will continue to threaten the East Asia
region and perhaps one day the United
States itself.

In response to North Korean missile
testing, Japan and South Korea report-
edly considered “the nuclear option,
driven by worry that the United States
might hesitate to defend the countries
if doing so might provoke a missile
launched from the North at Los Angeles
or Washington.” Former Secretary
of State Henry Kissinger echoed this
sentiment of potential proliferation: “If
they continue to have nuclear weapons,
nuclear weapons must spread in the rest
of Asia.”

Operationalizing the 2018 NPR
The United States must act quickly if it
seeks to regain and maintain a qualita-
tive conceptual edge over its adversar-
ies. A sober appraisal of past nuclear
thinking combined with deliberate
U.S. neglect of its nuclear forces serve
as the catalyst for the 2018 NPR’s
admission that “the United States now
faces a more diverse and advanced
country with a “no first use” policy
would seek to place greater emphasis on
creating a shorter kill chain with more
advanced weaponry.

Uncertainty concerning Chinese
capabilities, doctrine, and con-
cepts also creates further concern when
viewed in context with its other geopoliti-
cal actions. These include the claims on,
creation of, and militarization of man-
made islands in the South China Sea,
the broader coercion by diplomatic and
economic means of its neighbors, and
the aggressive intellectual property theft
of American/Western military-industrial
knowledge.

North Korea. At the June 12, 2018,
summit between the United States and
North Korea, the heads of state reaff-
irmed the April 27, 2018, Panmunjom
Declaration that committed North Korea
to work toward complete denucleariza-
tion of the Korean Peninsula. As long as
North Korea continues to possess nuclear
field of Russian integrated air defense systems.22
In short, Russia clearly understands and
exploits this existing gap.23

China. Largely shrouded in ambigu-
ity, China’s expanding nuclear deterrence
principles and capabilities pose a serious
strategic challenge for how the United
States conducts nuclear deterrence. In
2016, President Xi Jinping elevated
China’s Second Artillery Corps, in
charge of land-based nuclear forces, to
become its own service, the People’s
Liberation Army Rocket Force, which
consolidated command and control over
all nuclear forces. This is problematic for
several reasons.

Coupled with its newly streamlined
command and control structure, China’s
lack of transparency regarding the “scope
and scale of its nuclear modernization
program raises questions regarding its
future intent.”24 In broad terms, “it is
developing and testing several new classes
and variants of offensive missiles, forming
additional missile units, upgrading older
missile systems, and developing methods
to counter ballistic missile defenses.”25
The quantity of these new weapons sys-
tems is also ambiguous, with estimates
ranging from a few hundred to a few
thousand.26 It raises the question of why
a country with a “no first use” policy
would seek to place greater emphasis on
creating a shorter kill chain with more
advanced weaponry.

Uncertainty concerning Chinese
capabilities, doctrine, and con-
cepts also creates further concern when
viewed in context with its other geopoliti-
cal actions. These include the claims on,
creation of, and militarization of man-
made islands in the South China Sea,
the broader coercion by diplomatic and
economic means of its neighbors, and
the aggressive intellectual property theft
of American/Western military-industrial
knowledge.

North Korea. At the June 12, 2018,
summit between the United States and
North Korea, the heads of state reaff-
irmed the April 27, 2018, Panmunjom
Declaration that committed North Korea
to work toward complete denucleariza-
tion of the Korean Peninsula. As long as
North Korea continues to possess nuclear
Figure 2. Nuclear Delivery Systems Employed
or in Development since 2010

![Diagram showing nuclear delivery systems](https://example.com/diagram.png)
The United States should seek to employ a sufficient number of ballistic missile defenses in the region not only to reduce the risk from North Korean nuclear attack but also to visibly demonstrate to the Kim regime that the United States has a sufficient number of interceptors to neutralize North Korea’s nuclear threat. Furthermore, the United States should strongly consider a potentially controversial new concept involving custodial sharing of nonstrategic nuclear capabilities during times of crisis with select Asia-Pacific partners, specifically Japan and the Republic of Korea. As with NATO, the United States would maintain ownership of these weapons, ensuring that the stipulations in the Non-Proliferation Treaty signatories remain in effect. Also, the construct will not mirror the NATO model for nonstrategic nuclear employment due to politico-military restrictions. This would have an added deterrent effect on North Korea, but perhaps the greatest advantage would be the increased pressure put on China to constrain North Korea’s aggression.

The forward presence of nonstrategic nuclear capabilities in East Asia provides an additional advantage through demonstrating greater assurance to U.S. regional allies. Considering North Korea’s history of aggressive nuclear rhetoric and recent missile tests, combined with the deliberate U.S. deemphasis of nuclear deterrence in national policy, this course of action would provide renewed physical evidence of U.S. resolve. It would also provide another avenue for collaboration and strengthening military partnerships through joint-regional exercises, all of which are necessary to deter potential adversaries and reassure allies.

**Conclusion**

On the surface it may seem that U.S. leadership in nuclear arms control and nonproliferation is altogether positive, but there have been several costly side effects. As each NPR demonstrated, the diminished U.S. nuclear posture also served to marginalize its nuclear forces, resulting in several scandals that could have ended with catastrophic conse-
quences. Meanwhile, the operational environment changed drastically, where several actors of concern took advantage of the permissive U.S. attitude as an opportunity to advance their nuclear arsenal, thereby lessening the effectiveness of U.S. nuclear deterrence. As outlined in the 2018 NPR, however, the United States seems to recognize that it is at an inflection point.

Critics of these recommendations may likely take issue with some of the specific proposals advocated herein. A potential criticism involves the perceived moral aversion to development and integration of new nonstrategic nuclear weapons into a broader deterrence framework. Regardless of the perceived morality attached to nuclear weapons, the threat of nonstrategic nuclear weapons must be real and credible to ensure robust deterrence. Concerning weapons must be real and credible to the potential criticism involves the perceived permissiveness U.S. nuclear deterrence. As outlined in the 2018 NPR, the United States seems to recognize that it is at an inflection point.

In order to defend its vital interests and reassure its allies, while hedging against an uncertain future, the United States must maintain a credible nuclear deterrent capability and the ability to convince potential adversaries of its resolve to employ those capabilities when required. The United States must eliminate its nuclear deterrence “say-do” gap by operationalizing the 2018 NPR. As such, the development of operational concepts tailored to these specific threats rather than a generic and irrelevant capabilities-based doctrine will enable the United States to truly operationalize the 2018 NPR.

---

### Notes

11. Ibid., 13.
13. Joint Publication 3-12, *Nuclear Operations*, was rescinded in 2006 and renamed *Cyberspace Operations*. There is no current joint publication for nuclear operations.
16. Ibid., 2.
23. “Presidential Address to the Federal Assembly.”
31. Ibid., 55.
32. Ibid., 32.
33. Ibid.