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2022 Nuclear Posture Review

On October 27, 2022, the Department of Defense (DOD) published the unclassified 2022 Nuclear Posture Review (NPR). (Unless otherwise noted, all quotations and statements of U.S. positions are from the NPR text). DOD published this review, the first since 2018, in the same document as the 2022 National Defense Strategy and the 2022 Missile Defense Review. The NPR describes U.S. “nuclear strategy, policy, posture, and forces” and “reaffirms a continuing commitment to a safe, secure, and effective nuclear deterrent and strong and credible extended deterrence.”

For Congress, the NPR covers subjects such as nuclear weapons employment guidance, as well as nuclear weapons production and associated infrastructure, that directly affect legislative and oversight considerations. The U.S. government “will update nuclear weapons employment guidance,” last published in 2020.

The United States aims to “continue to deploy a nuclear triad consisting of nuclear warheads” deliverable by aircraft and submarine- and land-based missiles. The United States is “fully committed” to nuclear weapons modernization programs, but it does not plan to conduct nuclear explosive tests or resume producing fissile material. The NPR similarly expresses support for modernizing the U.S. nuclear command, control, and communications system, as well as the production and support infrastructure.

The nuclear weapons modernization programs include the Sentinel Intercontinental Ballistic Missile (ICBM) program (formerly known as the Ground Based Strategic Deterrent) to replace the Minuteman III ICBM; the COLUMBIA-class ballistic missile submarines (SSBN) to replace the OHIO-class SSBN; the W93 program to produce a new warhead for submarine-launched ballistic missiles (SLBM); B-52H bomber modernization; the B-21 bomber to replace the B-2A Spirit long-range bomber; the long-range standoff cruise missile to replace the air-launched cruise missile (ALCM); and the W76-2 low yield SLBM warhead. The NPR also announces retirement of the B-83-1 gravity bomb and cancellation of the nuclear-armed Sea-Launched Cruise Missile program.

The NPR stipulates several times the need for “flexible” U.S. nuclear forces. The document does not define this term, but names assets such as ALCMs, the W76-2 SLBM warhead, globally deployable bombers, and dual-capable fighter aircraft as examples.

Purpose of Nuclear Weapons

The “fundamental role” of the U.S. nuclear arsenal is to deter nuclear attack on the United States and its allies and partners. The NPR reiterates a January 2022 statement by China, France, Russia, the United Kingdom, and the United States stipulating that “a nuclear war cannot be won and

must never be fought,” and that “nuclear weapons should serve defensive purposes, deter aggression, and prevent war.”

The United States “will not use or threaten to use nuclear weapons” against nonnuclear-weapon states-parties to the nuclear Nonproliferation Treaty (NPT) that are “in compliance with their nuclear non-proliferation obligations.” The review rejects declaratory policies known as No First Use and Sole Purpose because such policies “would result in an unacceptable level of risk” given “the range of non-nuclear capabilities being developed and fielded by competitors.”

“Central to U.S. deterrence strategy is the credibility of our nuclear forces to hold at risk what adversary leadership values most,” the NPR states, adding that effective nuclear deterrence “requires tailored strategies for potential adversaries that reflect our best understanding of their decision-making and perceptions.” The document, however, neither explains the reasoning underlying target selection nor provides detail about specific U.S. nuclear-weapons missions.

The United States “would only consider the use of nuclear weapons in extreme circumstances to defend the vital interests of the United States or its Allies and partners,” according to the review, which also discusses the potential role of nonnuclear U.S. capabilities in deterring nuclear attacks. Part of a schema termed “integrated deterrence” by the NPR, this approach is meant to incorporate “suitable non-nuclear capabilities tailored to specific threat scenarios.” The NPR lists three roles for nuclear weapons: deter strategic attacks, assure allies and partners, and achieve U.S. objectives if deterrence fails.

Deter Strategic Attacks

The U.S. nuclear arsenal must deter “all forms of strategic attack,” including “nuclear employment of any scale directed against the U.S. homeland or the territory of Allies and partners,” according to the NPR, which adds that any “adversary use of nuclear weapons ... would fundamentally alter the nature of a conflict, create the potential for uncontrolled escalation, and have strategic effects.” U.S. “capability to deter limited nuclear attacks” is necessary for deterring attacks with nonnuclear weapons because some potential adversaries “may rely on the threat of nuclear escalation in order to terminate a [conventional] conflict on advantageous terms.” The United States requires nuclear weapons to deter “a narrow range of other high consequence, strategic-level attacks.”

Repeatedly citing the Russian and Chinese nuclear arsenals as key drivers of U.S. nuclear posture, the NPR posits that the United States will “face two major nuclear powers as strategic competitors and potential adversaries” by the

2030s. This situation will “create new stresses on stability and new challenges for deterrence, assurance, arms control, and risk reduction.” Moreover, the U.S. nuclear arsenal must be able to deter “opportunistic aggression” from China or Russia if the United States is engaged in a military conflict with the other country.

China is “a growing factor in evaluating” the U.S. nuclear deterrent, because Beijing “has embarked on an ambitious expansion, modernization, and diversification of its nuclear forces.” China’s acquisition of additional nuclear options could allow China to “include nuclear coercion and limited nuclear first use” in Beijing’s nuclear employment strategy. The U.S. “flexible deterrence strategy and force posture” is meant to prevent Beijing “from mistakenly concluding that it could gain advantage through any employment of nuclear weapons.”

Russia “continues to emphasize nuclear weapons in its strategy, modernize and expand its nuclear forces, and brandish its nuclear weapons in support of its revisionist security policy.” Moscow’s “combination of strategic and non-strategic nuclear forces” enables nuclear weapons uses “ranging from large-scale attacks on the homeland to limited strikes in support of a regional military campaign.” Russia is likely to deploy additional nuclear weapons, the NPR indicates, adding that flexible U.S. nuclear capabilities “are key to ensuring that Russia’s leadership does not miscalculate regarding the consequences of nuclear use on any scale.” Such a U.S. posture would help dissuade Moscow from either initiating a “conventional war against NATO” or contemplating employing “non-strategic nuclear weapons in such a conflict.”

The NPR warns that any North Korean use of nuclear weapons “against the United States or its Allies and partners ... will result in the end of that regime.” The review also notes that U.S. nuclear weapons “play a role in deterring” North Korean regional nonnuclear attacks, possibly a reference to potential North Korean use of chemical, biological, or conventional weapons.

Assure Allies and Partners

The NPR explains that “U.S. extended nuclear deterrence is foundational” to the “network” of U.S. alliances and partner countries; assuring such governments that U.S. commitments to those countries are “credible is central to U.S. national security and defense strategy.” Extended deterrence also “contributes to U.S. non-proliferation goals” by obviating those countries’ perceived need for their own nuclear weapons.

The document also notes that the United States “will collaborate with Allies and partners to tailor extended deterrence and assurance policies.” Regarding the Indo-Pacific region, the NPR explains that the United States “will continue to field flexible nuclear forces suited to deterring regional nuclear conflict,” and expresses the need for “a cooperative approach between the United States and Allies in decision-making related to nuclear deterrence policy.”

As for the Euro-Atlantic Region, the review explains that, along with British and French nuclear forces and NATO’s “nuclear burden-sharing arrangements, U.S. nuclear forces remain essential to the Alliance’s deterrence and defense

posture.” Since 2014, “NATO has taken steps to ensure a modern, ready, and credible” nuclear deterrent, including “modernizing U.S. nuclear weapons forward-deployed in Europe” and “transitioning to a new generation of fighter aircraft.” However, additional steps “are needed to fully adapt these forces to current and emerging security conditions.”

Achieve U.S. Objectives If Deterrence Fails

The NPR does not describe this mission in detail. But the document does explain that, should deterrence fail, “the United States would seek to end any conflict at the lowest level of damage possible on the best achievable terms”—language implying that the United States might use nuclear weapons for purposes other than deterrence.

Other Missions

The NPR emphasizes the role of U.S. nuclear weapons in preventing an escalation of conventional military conflicts and the attendant risk of nuclear weapons use. U.S. deterrence strategies “will follow guidelines for managing escalation risk,” and the United States “will seek to manage escalation risk by addressing” potential “adversary misperceptions ... regarding U.S. resolve, capabilities, strategic intentions, or war aims.”

The NPR suggests that the United States may use nuclear weapons in circumstances that do not involve potential adversaries’ potential use of nuclear weapons. For example, nuclear weapons must deter a limited number of “high consequence, strategic-level attacks,” according to the document, which implies that Chinese or Russian strikes with chemical or biological weapons or “cyber, space, information,” or advanced conventional capabilities might constitute such attacks. The review also asserts that an “effective nuclear deterrent is foundational to broader U.S. defense strategy,” but does not elaborate.

Arms Control

The NPR explains that, in addition to nuclear deterrence, “arms control, risk reduction, and nuclear nonproliferation play indispensable roles in further reducing nuclear dangers” and are “mutually reinforcing tools for preserving stability, deterring aggression and escalation, and avoiding arms racing and nuclear war.” The review asserts that the United States “will pursue new arms control arrangements that address the full range of nuclear threats.”

The NPR expresses support for negotiation of “a new arms control framework to replace” the New START treaty with Russia, which expires in 2026. Such negotiations “will need to account for the PRC’s nuclear expansion,” according to the document, which also advocates U.S. talks with China on a “full range of strategic issues,” including “military de-confliction, crisis communications, information sharing, mutual restraint, risk reduction, emerging technologies, and approaches to nuclear arms control.” The review also expresses support for the NPT and other components of the nuclear nonproliferation regime, as well as adoption of the Comprehensive Test Ban Treaty and negotiation of a Fissile Material Cutoff Treaty.

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