Longer Recent Sent

Targeting and Employment Planning

Targeting During the Cold War

During the Cold War, the United States sought to deter the Soviet Union, and defeat it if deterrence failed, by threatening to destroy a wide range of military and industrial targets. The U.S. plan for how to achieve this objective was contained in a document known as the SIOP — the Single Integrated Operational Plan — which is highly classified. According to scholarly reports and articles, the SIOP evolved over the years, in response to changes in the number and capabilities of U.S. nuclear forces and changes in theories of how to deter the Soviet Union. Throughout this time, though, the SIOP reportedly contained a number of attack options for the President to choose from. These options varied in terms of the numbers and types of targets to be attacked and varied according to the number and types of U.S. warheads available when the conflict began.[38]

In 1990, General John Chain, Commander in Chief of the Strategic Command, outlined U.S. targeting strategy in testimony before Congress. He stated that "the task is to be able to deter any possessor of nuclear weapons from attacking the United States by having a postured retaliatory force significant enough to destroy what the attacker holds most dear... Against this macro mission, target categories are designated. Within these target categories, a finite list of targets are designated; and against those targets, weapons are allocated." These target categories reportedly included Soviet strategic nuclear forces, other military forces, military and political leadership, and industrial facilities.[39] These represented mostly "counterforce" and industrial targets. The United States did not seek to destroy Soviet cities, although many likely would have faced attack due to their proximity to military or industrial targets. The United States sought the capability to destroy thousands of sites in these target categories, even if the Soviet Union destroyed many U.S. weapons in a first strike. The need for weapons that could survive a Soviet strike and retaliate against a wide range of Soviet targets created the requirement for large numbers of U.S. strategic nuclear weapons.

Targeting after the Demise of the Soviet Union

After the disintegration of the Warsaw Pact and collapse of the Soviet Union, the Department of Defense conducted several studies to review U.S. nuclear targeting strategy and weapons employment policy. According to published reports, these reviews revised and greatly reduced the length of the target list, but left the basic

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[37] (...continued)
Daily Press Briefing. February 22, 2002.

[38] See, for example, Ball, Desmond and Jeffrey Richelson, eds. Strategic Nuclear Targeting. Cornell University Press. 1986. See also McKinzie, Matthew G. et al. The U.S. Nuclear War Plan: A Time for Change. Natural Resources Defense Council. 2001. pp. 5-14.

[39] Statement by John T. Chain, Jr. Commander in Chief, Strategic Air Command and Director, Strategic Target Planning, before the House Armed Services Committee. March 6, 1990. Prepared Text, p. 5.

tenets of the strategy untouched. According to a 1995 article in the Washington Post, "the United States primary nuclear war plan still targets Russia and provides the President an option for counterattack within 30 minutes of confirmed enemy launch."[40]

In 1997, the Clinton Administration altered the U.S. strategy from seeking to win a *protracted* nuclear war, a strategy identified during the Reagan Administration, to seeking to deter nuclear war. In practice, this probably meant the United States would not seek to cause as much damage against as wide a range of targets as it had planned on attacking in previous war plans. Consequently, the United States would not need to maintain as large an arsenal of nuclear weapons as it had needed during the Cold War.[41] But, these changes did not alter the core objectives of U.S. nuclear policy. The United States would continue "to emphasize the survivability of the nuclear systems and infrastructure necessary to endure a preemptive attack and still respond at overwhelming levels."[42] Furthermore, the United States reportedly continued to prepare a range of attack options, from limited attacks involving small numbers of weapons to major attacks involving thousands of warheads, and to plan attacks against military targets, nuclear forces, and civilian leadership sites in Russia.[43] The Clinton Administration argued that the flexibility offered by this range of options would enhance deterrence by providing the United States with more credible responses to a range of crises and attack scenarios.

Prompt Response and Alert Rates. The Clinton Administration retained the U.S. policy of maintaining the capability to launch nuclear weapons after receiving indications that an attack on the United States was underway, but before

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[40] "Secretary Cheney and General Powell and their aides threw thousands of targets out of the SIOP (single-integrated operational plan), helping to reduce it from its Cold War peak of more than 40,000 to about 10,000 by 1991." In addition "General Butler reviewed each target one-by-one tossing many out ... one day he eliminated 1,000 targets in newly liberated Eastern Europe..." By 1994, General Butler had helped to pare the SIOP to 2,500 targets. See Ottaway, David B. and Steve Coll. Trying to Unplug the War Machine. Washington Post, April 12, 1995. p. A28.

[41] The first Strategic Arms Reduction Treaty, which the United States and Russia signed in 1991, reduced U.S. and Russian forces to 6,000 accountable warheads on strategic offensive delivery vehicles. Prior to START I, each side had deployed more than 10,000 strategic nuclear weapons. START II, signed by Russia and the United States in 1993, lowered the limit to 3,500 strategic offensive weapons on each side. The targeting reviews completed in the early 1990s had confirmed that the United States could reduce its forces to START I and, after the demise of the Soviet Union, START II levels without undermining its ability to pursue the existing employment policies. The new U.S. employment strategy, and plans to further reduce nuclear weapons to around 2,500 strategic warheads, emerged from additional targeting and force structure reviews in the mid-1990s.

[42] Ibid. p. 12.

[43] Smith, R. Jeffrey. Clinton Directive Changes Strategy on Nuclear Arms; Centering on Deterrence, Officials Drop Terms for Long Atomic War. *Washington Post*, December 7, 1997. p. A1.

incoming warheads could detonate.[44] Analysts have criticized this policy, arguing that it leads Russia to maintain its forces at a high state of alert, which could lead to an inadvertent launch of Russia's nuclear weapons if Russia received false or ambiguous warnings of nuclear attack. Nevertheless, Clinton Administration officials stated that the United States would not rely solely on the ability to launch promptly; it could wait until detonations had occurred, then launch its retaliatory strike at a later time.[45] Consequently, some of the options available in U.S. war plans included weapons that would be available if the United States launched its forces before any were destroyed, and some included only those weapons that would survive if the United States absorbed a first strike before initiating its response. The decision on whether to launch U.S. weapons promptly or to wait for detonations on U.S. soil would be left to the national command authority at the time of the crisis.

Bush Administration Approach

During testimony before Congress, Douglas Feith, Undersecretary of Defense for Policy, stated that the "mutual assured destruction" relationship between the United States and Soviet Union was no longer an appropriate basis for calculating our nuclear requirements. Therefore, when determining the size and structure of the U.S. nuclear arsenal, DOD "excluded from our calculation ... the previous, long-standing requirements centered on the Soviet Union, and, more recently, Russia."[46]

The Bush Administration has referred to this new targeting strategy as a "capabilities-based" strategy, rather than a "threat-based" strategy. During the Cold War, U.S. targeting strategy focused on deterring and, if necessary, defeating the Soviet *threat*. According to the Administration, this gave rise to war plans that allowed for few contingencies and required only a minimum of flexibility and adaptability.[47] In the future, when planning for the possible use of nuclear weapons, the United States would "look more at a broad range of capabilities and contingencies that the United States may confront" and tailor U.S. military capabilities to address this wide spectrum of possible contingencies.[48] Specifically, the United States would identify potential future conflicts, review the capabilities of its possible adversaries,

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[44] Smith, R. Jeffrey. Clinton Directive Changes Strategy on Nuclear Arms; Centering on Deterrence, Officials Drop Terms for Long Atomic War. *Washington Post*, December 7, 1997. p. A1.

[45] According to Robert Bell, "we direct our military forces to continue to posture themselves in such a way as to not rely on launch on warning — to be able to absorb a nuclear strike and still have enough force surviving to constitute credible deterrence. Our policy is to confirm that we are under nuclear attack with actual detonations before retaliating." Cerniello, Craig. Clinton Issues New Guidelines on U.S. Nuclear Weapons Doctrine. *Arms Control Today*. November/December 1997.

[46] U.S. Senate. Committee on Armed Services. Statement of the Honorable Douglas J. Feith, Undersecretary of Defense For Policy. February 14, 2002.

[47] U.S. Department of Defense. Special Briefing on the Nuclear Posture Review. News Transcript. January 9, 2002.

[48] U.S. Senate. Committee on Armed Services. Statement of the Honorable Douglas J. Feith, Undersecretary of Defense For Policy. February 14, 2002.

identify those capabilities that the United States might need to attack or threaten with nuclear weapons, and develop a force posture and nuclear weapons employment strategy that would allow it to attack those capabilities.

The Bush Administration has not discussed, publicly, how it will identify specific targets or allocate weapons in its "capabilities-based" targeting strategy. It has, however, identified three types of contingencies that it believes the United States must prepare to address with its nuclear employment plans.[49]

- Immediate contingencies include "well-recognized, current dangers." The Soviet threat was an immediate contingency in the past, current examples include a WMD attack on U.S. forces or allies in the Middle East or Asia.

- Potential contingencies are "plausible, but not immediate dangers." This might include the emergence of new, adversarial, military coalitions, or the re-emergence of a "hostile peer competitor." According to the Administration, the United States would probably have sufficient warning of the emergence of these threats to modify or adjust its nuclear posture.

- Unexpected contingencies are "sudden and unpredicted security challenges." This might include a "sudden regime change" when an existing nuclear arsenal transferred to the control of a hostile leadership or an adversary's sudden acquisition of WMD.

These three types of contingencies would place different demands on U.S. nuclear war planners. Because the United States can understand and anticipate immediate contingencies, it can size, structure, and plan in advance for the use of its nuclear arsenal to address these contingencies, just as it did when addressing the Soviet threat during the Cold War.[50] The United States can also plan in advance for the possible use of nuclear weapons in potential contingencies, even if it does not maintain the needed force structure on a day-to-day basis. Hence, the war-planning and targeting process for these contingencies are likely to be similar to the process used during the Cold War, albeit with a wider range of possible plans to address targets among a greater number of countries. And, although the Administration has not addressed this issue, the United States will likely prepare a number of alternative employment plans so that the President will have options to choose from if a conflict occurs. These are likely to include many of the same types of targets as the United States planned to attack during the Cold War because the ability to destroy these types of facilities is likely to remain important to the U.S. ability to defeat an enemy

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[49] The following summarizes the discussion in the Secretary of Defense's Annual Report. See U.S. Department of Defense. Annual Report to the President and Congress. Donald H. Rumsfeld, Secretary of Defense. Washington, 2002. p. 88.

[50] The Administration has indicated, however, that it will not size the force of "operationally deployed nuclear warheads" to address the potential Russian threat U.S. Department of Defense. Special Briefing on the Nuclear Posture Review. News Transcript. January 9, 2002.

and limit damage to itself during a conflict. These targets could include deployed and non-deployed stocks of weapons of mass destruction (during the Cold War, Soviet nuclear weapons made up the majority of the targets in this category), other military facilities, leadership facilities, and, possibly other economic targets.

The United States cannot, however, prepare pre-planned options for attacks for *unexpected* contingencies because it does not know when or where these threats may emerge. The focus on the "unexpected" has underlined the Administration's insistence that the United States develop and expand its capabilities for "adaptive planning."[51] The United States Strategic Command (STRATCOM), which develops the operational plans for U.S. strategic nuclear weapons, already has the ability to do some adaptive planning. It began this effort in 1992, when it sought to develop "a flexible, globally focused, war planning process" along with living SIOP, a nuclear war plan "able to respond almost instantaneously to new requirements."[52] At the present time, "STRATCOM is in the process of developing a more flexible and adaptive planning system ... that employs modern computing techniques and streamlined processes to significantly improve our planning capability for rapid, flexible crisis response."[53] A responsive adaptive planning process must also rely on timely and accurate intelligence, so that the planners will be able to identify targets and attack them at their vulnerable points. Therefore, the Administration has called for improvements in U.S. "sensors and technologies so that they can provide more detailed information about an adversary's plans, force developments, and vulnerabilities." It has requested additional funding "for the development of advanced sensors and imagery, for improved intelligence and assessment, and for modernization of communications and targeting capabilities in support of evolving strike concepts."[54]

The Bush Administration has emphasized the increasing importance of adaptive planning, and waning relevance of pre-planned attack options, to highlight the fact that its nuclear doctrine and targeting strategy focus on emerging threats, rather than on a smaller version of the Cold War threat from the Soviet Union. Yet the Administration's plans probably do not represent a complete break from past practices. First, because the Administration has identified the "re-emergence of a peer competitor" as one of the potential contingencies the United States might need to address, the United States is likely to retain some form of predetermined war plan with options for possible attacks against Russian targets. Second, although the Administration has indicated that it will reduce the number of operationally deployed

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[51] According to Undersecretary Feith, the United States must have "the flexibility to tailor military capabilities to a wide spectrum of contingencies, to address the unexpected, and to prepare for the uncertainties of deterrence." See U.S. Senate. Committee on Armed Services. Statement of the Honorable Douglas J. Feith, Undersecretary of Defense For Policy. February 14, 2002.

[52] Schwartz. Stephen I. Nukes You Can Use. Bulletin of the Atomic Scientists. May/June 2002. p. 19.

[53] U.S. Senate. Committee on Armed Services. Statement of Admiral James O. Ellis, Commander in Chief of Strategic Command. February 14, 2002.

[54] U.S. Senate. Committee on Armed Services. Statement of the Honorable Douglas J. Feith, Undersecretary of Defense For Policy. February 14, 2002.

strategic nuclear warheads (this is discussed in the next section), it will retain enough warheads to threaten many, if not most, of the targets included in options in the current SIOP. It may eliminate some of the existing options, and possibly add options for attacks against other possible adversaries, but it probably will not completely replace pre-planned options with adaptive planning. Instead, U.S. nuclear weapons employment policy is likely to include options for attacks against Russia, contingency plans for attacks against other countries, and adaptive planning capabilities to address unexpected, emerging threats. This would be similar to the employment policy that had emerged by the end of the Clinton Administration. Although the Clinton Administration continued to prepare a SIOP that focused on Russia, press reports indicate it also maintained current intelligence on WMD facilities in countries, such as Iran, Iraq, and North Korea, and that it passed this information to target planners at STRATCOM so that they could prepare contingency plans for attacks with U.S. nuclear weapons. According to one report, STRATCOM could produce target packages for these plans "within hours."[55]

Prompt Response and Alert Rates. During the most recent presidential campaign, Governor George W. Bush indicated that, as a part of his nuclear posture review, he would considering reducing the alert rates of U.S. nuclear weapons. However, when the Administration completed its review, it did not propose any changes to U.S. alert rates. To the contrary, DOD concluded that, even as the Air Force prepared to retire the Peacekeeper ICBMs, it would keep the force on alert to maintain the morale and operational readiness of the units. The Bush Administration also did not announce any changes to the U.S. ability to launch its nuclear weapons promptly, before absorbing an attack, at the start of a conflict, or to use nuclear weapons first in a conflict. To the contrary, with the growing emphasis on the potential use of nuclear weapons in conflicts with nations armed with WMD, the Administration probably would not support a "no first use" policy.

Force Structure

Nuclear Forces During the Cold War

During the Cold War, the U.S. nuclear arsenal contained many types of delivery vehicles for nuclear weapons, including short-range missiles and artillery for use on the battlefield, medium-range missiles and aircraft that could strike targets beyond the theater of battle, short- and medium-range systems based on surface ships, long-range missiles based on U.S. territory and submarines, and heavy bombers that could threaten Soviet targets from their bases in the United States. The long-range missiles and heavy bombers are known as strategic nuclear weapons; the short- and medium-range systems are considered non-strategic nuclear weapons and have been referred to as battlefield, tactical, and theater nuclear weapons.

Non-strategic Nuclear Weapons. Throughout the Cold War, the United States deployed thousands of shorter-range nuclear weapons on land in Europe,

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[55] Pincus, Walter. "Rogue" Nations Policy Builds on Clinton's Lead. Washington Post, March 2, 2002. P. 4.

Japan, and South Korea and on ships around the world. These weapons were deemed essential to the U.S. strategy of extending nuclear deterrence to its allies. The United States began to reduce these forces in the late 1970s, in part because NATO officials believed they could maintain deterrence with fewer, but more modern, weapons.[56] These modernization programs continued through the 1980s, particularly through the deployment of ground-launched cruise missiles and intermediate-range ballistic missiles in Europe. However, by the end of that decade, as the Warsaw Pact dissolved, the United States had canceled or scaled back all planned modernization programs. In 1987, it also signed the Intermediate-Range Nuclear Forces (INF) Treaty, which eliminated all U.S. and Soviet ground-launched shorter and intermediate-range ballistic and cruise missiles.

Strategic Nuclear Forces. Since the early 1960s the United States has maintained a "triad" of strategic nuclear delivery vehicles. These include land-based intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs) and long-range heavy bombers. The United States developed these three different types of nuclear delivery vehicles, in large part, because each of the military services wanted to play a role in the U.S. nuclear arsenal. However, during the 1960s and 1970s, analysts developed a more reasoned rationale for the nuclear "triad." They argued that these different basing modes would enhance deterrence and discourage a Soviet first strike because they complicated Soviet attack planning and ensured the survivability of a significant portion of the U.S. force in the event of a Soviet first strike.[57] The different characteristics of each weapon system might also strengthen the credibility of U.S. targeting strategy. For example, ICBMs eventually had the accuracy and prompt responsiveness needed to attack hardened targets such as Soviet command posts and ICBM silos, SLBMs had the survivability needed to complicate Soviet efforts to launch a disarming first strike and to retaliate if such an attack were attempted,[58] and heavy bombers could be dispersed quickly and launched to enhance their survivability, and they could be recalled to their bases if a crisis did not escalate into conflict.

Modernization programs continued to enhance the capabilities of U.S. strategic nuclear weapons throughout the Cold War era. These programs culminated with the deployment of Peacekeeper (MX) ICBMs and Trident submarines and Trident II (D-5) SLBMs in the mid-1980s and 1990s and with the deployment of the B-2 (Stealth) bomber in the 1990s. The United States also continued to add to the numbers of its deployed strategic nuclear weapons through the end of the 1980s. However, by the early 1990s, the numbers of warheads deployed on U.S. strategic nuclear forces

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[56] The numbers of operational U.S. non-strategic nuclear warheads declined from more than 7,000 in the mid-1970s to below 6,000 in the 1980s, to fewer than 1,000 by the middle of the 1990s. See *Toward a Nuclear Peace: The Future of Nuclear Weapons in U.S. Foreign and Defense Policy*. Report of the CSIS Nuclear Strategy Study Group, Washington, D.C. Center for Strategic and International Studies, 1993. p. 27.

[57] U.S. Department of Defense. *Annual Report to Congress, Fiscal Year 1989*, by Frank Carlucci, Secretary of Defense. February 18, 1988. Washington, 1988. p. 54.

[58] In the early 1990s, SLBMs also acquired the accuracy needed to attack many hardened sites in the former Soviet Union.

and destroy a range of critical targets, and that the United States may need different numbers of nuclear weapons and different types of nuclear weapons to address threats that emerge in the future. Under this formula, the flexibility to restore nuclear warheads quickly, expand the number of deployed warheads over time, and develop new weapons with new capabilities makes it possible for the United States to reduce its deployed weapons in the near term without creating potential risks to its security in the future.

Non-Strategic Nuclear Weapons

As was noted above, the United States withdrew from deployment most its nonstrategic nuclear weapons during the early 1990s, leaving a few hundred air-delivered bombs deployed at bases in Europe. Although some analysts question the need for these weapons, and their relevance to NATO's strategy in the absence of the Soviet Union and Warsaw Pact, most concerns about nonstrategic nuclear weapons focus on the potential for the loss or theft of Russia's weapons. Unclassified reports estimate that Russia may still have 12,000 nonstrategic nuclear weapons at storage areas around the country, and that these storage areas might be poorly guarded and the weapons may be vulnerable to theft. One Member of Congress, Curt Weldon, has referred to the issue of Russia's tactical nuclear weapons as "severe" and "critical."[128]

Many analysts believe that, to address concerns about Russia's nonstrategic nuclear weapons, the United States must propose unilateral or negotiated reductions in these forces. Others argue that negotiations are not an option because, with just a few hundred weapons deployed, the United States would have little leverage to convince Russia to reduce its stocks of nonstrategic nuclear weapons. Many contend that the United States should focus, instead, on measures to improve security at Russia's nuclear weapons storage facilities and to enhance transparency and openness so that both sides can remain confident in the safety and security of Russia's stockpile. Efforts in these areas are funded by DOD's Nunn-Lugar Cooperative Threat Reduction Program.

The Bush Administration did not address questions about U.S. or Russian nonstrategic nuclear weapons in the NPR or in the testimony and briefings that accompanied its release. However, in the months following the release of the NPR, and particularly after the United States and Russia signed the Strategic Offensive Reductions Treaty in May 2002, the Administration began to recognize that nonstrategic nuclear weapons should be on the agenda for discussions between the United States and Russia. Press reports indicated that this issue would be on the agenda during the May summit when Presidents Bush and Putin signed the Treaty.[129] This did not occur, and Secretary of Defense Rumsfeld noted, at the time, that the issue on nonstrategic nuclear weapons was one that "keeps getting set aside."[130] However, during hearings on the Treaty before the Senate Foreign Relations

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[128] Roosevelt, Ann. Weldon: Time to Discuss Tactical Nuclear Weapons Cuts

[129] Raum, Tom. Tactical Weapons Next Topic. Moscow Times. May 20, 2002. p. 5.

[130] Rumsfeld: Fate of Deactivated Nuclear Warheads Still Undetermined. InsideDefense.com. May 21, 2002.

Committee in July 2002, Secretary of Defense Rumsfeld and Secretary of State Powell both acknowledged that the two sides did need to address the issue. Both indicated that nonstrategic nuclear weapons would be on the agenda for the new Consultative Group for Strategic Stability, which was announced in the Joint Declaration released after the May 2002 summit in Moscow. This group, which is chaired by the U.S. Secretaries of Defense and State and Russia's Ministers of Defense and Foreign Affairs, held its first meeting in September 2002. Although their efforts are still in the earliest stages, many analysts believe that this group should place its highest priority on addressing the risks posed by Russia's arsenal of nonstrategic nuclear weapons.