

U.S. STRATEGIC WAR PLANNING AFTER 9/11

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The U.S. Department of Defense is implementing the 2001 Nuclear Posture Review's requirement to create a "New Triad" of offensive and defensive capabilities. Advocates assert the new posture is necessary to change U.S. deterrence posture from a "one-size-fits-all" plan focused on the Soviet Union to a global posture designed to better deter or defeat all sizes and types of adversaries. This article describes how new policy guidance is reshaping U.S. strategic planning, converting the top-heavy Cold War Single Integrated Operational Plan into a "family" of smaller, flexible plans designed to threaten potential adversaries anywhere on earth and explores how the responses of these adversaries may help to undermine the nonproliferation regime.

KEYWORDS: United States; Strategic war planning; Global Strike; Nuclear policy; Tailored deterrence

The day after North Korea's October 9, 2006 nuclear test, Secretary of State Condoleezza Rice reiterated the 2005 U.S. pledge that Washington "has no intention to attack or invade [North Korea] with nuclear or conventional weapons."¹ If "intention" refers to giving the military a launch order, then Rice's statement was accurate. But only eight days later, Rice reaffirmed, in fact emphasized, that the United States retains nuclear forces aimed at North Korea.²

To many, this simply highlighted the traditional U.S. policy of maintaining extended nuclear deterrence in Northeast Asia. But that conclusion glosses over important new policy guidance and military planning that have emerged over the past six years, developments that show the United States has decided that long-standing policy and plans are not enough and that different and more offensive strike options and capabilities are needed against North Korea and other potential regional adversaries. Unfortunately, rather than simply being dissuaded, North Korea and other nations seem to have taken note of the new effort and made it part of their justification for pursuing weapons of mass destruction (WMD).³

The new and increasingly offensive U.S. posture is most vividly exemplified by the Global Strike mission that President George W. Bush signed into the Unified Command Plan (Change 2) on January 10, 2003. The plan assigned four new missions to U.S. Strategic Command (STRATCOM), including Global Strike, which was defined as "a capability to deliver rapid, extended-range, precision kinetic (nuclear and conventional), and non-kinetic (elements of space and information operations) effects in support of theater and national objectives."⁴

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TABLE 1

Policy Guidance for “New Triad” and Global Strike

Nuclear Posture Review, December 2001. Laid the foundation by articulating requirements for forces and planning tools that reemphasized operations against regional adversaries armed with WMD. Articulated the need for a “New Triad” that intertwined nuclear and conventional weapons in offensive operations.^a

National Security Presidential Directive (NSPD) 14, June 2002. Clarified presidential nuclear weapons planning guidance and provided broad, overarching directions to the agencies and commands for nuclear weapon planning.^b

NSPD 17, September 2002. Articulated a new national strategy to combat WMD as a comprehensive approach to countering nuclear and other WMD. Reaffirmed that, if necessary, the United States will use nuclear weapons—even preemptively—against anyone using WMD against it, its forces abroad, friends, or allies. Called for a mix of nuclear and conventional forces.^c

National Security Strategy, September 2002. Publicly articulated a preemption doctrine against WMD that requires the transformation of military forces to rapidly and precisely “stop rogue states and their terrorist clients *before* they are able to threaten or use weapons of mass destruction against the United States and our allies and friends.”^d

Unified Command Plan, Change 2, January 2003. Assigned four new missions to STRATCOM: Global Strike, missile defense, information operations, and global C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance).

Nuclear Posture Review Implementation Plan, March 2003. Informed the agencies and services of 26 pages of specific items from the 2001 Nuclear Posture Review that they are required to implement.

Nuclear Weapons Employment Policy, April 2004. A detailed outline of the countries that U.S. nuclear planning shall be directed against, including a breakdown of the individual strike plans and their target categories and objectives.^e

Unified Command Plan 2004, March 2005. Assigned to STRATCOM the mission of coordinating the Pentagon’s efforts to combat WMD.

Quadrennial Defense Review, March 2006. Revalidated the 2001 NPR planning assumptions of a shift from one-size-fits-all to tailored deterrence for rogue powers, terrorist networks, and near-peer competitors. Restated that international conditions “are trending toward—if anything—a more stressing strategic landscape, for example, with respect to North Korea, Iran, and nuclear proliferation.”^f

National Security Strategy, March 2006. Reaffirmed that nuclear forces continue to play “a critical role” in U.S. national security strategy and that development of a New Triad of offensive strike systems (both nuclear and conventional capabilities) will strengthen deterrence. Stated that, “we do not rule out the use of force before attacks occur, even if uncertainty remains as to the time and place of the enemy’s attack. When the consequences of an attack with WMD are potentially so devastating, we cannot afford to stand idly by as grave dangers materialize. This is the principle and logic of preemption.”

At a first glance, calling Global Strike a “new mission” may seem like a misnomer. After all, the United States has deployed rapid, extended-range, accurate global strike capabilities in support of theater and national objectives since the early 1960s, when its first solid-fueled intercontinental ballistic missiles (ICBMs) and sea-launched ballistic missiles (SLBMs) went on alert.

Table 1 (Continued)

Unified Command Plan 06, May 2006. Assigned STRATCOM the mission of coordinating Department of Defense (DOD) efforts to combat WMD, including: integrating STRATCOM's global missions to support combatant command and defense agency efforts to combat WMD; identifying and assessing the readiness of U.S. capabilities, adequacy of partner capabilities, and potential adversaries' capabilities; supporting geographic combatant commands and Special Operations Command for planning and execution.^g

Major Combat Operations Joint Operating Concept, Version 2.0, December 2006. Recommended that the United States "must consider preemptive and other actions (e.g., intelligence, surveillance, reconnaissance) that may serve as triggers to use or disperse nuclear weapons and other WMD. . . . National policy and guidance are undefined on how to deal with an irrational or rogue actor with limited WMD capability. This has operational implications in regard to preemption, shaping, and response. Operationally, the United States and its potential coalition partners lack sufficient capability to locate, identify, track, and contain nuclear weapons and other WMD. . . . A U.S. and perhaps allied policy of preemption in light of potential triggering must be considered."^h

Deterrence Operations Joint Operating Concept, Version 2.0, December 2006. Provided the "conceptual framework needed to meet the 2006 Quadrennial Defense Review requirements for deterrence activities tailored for rogue powers, terrorist networks and, near-peer competitors." To "wage deterrence" against these potential adversaries, the "DOD must develop strategies, plans, and operations that are tailored to the perceptions, values, and interests of specific adversaries. Deterrence strategies and actions must span daily operations and must be developed for all phases of conflict planning." Listed "a set of steps necessary to operationalize deterrence planning that supports the National Military Strategy (NMS) objective to 'Prevent Conflict and Surprise Attacks' and the NMS requirement to develop a wider range of options that discourage aggression and coercion."ⁱ

^gDepartment of Defense (DOD), Office of the Secretary of Defense, "Nuclear Posture Review Report," January 8, 2002 (submitted to Congress on December 31, 2001). Excerpts available at the Globalsecurity.org Web Site, <www.globalsecurity.org/wmd/library/policy/dod/npr.htm>.

^hU.S. Joint Chiefs of Staff, *Joint Publication 3-12: Doctrine for Joint Nuclear Operations, Final Coordination (2)*, March 15, 2005, p. A1.

ⁱNational Security Presidential Directive (NSPD) 17, National Strategy to Combat Weapons of Mass Destruction, December 2002, <www.whitehouse.gov/news/releases/2002/12/WMDStrategy.pdf>.

^dThe White House, National Security Strategy of the United States of America, September 2002, p. 14 (emphasis added).

^eU.S. Joint Staff, *JP 3-12, Doctrine for Joint Nuclear Operations (FC), JP 3-12 Comment Matrix Combined Sorted December 21, 2004*, as of December 16, 2004, pp. 5–6.

^fPeter C.W. Flory, Assistant Secretary of Defense for International Security Policy, "Statement Before the Senate Armed Services Committee Strategic Forces Subcommittee Hearing Regarding Global Strike Issues, March 16 2006," (hearing was delayed until March 29, 2006), p. 5.

^gFor content of Unified Command Plan 06, see: William M. Arkin, "U.S. Fails at Countering WMD," *Early Warning*, October 10, 2006, <blog.washingtonpost.com/earlywarning/2006/10/us_fails_at_countering_weapons.html>.

^hU.S. Joint Forces Command/J9, *Major Combat Operations Joint Operating Concept Version 2.0*, December 2006, pp. D-4, D-5.

ⁱDOD, Strategic Deterrence Joint Operating Concept, Version 2.0, December 2006, pp. 3, 70.

Yet Global Strike is new and different because it is focused on regional scenarios, incorporates a wider range of capabilities, and is intended for rapid preemptive and preventive target destruction, rather than retaliatory deterrence. Global Strike capabilities might be used for "out of the blue" attacks against one or a small group of targets in a

crisis even before armed hostilities break out, or they might involve using a small number of stealth platforms to “kick down the door” into a highly defended area to pave the way for other military forces. To that end, the Global Strike mission appears to have gone beyond deterrence and dissuasion to instead focus bluntly on defeat. In fact, the core assumption appears to be that deterrence *will* fail sooner or later, and that Global Strike capabilities are needed to preempt and prevent an adversary’s strikes.

The Road to Global Strike

The Global Strike mission came about through a combination of the Bush administration’s reaction to the September 11, 2001 terrorist attacks and its post–Cold War fears of WMD proliferation, along with a revolution in weapons and planning capabilities that make possible highly accurate, rapid targeting. As such, Global Strike is a mix of old and new. What seems increasingly clear is that the influence of regional adversaries on nuclear policy reform has been much more significant than was thought only a few years ago. Since the Bush administration took office in 2001, Global Strike has emerged in response to specific guidance issued by the White House and the Office of the Secretary of Defense. (See Table 1.)

With a wide array of attack capabilities, including Special Operations Forces, cyber attacks, advanced conventional weapons, and nuclear weapons, Global Strike is the military embodiment of the Bush administration’s preemption doctrine and “tailored deterrence” capabilities required by the New Triad.⁵ The combat employment component of Global Strike is known as Concept Plan (CONPLAN) 8022, an offensive strike plan designed to provide the president with prompt global strike options against time-urgent targets.

CONPLAN 8022 was completed in November 2003, less than a year after STRATCOM was assigned the Global Strike mission.⁶ As a concept plan, CONPLAN 8022 was not operational at the time, but available for implementation if so ordered by the secretary of defense. That happened in June 2004, when Defense Secretary Donald Rumsfeld ordered the military to implement the plan. Chairman of the Joint Chiefs of Staff Gen. Richard Myers signed the Global Strike Alert Order on June 30, 2004, directing STRATCOM to put CONPLAN 8022 into effect in coordination with the U.S. Air Force and Navy. Six weeks later, on August 17, STRATCOM published the Global Strike Interim Capability Operations Order, which changed the status of CONPLAN 8022 to a fully operational contingency plan. In response, selected bombers, ICBMs, nuclear-powered ballistic-missile submarines (SSBNs), and information warfare units were tasked against specific high-value targets in the countries identified by the Nuclear Weapons Employment Plan (NUWEP) that was signed by Rumsfeld in April 2004.⁷

To plan and execute the Global Strike mission (if so directed), STRATCOM created a new functional component command at Offutt Air Force Base (AFB). The 400-person unit, initially known as the Joint Functional Component Command for Space and Global Strike (JFCC-SGS), achieved initial operational capability on November 18, 2005, after being thoroughly tested in the nuclear strike exercise “Global Lightning 06” in October 2005. The exercise also simulated execution of CONPLAN 8022. In July 2006, STRATCOM decided to

split JFCC-SGS into two separate component commands: JFCC-Global Strike and Integration (JFCC-GSI) at Offutt AFB, and JFCC-Space at Vandenberg AFB in California. JFCC-GSI achieved full operational capability in October 2006. The exact command structure is still being worked out, with JFCC-GSI formally residing with the Eighth Air Force at Barksdale AFB in Louisiana, but nuclear mission areas appear to remain at Offutt.

What Makes Global Strike Different?

The Global Strike mission and CONPLAN 8022 differ from previous missions and plans both in capabilities and intent. The official justification is that they are intended to make deterrence, dissuasion, and assurance more credible by increasing the options available to the president. To that end, Global Strike is first and foremost about developing global effects to destroy or incapacitate targets in the expectation that deterrence *will* fail sooner or later. Rather than waiting for the mushroom cloud to appear, a phrase used several times by the Bush administration, Global Strike is focused on defeating the threat *before* it is unleashed. As such, the range of capabilities pursued under Global Strike is very broad, spanning from cyber attacks to the use of nuclear weapons. As the operational translation of the Bush administration's preemption doctrine, Global Strike seeks to create near-invulnerability for the United States by forcing total vulnerability upon any potential adversary.

Although many elements of Global Strike are new, and although Pentagon officials are fond of describing the New Triad as a fundamental break with previous planning, it is important to understand that Global Strike is only the latest product of a gradual evolution of strategic strike planning that has been under way since the end of the Cold War. That evolution had already changed strategic planning considerably before the Bush administration articulated the New Triad and Global Strike, both of which to a large extent borrow from and build on that evolution.

One of the most important examples of this evolution concerns the Single Integrated Operational Plan (SIOP), the nation's primary nuclear strike plan, which was first put into effect in 1961 to deter and defeat the Soviet Union and China. The dramatic changes of the end of the Cold War—the collapse of the Warsaw Pact, the demise of the Soviet Union, and several nuclear arms reduction agreements and unilateral cuts—forced military planners to continuously change the targets and weapons in the war plan, a pace the rigid Cold War strategic nuclear war planning system was not built to handle. The reduction in the Soviet and Warsaw Pact target base was dramatic, and for a while it seemed as if the nuclear mission was headed for the trash bin.

But the discovery of Iraq's clandestine nuclear weapons program in 1991, the North Korean nuclear crisis in 1994–1995, and increasing acrimony with China rekindled the nuclear embers long before 9/11. The possibility that developing nations might acquire nuclear capabilities, former Defense Secretary Dick Cheney wrote in his annual report to the president and Congress in February 1992, has "led the department to make adjustments to nuclear and strategic defense forces and to the policies that guide them." As a result, he stated, U.S. strategy "must now also encompass potential

instabilities that could arise when states or leaders perceive they have little to lose from employing weapons of mass destruction.”⁸

Although government officials in the mid-1990s vehemently denied that the nuclear strategy was expanding, nuclear weapons reductions, combined with a new focus on deterring regional adversaries, quickly spawned requirements for more flexible weapons and planning capabilities and a quest for more strike options tailored to the new scenarios.⁹ So significant was the change that Gen. George Lee Butler, the first STRATCOM commander in chief, informed Gen. Colin Powell, the then-chairman of the Joint Chiefs of Staff, in September 1992 that he had decided to rename the SIOF. Proliferation of WMD also meant proliferation of nuclear strike options, and the name SIOF—featuring the word “single”—no longer captured the essence of the U.S. nuclear strike plan, which Butler explained was “evolving to a collection of far more differentiated retaliatory choices, tailored to a threat environment of greater nuance and complexity.” A better name, he proposed, would be National Strategic Response Plans.¹⁰ But the name was never changed, and according to STRATCOM’s Freedom of Information Act office, “there is no indication in the records why the change was never made.”¹¹

Inaccurate name or not, strategic nuclear war planning continued to evolve in the direction foreseen by Butler to more efficiently deter and defeat regional adversaries. One of the most important new features was an emphasis on adaptive planning—the capability to quickly change existing strike plans or to generate entirely new plans in response to new guidance or new threats. Adaptive planning, Butler told the Senate Armed Services Committee in April 1993, halfway through the Clinton administration’s Nuclear Posture Review (NPR), “will provide senior decisionmakers with an array of options to apply in acute crises requiring a prompt exacting response.”¹² Few committee members questioned—much less understood—why the president needed an array of nuclear options to deter regional adversaries. But who could argue with the logic: more enemies necessitate more strike plans.

As the proliferation of strike options progressed over the following years, Russia was removed as an “immediate contingency,” and U.S. President George W. Bush and Russian President Vladimir Putin signed the Strategic Offensive Reductions Treaty in 2002. The issue of the inaccurate SIOF name resurfaced. During preparations for the SIOF scheduled to enter into effect in March 2003, STRATCOM Commander Adm. James Ellis wrote to Chairman of the Joint Chiefs Gen. Richard Myers, saying that “SIOF” did not properly describe the new plan. “STRATCOM is changing the nation’s nuclear war plan from a single, large, integrated plan to a family of plans applicable in a wider range of scenarios,” Ellis explained. The SIOF name, he said, was a Cold War legacy. This was essentially the same request Butler had made a decade earlier, but Ellis also proposed turning the unique SIOF into an Operations Plan (OPLAN) alongside other standing war plans: OPLAN 8044.¹³

Ellis sent his request just a week before President Bush signed the Unified Command Plan (Change 2), assigning the Global Strike mission to STRATCOM. A “family of plans” fit well with the efforts to create the New Triad, and Myers concurred with Ellis. On February 8, 2003, he authorized STRATCOM to formally change the name of the SIOF to reflect the creation of STRATCOM’s “new family of plans.”

The authorization also disclosed that SIOP was just one part of a larger plan, called the "basic" plan, which already carried the name OPLAN 8044. That larger plan had its own life-cycle between upgrades, and Myers was concerned that confusion might arise "between the basic U.S. STRATCOM OPLAN 8044 and the combat employment portion of that OPLAN, currently known as the SIOP." The solution, he decided, was to continue to call the basic plan OPLAN 8044, but to incorporate the term "Revision (FY)" to describe the part of the plan previously known as the SIOP. The revision number would correspond to the fiscal year in which the combat employment plan was put into effect. The first plan to carry the new name was OPLAN 8044 Revision 03, which entered into effect on March 1, 2003.¹⁴

The new plan was too early to incorporate the changes from the 2001 NPR, which in addition to nuclear force adjustments favored missile defense and an increased role of advanced conventional weapons in the strike plans. One reason for the delay was that the 26-page Nuclear Posture Review Implementation Plan, which specified to the armed services and commands which parts of the review they should implement and when, wasn't signed until March 2003 (more than a year after the NPR was completed). Some of those changes were incorporated into OPLAN 8044 Revision 05, the new strategic war plan that entered into effect on October 1, 2004. Following on the heels of the NUWEP that was published in April 2004, OPLAN 8044 Revision 05 was described as a "major revamping" of the U.S. strategic war plan. Myers later told Congress that the new plan "provides more flexible options to assure allies, and dissuade, deter, and if necessary, defeat adversaries in a wider range of contingencies."¹⁵ In addition to increasingly tailored nuclear strike options, one of the new features was the integration of conventional weapons into the strategic war plan for the first time. Little is known about what that conventional planning entails, but it likely includes precision-guided weapons such as joint direct attack munitions on B-2 bombers and tactical Tomahawk sea-launched cruise missiles on submarines and surface ships.

The new strike options in OPLAN 8044 Revision 05 were practiced in several exercises in 2005 and 2006. The "Global Lightning 06" exercise in early November 2005 simulated execution of both OPLAN 8044 and CONPLAN 8022. One month later, the B-52H bomber wings at Barksdale AFB in Louisiana and Minot AFB in North Dakota conducted Global Strike alert exercises that involved rapid launch of the aircraft to test the wings' abilities to respond quickly to national directives. As the bombers taxied down the runways, teams from JFCC-SGS were onboard the command ship *Blue Ridge* in Yokosuka Naval Base, Japan, and at Pacific Command headquarters in Hawaii to monitor the command's ability to conduct short-notice contingency operations. More rapid-launch bomber exercises were conducted in December 2005 and in April 2006.

Although formally a separate plan, Global Strike planning is closely intertwined with the planning for combat element of OPLAN 8044. The JFCC-GSI has responsibility for so many significant portions of the planning and potential execution of OPLAN 8044 that it is hard to see where Global Strike ends and OPLAN 8044 begins. CONPLAN 8022 almost appears to be a sub-plan of OPLAN 8044. Both plans are built and maintained on the Integrated Strategic Planning and Analysis Network (ISPAN), a computer network that is

used to develop, verify, and produce OPLAN 8044, CONPLAN 8022, and theater support plans for the various regional commands. Targets are derived from the same database, and strikes are executed from the same delivery platforms. The only real difference seems to be how early in a conflict the weapons fly. Simply speaking, OPLAN 8044 is for retaliation (deterrence), and CONPLAN 8022 is for very short timeline attacks including preemption (prevention).¹⁶

Option-Hungry War Planning

Shortly after JFCC-GSI (previously JFCC-SGS) achieved initial operational capability in November 2005, the Department of Defense awarded a contract to Lockheed Martin for a 10-year modernization of ISPAN. Originally known as the Strategic War Planning System and designed to build and maintain the SIOP, the modernization of ISPAN is necessary to enable STRATCOM to provide the president with “an increasing set of options to support our national strategic objectives.” The modernization will “increase its flexibility, functionality, and speed, and support new mission areas” and be used for deliberate, adaptive, and crisis planning for offensive nuclear, conventional, and information operations. The modernization will first address the nuclear options, which according to the NPR includes:

- greater target complexity;
- increased number of threat countries;
- increased number of potential options;
- greater flexibility in the number of nuclear weapons contemplated (options from one nuclear weapon to 2,500).

The ISPAN modernization includes not only what the manufacturer calls “a revolutionary new optimization function” to allow for the rapid building of new strike options, but also new decision-support capabilities to help the president and secretary of defense choose from the growing number of options. According to Lockheed Martin: “The system will assess a given situation and present decisionmakers at U.S. STRATCOM numerous potential courses of action. For each option, the system will determine the probability of success, potential collateral damage, cost, timing, and other related details. U.S. STRATCOM officials can then either execute one of the given options or change the planning parameters to see a new set of options based on different requirements.”¹⁷

Modernization is scheduled to take place in three development blocks. Once completed in 2013, the modernized ISPAN will be capable of planning nuclear and conventional strike missions and maintaining national (strategic) and theater (regional) strike plans. The modernization reflects the considerable dismantlement of the SIOP into a family of smaller flexible plans described above.¹⁸ Planners will be able to produce more than one plan at a time and to produce a single plan composed of multiple, nested sub-plans based on rule-sets and criteria selected by the planner. ISPAN will also support the development of “pre-built” sub-plans (i.e., specific or generic scenarios), and then allow those options to be incorporated into larger war plans while taking into account the effects of other plans (for example, weapon reuse in “higher” nested plans). Finally,

planners will also be able to build a base plan around pre-built adaptive options or to decide to develop entirely new adaptive plans (new contingencies). Global Strike planning will be possible from both fixed and mobile locations.

Because of the regional focus of Global Strike, one of the most dramatic developments is taking place in STRATCOM's support of the regional commanders. ISPAN is used to produce the Theater Planning Support Document, a decision-support document that STRATCOM produces for the theater combatant commanders to provide them with nuclear and conventional planning, targeting, analysis, and mission planning support and options planning. Theater support planning, which is sometimes called Global Strike planning, is expected to grow tenfold by 2007.¹⁹

The requirement for such an extraordinary level of flexibility in strategic war planning—which vastly exceeds war planning capabilities developed during the Cold War to defeat the Soviet Union—arises from the NPR decision to create a New Triad of mixed capabilities for potential scenarios, ranging from large-scale war with Russia or China to limited strikes against regional adversaries. This, according to the Department of Defense, “means having the capability to create the specific and appropriate effects needed to influence the decisionmaking of each potential adversary”—otherwise known as tailored deterrence.²⁰

Impact of Global Strike on U.S. Weapon Programs

Tailored deterrence requires specific military capabilities and has a significant influence on the modernization of existing weapons and the development of new ones. Requirements span the entire spectrum from Special Operations Forces to strategic nuclear weapons, as described in the 2001 NPR and the 2006 Quadrennial Defense Review. Additional indications come from the “Strategic Deterrence Requirements 2020” study, referenced in the NPR and completed by the Joint Staff in 2003, which concluded that the United States needs to “pursue more discriminate [nuclear weapons] capabilities for selected target types through lower yields, improved accuracy, and enhanced penetration.”²¹ The Department of Defense attempted to get a penetration capability in the form of the Robust Nuclear Earth Penetrator (RNEP), but Congress refused to authorize money for the weapon partly out of concern that it signaled a transition to more usable nuclear weapons. Ideas for Advanced Concept Initiative warheads to destroy chemical and biological weapons also failed to win support, so at the nuclear end of the spectrum, efforts instead have turned to improving the capabilities of existing weapons.

One of the warheads currently being given new capabilities that seem applicable to Global Strike is the W76, the warhead deployed on Trident II D5 SLBMs. Under what is formally known as a Life Extension Program, the W76 is being equipped with a new fuze to “enable [the] W76 to take advantage of [the] higher accuracy of the D5 missile.”²² The old fuze only permitted the W76 to be used against soft urban industrial targets, but “with the accuracy of D5 and Mk4, just by changing the fuze in the Mk4 re-entry body, you get a significant improvement,” according to the navy. With the modified fuze and the Trident II accuracy, the new W76 “can meet the original D5 hard-target requirement.”²³ The capability of the life-extended W76 is so significant that it has been given a new

designation: W76-1/Mk4A. The first flight test of the new fuze was conducted in November 2004, and the third and final development flight test occurred on November 21, 2006, when the USS *Maryland* (SSBN-738) test-launched two Trident II D5s off the coast of Florida. The first W76-1/Mk4A will be delivered in September 2007, and production will continued through 2012. The new fuze is also being backfitted into the warheads on Britain's Trident submarines.²⁴

In addition to the new fuze, an "accuracy adjunct" has been developed for the W76-1/Mk4A, designed to give the weapon "GPS [Global Positioning System]-like accuracy." Congress refused to fund the program out of concern that it could lead to more usable nuclear weapons, but the navy has continued development anyway with funding provided by Lockheed Martin. A full-scale flight test of the "three-axis flap system," which enables the reentry vehicles to make course adjustments during reentry, was test flown on a D5 launched from the USS *Tennessee* (SSBN-734) on March 1, 2005. A top navy official involved in the test told the author: "I had GPS signal all the way down and could steer it."²⁵ Whether the flap system will be deployed with the W76-1/Mk4A is unclear.

To enable the D5 missiles to be rapidly retargeted against mobile targets in adaptively planned missions, the navy installed the SLBM Retargeting System (SRS) on its submarines, completing the work in 2003. This capability is now also being upgraded, and the navy's fiscal 2008 budget request includes a new SSBN Planning and Operational Flexibility system to replace the SRS and provide new capabilities requested by STRATCOM to implement the NPR. The new capabilities include improved flexibility and responsiveness, enhanced accuracy and effectiveness, and better information management and decisionmaking tools, all to allow employment of Trident SLBMs in the new strike options.

The navy has operated the Warhead Replacement Program for many years with an aim to build replacement warheads for the Trident missiles. This program now appears to have evolved into the Reliable Replacement Warhead (RRW) program proposed by the Bush administration. The first design, RRW-1, is a replacement for the W76 warhead built into the Mk5 reentry body used for the W88. If approved by Congress, the first RRW-1 would be delivered sometime in 2012–2014. Although the administration has insisted that the RRW will have the same capabilities as existing warheads, the RRW will be equipped with a new pit and a new fuze; the latter has the potential to provide additional capabilities.

The accuracy adjunct is also necessary if the navy is to be able to place conventional warheads on the D5. STRATCOM has advocated such a capability, and the navy's budget request for fiscal 2008 lists \$175 million to modify the D5 to carry conventional warheads. To date, Congress has been unwilling to fund the conventional Trident, but if this changes, the program would replace the nuclear warheads on 24 Trident II D5 missiles with 96 conventional warheads by 2010.

As for the potential targets of the conventional Trident warheads, a senior defense official told *Inside Defense* in 2006 that they may include "enemy nuclear weapons being prepared for launch or terrorist leaders in an underground facility" located "below the equator" or "in the large land masses of Asia [or] the Middle East [and] all the way up to the Baltics."²⁶ Time-urgent targeting requirements are normally the justification used by officials when arguing for the conventional Trident, but when the navy briefed Congress

on the program in early 2006, most of the target examples were not imminent threats but fissile material transports and fixed buildings.

A potential successor to the (so far) unsuccessful conventional Trident effort may already be on the horizon: the submarine-launched intermediate-range ballistic missile (SLIRBM). Development of this smaller conventionally armed ballistic missile is already well under way, with two prototype rocket motor tests conducted in 2006. If developed, three SLIRBMs would fit into a Trident II D5 launch tube on the four nuclear-powered guided-missile submarines (SSGNs) scheduled to deploy in 2007 and 2008. Deployment on four distinctive non-nuclear weapons platforms might solve the command and control concerns for some, while others will argue that SSBNs and SSGNs look identical and an SLIRBM launch could easily be mistaken as a Trident II D5 launch.

The U.S. Air Force also envisions placing conventional warheads on some of its ICBMs in the future, and \$17 million was authorized in fiscal 2006–2007 for conventional ballistic missile systems engineering studies. Some advocate converting 50 newly retired Minuteman III ICBMs to conventional Global Strike platforms by 2013 or 2015.²⁷ The air force may also try to get a conventional capability for the next-generation land-based strategic deterrent planned for deployment in 2018 and is developing a new concept called the CONUS-launched conventional strike missile, with maneuverable warheads with pinpoint accuracy. But fixed ICBMs are not very flexible and would have to overfly Russia and China to reach targets in North Korea and Iran.

Pros and Cons of Global Strike

The New Triad has been sold on the presumption that it is a positive development to deepen the mix of nuclear and non-nuclear highly offensive capabilities in U.S. strategic deterrence, or global deterrence, as it is increasingly called. This presumption has been taken to the extreme in the new Global Strike mission, in which the nuclear/non-nuclear mix is integrated into declaratory strike options, policy, guidance, delivery platforms, and strategic war planning systems. To the war-fighter and the policy planners it seems so straightforward: better capabilities, and more of them, increase the credibility of deterrence and therefore improve national and international security. Yet mixing nuclear and conventional offensive forces, especially preemptive capabilities, raises a number of serious issues. How will this affect crisis stability in potential future wars with nuclear weapon states? How will the different capabilities apply to different scenarios? Which potential adversaries will they actively deter, which allies will they assure, and how?

More than a decade and a half after the Cold War ended—and more than six years after the creation of the New Triad was formally ordered—the answers to these questions remain elusive and surprisingly poorly defined, much less understood, even among military planners directly involved in creating the New Triad. It is as if the uncertainty and unpredictability of the post–Cold War world have clouded strategic deterrence thinking and caused planners to incorporate all capabilities, just to be safe, into every potential scenario. The result may be deterrence overkill, where opaque differences between capabilities and the blurry distinctions between crisis and war situations make it increasingly difficult to see which part of the posture has what purpose.

This is important because potential adversaries base wartime decisions and peacetime weapon modernization planning in part on how they perceive U.S. capabilities and intentions. If the U.S. posture appears too aggressive, large potential adversaries are likely to design postures that may decrease U.S. security in the long term. Both Russia and China have made numerous references to new U.S. capabilities and policies in justifying their own modernizations.

Even worse, in a crisis an adversary—especially a smaller adversary—might decide to resort to WMD use earlier than otherwise if it is convinced or detects indications that the United States intends to preempt. An aggressive doctrine that uncritically mixes nuclear and conventional capabilities with strong declaratory policy may aggravate this risk. And if war does break out, the 2006 Deterrence Operations Joint Operating Concept acknowledges, “detering adversary use of WMD while defeating his forces may prove to be impossible.”²⁸ These use-them-or-lose-them fears drive U.S. planning toward preemption, but does anyone really know how they affect potential adversaries?

In a hypothetical war with Russia, the United States would probably be deterred from conducting a preemptive strike by Russia’s early warning system and large number of nuclear weapons. Yet such constraints seem to be missing if the adversary is a rogue state or a terrorist organization that does not have the capability to threaten the national survival of the United States or its allies. In such a scenario, it is more likely (although far from certain) that a U.S. president could be tempted to authorize limited use of nuclear weapons to ensure destruction of a time-critical target—or to prevent undermining the credibility of U.S. nuclear deterrence in the future.

The mix of nuclear and conventional capabilities has serious implications for crisis stability because of the risk that conventional strike preparations can be misinterpreted as preparations for a nuclear attack. This is one of the primary concerns that so far have prevented Congress from authorizing development of conventional warheads for the Trident missiles. STRATCOM insists that it has a strong and reliable command and control capability on the SSBNs, and that submarines on Global Strike patrol will stand down the nuclear missiles when the conventional ones are on alert. But that explanation sounds like the navy simply has too many nuclear warheads deployed at sea and begs the question of why they haven’t been removed in the first place. And because CONPLAN 8022 contains both nuclear and conventional options, the same submarine might be required to have both options ready, especially if the target includes both soft and deeply buried hardened time-urgent targets.

Command and control on the submarines is the kind of factor the United States—at least in theory—can manage. How other countries will interpret and react to a conventional Trident launch in a crisis is quite another matter. In the best of worlds, making consultation arrangements with Russia and China is good, but accidents and unforeseen events have a nasty habit of happening when they are least expected or least wanted. And if relations deteriorate, which they tend to do in crises, consultation arrangements may not be worth much.

One example of why a conventional Trident is problematic ironically comes from a potential U.S. adversary: China. Some of China’s DF-21 medium-range ballistic missiles reportedly are deployed with conventional warheads. In a potential clash over Taiwan,

execution of—or even preparations for—a conventional DF-21 strike against Kadena Air Base could easily be misinterpreted by the United States as a nuclear strike and trigger a U.S. nuclear attack. Another reaction might be to launch a conventional strike against China's long-range nuclear missile bases, which in turn could cause China to launch its surviving nuclear missiles.

The mix of nuclear and conventional capabilities also has implications on the home front by making it harder for the public and lawmakers to subject any part of the strategic posture to critical analysis. Terms like deterrence, dissuasion, assurance, and strategic forces are used loosely by defense officials in congressional testimony, regardless of whether they are talking about nuclear, conventional, or cyber-attack capabilities. Bombers have already been converted to mixed nuclear-conventional platforms; war planning systems previously used exclusively for nuclear planning are now also used to build conventional strike options, and both the air force and navy seem intent on converting some of their ballistic missiles to carry conventional warheads. After the 2001 NPR, missile defense systems and even nuclear weapon production capabilities are included in the deterrence and dissuasion terminology.

The open-ended pursuit of ever-more capable war-fighting capabilities to hit targets faster, more accurately, and with less collateral damage to make the threat of use more “credible” and the actual use more efficient inevitably raises the question of how much is enough. Is there a point beyond which the United States cannot hope to deter, dissuade, or assure any better than it can with the capabilities it already has, a point at which additional weapons will add to U.S. war-fighting capabilities but not have an additional effect on the behavior of adversaries or allies?²⁹

One example of this dilemma is the pursuit of what the Quadrennial Defense Review vaguely describes as nuclear and non-nuclear weapons “tailored to meet modern deterrence requirements.”³⁰ Such weapons are needed, the argument goes, because the existing warheads were built with high yields for global nuclear war with the Soviet Union but are less useful in small regional conflicts. But since approximately 40 percent of the warheads in the current U.S. stockpile have low-yield capability, that argument doesn't seem very good—unless, of course, the requirement concerns those warheads that are deployed on ballistic missiles. Those missiles are also, incidentally, the only nuclear weapons that currently have real prompt Global Strike capability.

Although some conventional forces may need to be “tailored” to regional scenarios, the suggestion that new nuclear weapon capabilities are needed seems suspect, not least because STRATCOM in 1993 told the Clinton administration's NPR: “Within the context of a regional single- or few-warhead detonation, classical deterrence already allows for adaptively planned missions to counter any use of WMD.”³¹ If STRATCOM has had the capability to counter any use of WMD for more than a decade, then why are significantly new capabilities needed now? Nevertheless, planners have continued to recommend—but so far failed to convince Congress to appropriate funds for—development of new nuclear weapon capabilities to better deter regional adversaries: precision low-yield weapon designs, advanced design (agent defeat) weapons, and the RNEP.

Arguing for new capabilities to destroy a specific target is one thing; showing that all the interconnected capabilities making up the New Triad tie together in a web of real,

unique and vital effects that are likely to influence specific adversaries because existing capabilities cannot—rather than motivate them to modernize as well—is quite another matter. This is where the capability-based planning that underpins the New Triad seems to fall short. During the Cold War, the issue of potential nuclear weapons use was the subject of extensive consideration, but such analysis is “clearly inadequate” today, an advisory committee to the undersecretary of defense for acquisition, technology, and logistics concluded in 2004.³² Even so, the committee recommended that the United States should not only retain a robust nuclear posture but also develop additional nuclear capabilities against regional adversaries. Thinking outside the box is hard.

Reactions to Global Strike

In 2004, the National Nuclear Security Administration (NNSA) leadership made a special effort to counter an argument frequently made by arms control advocates: that U.S. modernization of nuclear weapons and aggressive posturing may encourage other countries to pursue WMD. “Neither advanced concepts efforts nor studies of an earth-penetrating weapon . . . are likely to have any impact on rogue states,” then-NNSA Director Linton Brooks told a Heritage Foundation conference. Their “proliferation activities march forward independently of the U.S. nuclear program,” he said and added: “There is absolutely no evidence that [U.S. and Russian nuclear arms reductions] have caused North Korea or Iran to slow down covert programs to acquire capabilities to produce nuclear weapons. Rather it is plausible that North Korea and Iran are seeking WMD, in part, to deter the United States . . . [and] may be reacting more to U.S. advanced conventional weapons than to anything the United States has done, or is doing, in the nuclear weapons arena.”³³

This assessment seemed to both agree with and contradict the New Triad and the Global Strike mission, which clearly seek to both deter and dissuade rogue states and proliferators. The Robust Nuclear Earth Penetrator was partially justified based on a need to hold underground targets at risk in rogue states, and official arguments for maintaining a credible nuclear deterrent routinely refer to deterring and dissuading WMD proliferators.³⁴

Two “rogue” states, North Korea and Iran, appear to have taken notice of Global Strike. The North Korean News Agency in May 2005 carried a statement specifically identifying CONPLAN 8022, saying it was “only too natural” for Pyongyang to increase its nuclear deterrent in response.³⁵ That statement seems, at least in its wording, to contradict Brooks’ claim above. Moreover, following rumors about U.S. war planning against Iran in early 2006, an article in *Iran Daily* said the “Iranian establishment is . . . fully aware of CONPLAN 8022-02 . . . [which] envisages the use of air power, and does not preclude the deployment of earth penetrating ‘mini-nukes’ to target underground sites as in Iran.”³⁶ The U.S. intelligence community probably has more examples than these.

Russia also took notice. After the author disclosed in September 2005 that preemptive nuclear strike options were being incorporated into a revision of the Doctrine for Joint Nuclear Operations, Russian Defense Minister Sergei Ivanov warned against

lowering the threshold of nuclear weapons, saying it would cause other countries to develop nuclear weapons as well.³⁷

An important study published by the Defense Threat Reduction Agency in December 2006 found “a widespread perception” among other countries that the United States is placing “*heightened emphasis on nuclear weapons*,” and “shifting from a posture of nuclear deterrence to one of nuclear war-fighting if not nuclear preemption, while intentionally or unintentionally lowering the threshold of nuclear weapons use.” The report found “*widespread concerns*” among U.S. allies and friends about “*possible adverse nonproliferation impacts*” of U.S. nuclear policy and posture that are perceived to be giving nuclear weapons an increased security role.³⁸

Although the New Triad and Global Strike appear to have done little to dissuade adversaries or to assure enemies, at least to the Bush administration and military planners, North Korea’s 2006 missile launches and nuclear test seem to have vindicated the need for the New Triad and Global Strike. After the nuclear test, various news media reports said the Pentagon had increased its offensive strike planning against the country.³⁹ And although Secretary of State Rice said that the United States had no intention to attack North Korea, one of her first acts was to reaffirm—with emphasis on the nuclear option—the U.S. security commitments to Japan and South Korea. Those commitments include creating and maintaining nuclear strike plans against North Korea.

It is ironic that North Korea, one of America’s oldest military adversaries and the subject of decades of detailed, highly offensive nuclear and conventional planning that apparently has successfully deterred aggression in the past, has now become Exhibit A of the Bush administration’s claim that new and more offensive and preemptive strike options are needed to effectively deter such countries.

A large responsibility rests on the shoulders of the new Congress, the next administration, academia, non-governmental organizations, and the news media to scrutinize the assumptions and claims underlying the New Triad and Global Strike, to peel off the layers of terminology to validate the claims for “*capability-based planning*,” and to steer U.S. nuclear doctrine back from the overly offensive and opportunistic role it appears to have acquired in response to WMD proliferation and 9/11.

NOTES

1. *Joint Statement of the Fourth Round of the Six-Party Talks*, Beijing, September 19, 2005, p. 1. On October 10, 2006, Secretary of State Condoleezza Rice said: “The president has said and, in fact, the joint statement which we signed with the other parties, the six parties, on September 19 of last year tells the North Koreans that there is no intention to invade or attack them. So they have that guarantee.” Department of State, “Interview with Wolf Blitzer of CNN,” October 10, 2006, <www.state.gov/secretary/rm/2006/73805.htm>.
2. On October 18, 2006, Rice stated that “the United States has the will and the capability to meet the full range—and I underscore full range—of its deterrent and security commitments to Japan” (emphasis added). Department of State, “Remarks With Japanese Foreign Minister Taro Aso After Their Meeting,” October 18, 2006.
3. Since the early 1990s, North Korea has agreed four times to halt and ultimately eliminate its nuclear weapons program: the 1992 Joint Declaration of the Denuclearization of the Korean Peninsula; the 1994 Agreed Framework; the 2005 Joint Statement of the Fourth Round of the Six-Party Talks; and the

- 2007 Initial Actions for the Implementation of the Joint Statement. Two of these agreements were made before the 2001 U.S. Nuclear Posture Review and the formulation of the preemption doctrine and Global Strike mission. The other two agreements were made after these initiatives created new requirements for deterring and dissuading countries like North Korea.
4. The other three new missions are: missile defense; information operations; and global command, control, computers, communications, intelligence, surveillance, and reconnaissance (C4ISR). On March 1, 2005, the Unified Command Plan 2004 added the mission of coordinating the Pentagon's efforts to combat weapons of mass destruction. As a result, Strategic Command (STRATCOM) now has eight primary missions, including the three older missions: global deterrence; global support from space-based operations; and global intelligence, surveillance, and reconnaissance. Gen. James E. Cartwright, commander, U.S. Strategic Command, "Statement Before the Senate Armed Services Committee Strategic Forces Subcommittee on Strategic Forces and Nuclear Weapons Issues in Review of the Defense Authorization Request for Fiscal Year 2006," April 4, 2005, p. 3.
 5. The Bush administration's preemption doctrine is described in the National Security Strategy and NSPD 17, published by the White House in September and December 2002, respectively. For the New Triad and tailored deterrence, see: Department of Defense (DOD), Quadrennial Defense Review, February 6, 2006, pp. vi, 27, 49; DOD, "Nuclear Posture Review Report," January 8, 2002 (submitted to Congress December 31, 2001), p. 53; Memorandum, Peter Pace, General, USMC, Vice Chairman, Joint Chiefs of Staff, to Joint Requirements Oversight Council, "Strategic Deterrence Requirements 2020 Study," JROCM 132-03, June 17, 2003, Enclosure, pp. 2–3. Obtained under the Freedom of Information Act (FOIA).
 6. Concept Plan 8022 was first described publicly in William M. Arkin, "Not Just A Last Resort," *Washington Post*, May 15, 2005, p. B1.
 7. According to STRATCOM, execution of the Global Strike mission may utilize any appropriate weapon in the arsenal, including submarine-launched or intercontinental ballistic missiles, air-launched or submarine-launched cruise missiles, and fighter-bombers. U.S. Strategic Command, Public Affairs, e-mail to Hans M. Kristensen, March 2, 2005.
 8. Dick Cheney, Secretary of Defense, *Annual Report to the President and the Congress*, Washington, D.C., February 1992, p. 59.
 9. In a letter to the author in April 1995, Assistant Secretary of Defense Ashton B. Carter claimed that the United States was not expanding the role of nuclear weapons and complained that to say so shortly before a UN vote on the indefinite extension of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) "only can diminish the chances for a successful outcome." Personal correspondence, letter to the author from Ashton B. Carter, not dated (received April 28, 1995). After the NPT was "unconditionally" extended, Deputy Assistant Secretary for Counterproliferation Policy Mitchel B. Wallerstein echoed Carter in an October 1995 interview with *Air Force Magazine*, "I want to strongly emphasize that counterproliferation is fundamentally about finding non-nuclear solutions to these problems. . . . The United States is not looking to retarget our nuclear weapons." See James Kitfield, "Counterproliferation," *Air Force Magazine*, October 1995, p. 58.
 10. Memorandum, Gen. George L. Butler, U.S. Air Force, Commander in Chief, U.S. Strategic Command (CINCSTRAT), to the chairman, Joint Chiefs of Staff, "Renaming the Single Integrated Operational Plan (SIOP)," September 2, 1992, obtained FOIA. An internal STRATCOM document preceding Butler's memorandum explained that the SIOP was "changing to reflect changes in our security challenges, target base, and weapons inventory. It is evolving into a more flexible, situation specific, 'family of plans' with an increasing emphasis on adaptive planning." STRATCOM Action Processing Form, Maj. Alex Ivanchishin, U.S. Air Force, to CINCSTRAT through Deputy CINCSTRAT, "CINCSTRAT Memo to CJCS Regarding Renaming the SIOP," August 2, 1992. Obtained under FOIA.
 11. Letter, A.F. Kremer, STRATCOM FOIA manager, to Hans M. Kristensen, December 12, 1997.
 12. Gen. George Lee Butler, U.S. Air Force, Commander in Chief, U.S. Strategic Command, "Statement before the Senate Armed Services Committee," April 22, 1993, p. 3.
 13. Memorandum, Adm. J.O. Ellis, U.S. Navy, Commander, U.S. Strategic Command, to the chairman of the Joint Chiefs of Staff, "USSTRATCOM Request to Change the Name of the Single Integrated Operational Plan (SIOP) to Operations Plan 8044," January 3, 2003. Obtained under FOIA.
 14. Memorandum, Gen. Richard B. Myers, Chairman of the Joint Chiefs of Staff, to STRATCOM commander, "USSTRATCOM Request to Change the Name of the Single Integrated Operational Plan (SIOP) to

- Operations Plan (OPLAN) 8044," CM-757-03, February 8, 2003. Despite the formal name change, some old habits are hard to break. On June 15, 2006, for example, the chairman of the Joint Chiefs published an update to Instruction 3231.01B that was entitled, "Safeguarding the Single Integrated Operations Plan (SIOP)."
15. Gen. Richard B. Myers, Chairman of the U.S. Joint Chiefs of Staff, "Written Posture Statement to SAC-D," Washington, D.C., April 27, 2005.
 16. For a chronology of official descriptions of Global Strike, see Hans M. Kristensen, *Global Strike: A Chronology of the Pentagon's New Offensive Strike Plan*, Federation of American Scientists, March 2006, <www.nukestrat.com/us/stratcom/GSchron.htm>.
 17. Lockheed Martin, "Lockheed Martin Awarded Strategic War Planning Contract," Press Release, May 20, 2003.
 18. The disassembly of the SIOP into a "family" of smaller strike options should not be misunderstood to imply that OPLAN 8044 Revision (FY) no longer contains large strike options. Because nuclear planning is fixated on target destruction, the large number of Russian and Chinese targets probably requires planners to maintain at least a couple of major attack options, each involving many hundreds of nuclear warheads. Rather, the name change means that the prominence of large attack options within the plan has lessened and that limited attack options and increasingly tailored deterrence options make up a greater portion of the plan than previously.
 19. U.S. Air Force, *Fiscal Year 2008/2009 Budget Estimates, Research, Development, Test, and Evaluation*, Descriptive Summaries, Vol. III, Budget Activity 7, February 7, 2007, p. 1351; U.S. Air Force, *Fiscal Year 2005 Budget Estimates, Research, Development, Test, and Evaluation*, Descriptive Summaries, Vol. III, Budget Activity 7, February 2004 (Revised), p. 1229.
 20. Peter C.W. Flory, assistant secretary of defense, international security policy, "Statement Before the Senate Armed Services Committee Strategic Forces Subcommittee Hearing Regarding Global Strike Issues," pp. 10–11. Despite the rhetoric about replacing Cold War one-size-fits-all deterrence with tailored deterrence capabilities, it is important not to lose sight of the fact that the United States has always tailored its targeting doctrine, employment policy, and force structure in an effort to maintain a credible deterrent. See Amy F. Woolf, "Strategic Deterrence, Tailored Deterrence, and Implications for the Intercontinental Ballistic Missile Force," *High Frontier* 2 (August 2006), pp. 16–20.
 21. Memorandum, Gen. Peter Pace, U.S. Marine Corps, Vice Chairman, Joint Chiefs of Staff, to Joint Requirements Oversight Council, "Strategic Deterrence Requirements 2020 Study," JROCM 132-03, June 17, 2003, Enclosure, p. 2. Obtained under FOIA.
 22. Department of Energy, Office of Defense Programs, "Stockpile Stewardship and Management Plan: First Annual Update," October 1997, p. 1–14. Partially declassified and released under FOIA.
 23. Rear Adm. George P. Nanos, U.S. Navy, director, U.S. Strategic Systems Program, "Strategic Systems Update," *Submarine Review*, April 1997, pp. 12–17.
 24. See Hans M. Kristensen, "Small Fuze, Big Effect," Federation of American Scientists Strategic Security Blog, March 14, 2007, <www.fas.org/blog/ssp/2007/03/small_fuze_big_effect_1.php>.
 25. Hans M. Kristensen, personal communication with U.S. Navy official, 2005.
 26. Elaine M. Grossman, "DOD Defends New Sub-Launched Missile," *Inside Defense*, March 10, 2006.
 27. Michael Sirak, "Air Force Envisions Mid-Term, Prompt Global Strike Missile," *Defense Daily*, July 7, 2006.
 28. DOD, "Deterrence Operations Joint Operating Concept, Version 2.0," December 2006, p. 13.
 29. For a thoughtful analysis of the challenges of tailoring deterrence, see: M. Elaine Bunn, "Can Deterrence Be Tailored?" National Defense University, Institute of National Strategic Studies, *Strategic Forum*, No. 225, January 2007, <www.ndu.edu/inss/Strforum/SF225/SF225.pdf>.
 30. DOD, Office of the Secretary of Defense, "Quadrennial Defense Review Report," February 6, 2006, p. 49.
 31. "Listing, Group 5—Relationship Between U.S. Nuclear Postures and Counterproliferation Policy, Formal STRATCOM Answers as of 22 November 1993," p. 13. Secret. Partially declassified and released under FOIA.
 32. DOD, "Nuclear Weapons and Transformation: Moving Beyond Old Debate to New Debates—and Action," Threat Reduction Advisory Committee, December 2004, p. 21. Obtained under FOIA.
 33. Linton F. Brooks, National Nuclear Security Administration, "U.S. Nuclear Weapons Policies and Programs," presented to the Heritage Foundation conference: U.S. Strategic Command: Beyond the War on Terrorism, May 12, 2004, p. 7.

34. For a chronology of statements relating to the capabilities and purpose of Global Strike, see: Hans M. Kristensen, *Global Strike: A Chronology of the Pentagon's New Offensive Strike Plan*, Federation of American Scientists, March 15, 2006, <www.fas.org/ssp/docs/GlobalStrikeReport.pdf>.
35. "Pyongyang Condemns U.S. 'CONPLAN 8022-02,'" People's Korea, May 28, 2005; "U.S.-Touted 'Diplomatic Solution' Dismissed as Hypocritical," Korean Central News Agency of DPRK via Korea New Service (KNS), May 25, 2005.
36. Atul Aneja, "Nuclear Issue and Iran's Domestic Debate," *Iran Daily*, February 25, 2006, p. 7.
37. See: Walter Pincus, "Pentagon Revises Nuclear Strike Plan," *Washington Post*, September 11, 2005, p. A1, <www.washingtonpost.com/wp-dyn/content/article/2005/09/10/AR2005091001053.html>; Hans M. Kristensen, "The Role of U.S. Nuclear Weapons: New Doctrine Falls Short of Bush Pledge," *Arms Control Today*, September 2005, <www.armscontrol.org/act/2005_09/Kristensen.asp>. "Russia Warns U.S. against New Nuclear Doctrine," *Reuters*, September 14, 2005.
38. Lewis A. Dunn, et al., *Foreign Perspectives on U.S. Nuclear Policy and Posture: Insight, Issues and Implications*, U.S. Defense Threat Reduction Agency, December 12, 2006, pp. 2, 3. Emphasis in original, <www.dtra.mil/documents/asco/publications/ForeignPerspectivesUSNuclearPolicyCompleteReport.pdf>.
39. See for example: William M. Arkin, "Taking Preemptive Action Against North Korea," *Washington Post*, Early Warning Blog, October 27, 2006, <blog.washingtonpost.com/earlywarning/2006/10/taking_preemptive_action_again.html>; and Jung Sung-ki, "USFK Chief Rules Out Preemptive Strike on NK," *Korea Times*, October 30, 2006, <search.hankooki.com/times/times_view.php?term=b.b.+bell++&path=hankooki3/times/lpage/nation/200610/kt2006103017215211990.htm&media=kt>.