AU/ACSC/Koory, T/AY10

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BACK TO THE FUTURE: A NUCLEAR-FOCUSED USSTRATCOM

by

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A Research Report Submitted to the Faculty

In Partial Fulfillment of the Graduation Requirements

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April 2010

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Abstract

Nuclear weapons, due to their awesome destructive power, are "special weapons" which demand special attention and focused stewardship. They still represent the greatest potential threat to our way of life, yet are important guarantors of our security. Deterrence remains their primary function. To deter effectively, they must represent a credible and capable threat with a high degree of survivability against a preemptive attack.

Since the end of the Cold War, a new, more complex security environment has taken shape with new threats in the nuclear realm. Nuclear terrorism, rogue states armed with WMD, and old rivals are all part of the strategic landscape. While we must try to shape the future strategic environment to our advantage, it is impossible to predict how events will unfold. Therefore, the US should continue to hedge against unforeseen challenges that may arise through a strong and effective deterrent combined with arms control and nonproliferation.

Since its inception in 1992, USSTRATCOM has been responsible for the strategic nuclear mission. In that time, nuclear deterrence has grown in complexity along with the strategic environment. USSTRATCOM maintained it sole focus on the nuclear mission until 2002, when it merged with USSPACECOM and began a period of mission growth to become a functional combatant command now with eight global missions (nuclear deterrence, space operations, missile defense, IO, global strike, C4ISR, GNO, and combating WMD). One clear result of this has been the loss of focus on the nuclear mission.

The focus of this paper is on the continuing need for a strong and effective nuclear deterrent. This requires strong leadership. This paper contends USSTRATCOM's multiple, competing missions prevent complete focus on and proper stewardship of the nuclear mission and advocates for a nuclear-focused USSTRATCOM. First, USSTRATCOM's current missions

are covered to demonstrate that it is too broadly focused. Next, the argument is made that proper stewardship of US nuclear forces demands a nuclear-focused USSTRATCOM with responsibility for only the nuclear and closely complementary missions. Finally, recommendations are provided for consideration toward reaching this end.

Introduction

The September 11, 2001 terrorist attacks forever changed Americans' sense of security in the post-Cold-War era and demonstrated our vulnerability to attack. As devastating as the 9/11 attacks were, they cannot compare to the devastation a nuclear attack would cause. Is nuclear terrorism a serious concern? Indeed, the 2009 Strategic Posture Commission noted Osama bin Laden considers it a "holy duty" to acquire nuclear weapons and determined that "nuclear terrorism against the United States and other nations is a very serious threat."[1] Similarly, the 2008 Weapons of Mass Destruction (WMD) Commission concluded, "there is no graver threat to US national security than a WMD in the hands of terrorists," and "that unless the world community acts decisively and with great urgency, it is more likely than not that a weapon of mass destruction will be used in a terrorist attack somewhere in the world by the end of 2013."[2] Any WMD (nuclear, biological, or chemical) attack would be very serious, but "only a nuclear explosion can kill hundreds of thousands of people instantly."[3]

The atomic bomb dropped on Hiroshima, Japan, on August 6, 1945, with a yield of 15 kilotons, is estimated to have killed 70,000 instantly, 100,000 by the end of 1945, and up to 200,000 after five years—this out of a civilian population of 300,000 and 43,000 soldiers.[4] Graham Allison describes what a nuclear bomb with just a 10-kiloton yield would do if detonated in an American city.

> From the epicenter of the blast to a distance of approximately a third of a mile, every structure and individual would vanish in a vaporous haze. A second circle of destruction, extending three-quarters of a mile from ground zero, would leave buildings looking like the Murrah building in Oklahoma City. A third circle, reaching out one and one-half miles, would be ravaged by fires and radiation.[5]

Additionally, the Electromagnetic Pulse (EMP) Commission warned that EMP from a high altitude nuclear explosion could pose "catastrophic consequences" to the US due to its dependence on electronics and electrical systems.[6]

The 2001 "Baker-Cutler report found that the danger that nuclear weapons or weapons-usable material in Russia could be stolen and sold to terrorists or a hostile nation was the most urgent and unmet national security threat to the United States."[7] The WMD Commission determined "the report's principal recommendation—that a comprehensive strategic plan be formulated to address concerns over nuclear materials in Russia and stem the flow of expertise—was not implemented."[8] Unfortunately, as proliferation continues, other states, with varying ties to terrorism, become potential sources for nuclear weapons or their prerequisite fissile materials (uranium-235 and plutonium-239), including Pakistan, North Korea, and Iran.[9]

From these observations, it is plain to see that the nuclear security environment has changed considerably since the Cold War.[10] While "the threat of nuclear Armageddon has largely disappeared," "new threats have taken shape and the overall environment has grown more complex and in some ways more precarious."[11] Therefore, the US must continue to hedge against challenges the new security environment may present through a strong and effective deterrent combined with arms control and nonproliferation.[12]

Deterrence strategy is nothing new. It simply "means persuading an adversary not to take aggressive action or attack by convincing him that he will be denied success if he proceeds or will suffer punishment exceeding the value of the gains he hopes to achieve."[13] Admittedly, it may be impossible to deter every potential adversary, especially terrorists, thus the need for arms control and nonproliferation to prevent them from acquiring nuclear weapons or fissile materials in the first place.[14] However, deterrence is a matter of psychology and resides in each potential

adversary's mind.[15] Therefore, we should not rule out the possibility of deterring an adversary before making every effort to understand his values and consequently how he may be deterred.[16]

Nuclear deterrence, concerned broadly with all WMD, has grown in complexity along with the security environment since the Cold War.[17] Along with terrorists, the US must also deter "established nuclear powers outside of NATO" (i.e. Russia and China) and "states of concern" (i.e. "rogue states" like North Korea and Iran), instead of being able to primarily focus on the Soviet Union.[18] While the US nuclear arsenal has been reduced by roughly 75 percent since the end of the Cold War, its significance has not.[19] "In a basic sense, the principal function of nuclear weapons has not changed in decades: deterrence."[20] To deter effectively, they must be perceived as a credible and capable threat.[21] Ironically, the 2008 Schlesinger Task Force predicted, "the most difficult challenge in maintaining a credible nuclear posture to deter WMD attacks upon the United States and its allies will be in persuading this nation of the abiding requirement for nuclear forces."[22]

The focus of this paper is on the continuing need for a strong and effective nuclear deterrent. This requires strong DoD leadership.[23] Within DoD, United States Strategic Command (USSTRATCOM) is responsible for US strategic nuclear forces. Nuclear weapons, due to their awesome destructive power, are "special weapons"[24] which demand special attention and focused stewardship. This paper contends USSTRATCOM's multiple, competing missions prevent complete focus on and proper stewardship of the nuclear mission and advocates for a nuclear-focused USSTRATCOM. First, USSTRATCOM's current missions are covered to demonstrate that it is too broadly focused. Next, the argument is made that proper stewardship of US nuclear forces demands a nuclear-focused USSTRATCOM with responsibility for only the

nuclear and closely complementary missions. Finally, recommendations are provided for consideration toward reaching this end.

USSTRATCOM's Broad Focus

Historical Background and Development of Present-Day USSTRATCOM

Given the long history of nuclear weapons in the US, it may be surprising to know USSTRATCOM has only existed since 1 June 1992 in the post-Cold War era.[25] The US, of course, has had nuclear weapons since 1945, but at first the only option for delivery was strategic bombers such as the B-29 and later the B-52 and B-2. The Strategic Air Command (SAC) was established in 1946 in the aftermath of World War II with initial control of all strategic bombers and thus all nuclear forces.[26] Therefore, when the Air Force emerged as a separate service in 1947, SAC was already established as a warfighting command in addition to an Air Force Major Command (MAJCOM). As a specified command, SAC was a unique entity for much of the Cold War, with a broad, continuing mission, established by the President, through the Secretary of Defense with the advice and assistance of the Joint Chiefs of Staff (JCS), but composed of forces from one service.[27] Thus, SAC had organize, train, and equip responsibilities under the Air Force secretary and chief of staff as a USAF MAJCOM, along with operational planning, targeting, and employment responsibilities under JCS (pre Goldwater-Nichols Act), typically given only to unified commands.

In 1958, intercontinental ballistic missiles (ICBMs) became part of SAC with the fielding of the Atlas and Titan systems.[28] The Navy's Polaris Submarine-launched Ballistic Missile (SLBM) became operational in 1960, and the strategic nuclear triad (bombers, ICBMs, and SLBMs) was formed.[29] Also in 1960, the Joint Strategic Target Planning Staff (JSTPS) was created as a JCS agency to fully integrate the plans and initial operations of all nuclear strike

forces.[30] The JSTPS, composed of representatives from all the services as well as unified commands with nuclear missions, was located at SAC headquarters where the SAC commander served as its director.[31] It produced and maintained the National Strategic Target List (NSTL), the master list of all strategic targets, and the Single Integrated Operational Plan (SIOP), the US strategic war plan, thus ensuring unity of effort in the event of nuclear war.[32] This arrangement continued through the remainder of the Cold War—joint planning by JSTPS while operational control remained with the Air Force under SAC and Navy under its Atlantic and Pacific Fleets.[33]

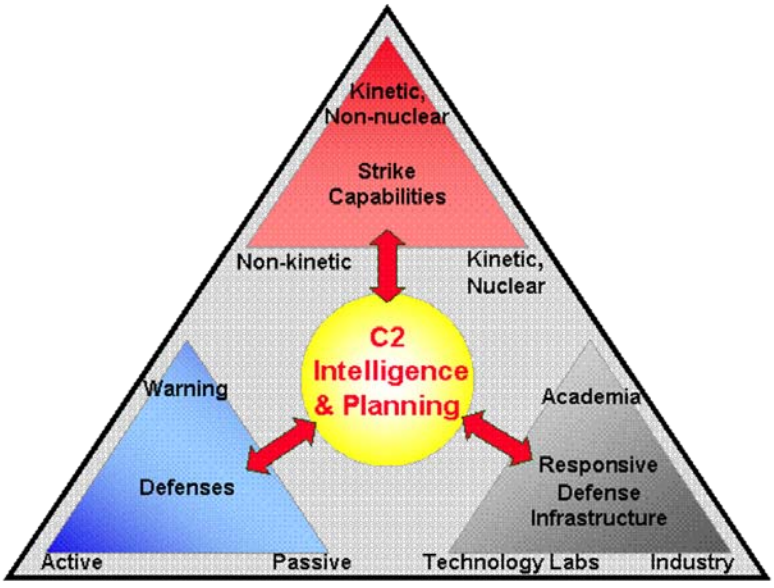
In the wake of Cold War and Operation Desert Storm, the Air Force decided to reorganize in recognition of the blurred line between strategic and tactical air power.[34] This involved eliminating SAC along with Tactical Air Command and placing all combat aircraft under the new Air Combat Command. SAC and JSTPS were disestablished on 1 June 1992, the same day USSTRATCOM was established.[35] With USSTRATCOM, for the first time, the US had given one commander responsibility for targeting, planning, and employment of strategic nuclear forces, while The Air Force and Navy retained their organize, train, and equip responsibilities.[36]

Thus USSTRATCOM initially was very much a continuation of SAC and JSTPS. It had the same mission, deterrence, the same forces, with the addition of the Navy's SLBMs, the same command and control (C2) system, and even occupied the same headquarters building at Offutt AFB, the LeMay Building. For the remainder of the 1990s, USSTRATCOM's mission and focus were one in the same, nuclear deterrence. Like so many other government institutions, the impact of 9/11 was soon felt—at USSTRATCOM in the form of mission proliferation.

Since 9/11, USSTRATCOM has gained seven additional global missions. In 2002, to make way for the new US Northern Command and its mandate to protect the "homeland,"

USSTRATCOM assumed the responsibilities of US Space Command (USSPACECOM), which had existed since 1985, and inherited its space operations, missile defense, and information operations (IO) missions. USSTRATCOM took ownership of the previously unassigned conventional (non-nuclear) global strike and C4ISR (command and control, communications, computers, intelligence, surveillance, and reconnaissance) missions in 2003, along with expanded missile defense and IO responsibilities. In 2006, it gained the global network operations (GNO) and combating WMD missions for a present-day total of eight global missions.[37]

Much of the rationale behind this mission growth can be traced back to the 2001 Nuclear Posture Review (NPR), which envisioned a reduced role for offensive nuclear forces in deterrence, while expanding potential strategic options for the President and Secretary of Defense to consider in the event of a crisis. In addition to a potential nuclear response, the new deterrence strategy articulated in the NPR included non-nuclear strike options (both kinetic and non-kinetic), active and passive defenses combined with warning capability, and responsive weapons infrastructure, all enabled by enhanced C2, intelligence and planning. This new



Source: USSTRATCOM Mission Briefing, given 21 Aug 09 at ACSC.

strategy was embodied in the "new strategic triad" shown above.[38]

The new triad is really a triad of triads, encompassing four triads. The "old triad," now called "kinetic, nuclear," occupies the lower right corner of the new "strike capabilities" triad, shown as the top triangle of the new triad, and is accompanied by "non-kinetic" strike capabilities in the lower left corner and "kinetic, non-nuclear" strike capabilities in the top corner. The new "defenses" triad, displayed as the lower left triangle of the new triad, has "passive" defenses in its lower right corner along with "active" defenses in the lower left corner and "warning" in the top corner. "Responsive defense infrastructure" is the last new triad, shown as the lower right triangle within the new triad and has "industry" in its lower right corner, "technology labs" in the lower left corner, and "academia" in the top corner. Rounding out the new triad by linking and supporting the three new triads are enhanced C2, intelligence, and adaptive planning capabilities, found in the center of the new triad. Implementation of the 2001 NPR's new deterrence strategy, embodied in the new triad, is the primary reason for USSTRATCOM's mission growth.[39]

Scope of Current Missions

Due to its assigned missions, the term "functional combatant command" is not adequate to describe USSTRATCOM's role in DoD. It is truly a global command, with responsibility for eight global missions (nuclear deterrence, space operations, missile defense, IO, global strike, C4ISR, GNO, and combating WMD). Inherent within the eight missions is ownership of two of the five distinct operational domains, space and cyberspace, where the US has many vulnerabilities such as satellite signal jamming and cyber network hacking.[40] These two domains are the newest in terms of operating in and through them, both are very much contested, and the

US is increasingly reliant upon capabilities from these domains, not just for effective combat operations, but also for everyday civilian life.

The previously unassigned global strike and C4ISR missions came with the requirement to build effective oversight and implementation capabilities from scratch, since no combatant command had previous ownership of these missions. Missile defense was also an unproven capability when USSTRATCOM took ownership of it and is also a very complicated and politically sensitive issue. A careful balance must be struck between protecting the US from possible attack, while not encouraging a missile buildup in countries such as Russia or China due to concerns over the viability of their deterrents.[41] The recent decision to pursue regional approaches tailored to each region further complicates the missile defense mission.[42] The IO mission has played an increasingly important role in the current conflicts in Iraq and Afghanistan, characterized by counterinsurgency, counterterrorism, and stability operations, where the government's legitimacy in the eyes of its people is crucial to victory.[43] Finally, as previously discussed, combating WMD and nuclear deterrence have only grown more complex in the dynamic post-Cold War strategic environment.

One illustration of the breadth of USSTRATCOM's missions can be seen in the fact that it does not have a "mission" statement, but rather a "missions" statement. It begins, "The *missions* of US Strategic Command are:" (emphasis added).[44] Another illustration of the scope and importance of USSTRATCOM's missions is evident in that of the four recently completed or ongoing Congressionally-mandated reviews (Quadrennial Defense Review (QDR), NPR, Ballistic Missile Defense Review, and Space Posture Review), all but the QDR correspond directly to USSTRATCOM missions, and though it addresses the broad DoD mission, the QDR stresses the importance USSTRATCOM's various missions.[45] A final example of the scope and

importance of USSTRATCOM's missions can be found in the recent words of one senior defense official who said, "The challenges related to the US nuclear posture, missile defenses, counter-WMD efforts, access to space, and cybersecurity are among the most pressing and difficult the Department of Defense is addressing today."[46] In short, no other unified command compares to USSTRATCOM in terms of the vast complexity, breadth, and importance of its mission set.

Loss of Focus on Nuclear Mission

One clear result of the mission proliferation at USSTRATCOM, which came without the necessary manpower authorizations and personnel, has been the loss of focus on the nuclear mission.[47] The following example from the 2008 Schlesinger Phase II report clearly illustrates this point (note the Schlesinger Task Force conducted its review in the latter part of 2008).

> Prior to the 2002 merger of USSPACECOM and USSTRATCOM, the senior leader with undivided daily focus on the nuclear mission area was the Commander, USSTRATCOM, a four-star general or flag officer. During the Task Force review, the most senior officer at USSTRATCOM with a purely nuclear focus was an Air Force colonel. As a result, the nuclear mission was severely disadvantaged when competing for the attention of senior leaders within the organization.[48]

This was addressed in December 2008 by establishing and filling a one-star general officer position within USSTRATCOM J3.[49]

To cope with the mission growth, USSTRATCOM created Joint Functional Component Commands (JFCCs) and a Joint Task Force (JTF) in 2005. The JFCCs and JTF, essentially sub-unified commands, have operational planning, force execution, and day-to-day management authority for USSTRATCOM's various missions. With JFCCs established, USSTRATCOM headquarters focused on strategic-level integration and advocacy of assigned missions. It also sought to leverage the expertise and capabilities of organizations already engaged in the various

missions by aligning the JFCCs with them. USSTRATCOM now consists of its headquarters staff (J0-J8 with a Global Innovation and Strategy Center), five JFCCs (Global Strike (GS), Space, Network Warfare (NW), Integrated Missile Defense (IMD), and ISR), the Joint Information Operations Warfare Command (JIOWC) (another functional component), JTF-GNO, and the USSTRATCOM Center for Combating Weapons of Mass Destruction (SCC-WMD) (another functional component).[50]

The JFCC headquarters are usually collocated with the organizations to which they are aligned, and both share the same commander/director. For instance, JFCC-Space is aligned with 14 AF at Vandenberg AFB CA. JFCC-NW is aligned with the National Security Agency at Fort Meade MD. JFCC-IMD is aligned with the Army's Space and Missile Defense Command at Schriever AFB CO. JFCC-ISR is aligned with the Defense Intelligence Agency at Bolling AFB, Washington DC. JIOWC, located at Lackland AFB TX, was a subordinate command of USSPACECOM and became part of USSTRATCOM in 2002 as part of the merger. JTF-GNO is aligned with the Defense Information Systems Agency in Arlington VA. SCC-WMD is aligned with the Defense Threat Reduction Agency (DTRA) at Fort Belvoir VA.[51]

JFCC-GS is the exception. It is aligned with 8 AF at Barksdale AFB LA (AF component responsible for nuclear bombers), and although they share the same commander, it is headquartered along with USSTRATCOM at Offutt AFB NE. JFCC-GS plans and executes USSTRATCOM's nuclear mission and conducts strike planning for non-nuclear and non-kinetic operations. It has remained headquartered at Offutt AFB, because key functions such as nuclear targeting and force monitoring are still performed at USSTRATCOM headquarters. The transfer of these critical functions to JFCC-GS was a significant departure from the centralized control of the nuclear mission that once characterized USSTRATCOM.[52]

USSSTRATCOM also retained six nuclear task forces (TFs), aligned with Navy and Air Force organizations, which it has had since its inception. TF 294/18 AF, conducts aerial refueling with AF tankers with headquarters at Scott AFB IL. TF 124/Strategic Communications Wing One, headquartered at Tinker AFB OK, operates Navy E-6B aircraft, also known as TACAMO (Take Charge and Move Out), to provide a survivable communications link through its airborne command post (ABNCP) between the President and nuclear forces. TF 134/Submarine Forces Pacific Fleet, with headquarters at Naval Base Pearl Harbor HI, controls Navy Pacific ballistic missile submarines (SSBNs). TF 144/Submarine Forces Atlantic Fleet, headquartered at Naval Base Norfolk VA, controls Navy Atlantic SSBNs. TF 204/8 AF, with headquarters at Barksdale AFB LA, provides AF B-52 and B-2 nuclear bombers, as well as RC-135 and U-2S reconnaissance aircraft. Finally, TF 214/20 AF, headquartered at FE Warren AFB WY, provides ICBMs.[53]

The following illustration shows just how complicated the nuclear hierarchy has become under USSTRATCOM: The same two-star AF general officer now commands 8 AF, TF 204, and JFCC-GS and has separate headquarters at Barksdale AFB and Offutt AFB. As JFCC-GS, he is now responsible for what used to be USSTRATCOM's sole mission, nuclear deterrence, along with kinetic, non-nuclear and non-kinetic strike capabilities which together form one leg of the new triad, while as 8 AF/TF 204 commander, he controls one leg of the old triad, which is now just one part of one corner of one leg of the new triad. And while he is co-equal with the other TF commanders under USSTRATCOM, as JFCC-GS commander, the other TF commanders report to him, despite the fact he is outranked by the TF 144 commander, a three-star Navy admiral.[54]

Mission growth, headquarters downsizing, and the JFCC structure have impaired USSTRATCOM's ability to "remain focused and actively engaged in the daily operation of the nuclear mission."[55] "Too many headquarters billets were divested, resulting in a lack of adequate oversight and support of the Task Forces and JFCCs. For example, the reduced manpower authorizations in its Nuclear Operations and Inspector General organizations contributed to the overall weakening of deterrence in the Department of Defense."[56] USSTRATCOM also reduced its organic intelligence functions, leaving it "without a robust capability to focus on intelligence matters related to the nuclear mission."[57] This occurred while the increasingly complex strategic environment demanded more nuclear focus, not less, in order to maintain an adequate level of deterrence.

Proper Stewardship of US Nuclear Forces Demands a Nuclear-Focused USSTRATCOM

Unique Nature of Nuclear Weapons

Nuclear weapons, due to their awesome destructive power, "are special weapons and not just more powerful versions of high-explosive munitions."[58] Despite the end of the Cold War, they continue to represent the quickest and easiest way to instantly destroy whole countries, and thus are still the ultimate deterrent.[59] They are unique in that rational state actors, such as the US, have them "in order to create the conditions in which they are never used."[60] Nuclear weapons clearly have political implications, and can be attractive to otherwise weak regimes such as North Korea to gain diplomatic leverage and help ensure their survival. As the recent QDR noted, "because of their extreme lethality and long-term effects, nuclear weapons are a source of special concern, both for the United States and for its allies and partners in regions where adversary states possess or seek such weapons. If regional adversaries succeed in fielding even small arsenals of nuclear weapons, the security dynamics of key regions could be severely

complicated."[61] Additionally, any type of nuclear weapon attack would have a global impact, which is why nonproliferation and deterrence are top national priorities.[62]

Purposes of Nuclear Weapons

"In a basic sense, the principal function of nuclear weapons has not changed in decades: deterrence."[63] Deterrence simply "means persuading an adversary not to take aggressive action or attack by convincing him that he will be denied success if he proceeds or will suffer punishment exceeding the value of the gains he hopes to achieve."[64] In essence, the purpose of nuclear weapons "was and continues to be to avoid actual war."[65] To deter effectively, they must represent a credible and capable threat with a high degree of survivability against a preemptive attack.[66] During the Cold War, US deterrence strategy was centered on nuclear weapons and was successful in avoiding war with the Soviet Union.[67]

Nuclear deterrence, concerned broadly with all WMD, has grown in complexity along with the security environment since the Cold War.[68] Along with terrorists, the US must also deter "established nuclear powers outside of NATO" (i.e. Russia and China) and "states of concern" (i.e. "rogue states" like North Korea and Iran), instead of being able to primarily focus on the Soviet Union.[69] While the US nuclear arsenal has been reduced by roughly 75 percent, its significance has not.[70] As the recent QDR stated, "we will maintain a safe, secure, and effective nuclear arsenal to deter attack on the United States, and on our allies and partners."[71]

Admittedly, it may be impossible to deter every potential adversary, especially terrorists, thus the need for arms control and nonproliferation to prevent them from acquiring nuclear weapons or fissile materials in the first place.[72] However, deterrence is a matter of psychology and resides in each potential adversary's mind.[73] Therefore, we should not rule out the possibility of deterring an adversary before making every effort to understand his values and

consequently how he may be deterred.[74] This calls for robust intelligence capability focused on "how to deter specific adversaries from acquiring or using nuclear weapon capabilities and delivery systems, taking into consideration each adversary's unique culture, capabilities, and intentions."[75]

Another purpose of nuclear weapons is to provide assurance to our allies through extended deterrence. "The US has extended its nuclear protective umbrella to 30-plus friends and allies as an expression of commitment and common purpose as well as a disincentive for proliferation."[76] The protection provided by US nuclear forces is an important aspect of its relationship with key allies and with alliances such as NATO. The requirements associated with assurance are evolving along with the international and regional security environments in Europe, Asia, and the Middle East. In Europe, some allies are wary of the possibility of a nuclear-armed Iran, while others view themselves as vulnerable to coercion through Russian nuclear threats. There is also concern over Russia's advantage in tactical nuclear weapons and its ongoing nuclear modernization programs, both undertaken to compensate, at least in part, for conventional weakness. Allies and alliances in Asia now have to deal with a nuclear-armed North Korea and China's strategic modernization. In the Middle East, several key allies depend on security guarantees from the US and may soon be confronted with a nuclear-armed Iran. If the US cannot meet the security needs of key allies through assurance, they could very well elect to develop their own nuclear weapons and deal a major blow to US nonproliferation efforts. As with deterrence, assurance resides in the mind of the beholder. Our allies will decide if our capabilities are sufficient and credible enough for their protection.[77]

Some of the more recent literature includes "dissuasion" as a final potential purpose for nuclear weapons. The 2001 NPR introduced the term along with one mission of the new triad:

"dissuade potential adversaries from embarking on programs or activities that could threaten our vital interests."[78] "Dissuasion aims at urging potential geopolitical rivals not to become real rivals by making clear that any sustained malevolent conduct will be checkmated by the United States."[79] Thus, dissuasion functions at a lower level than deterrence, by influencing potential adversaries not to become actual adversaries.[80] For example, the US nuclear arsenal should be sufficiently robust to discourage Russia and China from trying to gain a nuclear advantage over the US.[81] It should also aid US nonproliferation efforts by helping convince other states of the high cost with little gain associated with developing their own nuclear program. As a relatively new term associated with deterrence, very little research is available about nuclear weapons and their role in dissuasion. Interestingly, there is no mention of "dissuade" or "dissuasion" in the new QDR. However, whether dissuasion is kept or discarded, ultimately, the value of our nuclear arsenal should primarily be measured in terms of its credibility in the minds of those we seek to deter, dissuade, or assure.[82]

Relevance to National Security

Nuclear weapons still represent the greatest potential threat to our way of life, yet are important guarantors of our security. This is the central dilemma that nuclear weapons pose to US national security. This dilemma requires a comprehensive strategy that carefully balances deterrence, arms control, and nonproliferation. [83]

During the Cold War, the threat of nuclear annihilation by the Soviet Union and the Warsaw Pact was an ever-present danger to the US and its allies. While this threat has largely disappeared, the Cold War's legacy still has a profound impact on national security. Russia and the US possess roughly 95 percent of the world's nuclear weapons. Overall, relations have greatly improved since the Cold War, but tensions remain over issues such as Russia's use of

force against Georgia and its use of nuclear threats to coerce some of its neighbors, as well as its superiority in tactical nuclear weapons. The US must maintain strategic equivalency with Russia in order to assure allies, and because it still has the ability to destroy the US. In the future, the US may have to retain certain numbers and types of nuclear weapons it might otherwise deem unnecessary to its own defense, in order to assure key allies.[84]

As we continue to deal with Russia and the legacy of the Cold War, a new, more complex security environment has taken shape with new threats in the nuclear realm.[85] As previously discussed, nuclear terrorism, along with WMD terrorism more broadly, is now a serious threat, requiring a comprehensive international effort to successfully address it.[86] Nuclear proliferation, which increases the risk of nuclear terrorism, is also a serious challenge.[87] Since the end of the Cold War, India and Pakistan joined the nuclear club in 1998 and North Korea in 2006.[88] They joined Israel, who has long maintained a covert nuclear status, and the five original nuclear states as defined by the Nuclear Nonproliferation Treaty (NPT) (US, Russia, China, France, and the UK) for a total of nine current nuclear powers.[89] Iran is also seeking to join the club.[90] The US and international community must not be allow North Korea and Iran's nuclear programs to continue.[91] As the WMD Commission unanimously concluded, "the nuclear aspirations of Iran and North Korea pose immediate and urgent threats to the NPT. Successful nuclear programs in both countries could trigger a cascade of proliferation and lead to the unraveling of the NPT."[92]

China, due to its rapidly growing economy and military power, is growing more important in the US strategic landscape. While the risk of war with China may be low, there are still many differences over Taiwan. China's lack of transparency has produced profound uncertainty about its strategic intentions within Asia and beyond. Its nuclear program is modernizing and includes warheads for various-range missiles. It has roughly 30 ICBMs

capable of striking the continental US and another 10 or so capable of striking Hawaii and Alaska. Also, it has approximately 100 or more missiles capable of reaching US bases and allies in Asia. Additionally, China is fielding road-mobile missiles and a small number of strategic missile submarines, and its ICBM force could double in the next 15 years. The US relationship with China will need to promote stability with China even as China builds up its strategic posture.[93]

In his 5 Apr 09 speech in Prague, Czech Republic, President Obama pledged to lead a global effort to seek a world free of nuclear weapons. He also reaffirmed the conclusions of the 2001 NPR by pledging to reduce the role of nuclear weapons in our national security strategy, while maintaining a safe, secure, and effective arsenal for deterrence and assurance as long as nuclear weapons exist.[94] Toward this end, the President recently announced the successful negotiation of a new Strategic Arms Reduction Treaty (START), which he will sign with the Russian president in Prague on 8 April.[95] The new treaty will build upon the 1991 START Treaty and the 2002 Moscow Treaty to bring deployed, strategic warhead levels down to 1,550 for each country. It also cuts by about half the number of strategic delivery vehicles (old triad). However, it does not cover tactical nuclear weapons, nor does it apply to weapons held in reserve.[96]

The new START Treaty may bode well for the future, but given the delicate current security environment and the impossibility of knowing how events will unfold in the future, the US must maintain a viable nuclear deterrent indefinitely.[97] Establishing the necessary conditions for the complete elimination of nuclear weapons "would require a fundamental transformation of the world political order."[98] The security environment could change for the better or worse, so the US should continue to hedge against unforeseen challenges that may arise.[99] Hedging

involves insuring against unwelcome surprises for the US and its allies by creating a resilient strategic posture.[100] The need to hedge is reflected in the early determination of the soon-to-be-released 2010 NPR that the US should retain a nuclear triad under a new START for the foreseeable future. The 2011 DoD budget submitted to Congress reflects this conclusion.[101] The rationale for maintaining the nuclear triad is based on the indispensable attributes of each leg—the flexibility of the bomber force, responsiveness of ICBMs, and survivability of SLBMs. Combined, the resilience and flexibility of the nuclear triad will only grow in value as the overall number of warheads and delivery vehicles are reduced under the new START.[102]

Need for Focused Unified Command Stewardship

Mission and resource advocacy is the first area where the need for focused unified command stewardship of the nuclear mission is evident. During the Cold War, with the ever-present danger of nuclear annihilation, there was general agreement about the importance of the nuclear mission and the need to maintain a credible nuclear deterrent in US policy. Our current nuclear arsenal can be viewed as a lasting testimony to this consensus. However, with the lack of an ever-present danger, the value of maintaining highly capable nuclear forces was called into question. This was due to a mistaken notion that the central purpose of nuclear weapons is warfighting and not deterrence or the avoidance of war, especially nuclear weapons use. It was also due, in part, to the type of conflicts the US has fought in recent years, starting with Operation Desert Storm and other, more limited engagements in the 1990s, followed by the "War on Terror" and the corresponding shift in emphasis from conventional to counterinsurgency and counterterrorism in Iraq and Afghanistan.[103] Therefore, while national security policy documents continued to stress the importance of nuclear weapons, the real measure of

importance, funding, clearly showed a lack of appreciation for the continuing relevance of nuclear weapons, and hence the need for an effective advocate.

The 2008 Schlesinger Task Force concluded, "USSTRATCOM must have an integral—if not the lead—role in defining future requirements for the Nation's strategic nuclear deterrent forces."[104] While the services retain the responsibility to organize, train, and equip nuclear forces, it is USSTRATCOM's responsibility to advocate for the capabilities required to perform the nuclear mission for the indefinite future.[105] USSTRATCOM's role in mission and resource advocacy has grown more important, since the services, which still have considerable influence over the resource allocation process, have in many ways neglected nuclear capabilities since 1992.[106] In fact, the Schlesinger Task Force found that, "over the past 15 years the military services have shed nuclear assets—or attempted to do so—in order to use the resources elsewhere. The Services perfected the art of starving a capability when they wished to shed the associated mission—and then recommending that the mission be abandoned on grounds that it has become inadequately resourced or the capability was no longer reliable."[107] The Schlesinger report cites the Navy's Tactical Land Attack Missile-Nuclear (TLAM-N) and the Air Force's Air-Launched Cruise Missile (ALCM) as examples of this problem.[108]

The recent QDR noted that, "until such time as the Administration's goal of a world free of nuclear weapons is achieved, nuclear capabilities will be maintained as a core mission for the Department of Defense."[109] There are significant challenges associated with this commitment. For instance, no new warheads have been produced since the early 1990s and the average age of the US stockpile has tripled since 1991.[110] Therefore, the industrial capability and skills for new nuclear weapons production are in a "state of decay."[111] Additionally, nearly all delivery platforms are projected to reach the end of their service lives at roughly the same point in the

future.[112] Although some new programs have been established, such as a new SSBN and bomber, "there is no comprehensive plan to modernize the nuclear force."[113] Also, there are no current plans for follow-on ICBMs or SLBMs, and the infrastructure to support these two legs of the nuclear triad is not being sustained.[114] Theater nuclear capabilities, such as dual-capable aircraft and cruise missiles, have been particularly neglected. There is little geographic combatant command (GCC) advocacy for theater nuclear capabilities, and USSTRATCOM has had little involvement with theater systems.[115] Thus, they have effectively fallen through the cracks, despite their critical role in assurance.[116] These challenges underscore the importance of USSTRATCOM's advocacy role for the nuclear mission. "Failure to maintain existing nuclear capabilities or to advocate for future nuclear needs increases risk and reduces the range of potential options in the face of a dynamic security environment."[117]

Another area where the need for focused unified command stewardship of the nuclear mission is evident is in maintaining the balance between effective deterrence, nonproliferation, and arms control.[118] An imbalance "would reduce the nuclear security of the US and its allies."[119] As previously noted, accurate intelligence is a key enabler of effective deterrence and must be provided on a case-by-case basis.[120] Both deterrence and the intelligence requirements to support it have grown in complexity along with the post-Cold War security environment.[121] "A relevant, tailored deterrent requires deep understanding of the concerned state's leadership, what particular threats, forces, or inducements are needed and what kinds of diplomacy and signals will best deliver the required deterrence message."[122] This type of detailed analysis has been hindered by the shift in focus of US intelligence resources from deterrence to nonproliferation.[123] USSTRATCOM must ensure enough organic and external intelligence resources are devoted to providing the required level of analysis to support nuclear deterrence.[124]

Planning is the final area requiring focused unified command stewardship of the nuclear mission. Since 1992, GCC theater nuclear planning capabilities were significantly reduced or eliminated and shifted to USSTRATCOM. This was primarily due to the changing strategic environment, redeployment of many theater nuclear weapons, and the growing emphasis on conventional weapons. However, effective theater planning, regardless of mission, requires a deep understanding of regional dynamics that only the GCCs possess. USSTRATCOM, as the lead command for nuclear deterrence, should lead a continuing collaborative planning effort for both strategic and theater nuclear deterrence options.[125]

The consequences of unfocused stewardship of the nuclear mission can be severe. In 2008, after a series of incidents and reports critical of the Air Force's stewardship of its nuclear forces, the Air Force Secretary and Chief of Staff were fired and a massive undertaking was required to help renew the Air Force's nuclear enterprise, including the standup of Air Force Global Strike Command (AFGSC), a new MAJCOM. The ramifications of USSTRATCOM's loss of focus on the nuclear mission could be far worse. If adversaries no longer feel deterred or allies no longer feel assured, the results could be catastrophic. Therefore, USSTRATCOM should be responsible for only the nuclear and closely complementary missions.

Conclusion and Recommendations

Nuclear weapons, due to their awesome destructive power, are "special weapons"[126] which demand special attention and focused stewardship. They still represent the greatest potential threat to our way of life, yet are important guarantors of our security.[127] Deterrence remains their primary function. To deter effectively, they must represent a credible and capable threat with a high degree of survivability against a preemptive attack.[128]

Since the end of the Cold War, a new, more complex security environment has taken shape with new threats in the nuclear realm.[129] Nuclear terrorism, rogue states armed with WMD, and old rivals are all part of the strategic landscape. While we must try to shape the future strategic environment to our advantage, it is impossible to predict how events will unfold. Therefore, the US should continue to hedge against unforeseen challenges that may arise through a strong and effective deterrent combined with arms control and nonproliferation.[130]

Since its inception in 1992, USSTRATCOM has been responsible for the strategic nuclear mission.[131] In that time, nuclear deterrence has grown in complexity along with the strategic environment.[132] USSTRATCOM maintained it sole focus on the nuclear mission until 2002, when it merged with USSPACECOM and began a period of mission growth to become a functional combatant command now with eight global missions (nuclear deterrence, space operations, missile defense, IO, global strike, C4ISR, GNO, and combating WMD).[133] One clear result of this has been the loss of focus on the nuclear mission.[134]

The principal recommendation of this paper is to restore USSTRATCOM's nuclear focus by reassigning any mission it currently has beyond the nuclear and closely complementary missions. The Schlesinger Task Force suggested reassigning C4ISR, IO, and GNO.[135] This paper suggests going further by also reassigning space operations, missile defense, and combating WMD, leaving only nuclear deterrence and global strike. Such action would truly allow USSTRATCOM to focus on the nuclear and one closely complementary mission. However, one caveat is the remaining global strike mission should only be concerned with conventional capabilities. In other words, USSTRATCOM should be focused on deterrence through the capability to strike any target in the world with conventional or nuclear weapons. The obvious challenge then becomes where to reassign these current USSTRATCOM missions.

An in-depth answer is beyond the scope of this paper. However, the following are offered for consideration.

With regard to cyber, which encompasses part of C4ISR and GNO, a new sub-unified command to USSTRATCOM, US Cyber Command, was already approved by Defense Secretary Gates in June 2009. It is currently awaiting congressional approval.[136] Given cyber's status as an operational domain and its importance as highlighted in the recent QDR, USCYBERCOM could be justifiably stood up as a separate unified command or even a separate service, if desired. The same is true for space operations. As noted, USSPACECOM existed as a separate unified command from 1985 to 2002. As for missile defense, the recent decision to pursue regionally tailored approaches would seem to suggest the need for each GCC to take ownership of the missile defense mission for his theater. Therefore, USSTRATCOM should no longer be needed to perform the mission. Similarly, ISR and IO are important aspects of any military operation and should be fully integrated into each GCC's operational plans. Finally, the combating WMD mission is already performed by DTRA for USSTRATCOM, so it should be able to assume full responsibility for the mission without USSTRATCOM's oversight.

The final recommendation is to dismantle the new triad from the 2001 NPR and restore the understanding of the strategic nuclear triad as *the* triad. The nuclear triad is easily understood and represents the readily accepted notions that nuclear weapons are special, designed for deterrence, and would only be used as a last resort.[137] The new triad is confusing and combines offensive, defensive, and infrastructure elements. Some of the capabilities included, such as kinetic non-nuclear, do not yet exist, and some have actually deteriorated, such as the responsive defense infrastructure.[138] The central orb with C2, intelligence, and planning is common to all military operations and adds little, if any, value. The desire to provide more

options to the President is good, but the new triad has effectively diminished the vital role of nuclear deterrence.[139] A better approach might be to have the nuclear triad in the middle of a few concentric circles, with warning as the outer ring, defenses as the middle, and conventional strike (when fielded) as the inner ring. This would reflect the central role of nuclear weapons for strategic deterrence, while acknowledging the contributions of other capabilities.

The early determination of the upcoming NPR to retain the nuclear triad reinforces its continuing value and relevance to national security. As we await the new NPR and the additional conclusions it will hold, the 2011 DoD budget submitted to Congress already reflects this determination.[140] The resilience and flexibility of the nuclear triad will only grow in value as the overall number of warheads and delivery vehicles are reduced under the new START.[141] The time is also right to restore USSTRATCOM's focus on this vital mission to enable it to effectively manage the complex deterrence challenges of the 21st century.

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