

CORRESPONDENCE

The Origin and Interpretation of Article VI

Christopher A. Ford has written an excellent paper, "Debating Disarmament" (14.3, November 2007, pp. 401–428), on Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). Many of his arguments are well taken and sound, if Article VI is analyzed like a provision in a contract or indeed an ordinary article in a treaty. The language of Article VI, preambular in nature, was primarily aimed at ending the nuclear arms race, which was accomplished by the time of the Strategic Arms Reduction Treaty (START) in 1991.

However, I would submit that Article VI should be viewed largely through the prism of political analysis as part of the NPT's central bargain of nonproliferation in exchange for nuclear disarmament (and peaceful nuclear cooperation referred to in Article IV). Thus, if Article VI is viewed in strictly legal terms, the overall conclusions of Ford's paper are supportable. If, on the other hand, one regards the NPT as resting on a political bargain with Article VI its symbol, one comes to a different conclusion. (I recently presented a paper at Stanford's October 2007 conference on the NPT, and this letter is based partly on that work.)

Beginning in 1965, three years before signature of the NPT, a number of the potential non-nuclear weapon states party to the NPT asserted that among other general principles, a future treaty on the nonproliferation of nuclear weapons should be based on the principles that: "the Treaty should embody an acceptable balance of mutual responsibilities and obligations of the nuclear and non-nuclear powers," and "the Treaty should be a step towards the

achievement of general and complete disarmament and, more particularly, nuclear disarmament." These principles were contained in a resolution that called for the negotiation of an international treaty to prevent the proliferation of nuclear weapons and passed the UN General Assembly at its twentieth session in 1965. The eight non-aligned members of the Eighteen-Nation Disarmament Committee in Geneva (ENDC, now the Conference on Disarmament), where the treaty was being negotiated, had weeks earlier placed on ENDC's record their view that "measures to prohibit the spread of nuclear weapons should . . . be coupled with or followed by tangible steps to halt the nuclear arms race and to limit, reduce and eliminate the stocks of nuclear weapons and the means of their delivery." The language "coupled with or followed by" was intended to strike a balance between states such as India and Sweden that were advocating that the "tangible steps" should be contained in or accompany the treaty and states that were willing to accept a commitment that such steps would come later.

Also, in 1965 India and Sweden proposed a "package" solution that set forth what these "tangible steps" were considered by many to be: security assurances, a freeze on production of nuclear weapons, a comprehensive nuclear test ban, and a cutoff of all production of fissionable materials for military purposes. These issues remain central to the success of the NPT regime to this day. Nuclear disarmament and ending the nuclear arms race were the main goals, and this is reflected in the Preamble to the NPT in

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paragraphs eight and eleven. There was one specific measure, however, that many delegations wanted included as an objective above all others—if the nuclear weapon states could not significantly reduce their nuclear weapon stockpiles in the near future, at least they could stop conducting explosive tests of nuclear weapons.

The two co-chairs of the negotiations, the United States and the Soviet Union, were unwilling to include specific measures on nuclear disarmament in the NPT text, but they did agree to include a reference to a comprehensive nuclear test ban in the Preamble's tenth paragraph. Throughout the NPT negotiations the co-chairs, particularly the United States, consistently emphasized the relevance of the NPT Review Conferences to nuclear disarmament and the achievement of measures to halt the nuclear arms race. Article VI was their agreed token in this regard. At the first ENDC meeting following the July 1 opening of the NPT for signature—August 15, 1968—the two co-chairs presented an agenda for the ENDC as a compromise between those states that had wanted commitments to specific measures in the NPT and those that did not. The nuclear part of this agenda was essentially the "package" of India and Sweden. The non-nuclear weapon states at the ENDC presented their own agenda a month later that was comparable; in both agendas, the "freeze" on the production of nuclear weapons had become "the reduction and subsequent elimination of nuclear weapon stockpiles." The NPT Review Conferences were charged to "review the operation" of the NPT to assure "that the purposes of the Preamble and the provisions of the Treaty are being realized." The United States and Soviet Union were of the view in 1968 that

the future viability of the NPT depended on the results achieved in this field.

The Review Conferences proved to be a great disappointment to the NPT non-nuclear weapon states. The 1980 and 1990 Review Conferences failed over Article VI issues, principally the nuclear test ban, and the 1975 and 1985 Review Conferences simply papered over profound differences on the same subject. A majority of the parties believed that the nuclear weapon states had not lived up to their disarmament commitments. I witnessed much of this during my long career with the U.S. government, in which I participated in a senior capacity in every major arms control and nonproliferation negotiation in which the United States took part from 1970 to 1997, and specifically during my role as special representative of the president for arms control, nonproliferation, and disarmament.

In 1995, the NPT parties agreed by consensus to indefinitely extend the treaty. Their agreement to do so was accompanied by explicit political conditions, in the form of the Statement of Principles and Objectives on Nonproliferation, essentially that the 1965 "package" be implemented, along with other related matters. Indefinite extension of the NPT in 1995 depended on these political conditions. It might not have happened otherwise, or if it did, it would have been in a most divisive manner. Recognizing that little progress had been made on realizing the commitments of the statement, the NPT parties met again at the 2000 Review Conference and unanimously agreed that the package, along with a number of other related measures, needed to be implemented to preserve the NPT—this decision is referred to as the Thirteen Steps. The 2005 Review Conference was a complete failure, with the U.S. delegation

questioning the continued relevance of the Statement of Principles and Objectives on Nonproliferation and the Thirteen Steps.

So where are we today on the essential nuclear arms control package that was there at the treaty's creation in 1968? There is still no Comprehensive Nuclear-Test-Ban Treaty in force. Nothing has ever happened toward negotiating a Fissile Material Cutoff Treaty. The five nuclear weapon states made national statements on security assurances, essentially saying that they would not use nuclear weapons against their non-nuclear NPT partners—the non-nuclear weapon states wanted them to be legally binding, but the nuclear weapon states provided only policy statements; nevertheless, the national policies of four of the five NPT nuclear weapon states hold open the option of using nuclear weapons against NPT non-nuclear weapon states. Finally, the 1987 Intermediate-Range Nuclear Forces Treaty and the 1991 START provided reductions in nuclear weapons, but there have been no further negotiated reductions in such weapons since these treaties. (The 2002 Moscow Treaty, though valuable, did not involve actual reductions of weapons, only reductions in the number of “operationally deployed” weapons. That is, it did not require the destruction of any of those weapons.) Thus, it is not possible to say that the NPT nuclear weapon states have delivered on their nuclear arms control commitments, which are represented by Article VI.

Giving up forever the most powerful weaponry ever created and joining a treaty that enshrines this principle is not a natural act for a sovereign state, and as the NPT permits a small number of states to have these weapons for many years into the future, it is a political necessity for many

states, in order to create a semblance of equality among treaty parties, not only to have a general article committing the treaty's nuclear weapon states to eventual nuclear disarmament, but also to achieve specific steps in that direction in the shorter term. The NPT is not a gift from the treaty's 182 non-nuclear weapon states to the five nuclear weapon states; it is a political and strategic bargain. The Article VI situation should be readdressed in that light in order to continue to be able to preserve a viable and effective NPT.

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An Argument out of Balance

“Achieving Nuclear Balance” (14.3, November 2007, pp. 517–523), by Representative Ellen Tauscher, Democrat of California and Chairwoman of the Strategic Forces Subcommittee of the House Armed Services Committee, includes a sobering summary of the dangerous nuclear policies of the Bush administration, including its desire for new nuclear weapons and an expansion of the roles of nuclear weapons. Representative Tauscher has been an important voice of reason in the nuclear debate and one of the primary forces behind efforts to force a fundamental review of the missions of nuclear weapons, to ask what nuclear weapons are *for*.

Tauscher promotes a robust nuclear doctrine and a continually modernized nuclear arsenal, exemplified by development of the Reliable Replacement Warhead (RRW). A vote of Congress in December 2007 eliminated the 2008 funding for the

RRW, but a request for more money will inevitably be included in the administration's next budget. Tauscher's arguments for nuclear weapons in general, and the RRW in particular, are mistaken and based on deeply rooted and ultimately unsupported assumptions.

Tauscher is concerned that the United States maintain the "delicate balance" of a credible deterrent as it reduces the number of nuclear weapons, but there is nothing delicate about it. If the United States did not use nuclear weapons in Korea, Vietnam, or Iraq, then threats to use nuclear weapons in response to lesser threats is rightfully incredible, and no fiddling with the details of the nuclear forces will make such threats more credible.

At the opposite extreme, almost everyone believes that, if the United States were attacked with nuclear weapons, it would, or at least justifiably could, respond with nuclear weapons. Nuclear use would be extremely credible, and no fiddling with the details of the nuclear forces will make such threats less credible. If we mean by "deterrence" deterring nuclear attack by being able and willing to retaliate with nuclear weapons, then deterrence is far from delicate; it is quite robust. Even if there were, at some point, some tradeoff between nuclear numbers and deterrence, it does not mean that the United States is anywhere near that point now. The United States can afford to make 90 percent reductions in its nuclear arsenal before that conundrum even begins to take shape.

Tauscher links the U.S. nuclear arsenal to the threat of nuclear terrorism and the threat from North Korea, implying that the U.S. stockpile is somehow an answer to, or a defense against, these threats. But our nuclear weapons are largely irrelevant to the problem of non-state nuclear terrorism

because, almost by definition of "non-state," there will be no appropriate *nuclear* target. Nuclear attack from rogue states, whether delivered by missile or freighter, might present preemptive or retaliatory targets, but we should not assume that these must be attacked with *nuclear* weapons. For example, a nuclear attack by North Korea would be the gravest possible provocation. It is easy to believe that the United States would consider the continuing existence of the North Korean regime to be intolerable. The United States might invade and occupy the country and might, or might not, use nuclear weapons in the process, but whether it does or does not is largely irrelevant to North Korea's deterrence calculation.

Tauscher, maintaining that uncertainty about U.S. retaliation actually exists, then argues for the RRW. The RRW is being sold on the basis of *reliability*, but the reliability of the current arsenal is in the 97–99 percent range. It remains to be seen whether the RRW can ever be made more reliable than that. Representatives of the Department of Energy, some members of Congress, and others have stated several times, as though it is obvious, that the United States needs a more reliable nuclear arsenal. But it is fair to ask why. Does anyone honestly believe that it would make any difference whatsoever in the deterrence calculation of any potential enemy if U.S. nuclear weapons were 90 percent reliable, rather than 99 percent?

Finally, Tauscher's essay gets to what I believe is the real justification for the RRW: keeping the design and production lines warm. No one can claim the need to maintain design capability without knowing what the design is for. Nuclear weapons are a mature technology. There is no new science to be found in the basics of a

nuclear bomb. There is much interesting science in the details, for example, concerning plutonium aging, and there are real engineering challenges involved in getting the maximum possible yield in the smallest possible package. Therefore, first-class scientific talent is not needed to maintain an arsenal of nuclear weapons, but good scientists and engineers might be needed to develop new high-performance nuclear weapons. If, as Tauscher says, we want to maintain a “minimal” deterrent and nothing more, the United States might need weapons no more sophisticated than the simplest nuclear bombs, and these require neither a highly skilled design force nor a sophisticated industrial base.

Arguments for the RRW rest on a series of unstated assumptions and as yet unproven assertions: that current weapons are not adequately reliable, that the RRW would be more reliable, that we could know the difference between 95 percent and 98 percent reliability with or without nuclear testing, that such differences would have any effect on any conceivable deterrence calculation, and—probably the greatest cause of logical confusion—the false assumption that deterrence means *nuclear* deterrence. The RRW is not needed and ultimately undermines the nation’s security by eroding our moral stand against nuclear proliferation.

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I commend Representative Ellen Tauscher’s essay, “Achieving Nuclear Balance,” for its

cogent analysis of the George W. Bush administration’s failure to establish a “foundation of sensible nuclear policy.”

I wholeheartedly agree with Tauscher’s assessment that the administration’s proposal of yesteryear to develop a Robust Nuclear Earth Penetrator (RNEP) “signaled a fading commitment” to U.S. disarmament obligations under the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). I agree with her, too, that the RNEP and the low-yield, more usable nuclear weapon concepts embedded in the administration’s 2001 Nuclear Posture Review “elevated rather than reduced the role of nuclear weapons.” I was still with the author as she discussed “strengthening our nonproliferation agenda at home” as a means of helping the United States retain the “high ground when advocating a nonproliferation agenda around the world.” In fact, the Livermore, California–based organization I represent has long noted that a hypocritical U.S. nonproliferation policy is not only morally suspect, but also doomed to failure.

Unfortunately, after laying out a framework for a more sane U.S. policy, Tauscher veers fatally off course when she proposes that the government now embark on a new nuclear weapon development enterprise of such cost, scope, and consequence that it makes the RNEP look like small potatoes. The second half of Tauscher’s essay is less an analysis than it is an apology for moving forward with this project, the Department of Energy’s (DOE) Reliable Replacement Warhead (RRW) program. The RRW program is intended by DOE and the weapons labs as a means to redesign and rebuild essentially every nuclear weapon type in the modern arsenal. Even though its 2008 funding has been

eliminated, the RRW program will likely resurface in whole or in part in the DOE's future budget requests.

Going down the RRW path would not only plunge the United States down a slippery slope to new nuclear weapons, but would also provide a continuing driver for revitalizing the infrastructure and production capability of the DOE nuclear weapons complex at eight locations across the United States. The Government Accountability Office published a preliminary cost estimate of at least \$150 billion for pursuing RRW designs and the weapons complex transformation needed to build them. In the context of the NPT and global nonproliferation, I doubt other countries will view this as the "high ground" of which Tauscher speaks.

Tauscher opines that the RRW may offer the "benefit of allowing the labs to make . . . safety and security improvements to the weapons stockpile without the dangerous consequences of nuclear testing, which could include resumption of a global arms race." But there are serious problems with this argument. Allowing the DOE weapons labs to tinker with and supposedly improve the arsenal is a dubious benefit at best. The weaponeers at Lawrence Livermore National Laboratory and Los Alamos National Laboratory have a long history of pursuing their own pre-determined ends while giving lip service to congressional instruction. One early example involves the Livermore Lab deciding on its own to procure nuclear materials beyond authorized limits during the 1958–1961 U.S.-Soviet nuclear testing moratorium. Johnny Foster, who became the Livermore director during that time, explained in a 1982 lab publication: "These moves were a little at odds with . . . Washington, which wanted to assure that the

Russians were not given evidence that could lead them to believe we were about to test. I guess it is an example of the value of a relatively independent Laboratory, one that could execute actions at slight variance to the consensus in Washington."

The RRW program—still in its infancy—provides yet another illustration of the labs' "give us an inch, we'll take a mile" tactic. The program originated in 2005 with a modest \$9 million and a congressional charge limited to "improving the reliability, longevity, and certifiability of *existing* weapons and their components" (emphasis added). According to published reports and interviews I have conducted, although the Livermore design chosen for the first RRW was more "conservative" than the Los Alamos design it beat out, that is true only as a comparative term; neither labs' design met the more narrow constraints of the initial congressional mandate. I recall that the weapons labs promised Congress an RRW that would resemble "your father's Chevy," but they delivered two designs different enough from anything in the current stockpile that they could be considered new "cars." It seems clear to me that as the RRW program evolves through its series (RRW-1, RRW-2, RRW-3, and so on), the weapons labs will not constrain their design ambitions, departing ever further from current weapons—and from the initial mandate. The "fix" of instituting additional congressional language, as suggested by Tauscher, will prove grossly insufficient to the task of reining in the labs.

For example, the National Defense Authorization Act, as quoted in Tauscher's essay, states: "the RRW program should aim to 'remain consistent with the basic design parameters by including to the maximum extent feasible . . . components that are well understood.'" Count the wiggle

words. Congressional language, subject to interpretation, is no ironclad guarantee. Further, it is important to remember who will get to determine the “maximum extent feasible” for components in an RRW design. The weapons labs will make that technical assessment, not Congress.

Tauscher’s use of the oft-cited nuclear-weapons-as-cars analogy to support RRW starts with the assertion that the U.S. nuclear stockpile can be compared to a “vintage automobile in dire need of repair.” This is not the case. The plutonium cores of nuclear weapons will remain reliable for a minimum of 100 years or longer. So said the JASONS in November 2006, based on data gathered by the DOE weapons labs. In August 2007, the JASONS transmitted another analysis of the RRW program to Congress. According to its unclassified summary, Livermore’s first RRW design cannot be assured of certification without a full-scale nuclear test, for a number of reasons including that the “physical understanding” of the surety mechanisms planned for the RRW design “are still under development.”

The risks inherent in pursuing RRW are clear and convincing. At home, RRWs will increasingly drain our treasury, and their development and production will further contaminate our environment. As the JASONS note, a return to full-scale nuclear testing cannot be ruled out. Abroad, the RRW program will complicate, if not decimate, our nonproliferation aims. To quote Senator Dianne Feinstein (Democrat of California), the RRW program will “encourage the nuclear proliferation we are trying to stop.” By increasing the global nuclear danger, the RRW program will make the United States less, not more, secure. The RRW’s benefits are limited to a handful of weapons designers, not the nation as a whole.

I invite Tauscher to be more skeptical than she has been regarding the direction in which the RRW program will lead the country. And I urge Tauscher to make the “strong, unambiguous commitment to nonproliferation” she calls for by working with her colleagues in the House and Senate to fully, permanently de-fund the RRW program.

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Global Strike Has Dangerous Implications

In his article “U.S. Strategic War Planning After 9/11” (14.2, July 2007, pp. 373–390), Hans M. Kristensen correctly points out that any consultation arrangement between, say, Russia and the United States, that is designed to prevent mistaking a conventional missile for a nuclear one would not be worth much in a crisis. The situation is, in fact, even more serious.

While the Department of Defense (DOD) claims that it will control such possible misinterpretations by implementing “a comprehensive assurance strategy consisting of confidence-building and operational measures,” in the words of Deputy Assistant Secretary of Defense Brian Green, the reality is that implementation of the Global Strike plan would almost certainly require abandonment of one of the most effective measures of that kind.

Today, the United States and Russia are required to notify each other of their upcoming missile launches at least 24 hours in advance. This obligation goes back to the Ballistic Missile Launch Notification Agreement that the United States and

the Soviet Union signed in 1988. It is clear that this kind of reporting requirement would be incompatible with timelines of most Global Strike missions. Moreover, in 1991 the notification agreement was folded into the Strategic Arms Reduction Treaty, which is set to expire at the end of 2009. It is not clear what will happen with the notification agreements after that, and DOD assurances notwithstanding, there are no signs that the United States and Russia are working on doing anything about it.

Instead of working on implementing new confidence-building measures, the United States seems to be moving toward destroying the existing ones.

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In his excellent article "U.S. Strategic War Planning After 9/11," Hans Kristensen details the evolution of U.S. strategic planning resulting from the 2001 Nuclear Posture Review's formulation of a "New Triad." One of the most notable facets of the new posture is the promotion of conventional forces as one of the new legs of the triad, with the inherent adjunct of a robust non-nuclear Prompt Global Strike (PGS) capability, which is, as Kristensen quotes, "a capability to deliver rapid, extended-range, precision kinetic (nuclear and conventional), and nonkinetic (elements of space and information operations) effects in support of theater and national objectives."

A discussion of PGS from the nuclear strategy perspective is instructive, as it highlights underlying assumptions and fra-

meworks inside a world of decision-making most often obscure and opaque to outsiders. However, even if one could imagine a twenty-first-century strategic environment devoid of nuclear weapons, PGS would still occupy an important place in U.S. strategic planning because of other pre-existing phenomena such as changes in the international strategic threat environment, shifts in attitudes toward addressing those threats, advancement in technological capabilities, and the extension of infrastructures within which those technologies can be applied. The end result is that conceptually, PGS extends far beyond the U.S. nuclear posture. This untethered independence will have a much broader impact on U.S. national and international security policy and merits greater scrutiny in the policy world. (The Stanley Foundation recently hosted a series of roundtable discussions on PGS that I base my observations on for this letter, yet the views are mine alone.)

The end of the Cold War brought many things, including the broadening and flattening of the strategic environment—both in U.S. threat perception and in opportunities to engage those threats. The PGS concept, as the embodiment of an eternal, universal military goal of omniscience and omnipotence, matched perfectly with this new strategic environment.

As a leading edge of the U.S. military goal to achieve "full-spectrum dominance," PGS seeks to concretize this aspiration by taking advantage of the relative quietude of international military technology development and leapfrog over the current capabilities generation. The shift from "threat-based" to "capabilities-based" program development, as part and parcel of this overall approach, has been a prime enabler of the PGS concept

and its philosophical cousins throughout military research, development, and deployment. The perceived flattening out of the international strategic threat environment, dependent on the diffusion of hostile capabilities and a loss of control, has driven the search for advanced technical military solutions and given momentum to the PGS concept. As the Cold War ended, a set of strategic and tactical military capabilities, unmatched and focused on defeating a peer rival, suddenly found its broader utility and appropriateness fundamentally questioned, creating a perceived “x-factor gap” in need of urgent filling.

This x-factor gap shares some important characteristics with past strategic “gaps” identified by previous leaders, such as the “missile gap.” Gaps are marked, on the policy side, by new doctrines that strive to reassert dominance, and on the program development side, by a flurry of activity across many sectors, as the larger military apparatus shifts to adjust to new directions and requirements. However, there is a critical difference between the current perception of a gap and previous instances: past “gaps” occurred within the context of a larger existing framework—the Cold War arms race with the Soviets. The current situation shares more with the unease following the January 2007 antisatellite test by China—the unsettling feeling that these events are taking place without cognitive frameworks that sufficiently dampen their effects. In this environment, the desire to dominate—not to balance, as in the Cold War—is unsurprising.

Disembodied from practical implementation, PGS would remain purely conceptual. However, advancements in basic and applied technologies across the spectrum, coupled with the development of

new infrastructures within which these technologies can be applied, have put new tools into the hands of military planners and have offered an opportunity to upgrade or modify existing pathways to address newly defined needs.

PGS has moved to fill this gap technologically and to seize this opportunity in spades throughout the strategic environment. Taken as a set of technologies and capabilities, PGS plans and possibilities include components in all theaters—land (conventional Minuteman intercontinental ballistic missiles, ICBMs), air (unmanned combat air vehicles and hypersonic/exo-atmospheric jets), sea (conventional Trident and conventional cruise missiles), and space (space platforms and space-launched vehicles).

In some respects, PGS is the natural evolution of existing military program developments, with specific projects and programs moving forward as they have for years, adapting to remain relevant and useful for the current environment. For instance, the conventional Trident modifies a well-known, thoroughly robust system, by replacing nuclear components with non-nuclear warheads. In other cases, PGS charts new territory, as in the potential development of exo-atmospheric planes or space-launched assets. Rather than focus on the specific pros and cons of each program, however, higher-order questions need to be asked to adequately frame and contextualize the ramifications of each particular component. The impact of PGS programs will likely be widely felt, influencing policy and decision-making areas including: strategic deterrence, the definitions of “strategic” and “tactical,” intelligence-gathering, collapsing decision-points, preemption and prevention, international legitimacy, and practical trade-offs

with traditional program development and implementation.

Uncertain Deterrence. As traditionally defined, strategic nuclear deterrence has two main characteristics: it threatens to respond to an attack with massive, overwhelming retaliation (and intends to carry out such a response); integral to that, it presumes rational decisions in response to the threat of retaliation. This was the basis of mutual assured destruction.

However, PGS has the potential to undermine traditional deterrence. If the fluidity and broad nature of PGS is one of its strengths, when considering deterrence, it becomes a weakness. If potential adversaries cannot ascertain the likely responses to their actions (as is probable with PGS) and make rational judgments to guide their decisions, deterrence becomes suspect. Similarly, if the aggressor cannot be identified—potentially the case when dealing with non-state actors—then deterrence also loses its potency. Traditional deterrence not only prevents adversaries from making a decision to attack, but also benefits the United States in a myriad of additional ways by creating and encouraging stability.

Blending Strategic and Tactical. Another long-standing method for building stability and predictability into international security has been to strictly build and maintain firewalls between strategic and tactical conceptions and programs. Nuclear weapons have been explicitly divided into strategic and non-strategic (tactical) categories, as a way not just to provide definition, but also to create meaningful environments in which to discuss arms reductions and control. For example, in 1991 President George H.W. Bush unilaterally withdrew all U.S. non-strategic nuclear weapons from surface ships, recognizing

their destabilizing nature and lack of utility in a post-Cold War world.

PGS has the potential to do away with this long-standing distinction—indeed, it is one of its defining characteristics. A conventional ICBM would produce a signature identical to a nuclear ICBM, introducing uncertainty, confusion, and instability into the overall global security environment.

The Intelligence Paradox. PGS depends on improved intelligence-gathering to provide increasingly accurate assessments of targets in real time. Such intelligence-gathering can run the gamut from satellite imagery to close-quarters human intel. Given the short time frames inherent as a key advantage of PGS, however, it is likely that more often than not, close-in intelligence will become more necessary. However, if real-time intelligence-gathering improves as dramatically as PGS would likely need to become truly effective and sustainable, it begs the question whether existing capabilities could not be used to neutralize the target or handle the situation.

Collapsing Time. PGS introduces critical time pressures. By definition, PGS seeks to strike any target at any point on the globe within a short timeframe—perhaps one hour. This demands that the decision-making chain be as short as possible; that potential systems remain on alert either perpetually or for long stretches; that decisions cannot be widely discussed and disseminated among other global actors; and that intelligence is known to be solid.

Equally true in a number of critical scenarios, the nature of pieces of information that would make PGS useful—for instance, learning that an identified human target will be in a particular location for a short time—collapse the decision-point into shorter, more highly pressurized situations.

Whether this additional element pushes decision-makers to become more adventurous or reluctant is a matter for additional discussion, but it changes the dynamic to a meaningful degree.

Preemption and Prevention. Assuming improved intelligence-gathering, a key benefit of PGS could be to provide a crucial tool for true preemption, should ever a “ticking time bomb”-type scenario arise, in which immediate action is needed to neutralize an imminent attack. If the perceived threat is great enough, nearly any response should be considered to neutralize it, and the more tools available to decision-makers, the better.

Such scenarios occur infrequently, and yet in order to fully implement PGS concepts and programs, significant numbers of existing war-fighting plans and programs would need to be up-ended and retooled. Whether such discrete occurrences justify wholesale change is debatable. Moreover, plans for preemption may easily slide into plans for prevention—that is, taking out a broader set of targets with significant threat potential before the situation becomes precipitous.

Twenty-First-Century Legitimacy. With Iraq as the most immediate and clear instance, achieving and maintaining U.S. legitimacy—domestically, inside Iraq, and the broader international community—has become increasingly elusive and difficult. Constituents, however they may be defined, demand increasingly detailed and defensible rationales for military action, especially as that action is perceived to shift along the spectrum from existential self-defense to military adventurism. The detrimental effects of loss of legitimacy include harming situations on the ground in ongoing military theaters, weakening international support, and damaging poli-

tical discourse and decision-making at home.

But if PGS proves insufficient in providing deterrence, then it will be utilized in preemptive and preventive scenarios that will inherently raise questions of legitimacy. Additionally, various aspects of PGS, like the short decision-making timeframe and reliance on real-time intelligence, strongly characterize PGS as a unilateral tool. It is almost inherently not multi- or even bilateral, and in a global environment where unilateral action is nearly self-evidently initially suspect, there are serious questions regarding how to implement PGS and simultaneously sustain international political legitimacy.

Footprints. At the moment, the budgetary and programmatic footprint of PGS is relatively small. In the fiscal 2008 budget, limited funding is devoted to a few specific pieces of PGS: some funding requested for conventional ICBMs, some for research into conventional Tridents, and likely some classified funding for hypersonic or exo-atmospheric jet research. This would likely grow over time, as additional components are explored and added to Department of Defense (DOD) budgets, and as programs move from research into acquisition and deployment. At that time, there is the potential for conflicts to arise between PGS components and traditional, long-standing conventional programs like the Joint Strike Fighter or new Navy super-carriers.

But the more critical metric of PGS will be its conceptual footprint. If PGS follows the path of capability-based assessments—which started out as a method for “fast-tracking” the deployment of missile defense components in development but has become standard operating procedure throughout large sections of the

U.S. military—then its impact will be great. At the most macro level, as indicated by recent strategic planning documents including the National Security Strategy, the Nuclear Posture Review, and the Quadrennial Defense Review, PGS thinking may become a core underlying assumption of future strategic thinking.

A Purpose-Driven Security. As a concept, as a defining, characteristic capability of certain sets of new and future technologies, PGS has tremendous bottom-up potential for engraining itself into defense and national policy planning without thorough and rigorous analysis and debate. Technology is not only ethically neutral, it is also policy-, strategy-, and applicability-neutral. Without comprehensive and overarching attention, PGS technologies will find resting places within military programs and projects, just as water seeks the lowest level.

Added to this, the formulation and oversight structures for PGS conceptualization, planning, and implementation are both small and opaque. Policy discussion and planning occur mainly in the White House, the Office of the Secretary of Defense, and U.S. Strategic Command. Congress can play a strong role when sufficiently motivated but acts almost exclusively on a project-by-project basis. And for good or for ill, strategic pressures that during previous eras, such as the Cold War, blocked certain lines of PGS-like development (such as national missile defenses), are now largely seen as irrelevant.

Countervailing pressures do exist. The credibility of the U.S. intelligence community has been badly damaged by the Iraq war. Ironically, the newly released National Intelligence Estimate on Iran may further exacerbate that trend. Failure to achieve consistently solid intelligence-gath-

ering and the resultant credibility will impact the viability of PGS, both in utility and legitimacy. Prevention and unilateral action as first-order, default U.S. behavior is falling out of political favor, even within the current administration, again reducing the saliency of some aspects of PGS. And questions raised by Congress, even if directed primarily at specific DOD program budgets, have revealed a lack of clarity regarding overarching policy and strategic directions.

Prompt Global Strike is a tool, a set of capabilities, a concept, and as such is dependent on policy formulations of national and international security goals, objectives, and plans. To paraphrase President Bush when speaking about nuclear weapons proliferation, whether or not PGS is fully pursued and implemented may be less important than the motives and intentions of those pursuing and implementing it. To that degree, the nuclear and non-nuclear underpinnings and origins of PGS have great similarity: the challenge remains in the calibration of our efforts to achieve security in a tumultuous twenty-first-century international environment. And that is something no whiz-bang technology alone will ever provide.

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A Matter of Ownership

In his article, “The United Kingdom and the Nuclear Future” (14.2, July 2007, pp. 227–249), John Simpson indicates that the United Kingdom has full ownership of its Polaris missiles. We believe that this is not

exactly the case; the United Kingdom has never owned outright its Polaris or Trident submarine-launched ballistic missiles (SLBMs).

British officials like to have it both ways to mask the fact that their “independent” nuclear deterrent is largely a fiction. Perhaps doing so is a point of pride. But as a point of fact, when the United Kingdom purchased 58 Trident II D5 SLBMs from the United States, UK Minister of State Adam Ingram clarified the unusual arrangement thusly: “[A]s the missiles are managed as part of a mingled pool with the United States, we purchased the rights to 58 missiles within the overall pool, rather than to 58 specific missiles. We can draw upon these missiles at any time.”

Purchasing the “rights” to operate a revolving subset of missiles within the larger U.S. fleet is quite different from truly owning them. It’s more like renting a car, wherein one pays for the right to operate a vehicle for a period of time and then

returns it to the rental fleet of the company that services, stores, and maintains it. The missiles don’t really belong to the United Kingdom, it just pays to “drive” them around town.

Imagine what would happen if other nations engaged in this kind of weapons-sharing behavior—say, a China-India partnership. Washington would surely be highly critical. Yet because it is considered a “good” kind of proliferation with our British cousins, this double standard is allowed to flourish, largely unexamined.

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