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PAPERS

**The Utility of Nuclear Weapons and the
Strategy of No-First-Use**

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The idea of no-first-use (NFU) of nuclear weapons has been rejected by some nuclear weapons states and accepted only at the declaratory level by most if not all of the others. But what would it mean for a state to genuinely adopt NFU? What must it do in order for NFU to become something more than a rhetorical stance easily disregarded not only by other parties, but by the leaders and military organizations of the state itself? To give NFU genuine meaning, states must be prepared to alter both the purposes for which nuclear weapons are deployed and the manner in which forces are deployed. In what follows, I will sketch both what must be abandoned and what must be altered if NFU is to have true operational meaning. This inventory reveals, however, that most nuclear-armed states are quite wedded to using nuclear weapons for a multiplicity of purposes incompatible with NFU.

PURPOSES ABANDONED: WHY USE NUCLEAR WEAPONS FIRST?

What is implied by a no-first-use strategy is either that the purposes served by retaining the first-use option are not, or are no longer, necessary or desirable or that there is some other means of achieving those purposes. If states want or need to utilize nuclear weapons for these purposes, NFU will be unacceptable. What purposes might be served by first-use and how interested are nuclear-armed states in these purposes?

To Compensate for Conventional Inferiority. Nuclear weapons are often seen as an antidote to conventional inferiority (whether real or perceived). The inferior party will seek to deter conventional attack by threatening a nuclear response. If deterrence fails, nuclear weapons may provide the answer to an overwhelming conventional attack; in concept, this would usually entail battlefield use of tactical nuclear weapons.

The adoption of a first-use nuclear doctrine is thought to provide several desirable results. First, it introduces an element of nuclear risk to any war contemplated by the

superior state. It is hard for the potential attacker to confidently calculate that it can achieve victory at an acceptable cost when there is a possibility of nuclear escalation. This, it is believed, enhances the deterrence of conventional attacks. Second, the threat of nuclear first-use helps negate the conventional advantage of the potential attacker by creating incentives to avoid dense concentrations of forces. Such concentrations represent valuable and vulnerable targets if nuclear weapons are used on the battlefield. Third, first-use doctrines draw advantage from conventional weakness. The more inadequate are the conventional forces of a state or coalition, the more credible will be its threats of nuclear escalation. Lacking an effective conventional alternative to nuclear escalation, inferior states may be rapidly driven to contemplate or to implement first-use.

The desire to use nuclear weapons to compensate for conventional inferiority has been evident in several among the limited universe of nuclear-armed states. The most prominent and long-standing example is NATO during the Cold War. Believing that its own conventional forces were inferior and fearing an unstoppable Soviet attack across the north German plain into Western Europe, NATO was outspoken in its embrace of a doctrine of nuclear first-use and loud, stubborn, and explicit in its rejection of the proposition that it accept a no-first-use posture. Similarly, after the Cold War, when Russia found itself with much weakened and inferior conventional forces in a Europe dominated by an extraordinarily powerful and expanding NATO, Moscow explicitly repudiated the NFU pledge that had been made by the Soviet Union. Moscow embraced instead a doctrine that resembled NATO's Cold War nuclear doctrine in adopting - indeed, relying upon - the threat of first-use to compensate for what do indeed appear to be dire conventional inadequacies. Likewise, after Pakistan tested nuclear weapons in May 1998, it displayed unambiguous reluctance about offering a commitment to NFU. Rather, like NATO and Russia, Islamabad appears to regard its nuclear weapons as an offset to India's large conventional advantages.

Even Israel may fall into this category. Though it is not inferior to its neighbors in the narrow military sense, it is surrounded by hostile states who are much larger and potentially more powerful, especially if they are coalesced against Israel. Hence, Israel has had to worry about possible futures in which it is heavily overmatched in aggregate resources by a combination of substantially bigger adversaries. Part of the answer to this strategic dilemma has been the development of remarkably effective conventional forces that have given Israel a qualitative advantage in the region. But its nuclear capability appears, at least in part, to be an insurance policy against the day when Israel finds itself conventionally overmatched.

There appears to be a powerful regularity here: nuclear-armed states or coalitions that feel inferior or fear inferiority reject NFU and rely instead on first-use doctrines to compensate for their perceived conventional disadvantages.

To preempt nuclear use by others. If war appears to be imminent and inevitable, it is better to strike than be struck. This logic - the logic of preemption - appears to have a powerful hold on the strategic thinking of nuclear-armed states. In the nuclear rivalry between the superpowers, both sides regarded preemption as an appropriate or preferable option if there were clear signs that the opponent was preparing to attack. Though the Soviet Union had made a NFU pledge, for example, its military was deeply wedded to the notion of preemption. As David Holloway has written, "Soviet strategic thought placed considerable emphasis on preemption; if the Soviet Union was sure that the enemy was about to attack, it should strike first in order to break up his forces."¹

Similarly, military planners in the United States assumed that they should provide preemption options to their political leaders, and assumed as well that this would be the best option in the event that war was about to occur. The first commander of the Strategic Air Command, General Curtis Lemay, commented in 1954, "I believe that if the US is pushed in the corner far enough we should not hesitate to strike first."² Early US nuclear war plans placed great emphasis on what was then called the "neutralization objective," that is, the aim of destroying Soviet nuclear assets in a preemptive first strike.³ When President Kennedy, in his first months in office, was briefed on the nuclear war plan, he was instructed quite emphatically about the enormous and desirable advantages in a preemptive first strike and of the additional millions of Americans who would perish if the Soviet Union were allowed to strike the first blow.⁴ Throughout the Cold War, American operational plans for nuclear war placed enormous and continuous emphasis on destroying Soviet nuclear forces in a preemptive first strike.⁵

Nuclear preemption requires action in response to warning. If an opponent appears to be mobilizing for an attack, the potential target of the attack must be prepared to decide and to strike on short notice to beat its enemy to the punch. This implies forces at the ready, high levels of alert, preexisting war plans, and counterforce targeting strategies to destroy enemy forces before they can be used. Many of the perceived dangers of the nuclear age - what Schelling memorably called the dynamics of mutual alarm, the reciprocal fear of surprise attack, and so on - were in substantial measure a consequence of the mutual interest in preemption.

Nuclear-armed states that wish to retain a preemption option must be prepared to strike first. This is true even if they publicly articulate a policy of NFU. The requirements of preemption are inconsistent with a genuine embrace of a NFU

strategy. Indeed, a NFU pledge that is fully reflected in war plans and force dispositions is incompatible with the preemption option. Because nuclear-armed states seem keenly interested in retaining the preemption option, this represents a significant barrier to the widespread acceptance of NFU. Even states that have committed themselves to NFU are likely, in reality, to have preserved their ability to preempt. Would India, with its NFU pledge, preempt if it believed Pakistan were preparing a nuclear strike? History would suggest: don't bet against it.

Preventive War. Established nuclear powers seem to find it tempting to consider the option of preventive war when confronted with the incipient nuclear capacity of a rival power. Preventive war to forestall nuclear acquisition by an adversary need not be nuclear. The clearest preventive attack of recent times was Israel's preventive strike against Iraq's Osiraq reactor in June 1981, which involved a conventional air strike.⁶ Similarly, the Bush Administration's inclination in the fall of 2002 to wage a preventive war against Saddam Hussein envisioned not a nuclear strike but a conventional invasion to remove Saddam from power and to eliminate his WMD programs.

As these examples attest, conventional preventive war is a viable alternative if the adversary has yet to acquire nuclear weapons. But if the opponent has already achieved a nuclear weapons capability, then the nuclear component of preventive war comes directly into play. In a hostile relationship between two nuclear-armed powers, the concept of preventive war entails the superior power seeking to eliminate by nuclear first strike the nuclear capacity of its opponent while it still retains the capacity to do so. Delay that allows the opponent to expand and improve its nuclear forces may eliminate the preventive war option (because the opponent is able to achieve survivable forces) or to greatly increase the risk of the preventive war option (because the opponent may have some capacity to retaliate even after the nuclear attack). The superior power thus faces a classic "window" logic: act soon or the window of opportunity may close. This logic puts pressure on the superior power to at least contemplate preventive war while it is still a viable option.

While there are no examples in which any power actually launched a preventive attack with nuclear weapons, there is considerable evidence in the historical record that states with superior nuclear capabilities discussed and seriously considered doing so. In his study of American preventive war thinking in the early years of the Cold War, for example, Marc Trachtenberg found that "In the late 1940s and well into the early 1950s, the basic idea that the United States should not just sit back and allow a hostile power like the Soviet Union to acquire a massive nuclear arsenal - that a much more 'active' and more 'positive' policy had to be seriously considered - was surprisingly widespread."⁷ Though in the end, President Eisenhower set aside the preventive war option, he and other high officials wrestled with the possibility that it

was the right course of action. Ruminating on the dangers that might attend a huge Soviet nuclear buildup, Eisenhower commented to Secretary of State John Foster Dulles in 1953 that they "might be forced to consider whether or not our duty to future generations did not require us to initiate war at the most propitious moment we could designate."⁸ Similar calculations are evident in the American reaction to the emergence of the Chinese nuclear capability in the early 1960s.⁹ And in 1969, the Soviet Union famously approached the United States to inquire about Washington's reaction to the idea of preventive war against China.¹⁰

More recently, the Bush Administration has explicitly articulated a policy of preventive war (often mis-labeled as preemptive war) as a major component of its response to the threat of WMD proliferation to hostile states. Bush's National Security Strategy states, for example, that "We must be prepared to 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."¹¹ Preventive action need not be nuclear, but the Bush Administration's Nuclear Posture Review made it clear that preventive war involving nuclear first use is not ruled out. There is great emphasis on destroying hard deeply buried targets (HDBTs), for example, coupled with the suggestion that there may be a need to develop new nuclear warheads for this purpose.¹² The notion of nuclear preventive war is thus not merely a historical curiosity.

The risks associated with a preventive nuclear war are considerable, and no state has been able to bring itself to implement the policy. But the idea clearly tempts. And it is a notion that requires the ability to use nuclear weapons first. It is, in short, another common strategic impulse that is incompatible with NFU.

First use as an element of extended deterrence. During the Cold War, a major challenge to America diplomacy and strategy resided in the fact that it extended nuclear protection - the so-called "nuclear umbrella" - to its allies. This raised the possibility that Washington might need to use nuclear weapons on behalf of an ally even if the United States itself had not been directly attacked. In Europe, of course, this problem was intimately connected with NATO's strategy of relying on nuclear weapons to compensate for conventional inadequacies. Thus, the American security guarantee to its allies depended fundamentally on Washington's expressed willingness to use nuclear weapons first on behalf of other states that had been attacked, even if the attack had been conventional - and to risk escalation to nuclear attacks on the American homeland in the process. The structure of this relationship led to endless NATO efforts to find ways of making nuclear first-use threats credible. It led also to endless NATO debates and broodings about battlefield nuclear weapons, theater nuclear use, the coupling of theater and strategic forces, and about the urgency of being able to dominate the escalation ladder.¹³ As Soviet nuclear and conventional

capabilities grew, this led to obsessive worries about the adverse shift in the military balance, great fears that the Soviets would be able to dominate the escalation game, and alarm that this would undermine NATO. As one characteristic analysis put it, "Soviet and Warsaw Pact advantages in conventional and strategic forces all lead to increased Soviet dominance of the escalation process. This exacerbates the ever-present West European concern about US decoupling of its strategic forces from the defense of Europe, which in turn contributes to the erosion of the allies' confidence in the United States."¹⁴

Because nuclear first use was at the very core of the security relationship between the United States and its allies, NFU was not simply incompatible with NATO's inclinations. It was thought to pose a mortal threat to NATO's security arrangements, to undermine the alliance, and to raise the risk of war. When in 1982 four prominent Americans (Messrs. Bundy, Kennan, McNamara, and Smith) proposed that NATO should consider adopting a NFU doctrine, it provoked stern and alarmed responses from within the alliance. Four distinguished Germans responded to this proposal, arguing that the NFU doctrine would wreck NATO's successful longstanding policy and undermine peace in Europe. Wrote the Germans, "It is the inescapable paradox of this [NATO] strategy that the will to conduct nuclear war must be demonstrated in order to prevent war at all."¹⁵ The NFU proposal made no inroads in official NATO policy - and indeed, to this day, NATO firmly rejects NFU.

The general conclusion is this: states that seek to extend nuclear guarantees to allied states will find NFU entirely unacceptable because without a credible first use threat their commitments are meaningless.

Deterrence of or retaliation against use of chemical or biological weapons. States that have forsaken chemical and biological weapons (CBW) cannot deter CBW use by threat of symmetrical reply. As concerns about CBW proliferation have mounted, there has been growing interest in using threats of nuclear retaliation to deter CBW use. During the Clinton Administration, the United States came close to explicitly articulating this as its policy. The Bush Administration is similarly inclined in this direction. "Official defense policy," says one worried analysis of this 'deterrence gap', "declares that nuclear weapons act as a deterrent against the entire spectrum of potential nuclear, biological, and chemical attacks."¹⁶ Similarly, there have been suggestions that the Israeli government might use nuclear weapons in response to an Iraqi CBW attack on its territory.

Whether a state as comprehensively powerful as the United States needs to rely on nuclear threats to deter CBW attacks is certainly questionable.¹⁷ But there is no question that there is wide interest in the United States in using nuclear weapons to cope with this threat. The Bush Administration's Nuclear Posture Review, for

example, says that American nuclear weapons provide "assurance" against "known or suspected threats of nuclear, biological, or chemical attacks," and specifically singles out the "defeat of chemical and biological agents" as one of the missions on which the United States is working.¹⁸ Here, then, is a justification for the retention of first-use options that has not merely persisted into the Cold War era; CBW are almost universally viewed as a growing problem. So long as the United States (not only the Bush Administration, but also the Clinton Administration as well, albeit more quietly) believes that nuclear weapons are necessary to deter CBW threats, there will exist a potent reason for resisting calls for NFU. And resist the United States has done, unwaveringly, throughout the dozen years of the post-Cold War era. It is conceivable that other nuclear-armed states will come to the same position for the same reason.

Crisis signaling or intra-war bargaining. In the literature that emerged on nuclear strategy, a nuclear crisis was sometimes conceived as an intense bargaining interaction in which the protagonists needed to communicate threats, display resolve, and demonstrate risks. When the line between crisis and war has been crossed, the bargaining and the signaling continue. At least in the abstract, it is imaginable that nuclear weapons might be used first in a symbolic manner, as a dramatic signal of the determination of the party who utilizes nuclear weapons in this way or as a dramatic expression of the risks and dangers of the unfolding crisis. Herman Kahn, for example, regarded such action as a discrete rung on the "ladder of escalation." Such a "spectacular show of force," Kahn suggested, would seem "extremely menacing, reckless, and determined" and would be "an impressive, even if symbolic, act."¹⁹ Thomas Schelling particularly emphasized the bargaining dimension of both nuclear crisis and nuclear war, and viewed the deliberate "manipulation of risk" as an integral element of such bargaining. Crossing the nuclear threshold is one particularly vivid way of attempting to transform the existing dynamic. This "deliberately raises the risk of all-out war" and thereby dramatically changes the character of the situation. Commenting on nuclear use in a limited war, for example, Schelling notes that "Once nuclear weapons are introduced, it is not the same war any longer.... It is now a war of nuclear bargaining and demonstration."²⁰ What is envisioned in such analysis is nuclear first use for the purposes of crisis management or intra-war bargaining.

Obviously, no state has ever utilized a nuclear detonation during a crisis for purely signaling purposes. Nor has there been any wartime nuclear escalation (symbolic or otherwise) intended as a bargaining tactic. (There has been some manipulation of nuclear alerts that seems to have been undertaken in part to communicate messages to the other side, but this is far short of crossing the nuclear threshold, even making allowances for the dangers raised by reciprocal alerting in crisis.)²¹ Nevertheless, here is another purpose that nuclear first use might serve. Any state that feels it may need

at some point to make recourse to this option will have one more reason for resisting NFU.

A last resort escalation. For some states, nuclear weapons may be regarded as the ultimate insurance policy against catastrophic conventional defeat. In the desperate circumstance that total defeat is imminent, nuclear first use of some sort may seem imperative, despite all the risks that would inevitably attend any such use (particularly if the war involved two or more nuclear-armed states). Theater use might prevent disaster on the battlefield. A symbolic or strategic use might salvage some bargaining leverage and permit the losing party to extricate itself, at least partially, from a horrible predicament. These are not attractive options, but they may seem necessary to a state with little left to lose. More promisingly, if the adversary understands that nuclear escalation may be the last recourse of its victim, it may be reluctant to press for total victory; indeed, with the nuclear shadow looming and uncertainty about when its victim may panic, the adversary may be reluctant to wage war at all. States unwilling to capitulate and unwilling to go down without a fight may find in nuclear first-use their most compelling ultimate sanction.

At least some interpretations of Israel's nuclear capability find elements of this logic to be applicable (though Israel is obviously serving other purposes as well).²² Similarly, Pakistan may see nuclear weapons playing this sort of role in its rivalry with much more powerful India. Because the context for this consideration is conventional disaster, few states are likely to be explicit that this is an element of their nuclear thinking, so it is hard to appraise what place it may hold in the nuclear doctrine of particular countries. The main point, though, is that this represents yet another rationale for retaining first-use options.

Nuclear-armed missile defenses. For the sake of analytic completeness, it is necessary to point out that there has been recurrent interest, in both Washington and Moscow, in the idea of employing nuclear-armed ballistic missile defenses. Indeed, some of the missile defenses deployed in the past were in fact armed with nuclear warheads. Though there do not appear to be any active plans to pursue nuclear-armed defenses, the Defense Science Board of the Bush Administration is said to be examining the question. The current US approach to missile defense is built around non-nuclear hit-to-kill technology that imposes very taxing technical requirements on the system. Under the circumstances, it is perhaps somewhat surprising that there is not more interest in nuclear-armed interceptors whose large destructive power eliminates many of the technical challenges associated with "hit to kill." If hit to kill fails or falters - a likely prospect if critics of the program are to be believed - it is imaginable that interest in nuclear-armed missile defenses will be resurrected.

Under some circumstances, use of nuclear missile defense interceptors could be construed as first-use. This would be unambiguously true if such interceptors were used against attacking missiles armed with CBW. Arguably, it would be technically true even if nuclear interceptors were fired against incoming nuclear armed ballistic missiles; the first detonations would be those associated with missile defenses - though in that circumstance the sanctity of NFU pledges would be the least of our worries.

At this point, there appears to be little interest in developing modern nuclear-armed missile defenses. In thinking about NFU, this seems like a second order concern. Nevertheless, a complete inventory of the purposes that might be served by nuclear first-use should take note of this consideration. And it is not impossible that it will be a larger factor in the future - for example, in a world in which there are major worries about ballistic missiles armed with biological weapons.²³

Governments see utility in nuclear weapons. It is often argued by critics of the nuclear weapons states that these weapons have no utility or that they can (or should) serve no purpose other than to deter their own use. Nuclear-armed states have never accepted such arguments and instead have sought to utilize their nuclear capabilities in the service of a number of purposes. The US government, for example, at one time or another has sought to exploit nuclear weapons for most of the purposes enumerated above. Far from regarding nuclear weapons as useless, it has viewed them as essential, perhaps indispensable, in achieving important ends. Not surprisingly, therefore, Washington has been among the most adamant opponents of NFU.

A genuine strategy of no-first-use implies - indeed, requires - that nuclear-armed states relinquish any desire to utilize first-use threats and options for the attainment of these purposes. This might become possible because the purpose no longer seems worthy. There appears to be little interest anymore, for example, in symbolic first use for signaling purposes. This might become possible because the purpose is no longer relevant. Arguably, there is little reason in the post-Cold War era for NATO to be overly exercised about the problems of extended nuclear deterrence. This might be possible because there are other ways of achieving desired objectives. The United States, for example, with its overweening power ought to be able to make credible deterrent threats against CBW use without reliance on nuclear weapons. But whatever the reason, the strategy of NFU means that nuclear-armed states cannot use nuclear weapons for the attainment of these other purposes. This is an inexorable connection. It explains why advocates of NFU insist that nuclear weapons should serve no other purpose than nuclear deterrence. Thus the articulate and influential nuclear weapons study of the US National Academy of Sciences recommended that "the United States should announce that the only purpose of US nuclear weapons is to deter nuclear attacks on the United States and its allies" and embrace an official policy of

NFU.²⁴ Neither the American government nor most of the other nuclear weapons states have taken this advice. But if they become willing to abandon the practice of linking nuclear first-use to an array of other purposes, they then will need to address the more tractable, but still difficult, problem of developing military postures consistent with a strategy of NFU.

CAPABILITIES ABANDONED: MAKING NO FIRST USE REAL

If NFU is to be more than a declaratory policy, then it must be meaningfully reflected in the war planning and force postures of the nuclear powers. Because the possibility of first use inheres in the possession of a nuclear arsenal, it is not easy to create a posture that effectively displays genuine fidelity to the NFU pledge. Because it is easy to proclaim NFU as a declaratory policy, little weight has been given in the past to the NFU pledges made by various nuclear powers. It seems safe to say, for example, that the United States and its NATO allies gave no credence whatsoever to the NFU commitment made by the Soviet Union.

What must nuclear-armed states do if they wish to genuinely adopt a strategy of no-first-use? How might they make this a credible and reassuring step? How could they configure their forces so as to reflect a real NFU policy? In the context of anything like present nuclear forces, it is not clear that there is a wholly convincing answer to these questions - or at least, an answer that would be wholly convincing to a suspicious adversary. But an implication of NFU is that the present force postures must be left far behind. Then, as a general matter, the answer must be that a real NFU policy would have to ripple through the entire military posture and preparations of the nuclear-armed state. And the end result would need to be a doctrine that does not rely on first use and a nuclear force posture that has little or no capacity to be used first.

War planning. NFU cannot be real if militaries develop war plans that include, or even depend upon, the expectation of first-use of nuclear weapons. It has long been a commonplace to note the gap that often exists in nuclear powers between declaratory policy and operation policy. The Soviet Union's NFU pledge, for example, coexisted with war plans for a European war that called for substantial use of nuclear weapons from the outset of hostilities.²⁵ A genuine strategy of no-first use would need to be reflected in operational war plans. These would have to assume an entirely non-nuclear character and to extirpate all scenarios in which recourse is made to the first use of nuclear weapons.

Eradicating the idea that nuclear first use is an option would have enormous implications. It would alter the expectations of politicians and commanders. It would (or should) influence military investment decisions - more conventional capability may be necessary, for example.²⁶ It could affect public articulations of defense policy

and military doctrine. In the Soviet period, Moscow's NFU pledge was undermined by a profusion of military writings that emphasized nuclear preemption and warfighting and otherwise were in tension with NFU. But a genuine NFU strategy would need to harmonize doctrinal expositions and political explanations of defense policy with the constraints of the NFU commitment. Changes in public rhetoric alone will not be sufficient to convince the world that a NFU strategy is firmly in place. But they could help send the message that NFU was being taken seriously. NATO presently proclaims at every occasion that nuclear weapons are essential and that nuclear first-use is an integral component of alliance military strategy. If NATO instead were to proclaim that nuclear weapons are irrelevant to most of the alliance's security needs and that it could not envision circumstances in which it would use nuclear weapons first, this would certainly set a very different tone.

War planning, of course, is not a public activity, though it has public outcroppings. So though this is a necessary step if NFU is to be real, it must be coupled with other, more visible steps, if others are to be convinced that NFU is more than declaratory policy.

Exercises and training. Militaries, goes the old aphorism, fight the way they train. Military organizations are honed through years training and exercises to operate in certain ways with certain expectations. If exercises sometimes or routinely involve scenarios that include nuclear first use, this will be visible to observers of the exercises and will have impact on the way the military thinks and behaves. NFU cannot be real if militaries are practicing as if nuclear weapons will be used first. In the context of a strategy of NFU, exercises should ingrain the idea that first-use is entirely out of the picture and should not figure at all in the calculations of military commanders.

Force Composition and Disposition. A strategy of NFU would require or permit dramatic alterations in force posture. A purely deterrent force could be much smaller and simpler than the present arsenals of the larger nuclear powers. There would be no need for emphasis on speed or offensive readiness. (Readiness for survivability would, of course, remain desirable.) The force postures most compatible with NFU, and most convincing to other powers, would possess little or no capability for first-use.

This proposition - that states should seek to minimize the first-use capacities of their nuclear arsenals - has potentially profound implications for nuclear posture. It could lead far down a road toward latent, residual, undeployed nuclear capabilities. In effect, this would entail the aggressive pursuit of deep dealerting.²⁷ In the context of a strategy of NFU, nuclear forces need only survive survive an attack and be capable of retaliation. No other demands are placed upon them. This means that all readiness

measures associated with first use options are superfluous, unnecessary, and even undesirable. Some categories of nuclear weapons - nonstrategic nuclear forces, for example - would become expendable. Forward deployed weapons, such as the American nuclear capabilities deployed in Europe, would be neither necessary nor appropriate. With offensive readiness no longer important, there would be no reason to leave warheads routinely mated to delivery systems. There might be little reason, indeed, to possess actively deployed nuclear weapons. There might be no compelling reason to leave nuclear weapons in the custody of military organizations. So long as survivability could be assured, there might be an argument for keeping few, if any, fully assembled nuclear weapons in the arsenal. Following this logic still further, in this sort of nuclear environment, states might grow comfortable not only with NFU, but with the notion of no-early-second-use - retaliation does not need to be prompt in order to deter. The end point of this logic might be something like the capacities of present day Japan, which might be regarded as a massively dealerted nuclear power. It possesses nuclear expertise, delivery systems, and fissile material. In some weeks or months it could build nuclear weapons for retaliation if it needed to. But no one fears its first use options. Thus, the premise of NFU, if taken seriously, produces a logic that can lead in stunning directions.

In short, once nuclear arsenals are limited to purely deterrent purposes, it becomes possible to envision substantial alterations of force posture that would give considerable reality to NFU commitments. For the larger nuclear powers, one could imagine much smaller forces, deeply dealerted, incapable of rapid use, perhaps with warheads unmated from delivery systems, perhaps with warheads withdrawn from regular deployment. This is a very different nuclear force, far from anything presently in view, but one entirely compatible with a world dominated by deterrence and NFU.

CONCLUSION

To truly embrace a strategy of NFU has fundamentally important implications in terms of both purpose and posture. Nuclear-armed states must be prepared to abandon the practice of exploiting nuclear weapons for the attainment of a variety of different purposes. Only one purpose is compatible with NFU: the deterrence of nuclear attack. All other purposes associated with nuclear weapons must be jettisoned or achieved by other means.

This is the crux of the issue. If nuclear weapon states were really prepared to limit themselves purely to nuclear deterrence, not only would NFU be acceptable but many of the associated force posture alterations would become palatable, if not congenial. However, most nuclear-armed states appear to have objectives beyond nuclear deterrence that are thought to be served by their nuclear weapons, leading to the embrace of first use doctrines and the retention of first use options. Above all, the sole

superpower has linked its nuclear capability to at least a handful of objectives other than nuclear deterrence, and hence finds NFU to be entirely objectionable.

Washington correctly appreciates that NFU is incompatible with its present nuclear doctrine. So long as this remains the case, the genuine strategy of NFU will make little headway in the corridors of power.

If the time someday comes when the nuclear powers are truly interested in a meaningful embrace of NFU, this will be a significant step toward the marginalization of nuclear weapons. It will mean that their role in international politics and national policy is much more circumscribed. Once nuclear weapons have been restricted to the narrow purpose of neutralizing the nuclear weapons of others, a familiar logic comes into play: if the only purpose for nuclear weapons is deterrence, then if no one has them no one needs them.

Footnotes

1. David Holloway, *The Soviet Union and the Arms Race*, (New Haven: Yale University Press, 1983), p. 57.
2. David Rosenberg, "A Smoking Radiating Ruin at the End of Two Hours: Documents on American Plans for Nuclear War with the Soviet Union, 1954-5-1955," *International Security*, Vol. 6, No. 3 (Winter 1981-1982), p. 13.
3. Rosenberg, "A Smoking, Radiating Ruin," pp. 31-32.
4. See, for example, Scott Sagan, "SIOP 62: The Nuclear War Plan Briefing to President Kennedy," *International Security*, Vol. 12, No. 1 (Summer 1987), pp. 22-51.
5. This is the major point, for example, in Desmond Ball, "US Strategic Forces: How Would They Be Used?," *International Security*, Vol. 7, No. 3 (Winter 1982/1983), pp. 31-60. See in particular p. 34.
6. An account and assessment of the attack on Osiraq can be found in Shai Feldman, "The Attack on Osiraq - Revisited," *International Security*, Vol. 7, No. 2 (Fall 1982), pp. 114-142.
7. Marc Trachtenberg, "A 'Wasting Asset': American Strategy and the Shifting Nuclear Balance," *International Security*, Vol. 13, No. 3 (Winter 1988-1989), p. 5.
8. Quoted in David Rosenberg, "The Origins of Overkill: Nuclear Weapons and American Strategy, 1945-1950," in Steven E. Miller, ed., *Strategy and Nuclear Deterrence*, (Princeton: Princeton University Press, 1984), p. 143.
9. See in particular William Burr and Jeffrey Richelson, "Whether to Strangle the Baby in the Cradle: The United States and the Chinese Nuclear Program, 1960-

- 64," *International Security*, Vol. 25, No. 3 (Winter 2001-2002), pp. 54-99.
10. Kissinger recounts this episode in his memoirs. See Henry A. Kissinger, *White House Years*, (Boston: Little, Brown, 1979), pp. 183-191. As Kissinger makes very clear, he and President Nixon were far more interested at that point in playing the Chinese against the Soviets than they were in seeing the Soviet Union eliminate China's nuclear capability.
 11. *The National Security Strategy of the United States*, September 2002, p. 14.
 12. *Nuclear Posture Review Report*, January 8, 2002, pp. 15-16 (as available at <http://www.globalsecurity.org>).
 13. See, for example, Paul Nitze, "The Relationship of Strategic and Theater Nuclear Forces," *International Security*, Vol. 2, No. 2 (Fall 1977), pp. 122-131.
 14. James J. Martin, "How the Soviet Union Came to Gain Escalation Dominance: Trends and Asymmetries in the Theater Nuclear Balance," in Uwe Nerlich, ed., *Soviet Power and Western Negotiating Policies - The Soviet Asset: Military Power in the Competition Over Europe*, (Cambridge: Ballinger Publishing Co., 1983), p. 105.
 15. The original salvo was McGeorge Bundy, George F. Kennan, Robert S. McNamara, and Gerard Smith, "Nuclear Weapons and the Atlantic Alliance," *Foreign Affairs*, Vol. 60, No. 4 (Spring 1982), pp. 753-768. For the German reaction, see Karl Kaiser, Georg Leber, Alois Mertes, and Franz-Josef Schulze, "Nuclear Weapons and the Preservation of Peace: A Response to An American Proposal For Renouncing the First Use of Nuclear Weapons," *Foreign Affairs*, Vol. 60, No. 5 (Summer 1982), pp. 1157-1170. The quote is found on p. 1159.
 16. Gwendolyn Hall, Stephen Lambert, and John Capello, "US Counter-Proliferation Strategy for a New Century," in James M. Smith, *Searching for National Security in an NBC World*, (USAF Institute for National Security Studies, July 2000), p. 130.
 17. See, for example, the excellent analysis in Scott D. Sagan, "The Commitment Trap: Why the United States Should Not Use Nuclear Threats to Deter Biological and Chemical Weapons Attacks," *International Security*, Vol. 24, No. 4 (Spring 2000), pp. 85-115. Elsewhere I have suggested that the US could credibly adopt a deterrent posture of "regicide" - based on the threat that any regime that used WMD against the United States would be eliminated by the application of overwhelming US conventional military power. See Steven E. Miller, "The Flawed Case for Missile Defense," *Survival*, Vol. 43, No. 3 (Autumn 2001), pp. 95-109.
 18. *Nuclear Posture Review Report*, pp. 4, 16.
 19. Herman Kahn, *On Escalation*, (Baltimore: Penguin Books, 1968), p. 91.
 20. Thomas C. Schelling, *Arms and Influence*, (New Haven: Yale University Press, 1966), pp. 107, 110.

21. See, for example, Scott D. Sagan, "Nuclear Alerts and Crisis Management," *International Security*, Vol. 9, No. 4 (Spring 1985), pp. 99-139.
22. See, for example, Beatrice Heuser, "Beliefs, Culture, Proliferation, and the Use of Nuclear Weapons," in Eric Herring, ed., *Preventing the Use of Weapons of Mass Destruction*, (London: Frank Cass, 2000), p. 92.
23. The Union of Concerned Scientists study, *Countermeasures*, makes the point that BW can be delivered by large numbers of missile-borne bomblets that are impossible to defeat using hit to kill technology. If that threat should loom larger in the future, this could make nuclear-armed interception much more attractive.
24. National Academy of Sciences, *The Future of US Nuclear Weapons Policy*, (Washington DC: National Academy Press, 1997), p. 71.
25. See, for example, Beatrice Heuser, "Warsaw Pact Military Doctrines in the 70s and 80s: Findings in the East German Archives," *Comparative Strategy*, Vol. 12, No. 4 (October-December 1993), pp. 437-457, which found evidence on this point in the war plans of the Warsaw Pact.
26. John Mearsheimer, for example, argued against NFU on the grounds that NATO would not make the necessary additional investment in conventional capabilities. See his "Nuclear Weapons and Deterrence in Europe," *International Security*, Vol. 9, No. 3 (Winter 1984-1985), pp. 19-46.
27. For a concise survey of a number of dealerting proposals, including suggestions of Goodby, Feiveson, and Blair, see Tony Taylor, "A Dealerting Primer," Union of Concerned Scientists, at <http://www.ucusa.org>.