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## IN THE NUCLEAR ARMS TALKS, GO SLOW ON START

**T**he outcome of the Strategic Arms Reduction Talks (START) between the United States and the Soviet Union in Geneva will be very important to the security of the U.S. and the Western Alliance. The START negotiations began in June 1982 and cover such long-range nuclear forces as land- and submarine-based ballistic missiles, bombers, and cruise missiles.

For the past four decades, peace in Europe has rested largely on the capability of these American strategic nuclear weapons to deter Soviet aggression. Any arms control agreement that affects the size and quality of this strategic arsenal thus will affect its potential to deter war.

Reaching an arms control agreement is a complicated process. It requires time, patience, and a full examination of the issues. The START negotiations are no exception. The transition to the Bush Administration provides a valuable opportunity to pause and to reassess where the U.S. and USSR stand in the negotiations. The changing strategic environment makes it essential that Washington review its goals and negotiating strategy for START and for arms control policy in general.

**Points of Agreement.** While disagreements remain, Washington and Moscow have reached a partial accord on a number of issues. They have agreed to reduce both sides' ballistic missile throw-weight, or the amount of deliverable nuclear explosive power on ballistic missiles, by 50 percent. They also have agreed to limit each side to 6,000 nuclear warheads. For counting purposes, "warheads" consist of ballistic missile warheads, air-launched cruise missiles, and strategic bombers that are not equipped to carry cruise missiles; each of these bombers is counted as one warhead. Of the 6,000 warheads permitted by the START agreement, up to 4,900 could be put on sea- and land-based ballistic missiles; the other 1,100 would be the air-launched cruise missiles or the bombers not equipped to carry cruise missiles. Not more than 1,540 warheads could be placed on so-called heavy

intercontinental ballistic missiles (ICBMs), which are very large, multi-warhead, land-based missiles such as the Soviet SS-18.

These force reductions could weaken the U.S. capability to deter nuclear war. They could, for example, make U.S. land-based missile forces more vulnerable to Soviet attacks, not less vulnerable as the Reagan Administration claims. Moreover, START's cutback of U.S. ballistic missile submarines could weaken the U.S. sea-based deterrent, now the strongest and most survivable leg of the U.S. strategic triad of sea, land, and air nuclear retaliatory forces. Making matters worse, there are strong doubts whether a START treaty could be verified effectively.

**Congressional Concerns.** To examine potential flaws in the U.S. negotiating position, the incoming Bush Administration should launch a comprehensive review not only of the U.S. START position, but of the force posture necessary to maintain deterrence after START cuts are made. This September, Congress attached a resolution to the Fiscal Year 1989 Defense Department Authorization Act asking the administration not to reach a START agreement that compromises the security of such survivable strategic systems as ballistic missile carrying submarines. The resolution also asks the administration to prepare an analysis of alternative U.S. strategic nuclear force postures under a potential START treaty.<sup>1</sup> The new administration should comply completely and promptly with these requests.

The strategic aim of START should be to strengthen deterrence; not simply to reduce the size of nuclear arsenals. Paradoxically, smaller nuclear arsenals could make the superpowers more trigger happy and thus increase the chances of nuclear war.

To enhance deterrence, the U.S. must enter the next century with a balance of offensive and defensive strategic forces capable of protecting the nation from the growing Soviet nuclear threat. Specifically, a START treaty should permit the modernization of a force posture that emphasizes survivable and effective offensive nuclear systems. It should also permit the rapid development and testing of strategic defense systems for deployment in the 1990s.

## **POINTS OF U.S. - SOVIET AGREEMENT**

The outline of a START agreement framework has been worked out by U.S. and Soviet negotiators. While many differences remain, the two sides have agreed on a number of points. These include:

◆ ◆ Each side's ballistic missile throw-weight, or amount of deliverable nuclear explosive power on sea- and land-based ballistic missiles, will be

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<sup>1</sup> National Defense Authorization Act for Fiscal Year 1989, Conference Report to accompany H.R. 4481, September 28, 1988, pp. 118, 122.

reduced by 50 percent. U.S. strategic missile throw-weight now is around 4 million pounds; Soviet throw-weight is around 12 million pounds.

◆◆ Each side will be limited to 6,000 warheads on 1,600 sea- and land-based ballistic missiles and bombers; these are called “strategic delivery vehicles.”

◆◆ As a sublimit of the above restriction, each side will be limited to 4,900 warheads on sea- and land-based ballistic missiles.

◆◆ Each side will be limited to 1,540 warheads on “heavy” ICBMs, which are very large, multi-warhead, land-based missiles like the Soviet SS-18.

◆◆ Long-range heavy bombers equipped with air-launched cruise missiles (ALCMs) will count as one delivery vehicle against the 1,600 limit on delivery vehicles and some future agreed number of warheads against the 6,000 limit on warheads.

◆◆ Long-range “heavy” bombers not equipped with air-launched cruise missiles, but carrying nuclear gravity bombs and short-range attack missiles, will be counted as one delivery vehicle against the 1,600 limit on strategic delivery vehicles and one warhead against the 6,000 limit on warheads.

## UNRESOLVED ISSUES

Despite agreement on some of the basic points of a START agreement, serious disagreements persist on many issues. These include:

### *The ABM Treaty and SDI*

The Soviets continue to insist that they will not accept START reductions unless the U.S. makes major concessions on strategic defense. Washington rejects this demand, calling for separate agreements on offensive reductions and on issues related to space and defense. While the U.S. will agree to adhere to the 1972 Anti-Ballistic Missile — or ABM — Treaty, which limits deployment of ground-based strategic defenses to one site, for a fixed period of time, it wants the right to deploy strategic defenses at the end of that period, as agreed at the Washington Summit in December 1987 (where it was agreed that both sides were “free to decide” SDI deployment). Moscow has backtracked on this, demanding that no strategic defense deployment be permitted unless specifically agreed to and that both sides continue to abide by the ABM Treaty. The U.S., meanwhile, has demanded that the Soviets dismantle their radar at Krasnoyarsk, in Siberia, before final agreement on START can be reached. This radar, says U.S. officials, violates the ABM Treaty.

Holding to the so-called "broad" interpretation of the ABM Treaty, the Reagan Administration contends that the Treaty allows testing of SDI systems in space but not deployment; Moscow has acknowledged the legitimacy of some experiments in space, but has opposed testing prototypes of space weapons. In an effort to assure the Soviets that testing will not constitute prohibited deployment, U.S. negotiators this October proposed that each side be allowed to test in space, but that no more than 15 anti-missile test satellites be permitted in orbit at one time. The U.S. also proposed that each side be notified by the other of such tests.

### ***Mobile Missiles***

The basic U.S. position has been that mobile land-based missiles should be banned unless an effective verification scheme can be devised to monitor them. This ban would affect the already deployed Soviet SS-24 and SS-25 mobile missiles and the rail-mobile U.S. MX missile. The U.S. *Midgetman* missile, being developed by the Air Force also would be banned. The Soviet Union does not want mobile missiles banned, but says it would agree to numerical limits on mobile missile launchers and warheads. This is privately supported by some U.S. arms control officials. Differences on the ban, in fact are... narrowing; the U.S., for example, has agreed that it would allow mobile ICBMs if confined to small restricted areas. Yet disagreements remain over such details as the size of restricted areas for mobile missiles.

### ***Air-Launched Cruise Missiles***

Cruise missiles are small unmanned projectiles propelled by air-breathing engines capable of sustained flight at very low altitudes. While the U.S. generally tries to protect cruise missiles from very deep reductions, the Soviets seek to restrict U.S. cruise missiles in general, apparently because they fear that these technologically advanced weapons could be used to blunt Soviet advantages in nuclear and conventional forces.

Differences also remain on the number of warheads credited to ALCM-equipped bombers. The U.S. wants to attribute 10 warheads to ALCM-equipped bombers, while the USSR wants to count the maximum number of warheads (which can be as high as 20) capable of being carried on such bombers. By proposing this, the Soviets seek to restrict U.S. cruise missile technology by driving up the number of ALCMs counted under the 6,000 warhead limit. Moscow apparently believes that the higher the number of ALCMs attributed to each bomber, the less likely it is that the U.S. will deploy them in large numbers. The Soviet proposal, moreover, would be destabilizing because it would drive up the number of warheads per bomber.

### ***Sea-Launched Cruise Missiles***

The U.S. believes that no limits should be placed on long-range sea-launched cruise missiles (SLCMs) until some effective method of

verification is found to distinguish between conventionally and nuclear-armed SLCMs. Such missiles are deployed on surface ships and submarines and could be used to destroy enemy ships and naval installations on land. The U.S. sees no point in agreeing to restrictions that are not verifiable. Moscow contends that there are ways to distinguish between different types of SLCMs; so far, the U.S. disagrees. Moscow proposes limiting each side to 400 nuclear and 600 conventional SLCMs. If an effective verification regime could be found, the U.S. would agree to an overall limit of 1,000 nuclear-armed SLCMs on each side.

### *Verification of Reductions*

While the U.S. wants continuous on-site monitoring of a limited number of facilities known to be associated with the production of deployed missiles, the Soviet Union wants continuous monitoring of all facilities associated with missile production, including bomber and cruise missile production plants. The U.S. is concerned that monitoring all facilities associated with missile production could give the Soviets access to American bomber and cruise missile production facilities involved in the development of radar-evading "stealth" and other advanced defense technologies. The Soviets have argued that such on-site inspections are necessary to monitor the size of a nondeployed missile force.

This October, breaking a longstanding deadlock between the State and Defense Departments, Ronald Reagan proposed that the U.S. and the USSR be given the right to conduct snap inspections at a list of designated sites, chiefly those used to manufacture missile motors and solid-fuel missiles. Sites not on the list would not be subject to short-notice inspections. Each country could request such inspections, but no guarantees would be given that requests would be approved. The Reagan Administration claims that the U.S. proposal balances concerns about monitoring Soviet compliance with a START treaty and protecting sensitive U.S. military sites from potential spying by Soviet arms control inspectors.

## **PROBLEMS WITH START**

Many questions need to be answered before a START agreement can be reached. They are:

### *Will START make U.S. land-based missiles more vulnerable?*

Warheads on land-based ICBMs, particularly those super-accurate warheads capable of destroying enemy missiles in their silos, are the most destabilizing nuclear weapons. They are ideal for quick, tightly controlled and highly coordinated nuclear strikes against an opponent's strategic forces. The more very accurate ICBM warheads one side has to strike at an enemy's land-based missiles (or the more ICBM warheads per enemy missile silo), the

better chance that side has of delivering a disarming first strike against the other side's strategic forces.

**Powerful Soviet Missiles.** The Soviet Union now has at least 3,080 warheads on its SS-18 ICBM force that could be aimed at the about 1,000 U.S. ICBMs. SS-18s are Moscow's most powerful missiles; their warheads could knock out U.S. missiles buried in concrete and steel hardened silos in a first strike. The U.S. and the USSR have agreed to limit to 1,540 the number of warheads deployed on such "heavy" land-based ICBMs as the SS-18. Under START, therefore, the Soviets would have at least 1,540 first-strike warheads on 154 SS-18s aimed at the 300 to 490 ICBM silos that the U.S. would have left after a 50 percent reduction in warheads.

The number of U.S. ICBM silos remaining after the START cut most likely would be on the lower end of this range — around 300 to 360 ICBMs. The U.S. would likely want to retain as many sea-based missiles as possible and therefore would keep fewer ICBMs. This is because sea-based missiles are more difficult to find and thus to destroy than land-based missiles.

**Making U.S. Missiles More Vulnerable.** While the Soviets might reduce significantly the number of their warheads on SS-18s, the U.S. might decrease even more drastically, in proportionate terms, the number of ICBM silos that serve as targets for these warheads. Whereas the ratio of SS-18 warheads to U.S. ICBM silos now is around 3:1, under the current START total it could jump to around 4.2:1.<sup>2</sup> This would mean that U.S. land-based missiles actually could be more vulnerable to attacks from Soviet first-strike missile warheads after START reductions than they are now.

The picture is even worse when comparing the number of warheads on all Soviet ICBMs (not just SS-18s) to U.S. ICBMs. While the U.S. and Soviets have agreed to a 4,900 limit on all ballistic missile warheads, the U.S. has proposed a sublimit of up to 3,300 ICBM warheads.<sup>3</sup> So far Moscow has not accepted this proposal. But if it did, it could make matters worse for the U.S. If the Soviets chose to retain 3,300 ICBM warheads as permitted by the U.S. proposal, they would have an even greater first-strike capability against U.S. ICBMs than they now have or would have had under the original START proposal. For example, for every one of the 300 to 360 U.S. ICBM silos remaining after START cuts are made, the Soviets would have nine ICBM warheads. This 9:1 ratio of total Soviet ICBM warheads to U.S. ICBMs would be much worse than the current ratio of 6.4:1.<sup>4</sup>

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2 Henry Kissinger, "START: A Dangerous Rush for Agreement," *The Washington Post*, April 24, 1988.

3 *The Arms Control Reporter* (Brookline, Massachusetts: May 1988), p. 611.A.9.

4 The ratio could, however, be improved if the U.S. deployed larger numbers of single-warhead ICBMs, such as the *Midgetman* missile.

If the U.S. proposal were accepted, the Soviets could make ICBMs 55 percent of their strategic force structure, which would be only 4 percent below the present share.<sup>5</sup> Such a small change in the portion of Soviet ICBMs relative to other systems (such as sea-based missiles or bombers) would do little to reduce the Soviet ICBM threat to U.S. strategic forces. If the aim of the U.S. is to force the Soviets to restructure their forces to reduce their heavy dependence on ICBMs, the U.S. START proposal will do nothing to achieve this.

***Will START weaken the U.S. sea-based deterrent?***

Submarines carrying ballistic missiles are more survivable than land-based missiles. The Soviets cannot be certain with current technology exactly where ballistic missile submarines are at any specific moment:

Because they are highly survivable, sea-launched ballistic missiles (SLBMs) are currently what experts call stabilizing weapons. This means that they contribute to superpower nuclear weapon stability because they are survivable enough to respond to an attack but not accurate or powerful enough to launch a surprise first strike on their own. Because submarines obviously operate below the ocean's surface, they are difficult for U.S. military leaders to command, control, and communicate with in a timely fashion. As the strategic force that requires the most time and trouble to prepare for launch, they are a much less likely candidate than land-based missiles for use as the principal force in a quickly prepared, highly coordinated, large-scale nuclear first strike intended to destroy enemy land-based missiles in their silos.<sup>6</sup>

**Keeping Modern Missiles.** The current U.S. START position would cut significantly the relatively invulnerable U.S. nuclear ballistic missile force at sea. The U.S. currently has 5,422 sea-based ballistic missile nuclear warheads on 624 SLBMs on 35 submarines (SSBNs). Under START provisions, each side would be required to reduce its total number of land- and sea-based missile warheads to a sublimit of 4,900.

In deciding how to apportion these warheads under the overall missile warhead limit, the U.S. would want to retain as many warheads as possible on the most modern and technologically advanced missiles. Thus, the U.S. would want to retire such older systems as the *Minuteman II* and *Minuteman III*

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5 Douglas Clark, "Restructuring of Another Kind: Strategic Forces," *RAD Background Reports/228*, 1 December 1987, p. 4.

6 Highly accurate sea-based missiles could be used effectively as a secondary or supportive weapon in a coordinated first strike, especially against bomber bases and naval ports near the shore. The Scowcroft Commission envisions the expected Soviet development of highly accurate SLBMs, when tied to that of the land-based ICBM force, as a significant threat to the future survivability of the U.S. land-based ICBM force. The Soviets would have less to fear than the U.S. with its accurate *Trident II* SLBM because of the relative weakness of the U.S. land-based ICBM force.

ICBMs, B-52 bombers, and *Poseidon* missile submarines, while retaining more advanced systems such as the B-1B and B-2 bombers, the MX and *Trident* missiles, and the *Midgetman* missile, if it is built.

**Exceeding the Limit.** If the older systems were cut and only the most modern ones retained, by the late 1990s the U.S. would have a total of 1,500 warheads on 600 MX and *Midgetman* ICBMs, 3,840 warheads on 20 *Trident* missile submarines, and 1,093 START-countable warheads on B-1B and B-2 "stealth" bombers.<sup>7</sup> START-countable means bombers and air-launched cruise missiles counted as warheads according to a complicated counting rule adopted by the START negotiators. The total number of warheads on missiles and bombers, therefore, would be 6,433.

But this total of 6,433 warheads exceeds the START limit of 6,000 warheads.<sup>8</sup> This means that, in order to comply with the START treaty, the U.S. would have to cut 433 warheads from its arsenal. To cut these warheads from the ICBM force would weaken the land-based leg of the strategic triad.

If the U.S. cut those 433 warheads, for example, by not, as the U.S. Air force recommends, building the *Midgetman* missile, the ICBM force would comprise only 100 MX missiles. This would be one-tenth the size of the current ICBM force of around 1,000 missiles. Such a tiny ICBM force facing thousands of Soviet warheads would be a sitting duck for a disarming first strike. This would be true even if the MX missiles were shuttled around on mobile railroad cars to confuse the Soviets as to their whereabouts and thereby improve their survivability against attack. With only 100 missiles to target, the Soviets could saturate MX missile operating areas, blanketing railroad lines on which the MX railroad cars run.

**Hard Choices for Submarines.** The most likely place, therefore, for the U.S. to cut the lion's share of those 433 warheads is the sea-based missile force of *Trident* missile submarines. To get below the START limits on total warheads, the U.S. would have to forgo deploying at least two *Trident* missile submarines (384 warheads) plus five MX missiles (with 50 warheads) for a total of 434 warheads. Cancelling two *Trident* missile submarines would give the U.S. a total force of 18 submarines. Of these, only 10 or 11 would be at sea at any given time. This is about half of the 20 boats that for years the U.S. has had on regular patrol.<sup>9</sup>

An alternative for preserving the survivability of the sea-based deterrent force under a START agreement would be to place fewer SLBMs on each *Trident* submarine in order to retain as many submarines as possible. But this would be enormously wasteful. *Trident* submarines were designed to carry large numbers of missiles. Reducing the number of missiles per submarine

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7 James L. George, "The Two-Track" Dilemma in the START Negotiations," *Strategic Review*, Winter 1988.

8 *Ibid.*, p. 40.

9 Patrick Glynn, "Reagan's Rush to Disarm," *Commentary*, March 1988, p. 22.



would not be cost-effective, nor would it substantially improve the survivability of the overall *Trident* submarine force.

In lieu of this unattractive option, the U.S. would most likely cut the size of the ballistic missile submarine force without changing the numbers of missiles per submarine. Such reductions, however, would weaken the U.S. sea-based deterrent. This is because the Soviet Union's huge existing force of attack submarines, not to be restricted under current START proposals, would have fewer U.S. submarines to stalk. Indeed, the Soviet Union is deploying new, "quieter" attack submarines that can sneak up on U.S. submarines without being easily detected. Thus, under the draft START treaty, the sea-launched ballistic missile force could be crippled if the Soviets made a technological breakthrough in surveillance technology that improved their capability to track U.S. submarines.

***Will START allow the Soviets to retain more strategic flexibility than the U.S.?***

The Soviet Union deploys more different types of missiles than does the U.S. Moscow, for example, currently has seven types of ICBMs; the U.S. has only three.<sup>10</sup> While the Soviets have ten different types of ballistic missile submarines, the U.S. has four.<sup>11</sup>

This variety of missiles and submarines would be an important asset to Moscow if deep cuts are made under a START agreement: Moscow would have far greater flexibility than the U.S. in deciding how to apportion the strategic warheads remaining after the reductions were completed.<sup>12</sup>

Moscow, for example, could decide to spread out relatively small portions of their allotted number of strategic warheads among a relatively large number of submarines armed with missiles that have few warheads or few launcher tubes per submarine. The more submarines the Soviets possess, the more targets U.S. naval forces would have to deal with in time of war. The net result could be a more survivable Soviet ballistic missile submarine force than now exists.

***Will START be verifiable?***

An arms control agreement is only as good as its verification procedures. It makes little sense for the U.S. to sign an arms control agreement covering weapons of such critical importance to American security as strategic forces unless Washington can be very sure that it can detect Soviet violations.

Verifying compliance with START will be much more difficult than for the U.S.-Soviet Intermediate-range Nuclear Forces (INF) Treaty signed in

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10 W. Bruce Weinrod, ed., *Arms Control Handbook* (Washington, D.C.: The Heritage Foundation, 1987), p. 17.

11 *Ibid.*, p. 30.

12 George, *op. cit.*, p. 43.

Washington in December 1987. The INF Treaty bans an entire class of nuclear weaponry — intermediate and short-range nuclear missiles with a range of between 300 and 3,400 miles (500 to 5,000 kilometers). A START agreement would not abolish an entire class of weapons, but would merely reduce their number by roughly 50 percent. It is much easier, using spy satellites and on-site inspections as with the INF pact, to discern whether weapons exist at all than to monitor the exact number of weapons permitted by a possible START treaty.

**Most Difficult to Verify.** Verifying compliance with a START agreement becomes even more complicated when limits are imposed on sea- and air-launched cruise missiles. Cruise missiles are very small, hence more easily concealable than ballistic missiles. Sea-launched cruise missiles (SLCMs) are the most difficult of all to verify, as they are on ships and submarines dispersed throughout the world's oceans. Verifying their numerical limit, therefore, is considerably more difficult than monitoring much larger land-based missiles in fixed silos within the borders of the U.S. and USSR.

Moreover, given the U.S. Navy's desire to retain conventionally armed, sea-launched cruise missiles for fleet defense purposes, some verification procedure would be needed to distinguish between conventionally and nuclear-armed missiles. With current technology, only short-notice, anytime-anywhere, mandatory inspections of all suspected naval vessels would be good enough to verify restrictions on nuclear-armed SLCMs. Such inspections would require that the U.S. allow Soviet officials on board its ships anytime they chose. This would not only compromise the Navy's security of operations, but interfere with its freedom of action.

**Concealment Easier for USSR.** A similar problem arises when trying to monitor such land-based mobile missiles as the Soviet single-warhead SS-25. Mobile missiles are more concealable than missiles in fixed silos. Concealment would be easier for the Soviet Union than for the U.S. because it has a vaster expanse of territory in which to hide them, and because the Soviet Union is a closed society with a fetish for secrecy. The tentative U.S.-Soviet agreement to confine road-mobile ICBMs to designated deployment areas would make the task of verification easier than if mobile ICBMs were free to roam the countryside. But it is not clear that such a verification scheme would enable the U.S. to detect a covert mobile ICBM force not deployed in the designated areas — one which could be brought out of hiding in a crisis and deployed with little warning.

Ronald Reagan's October proposal to limit inspections to a select number of pre-designated "suspect sites" means that the U.S. has decided to compromise verification for the sake of maintaining the security of sensitive military installations in the U.S. Under the verification regime proposed by the U.S., there is no way that the U.S. can be certain that the USSR is complying with the terms of a START agreement.

## REASSESSING START

These questions will require careful consideration by the Bush Administration. Specifically, there are four measures it should begin promptly.

**1) Review the U.S. START proposal.** President Bush should direct his National Security Advisor to conduct a thorough review and reassessment of the current U.S. START proposal. With the assistance of the Defense Department and the Central Intelligence Agency, they should analyze the impact of specific aspects of the U.S. START position on:

- ◆◆ The survivability of U.S. land-based missile forces against Soviet nuclear attacks.
- ◆◆ The effectiveness and survivability of the U.S. ballistic missile submarine forces.
- ◆◆ The U.S. ability to verify Soviet compliance with a START Treaty.
- ◆◆ The relationship of the resulting U.S. and Soviet strategic postures with conventional force balances and conventional arms control initiatives.

**2) Prepare deployment plans for strategic defenses.** The U.S. needs to move quickly toward a new strategic posture combining offensive and defensive strategic forces. This would provide the most effective, flexible, and survivable deterrent against a growing Soviet threat that already consists of both offensive nuclear forces and strategic defenses. The U.S. START position and the resulting force structure should be reviewed and assessed with this requirement for a mixed force posture in mind.

Strategic defenses are particularly important in regard to verification. No matter how tough verification procedures are for a START treaty, there will always be some uncertainty about whether the Soviets can cheat without getting caught. One way to offset the potential advantages the Soviets could incur by cheating would be for the U.S. to deploy strategic defenses.

The Soviets are far less likely to cheat on a START agreement if they know that the gains obtained by violating such a treaty — by hiding a relatively small number of missiles that cannot be detected by the U.S., for example — can be at least partly nullified by a U.S. strategic defense system capable of destroying those missiles.

**3) Modernize and deploy the right kinds of strategic forces.** The U.S. must be absolutely certain that those missiles and bombers that remain in the American arsenal after the cuts can survive Soviet attacks and retaliate with devastating force against the Soviet Union.

**New ICBMs Needed.** Maintaining deterrence at lower levels of strategic forces will require that the U.S. develop and deploy a new generation of land-based ICBMs with relatively few warheads. The reason: Fielding large multi-warhead ICBMs under START, such as the huge MX missile with 10 warheads per missile, puts too many retaliatory eggs in a single basket. If the U.S. deploys the planned 100 MX missiles under a START treaty, this would absorb practically all of the slots allowed for ICBM warheads. That would mean a total ICBM force of around 100 missiles armed with 1,000 warheads. A mere 100 MX ICBMs could be an inviting target for a Soviet first strike; today the U.S. has 1,003 ICBMs. With all U.S. warheads on 100 MXs, the U.S. ICBM force would be more vulnerable to Soviet attack after START than before.

Maintaining deterrence after START reductions could require, moreover; that the U.S. develop and deploy a new generation of smaller ballistic missile submarines carrying fewer missiles than the current *Trident* ballistic missile submarine, which carries 24 missiles and 192 warheads. The reason: Smaller submarines with fewer missiles per boat (around 12 missiles and 96 warheads) would allow the U.S. to spread its quota of missile warheads over a larger number of boats. The more U.S. submarines there are, the less likely the Soviets would be to find and destroy a significant percentage of them in a war. With smaller submarines carrying fewer multi-warhead missiles, the U.S. could deploy greater numbers of submarines within the overall limits on warheads, thereby improving their capability to survive Soviet attack.

In the meantime, the U.S. should continue with the current Reagan Administration plans to modernize strategic forces. The U.S. thus should proceed not only with the planned deployment of 50 MX missiles on railroad cars stored in garrisons during peacetime, but also with the development of... the single warhead *Midgetman* ICBM, *Trident II* (D-5) sea-launched ballistic missile, the radar-evading stealth B-2 bomber, and the long-range and stealth Advanced Cruise Missile. It makes no sense to modify U.S. force planning until after a START agreement has been signed and ratified by the Senate. Otherwise the U.S. may be changing its strategic modernization plans and programs to conform to a treaty that may never exist. Above all, the U.S. position in the treaty talks should be based on U.S. force structure requirements, not vice versa.

4) **Review risks posed by U.S. verification proposal.** The 1987 INF Treaty eliminating medium-range missiles from Europe permits on-site inspections only at a few facilities and certain sites associated with weapons limited by the Treaty that have been pre-designated as subject to inspection.<sup>13</sup> The U.S. does not have a right to demand short-notice inspections of other, nondesignated sites that it may suspect of prohibited activity.

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<sup>13</sup> Frank J. Gaffney, Jr., "The INF Treaty and its Shadows Over the Negotiations," *Strategic Review*, Spring 1988, p. 37.

This basic approach of the INF Treaty has been carried over into the U.S. START proposal, which also would permit short-notice inspections only at a pre-designated number of sites. This is a verification compromise designed to protect the security of U.S. military installations. It may be the only way to balance the risks of revealing U.S. military secrets against those associated with Soviet cheating on a START treaty, but the extent of these risks should be fully understood. The aim of the Bush review of the U.S. START negotiating position should be to provide a comprehensive analysis of the risks posed to national security by verification procedures that are far from foolproof.

## CONCLUSION

The Reagan Administration seems to have been rushing into a START treaty. With George Bush coming into office and charting his own security policies, it is important for him to pause and reflect on where the U.S. is, and where it should be heading, with START. Many questions have been raised about the merits of the current U.S. negotiating position. Experts fear that a START agreement will make U.S. land-based forces more vulnerable to a disarming Soviet attack, weaken the U.S. sea-based deterrent, and in general create a new arms imbalance at lower force level that leaves the Soviets better off than the U.S. There are also questions about whether a START treaty could be effectively verified.

**Assessing the Impact.** To ensure that the current U.S. START proposal serves U.S. security interests, George Bush should direct his National Security Advisor to review and reassess all aspects of the U.S. START negotiating position and the force structure that will result from it. The impact of a START treaty on the goal of deploying a balanced posture of offensive and defensive forces should be examined. So should the impact of START on the security of such survivable strategic forces as sea-based ballistic missile submarines and mobile land-based missiles. The possibility of effective verification of the treaty should be analyzed as well.

The central question in the START review should be to determine whether the U.S. will be better off with START or without it. This means that the resulting force structure should provide an effective deterrent against Soviet aggression. Put simply, the primary aim of a START treaty should not be merely to reduce the size of U.S. and Soviet nuclear arsenals, but to strengthen the U.S. capability to deter war.

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