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TREATY BETWEEN THE UNITED STATES OF AMERICA  
AND THE RUSSIAN FEDERATION ON STRATEGIC OF-  
FENSIVE REDUCTIONS, SIGNED AT MOSCOW ON MAY  
24, 2002 (“THE MOSCOW TREATY”)

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FEBRUARY 20, 2003.—Ordered to be printed

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Mr. LUGAR, from the Committee on Foreign Relations,  
submitted the following

REPORT

[To accompany Treaty Doc. 107-8]

The Committee on Foreign Relations to which was referred the Treaty Between the United States of America and the Russian Federation on Strategic Offensive Reductions, signed at Moscow on May 24, 2002 (hereafter, “the Moscow Treaty” or “the Treaty”), having considered the same, reports favorably thereon subject to two conditions and six declarations set forth in this report and the accompanying resolution of ratification and recommends that the Senate give its advice and consent to ratification thereof.

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I. PURPOSE

Since the end of the Cold War the United States and Russia have had an opportunity for a new approach to arms control. The distrust and suspicion that resulted in years of acrimonious negotiation, lengthy agreements and accountability which rested on doubt, not trust, has given way to a new relationship with the Russian Federation that is based on more friendship and trust than in the

past. The Moscow Treaty represents a new approach to strategic arms control, based on the changed relationship between the United States and the Russian Federation. Secretary of Defense Donald H. Rumsfeld, in testimony to the Committee on July 17, 2002, held up the Treaty with the Union of Soviet Socialist Republics on the Reduction and Limitation of Strategic Offensive Arms (START) of 1991 and the Moscow Treaty. START, he said, "is 700 pages long, and took 9 years to negotiate. The Moscow Treaty, concluded this summer by President Bush and President Putin, is three pages long, and took 6 months to negotiate."<sup>1</sup>

At the height of the Cold War, arms control agreements such as SALT I, the ABM Treaty, and the Limited and Threshold Test-Ban Treaties were negotiated to manage the arms race in ways that would increase stability during times of potential crisis. These agreements were written with an eye toward the terrible prospect that U.S. and Russian nuclear arsenals would be used against each other. Agreements were limited by deep and mutual distrust that led to an emphasis on detailed drafting and extensive verification measures.

Today, our countries are no longer mortal enemies engaged in a global ideological and military struggle. The Russian Federation and the United States work to build a strong military and security partnership on issues ranging from the war on terrorism to keeping the peace in the Balkans. The Moscow Treaty reflects the changed nature of our relationship.

In the early post-Cold War years, arms control agreements were drafted to eliminate or reduce strategic nuclear weapons, to limit conventional forces in Europe and open them to international observation, and to lead other nations by example in the pursuit of peace. The range of agreements that could be reached was significantly broadened in these years, but the decades' long legacy of distrust resulted in continued concern for far-reaching provisions, definitions and increasingly intrusive methods of verification. The price of such agreements was the lengthy negotiations and dense texts to which Secretary Rumsfeld referred.

The Committee received testimony from the Administration suggesting that the Moscow Treaty is a product of the new U.S.-Russian relationship. The world has become more unpredictable, not the least because of the intersecting threats of international terrorism and the proliferation of weapons of mass destruction. Officials explained that such an unpredictable world requires flexibility in U.S. and Russian force structure and options that allow adaptability in the face of these new and shared threats. Our new foes do not need armies, air forces, or navies, nor do they intend to adhere to a rule-governed international system.

Given the threats it faces, and the greatly improved relationship with Moscow, the United States sought to move beyond agreements that tightly constrained U.S. and Russian strategic forces. Accordingly, the President stated his intention "to reduce to 1,700–2,200 operationally deployed strategic nuclear warheads before the Moscow Treaty was negotiated, regardless of what the Russians opted

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<sup>1</sup> Testimony of Secretary of Defense Donald H. Rumsfeld, July 17, 2002, "Treaty on Strategic Offensive Reductions: The Moscow Treaty," S. Hrg. 107-622, p. 86. Hereafter, Hearings.

to do.”<sup>2</sup> Secretary of State Colin L. Powell testified to the Committee on July 9, 2002, that President Bush had told Russian President Putin:

This is where we are going. We are going there unilaterally. Come with us or not. Stay where you are or not. This is what the United States needs and it does not need it because you are an enemy; it needs this because of the nature of the world we live in, and we see you as a partner.<sup>3</sup>

The Treaty resulted from this atmosphere of cooperation and is a legally binding text that reflects U.S. and Russian intent to reduce strategic nuclear warheads to the level of 1,700 to 2,200 by December 31, 2012. The Treaty is meant to be representative of the new U.S.-Russian relationship. The U.S. objective in concluding the Treaty was to provide maximum flexibility in achieving strategic offensive reductions consistent with what the 2001 Nuclear Posture Review, issued in 2002, had determined to be the lowest levels possible, consistent with U.S. national security requirements and given current uncertainties about future strategic trends.

The Treaty creates neither a new verification regime nor accounting rules. The Administration explained that verification under the Treaty does not reflect Cold War animosity. During the Cold War, such measures were seen as necessary for the purpose of providing confidence between two sides that sought further means to verify compliance with obligations under agreements. A decade after the Cold War, such measures do not necessarily provide more trust or further verification, but rather become ends unto themselves instead of a means by which obligations might be verified and, if maintained from the standpoint of the Cold War, could be seen as stressing process over results.

As the Moscow Treaty codifies the intent of each Party to make reductions in force levels that it had already decided upon, irrespective of the other Party’s force levels, it was determined that there was no need to codify the units of account or modes of reduction. Each Party may determine for itself what are its “strategic nuclear warheads” and how they are to be reduced. This absence of accounting or verification provisions does not, from the standpoint of a new relationship with the Russian Federation, represent an abandonment of U.S. leadership, but rather signifies productive change in U.S.-Russian relations. Additionally, verification under the START Treaty will continue at least through 2009.

The Committee believes that the absence of verification provisions in the Moscow Treaty makes confidence and transparency a high-priority issue. The Committee commends the statements made by Administration officials in its hearings that negotiators were mindful of this fact, and that there will be efforts aimed at increasing verification measures if the Parties decide not to extend the START verification regime beyond 2009, when that treaty is scheduled to expire. The United States should not only practice transparency, but also promote it, in close coordination with the Russian Federation. This principle is in keeping with the new relationship

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<sup>2</sup>Written answer of Secretary of State Colin L. Powell to the Committee’s question for the record, July 9, 2002, Hearings, p. 52.

<sup>3</sup>Hearings, p. 10.

that Presidents Bush and Putin are forging. Greater transparency regarding Moscow Treaty implementation may lead, moreover, to similar advances in other areas of great concern to the United States, such as compliance with nonproliferation regimes. The Committee urges the President to use implementation of the Moscow Treaty as a means to foster greater U.S.-Russian interaction and mutual confidence in the national security field.

The Treaty does not provide for the destruction of withdrawn warheads or delivery systems. In the briefings and hearings provided to the Senate, the Administration pointed out that while the Moscow Treaty does not mandate the destruction of withdrawn warheads, neither did previous arms control agreements with the Russian Federation or the Soviet Union. As Secretary Rumsfeld stated in testimony on the Treaty before the Committee on July 17, 2002, “no previous arms control agreement, not SALT, not START, not the INF [Treaty], has required the destruction of warheads, and no one offered objections to those treaties on the basis that they did not require . . . the destruction of warheads.”<sup>4</sup>

The Treaty does not place restrictions on either Party’s force structure before December 31, 2012. The Committee was assured that the United States will continue to implement strategic force reductions along the path outlined in the Defense Department’s 2001 Nuclear Posture Review. Specifically, that the United States will:

retire 50 Peacekeeper ICBMs, remove four Trident submarines from strategic service, and no longer maintain the ability to return the B-1 to nuclear service. This will reduce the number of operationally deployed strategic nuclear warheads by about 1,100 warheads by the end of Fiscal Year 2007 in a manner that as a practical matter would be very difficult to reverse.

. . . Some warheads that are to be removed will be used as spares, some will be stored, and others will be destroyed or dismantled.<sup>5</sup>

Thus, although the Treaty does not require the destruction or dismantlement of any strategic delivery vehicles or warheads, some of the U.S. forces to be reduced by 2007 are, in fact, slated for destruction or dismantlement. The Russian Federation, for its part, may revamp its force planning in light of the flexibility afforded by this Treaty. Equally important, Moscow has expressed its intention to continue to reduce various weapons platforms and warhead levels, and to continue dismantling weapons systems with U.S. assistance under the Nunn-Lugar Cooperative Threat Reduction program.

Unlike the START II treaty, which would have required that the Russian Federation no longer deploy land-based ICBMs with multiple independently-targetable reentry vehicles (MIRVs), the Moscow Treaty would permit Russia to retain such systems. START II was received by the Senate on January 15, 1993, and approved by the Senate on January 26, 1996. But START II never entered into

<sup>4</sup>Hearings, p. 79.

<sup>5</sup>Hearings, p. 51.

force because the Russian Duma, in its April 14, 2000 Federal Law on Ratification, linked the agreement's entry into force with retention of the ABM Treaty by the United States and the modifications of that treaty signed in 1997. The ABM Treaty modifications were never submitted to the Senate for its advice and consent, and thus instruments of ratification were never exchanged.

The Administration noted the concern that allowing the Russian Federation to maintain multiple-warhead ICBMs had the potential to undermine "crisis stability" and increase the risk of war due to miscalculation, but stated that this view is based on Cold War deterrence calculations that are no longer relevant. Secretary of State Powell stated in response to a Committee question for the record from its July 9, 2002 hearing:

Our new strategic relationship with Russia is no longer based on a nuclear balance of terror. Because of this new relationship, we cannot conceive of any credible scenario in which we would threaten to launch our strategic forces at Russia. The scenario . . . of Russia believing it faced a "use it or lose it" situation with its force of MIRVed ICBMs is therefore not a credible concern.<sup>6</sup>

The Administration points to the profoundly close and friendly relationship between Presidents Bush and Putin and their continued statements that the United States and the Russian Federation are no longer enemies as a further proof that Russia's weapons do not necessarily threaten the United States. Furthermore, Russian actions in the past year on issues ranging from the war against terrorism in Afghanistan to NATO enlargement and last summer's joint operation to repatriate Russian-supplied weapons-usable uranium in a Yugoslavian research reactor are viewed by Administration officials as demonstrations of this new relationship.

Despite the reassurance provided by Administration witnesses, former Senator Sam Nunn and other outside witnesses urged continued attention beyond the Treaty to improving crisis stability, notably by giving U.S. and Russian leaders more decision time in a crisis. In testimony before the Committee, General Eugene E. Habiger, USAF (Ret.), the former Commander in Chief of U.S. Strategic Command, made a suggestion in this regard:

In the past, we have relied on the military establishment and arms control community for ways to reduce the alert status, and they have not provided viable options. I would strongly recommend that the teams working on this matter be led in large measure by the people who build the weapons systems. They built them; they understand them, and they are the key to designing a system that moves weapons off alert status in ways that make sense, are transparent but non-intrusive, and do not compromise our security.<sup>7</sup>

Members of the Committee do not know whether any ideas for increasing decision time are, in fact, practicable, and share General Habiger's view that options for reducing alert status should be

<sup>6</sup>Hearings, p. 52.

<sup>7</sup>Hearings, p. 140.

evaluated by those with significant expertise on the specific weapons systems in question. If the President does not order the preparation of such analyses, Congress could require the analyses or establish a commission of weapons systems experts to undertake this task. Such commissions have been created before, some under the auspices of the National Academy of Sciences, and have proven useful in considering issues of such a technical nature.

The Administration has allowed that the Treaty will not be verifiable under the standards imposed during the Cold War. Instead, the START verification regime will be utilized and continue to operate through December 2009, when it expires unless extended by mutual agreement of the Parties. The Bilateral Implementation Commission created in Article III of the Treaty will provide a forum in which each Party can discuss its implementation plans and activities and raise any concerns about the other Party's forces. The Administration pointed out that the United States and the Russian Federation could always adopt additional verification or transparency measures. A U.S.-Russian working group did discuss a possible verification regime during negotiations on the Treaty, and a transparency committee has been created by the Consultative Group for Strategic Security established pursuant to the Joint Declaration of May 24, 2002, on the New Strategic Relationship. The Administration said additional verification could be added, but that "specific additional transparency measures are not needed, and will not be sought, at this time. We recognize, however, that more contacts and exchanges of information could be useful and that the Parties could decide to develop additional transparency measures in the future."<sup>8</sup> This does not foreclose the possibility that START could be extended or that, as issues arise in the context of the Moscow Treaty, measures could be implemented to solve any potential problems, and therefore, does not necessarily mean that the agreement is flawed. As Secretary Rumsfeld testified before the Committee on July 17, 2002:

[B]etween now and 2009 . . . there is plenty of time to sort through what we will do thereafter.

Second, we do have national technical means.

Third, we have agreed we will meet and work through improved transparency and predictability with the Russians.

Now, will we be able to do something better than the START Treaty? I hope so. Do we have a number of years that we can work on that? Yes. . . . So I think that is not something that ought to in any way stand in the way of approving this treaty[.]<sup>9</sup>

The Treaty embodies each Party's sincere and legally binding commitment to substantial reductions in strategic nuclear weapons, with an eye toward flexibility and trust in the light of new threats and our new relationship with each other. Again, the Administration cites this circumstance as the driving force behind the withdrawal clause contained in Article IV of the Treaty. The with-

<sup>8</sup>Hearings, p. 58.

<sup>9</sup>Hearings, p. 79.

drawal clause requires only three months' notice and contains no requirements regarding the reasons for withdrawal. In briefings and hearings, the Administration stated that the flexible withdrawal provision in this agreement is not seen by the Parties as necessary for reasons related to the agreement or the U.S.-Russian relationship. Instead, the withdrawal clause was drafted in light of "the likelihood that a decision to withdraw would be prompted by causes unrelated either to the Treaty or to our bilateral relationship."<sup>10</sup>

Even if the Treaty is implemented faithfully, there is some risk that the Russian Federation's implementation of it could result in the relatively insecure storage of large numbers of currently deployed strategic nuclear warheads. Given the rightful concern that Russian nuclear weapons-usable materials be securely stored (and, as appropriate, be made less useable in nuclear weapons) so as to limit the risk of their theft or diversion, both members and outside experts highlighted the need for increased Nunn-Lugar Cooperative Threat Reduction and non-proliferation assistance to the Russian Federation. Administration officials did not view insecure storage of nuclear materials as a likely consequence of the Treaty, but envisioned the possibility of increased U.S. assistance as a reasonable form of insurance.

It is the view of the Committee that the role of Nunn-Lugar Cooperative Threat Reduction and nonproliferation assistance, while not directly mentioned in the Treaty, is nevertheless essential for continued strategic offensive reductions in Russia, particularly with respect to Russia's heavy ICBM force, bombers and submarines. Today, when the intersection of terrorism and weapons of mass destruction and related technology presents one of the greatest challenges to international peace and stability, the role of Nunn-Lugar Cooperative Threat Reduction and other nonproliferation programs as the foundation for preventive measures against terrorists' use of weapons of mass destruction and of a positive relationship with Russia cannot be doubted.

The Committee, in recommending that the Senate advise and consent to ratification of the Moscow Treaty, accepts the Administration's view of improved U.S.-Russian relations as a working objective. Many members agree with the Administration that such a radically changed context is a reality, and the Committee commends the Administration for codifying this in treaty form and submitting it to the Senate for its advice and consent.

The Committee also believes, however, that the Senate and the Administration should take steps to promote closer U.S.-Russian relations, to smooth the way toward each Party meeting its Treaty obligations, and to reduce any risks to world peace and U.S. national security that may result from the manner in which the Russian Federation uses the exceptional force flexibility that this Treaty provides. The Committee therefore recommends that the Senate include in its resolution of ratification 2 conditions and 6 declarations. As is explained later in this report, these provisions are in-

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<sup>10</sup>Written answer of Secretary of State Colin L. Powell to the Committee's question for the record, July 9, 2002, Hearings, p. 67.

tended to ensure the success of this Treaty and to preserve the constitutional role of the United States Senate.

## II. SUMMARY OF THE TREATY

The Moscow Treaty, signed in Moscow on May 24, 2002, requires the United States and the Russian Federation to reduce their respective aggregate numbers of strategic nuclear warheads to a range of 1,700 to 2,200 by December 31, 2012. The Treaty shall remain in force until this same date, unless both Parties agree to an extension or a superseding agreement. No obligations are imposed by the Treaty on either Party prior to December 31, 2012, except that the Parties shall hold meetings at least twice a year of the Bilateral Implementation Commission. Accordingly, no interim reduction levels are specified, and either Party may increase its numbers of strategic nuclear warheads prior to December 31, 2012, so long as they each manifest a force level of deployed strategic nuclear warheads that does not exceed 2,200 on that date.

The United States shall consider the unit of account, for the purposes of its implementation of this Treaty, to be “operationally deployed strategic nuclear warheads,” which it defines as “reentry vehicles on intercontinental ballistic missiles (ICBMs) in their launchers, reentry vehicles on submarine-launched ballistic missiles (SLBMs) in their launchers onboard submarines, and nuclear armaments loaded on heavy bombers or stored in weapons storage areas of heavy bomber bases.” According to the Administration, the Russian Federation will establish its own definition of “strategic nuclear warhead” as it carries out its reductions under the Treaty.

Article II of the Treaty provides that the Parties agree that the START Treaty remains in force in accordance with its terms. According to the Administration’s article-by-article analysis submitted with the Treaty, this article “makes clear that the Moscow Treaty and the START Treaty are separate,” and the provisions of either treaty do not apply to the other.

The Moscow Treaty does not contain the traditional transparency or verification provisions associated with past arms control agreements. The Administration plans to rely upon existing verification provisions under the START Treaty, in addition to national technical means, to monitor Russian compliance with the Moscow Treaty, even though the two treaties use different counting rules in measuring strategic force reductions. Administration officials have stated that because the United States will carry out the reductions required under the Moscow Treaty without regard to Russian actions, additional transparency provisions are not required. Article III of the Treaty establishes a Bilateral Implementation Commission (BIC), which shall meet at least twice a year “for purposes of implementing this Treaty.”

Article IV establishes the expiration date of the Treaty: it provides that the Treaty remains in force until December 31, 2012. Article IV also allows the Treaty to be extended by mutual agreement or superseded by a subsequent agreement, and provides a national sovereignty clause on withdrawal that provides for three months’ notice in such an event. Article V requires that the Treaty be registered with the United Nations.



### III. BACKGROUND

President George W. Bush entered office in January 2001 with a promise to change the role of nuclear weapons in U.S. national security policy. He sought to move away from the framework of mutually assured destruction (MAD) which had defined relations between the United States and the Soviet Union (and then the Russian Federation) for over forty years. One element of the President's vision of a new strategic framework for U.S.-Russian relations involved withdrawal from the Anti-Ballistic Missile Treaty and expanded research and development on missile defense, but another element involved reductions to U.S. strategic nuclear forces.

On May 1, 2001, President Bush delivered a speech at the National Defense University, in which he declared:

Nuclear weapons still have a vital role to play in our security and that of our allies. We can, and will, change the size, the composition, the character of our nuclear forces in a way that reflects the reality that the Cold War is over. I am committed to achieving a credible deterrent with the lowest possible number of nuclear weapons consistent with our national security needs, including our obligations to our allies. My goal is to move quickly to reduce nuclear forces. The United States will lead by example to achieve our interests and the interests for peace in the world.<sup>11</sup>

In 2001, the Department of Defense completed the congressionally-mandated Nuclear Posture Review, a report calling for an evaluation of the size and structure of U.S. strategic nuclear forces in light of changes in the international strategic environment. Such a review had not been conducted since 1994. In November 2001, the President announced that the United States would seek to reduce its operationally deployed strategic nuclear warheads from a current level of approximately 6,000 to a range between 1,700 and 2,200 over the next ten years. President Bush informed Russian President Vladimir Putin and made a public announcement regarding this intention when the two leaders met at the White House on November 13, 2001.

For a number of years, President Putin, as well as his predecessor, President Boris Yeltsin, had recognized that the changed strategic environment and economic constraints would prevent the Russian Federation from indefinitely maintaining a START-sized strategic nuclear force. The START Treaty's limit of 6,000 deployed strategic nuclear delivery systems was no longer a realistic force level in the present circumstance. Nevertheless, both Putin and Yeltsin sought to maintain a semblance of strategic parity with the United States through the completion of further arms control agreements imposing required reductions upon both nations. Accordingly, one month after President Bush's announcement of planned U.S. cuts, President Putin declared on December 13, 2001, the Russian Federation's intention to reach a legal agreement with the United States for "irreversible, and verifiable reductions in

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<sup>11</sup> Remarks by the President to Students and Faculty at the National Defense University, May 1, 2001, (available at <http://www.whitehouse.gov/news/releases/2001/05/20010501-10.html>).

strategic offensive arms, which we believe should be at the level of 1,500 to 2,200 nuclear warheads for each side.”<sup>12</sup>

According to press reports, these negotiations quickly bogged down over four central issues. The definition of the unit of account was difficult to resolve since the United States preferred the term “operationally deployed strategic nuclear warhead,” while the Russian Federation sought to continue to use the counting rules employed in the START Treaty, where reductions applied to the dismantlement of delivery vehicles and launchers, which in turn were counted as containing a specified number of warheads. Secondly, the need for new transparency and verification measures also proved hard to reconcile for the purposes of an overall agreement. Thirdly, there were different approaches as to whether the final agreement would be in the form of an executive agreement, as the United States preferred, or a treaty, which the Russian Federation favored. Finally, the Russian government insisted on general language limiting future U.S. missile defense deployments. The Administration contends that such disputes represent the lingering doubts of the past, not an indication of incompleteness on the part of the resulting agreement. By resolving these disputes and agreeing to disagree where necessary, Presidents Bush and Putin were able to sign the Moscow Treaty on May 24, 2002.

On June 20, 2002, the two Presidents submitted this Treaty to the United States Senate and to the Russian Duma, respectively, for their advice and consent to each country’s ratification.

#### IV. VIEWS OF THE ARMED SERVICES COMMITTEE

The Committee on Armed Services examined the military implications of the Moscow Treaty. Senators Levin and Warner submitted the following letters to the Committee on Foreign Relations. Both letters appear in this report:

UNITED STATES SENATE,  
COMMITTEE ON ARMED SERVICES,  
*October 21, 2002.*

Honorable JOSEPH R. BIDEN, JR., *Chairman*  
Honorable JESSE HELMS, *Ranking Member*  
*Committee on Foreign Relations,*  
*United States Senate,*  
*Washington, DC.*

DEAR SENATOR BIDEN AND SENATOR HELMS:

Thank you for the opportunity to express my views concerning the national security implications of the Treaty on Strategic Offensive Reductions, also known as the Moscow Treaty, which was signed by President Bush and Russian President Putin on May 24, 2002 in Moscow.

I strongly support the Moscow Treaty and recommend that the Senate provide its advice and consent to ratification to the Treaty

<sup>12</sup> Statement Made by Russian President Vladimir Putin on December 13, 2001, Regarding the Decision of the Administration of the United States of America to Withdraw from the Anti-ballistic Missile Treaty of 1972, December 14, 2001. (available at <http://www.in.mid.ru/Bl.nsf/arh/5B16EB2FE9DCDAD943256B22002F6436?OpenDocument>).

with no changes and with no conditions on the resolution of ratification. The Moscow Treaty is a simple, straightforward document which provides for the largest reductions in strategic nuclear weapons—over two-thirds from current levels—in arms control history. This Treaty should proceed through Senate consideration unencumbered by reservations, understandings or declarations.

Throughout its history, the Senate Armed Services Committee has played a critical role in assessing the national security impact and military implications of arms control agreements negotiated by the Executive Branch. In July and August, the Armed Services Committee conducted two hearings on the national security implications of the Moscow Treaty. The Administration witnesses at these hearings have direct responsibility for critical national security issues related to the Moscow Treaty. These witnesses included Secretary of Defense Donald H. Rumsfeld; Chairman of the Joint Chiefs of Staff, General Richard B. Myers, USAF; Commander in Chief, U.S. Strategic Command, Admiral James O. Ellis, Jr., USN; and Deputy Administrator of the National Nuclear Security Administration of the Department of Energy, Dr. Everet H. Beckner. In addition, the Committee received testimony from two outside witnesses.

The witnesses at the Armed Services Committee hearings unanimously supported ratification of the Moscow Treaty. According to Joint Chiefs Chairman, General Myers, *"The members of the Joint Chiefs of Staff and I all support the Moscow Treaty. We believe it provides for the long-term security interests of our Nation. We also believe that it preserves our flexibility in an uncertain strategic environment. Moreover, the treaty allows us to implement the recommendations that came out of our Nuclear Posture Review."* Admiral Ellis testified that *"The Moscow Treaty is a positive step early in our strategic journey toward a new partnership with Russia . . . I fully support this Treaty."* Nongovernment witnesses also strongly supported the Treaty. Mr. Charles B. Curtis, formerly Deputy Secretary of Energy and now the President and Chief Operating Officer of the Nuclear Threat Initiative, testified that *"The Strategic Offensive Reductions Treaty, which is sometimes referred to as the Treaty of Moscow, is a truly remarkable document. I believe it deserves the Senate's endorsement. It should be ratified without amendment or, in my judgment, without reservation."*

In my view, the strength of the Moscow Treaty is in its simplicity. This Treaty is not like any that we have seen before. It is the first arms control treaty to embody the post-Cold War U.S.-Russian relationship. In negotiating this Treaty, both sides consciously rejected the Cold War mentality of distrust and hostility that previously had required lengthy negotiations, and extensive legal structures and detailed verification regimes to ensure that both sides would abide by their obligations. This simplicity puts the focus where it belongs—on the deep, equitable reductions to strategic nuclear warheads which are the centerpiece of the Moscow Treaty.

The Moscow Treaty is the right agreement at the right time. There are three unique features of this Treaty which are key to the strength of this document: 1) it achieves deep reductions in offensive strategic nuclear arsenals; 2) it provides the flexibility to meet

new security challenges; and 3) it both takes advantage of, and provides the opportunity to, expand our new closer relationship with Russia.

The most important feature of the Moscow Treaty is the deep reductions the Treaty will achieve in operationally deployed warheads. This breakthrough Treaty—negotiated in a period of just several months—will reduce U.S. and Russian nuclear arsenals from their present levels of about 6,000 strategic warheads to 1700 to 2200 operationally deployed strategic warheads over the next decade. These reductions—which amount to about two thirds of the warheads in the Russian and U.S. arsenals—are the most dramatic in the history of arms control agreements.

Such reductions are clearly in our national security interest. Russia is no longer an enemy. Our strategic arsenals, swollen by Cold War hostility with the Soviet Union, no longer need to be sustained at such high levels. According to Secretary of Defense Rumsfeld, in his testimony before the Armed Services Committee on July 25, 2002: *“The reductions characterized in this Treaty will help eliminate the debris of past hostility that has been blocking our way as we build a new relationship. The Treaty President Bush has fashioned and the process by which he fashioned it, I believe, are both models for future cooperation between our two countries. We’ve achieved deep reductions and enhanced the security of both our countries without perpetuating Cold War ways of thinking that hinder a desire for better relations.”*

The second great strength of this Treaty is the flexibility it accords our leaders to meet the uncertainties both in the international security environment and in the technological status of our nuclear stockpile. September 11 was a vivid reminder that we are vulnerable to attack—in ways we never imagined. It is critical to our national security that our leaders retain the maximum flexibility to respond to emerging threats and changes in the world scene.

Many observers have correctly noted that the Moscow Treaty does not contain features that were typical of past bilateral arms control agreements, most of which were signed by the United States and the Soviet Union. For example, the Moscow Treaty does not establish interim warhead reduction goals or a detailed schedule for achieving warhead reductions. It does not define warhead “counting rules,” require destruction of strategic nuclear delivery vehicles or launchers, or include limits or sublimits on strategic nuclear delivery vehicles or launchers.

The lack of detailed schedules, sub-limits, and counting rules, and the absence of any requirement to destroy warheads have been criticized by some. Yet the witnesses before our Committee consistently praised the flexibility inherent in this Treaty. Admiral Ellis addressed this issue before our Committee at some length. According to Admiral Ellis in testimony before the Armed Services Committee on August 1: *“This treaty allows me, as the Commander of the Nation’s Strategic Forces, the latitude to structure our strategic forces to better support the national security pillars of assuring our allies, dissuading those who might wish us ill, deterring potential adversaries and, if necessary, defending the nation. . . . [I]n my judgment, this treaty provides me the ability to prudently meet those*

*national security needs and to provide a range of deterrent options to the Secretary and the President for their consideration should the need arise.*

The Admiral continued: *“[The Treaty] gives me the flexibility to deal with the uncertainty that’s an inherent part . . . [of] the future. It gives me flexibility with regard to the specific details of that draw down, to the composition of our nation’s nuclear stockpile as we draw it down in size, to hedge against the possibility of technological surprise as our stockpile ages in the future, [and] to deal with the potential for change in the international security environment should it arise. It also gives me the flexibility to take the dual use platforms, these strategic platforms that have such important tactical applications, and transform them in support of the nation’s security needs in a broader way.”*

Dr. Beckner, the official in our government most directly responsible for assuring that the U.S. nuclear weapons stockpile remains safe, reliable, and effective, confirmed that the flexibility inherent in the Moscow Treaty is critical to our effort to maintain the stockpile. *“The Treaty,”* he said during the August 1 hearing, *“provides the United States with the flexibility to maintain an important hedge against unforeseen . . . technical issues in the smaller enduring nuclear weapons stockpile.”*

This flexibility is particularly important in light of the fact that the U.S. active nuclear stockpile is composed of only a limited number of warhead types—only two types of warheads for our land based intercontinental ballistic missiles, two types for our sea launched missiles, and two types of bombs for our bombers. These warheads have not been tested in over a decade. The average age of warheads in the U.S. stockpile is approaching 20 years—and some warheads are much older. While Administration officials, such as Dr. Beckner, are pursuing vigorous efforts to monitor the health of the stockpile and assure its effectiveness, on occasion these efforts reveal problems in the stockpile.

All of us on the Armed Services Committee understand that our experience with very old warheads is limited and, although no one can predict when, we can predict with certainty that problems will arise. The Administration witnesses who testified before the Armed Services Committee on the Moscow Treaty clearly believe that sustaining a substantial number of warheads in a responsive reserve, in a status that would allow the nation to address such problems as might arise, is in our national security interest.

The third great strength of this Treaty, in my view, is how it reflects the new relationship between the United States and Russia. This Treaty is fully consistent with the policy goals that President Bush outlined shortly after he took office. In a landmark speech at the National Defense University in May 2001, President Bush called for a new strategic relationship with Russia. *“Today’s Russia is not yesterday’s Soviet Union. This new cooperative relationship should look to the future, not to the past. It should be reassuring rather than threatening. It should be premised on openness, mutual confidence and real opportunities for cooperation . . . I want to complete the work of changing our relationship from one based on a nuclear balance of terror to one based on common responsibilities and common interests.”*

President Bush has engaged Russian President Putin on a regular and intensive basis to move the Russian-American relationship beyond Cold War hostility to a relationship built on openness, shared goals, and shared responsibility. The Moscow Treaty is one important measure of President Bush's extraordinary success in building this new relationship.

As unique as the Moscow Treaty is, the Treaty also reflects the success and the heritage of past arms control agreements. First, the Moscow Treaty is a legally binding document. I commend President Bush for deciding to put these strategic nuclear reductions in the form of a legally binding treaty. This assures that the agreement will survive the personal relationship between Presidents Bush and Putin, and that it has the weight of law. Second, in order to achieve the required reductions, nuclear warheads will be physically removed from missiles and bombers, rendering them unusable for any near-term military contingencies. Third, the Treaty provides the mechanisms and atmosphere to assure compliance with its provisions and resolution of future issues related to Treaty implementation. The terms of the Moscow Treaty—which recognize that the START I Treaty verification regime remains in force and which establish a Bilateral Implementation Commission—provide the basis for the predictability, transparency, and confidence needed to assure that both sides achieve the required reductions.

A number of my colleagues in the Senate have raised concerns about what the Moscow Treaty does not do. The Treaty does not address warhead dismantlement or tactical nuclear arsenals. No strategic arms control agreement has ever addressed these concerns. I would also note that all the witnesses before the Armed Services Committee agreed that the Moscow Treaty is but a first step. Secretary Rumsfeld confirmed in his testimony that tactical nuclear arsenals are a concern that the U.S. Government will continue to address with the Russian Federation. Further arms control steps, including verification issues and dismantlement, will be discussed on a continuing basis.

Based on the hearings conducted by the Armed Services Committees and subsequent analysis, I believe that the Moscow Treaty clearly advances the national security interests of the United States and deserves the Senate's unqualified support. I strongly recommend your Committee's approval of a resolution of ratification for the Moscow Treaty that is free of any conditions.

With kind regards, I am

Sincerely,

JOHN WARNER, *Ranking Member.*

UNITED STATES SENATE,  
COMMITTEE ON ARMED SERVICES,  
*October 7, 2002.*

The Honorable JOSEPH R. BIDEN, JR., *Chairman*  
The Honorable JESSE HELMS, *Ranking Member*  
*Foreign Relations Committee,*  
*United States Senate,*  
*Washington, DC.*

DEAR CHAIRMAN BIDEN AND RANKING MEMBER HELMS:

As requested, this letter is to provide you with my views on the Strategic Offensive Reductions Treaty (SORT) signed on May 24th, 2002, between the United States and the Russian Federation, and to offer my suggestions for issues the Foreign Relations Committee should consider in preparing a resolution of ratification for the Treaty.

After the President submitted the SORT Treaty to the Senate on June 20th, the Armed Services Committee held two hearings on the Treaty. The first hearing took place on July 25th and included Secretary of Defense Donald Rumsfeld and General Richard B. Myers, Chairman of the Joint Chiefs of Staff, as the witnesses. We held our second hearing on August 1 and had two panels of witnesses. The first panel consisted of Mr. Charles Curtis, former Deputy Secretary of Energy and currently President and Chief Operating Officer of the Nuclear Threat Initiative, and Dr. Ashton Carter, former Assistant Secretary of Defense and currently Professor of Science and International Affairs at the John F. Kennedy School of Government at Harvard University. The second panel consisted of Admiral James Ellis, Commander in Chief of the United States Strategic Command, and Dr. Everet Beckner, Deputy Administrator for Defense Programs of the National Nuclear Security Administration.

I believe the Strategic Offensive Reductions Treaty is a positive step forward in U.S.-Russian relations. I think it is particularly important to have a treaty that will be legally binding on all parties, rather than unilateral steps that are not binding on future administrations. In addition, a treaty will ensure that the Senate fulfills its constitutional role in matters of foreign relations by giving due consideration to any treaty, and providing its advice and consent before ratification.

I see this treaty as a starting point for further arms control and an important element in our new relationship with Russia. But there is much more work to be done to continue improving mutual security and trust with Russia, work that includes further reducing our reliance on nuclear weapons, reducing nuclear proliferation dangers, and improving confidence, transparency and cooperation with Russia.

Although a positive symbolic step forward, it is an unusual treaty. Its central obligation is that both nations will reduce their operationally deployed strategic nuclear warheads to a level between 1700 and 2200 some 10 years from now, for one day. Then the treaty expires. Contrary to numerous media reports, this treaty does not require reductions in either nuclear warhead stockpiles or de-

livery systems. It does not require elimination of a single warhead. Under this treaty, both sides need only remove warheads from land-based or submarine-based missiles and from bombers. Both sides are free to keep every warhead so removed and to store these warheads for possible redeployment.

Given the unusual features of this Treaty, I recommend a number of items be considered for inclusion in the resolution of ratification, as follows:

1. Unlike previous arms control treaties, the SORT Treaty withdrawal clause would allow each party, “in exercising its national sovereignty”, to withdraw from the Treaty upon three months’ written notice. There is no mention of supreme national interest. This makes it appear as though the President could withdraw from the Treaty for any reason short of a supreme national interest.

The U.S. should not enter into or withdraw from a treaty lightly; both should be done only with the utmost seriousness of purpose and with the involvement of the Senate, which must give its advice and consent to permit ratification. Consequently, I would urge the Committee to consider a condition to the resolution of ratification that would require the President to consult with and obtain approval from the Senate prior to a U.S. withdrawal from the Treaty.

2. The Treaty is a starting point for further nuclear arms reductions. The Senate should encourage the President to pursue additional reductions of nuclear weapons and delivery systems, both strategic and nonstrategic nuclear weapons and delivery vehicles, to the lowest possible levels consistent with our security, and to encourage the elimination of excess nuclear warheads, rather than their long-term storage. The Senate should also encourage the President to consider accelerating the reductions required in the Treaty so they are achieved in less than 10 years, if possible.

3. The Treaty includes no provisions for verification or transparency that would provide confidence that both parties are implementing their obligations. It is in our national and mutual security interests to increase and improve such transparency and ensure such confidence. The Senate should therefore encourage the President to pursue such steps, including an exchange of detailed information with the Russian Federation on their respective stockpiles of nuclear warheads and fissile material, and on their safety and security.

4. Although the Treaty makes reference in Article III to “a Bilateral Implementation Commission”, it does not provide any detail about such a Commission, other than to specify that it shall meet at least twice a year. The Senate should require the President to provide details on a regular basis on the Bilateral Implementation Commission and its deliberations.

5. The treaty does not establish any milestones or schedule for reductions, other than the requirement to reach the permitted limit on warheads by December 31, 2012. As a condition for the resolution of ratification, I believe the Senate should require an annual report from the President explaining in detail the steps taken and planned to implement the SORT Treaty. This report should include the planned schedule and milestones to achieve the treaty’s obligations; the strategic nuclear force levels (warheads and delivery systems) of both parties; and any measures to increase transparency



or provide confidence that each party will implement its obligations under the Treaty.

6. The Treaty does not require the elimination of any nuclear warheads, and permits their indefinite storage if removed from operationally deployed status. The storage of potentially thousands of nuclear warheads could lead to an increased risk of proliferation of nuclear weapons or materials, especially if the storage facilities are not sufficiently secure. As a condition to the resolution of ratification, I believe the Senate should require a report from the President on how our Cooperative Threat Reduction and other non-proliferation programs could best be used to reduce this risk of proliferation and to assist the Russian Federation in implementing the Treaty.

I hope you find these recommendations useful as you prepare to mark up the resolution of ratification for the SORT Treaty. I appreciate the opportunity to share my views with you.

Sincerely,

CARL LEVIN, *Chairman.*

#### V. COMMITTEE ACTION

The Committee held four open hearings on the Moscow Treaty, on July 9, July 17, July 23 and September 12, 2002. The witness at the hearing on July 9, 2002, was the Honorable Colin L. Powell, Secretary of State. The witnesses at the hearing on July 17, 2002, were the Honorable Donald H. Rumsfeld, Secretary of Defense, and General Richard B. Myers, USAF, Chairman of the Joint Chiefs of Staff.

The witnesses at the hearing on July 23, 2002, were: the Honorable Sam Nunn, former chairman of the Senate Armed Services Committee, now co-chairman of the Nuclear Threat Initiative; the Honorable Kenneth L. Adelman, former Director of the U.S. Arms Control and Disarmament Agency; General Eugene E. Habiger, USAF (Ret.), former Commander in Chief of U.S. Strategic Command; Fr. Drew Christiansen, S.J., counselor on international affairs to the U.S. Conference of Catholic Bishops; Mr. Christopher E. Paine, co-director of the Nuclear Warhead Elimination and Non-proliferation Project of the Natural Resources Defense Council; and Mr. Frank J. Gaffney, Jr., president of the Center for Security Policy.

The witnesses at the hearing on September 12, 2002, were: the Honorable William J. Perry, former Secretary of Defense, now at Stanford University; the Honorable Fred Charles Iklé, former Under Secretary of Defense and Director of the U.S. Arms Control and Disarmament Agency, now at the Center for Strategic and International Studies; the Honorable Rose Gottemoeller, former Deputy Under Secretary of Energy for Defense Nuclear Non-proliferation, now a Senior Associate at the Carnegie Endowment for International Peace; Ambassador James E. Goodby, a former arms control negotiator, now at the Brookings Institution; Dr. John P. Holdren of Harvard University, chair of the Committee on International Security and Arms Control of the National Academy of Sciences; and Mr. Henry D. Sokolski, executive director of the Non-proliferation Policy Education Center.

At a business meeting on February 5, 2003, the Committee considered a draft resolution of ratification including 2 conditions and 6 declarations. After discussion and debate, this resolution was approved by a vote of 19 in favor to 0 against.

The conditions and declarations and the Committee rationale in approving them are as follows:

*Condition (1). Report on the Role of Cooperative Threat Reduction and Nonproliferation Assistance*

The Committee included in its recommended resolution of ratification a Condition (1) requiring a report on the role of Cooperative Threat Reduction and nonproliferation assistance. This condition requires the President to submit to the Foreign Relations and the Armed Services Committees an annual report on the amount of Nunn-Lugar Cooperative Threat Reduction (CTR) assistance that the Russian Federation will need to meet its obligations under the Treaty.

In Secretary Powell's testimony before the Committee on July 9, 2002, and in his answers to the Committee's questions for the record, the need for Nunn-Lugar Cooperative Threat Reduction and nonproliferation programs was continually highlighted as the primary means with which to prevent weapons, weapons-usable materials and expertise in the Russian Federation from falling into the hands of terrorists. As the Administration stated in response to a question for the record, the CTR program will be used "to make [Russia's] warhead storage facilities more secure. Such U.S. assistance will also increase the security of the Russian warheads made excess as provided in the Moscow Treaty."<sup>13</sup>

Committee members and many witnesses stressed that Nunn-Lugar Cooperative Threat Reduction and non-proliferation assistance to the Russian Federation could play a crucial role in helping Russia to implement the reductions required by Article I of the Moscow Treaty. Senator Lugar made the point that U.S. assistance might well affect Russian decisions regarding the disposition of warheads or of strategic delivery vehicles. Executive branch witnesses stated the Administration's policy that "Cooperative Threat Reduction efforts are in the national security interests of the United States" and "it is in our own security interests to help ensure that remaining warheads are stored as safely and securely as possible to protect them from terrorists or third-country theft."<sup>14</sup> The Secretary of State added, "Even if Russia decides to store additional warheads under the Moscow Treaty, however, we are confident U.S. assistance will continue to increase the security of such weapons."<sup>15</sup>

The Committee intends that the reports required by this condition will cover both CTR activities per se and those non-CTR program activities that could contribute to Russian Federation implementation of the Treaty. For example, it could be the case that some activities in the nuclear Materials, Protection, Control and Accounting (MPC&A) program of the Department of Energy would

<sup>13</sup>Hearings, p. 54.

<sup>14</sup>Hearings, pp. 54-55.

<sup>15</sup>Hearings, p. 54.

be relevant to that purpose. If so, they should be taken into account and discussed in the report required by this condition.

*Condition (2). Annual Implementation Report*

One of the major themes of discussion in the Committee's hearings on the Moscow Treaty was the great flexibility allowed to the Parties in implementing the reductions required by Article I of the Treaty. Executive branch witnesses explained that, in fact, the Administration has not yet decided how to effect all of the reductions required by the Treaty. Neither has it determined what transparency measures might be needed to assure each Party that the other Party will meet the force reduction requirement by December 31, 2012. On the Russian side, it is unclear how the Russian Federation will define its reduction obligations or how it will fulfill them.

A sensible way to preserve the Senate's role in treaty implementation is to require regular reporting to the Foreign Relations and Armed Services Committees regarding force levels, reduction plans, verification and transparency. This condition requires such reporting on an annual basis. It is similar in this regard to the annual reporting requirement established by the Chemical Weapons Convention resolution of ratification, which has made a valuable contribution to the Senate's ability to monitor progress in CWC implementation.

The report required by this condition must be submitted within 60 days of the exchange of instruments of ratification of the Treaty and thereafter by April 15 of each year. It will also discuss any information, insufficiency of information, or other situation that may call into question the intent or the ability of either Party to live up to its obligations, as well as any actions that have been taken or are being considered to address such concerns or to improve the implementation and effectiveness of the Treaty. Annual reporting of such information should ensure that the Senate fulfills its role and lessen the likelihood of miscommunication.

Requirements for reports after the exchange of instruments of ratification are common and have assisted the Senate greatly in its oversight of treaty implementation. Such requirements were enacted in the resolutions of ratification for the START Treaty, START II, the CFE Treaty and the Open Skies Treaty.

*Declaration (1). Treaty Interpretation*

The Foreign Relations Committee has taken pains to maintain the constitutional role of the United States Senate in the treaty-making process. To that end, the resolution of ratification of the Intermediate Nuclear Forces (INF) Treaty, approved by the Senate on May 27, 1988, included an important condition (1) that has been cited by reference in every subsequent resolution of ratification of an arms control treaty:

- (A) the United States shall interpret a treaty in accordance with the common understanding of the Treaty shared by the President and the Senate at the time the Senate gave its advice and consent to ratification;
- (B) Such common understanding is based on:

- (i) first, the text of the Treaty and the provisions of this resolution of ratification; and
- (ii) second, the authoritative representations which were provided by the President and his representatives to the Senate and its Committees, in seeking Senate consent to ratification, insofar as such representations were directed to the meaning and legal effect of the text of the Treaty;
- (C) the United States shall not agree to or adopt an interpretation different from that common understanding except pursuant to Senate advice and consent to a subsequent treaty or protocol, or the enactment of a statute; and
- (D) if, subsequent to ratification of the Treaty, a question arises as to the interpretation of a provision of the Treaty on which no common understanding was reached in accordance with paragraph (B), that provision shall be interpreted in accordance with applicable United States law.

In 1997, a similarly important condition was added to the resolution of ratification of the Flank Document Agreement to the Conventional Forces in Europe (CFE) Treaty, which condition has also been cited by reference in subsequent resolutions of ratification for arms control treaties:

Nothing in condition (1) of the resolution of ratification of the INF Treaty, approved by the Senate on May 27, 1988, shall be construed as authorizing the President to obtain legislative approval for modifications or amendments to treaties through majority approval of both Houses.

Each of these conditions applies to all treaties. For this reason, the Senate has not needed to restate them as conditions in subsequent resolutions of ratification. Rather, it has cited them by reference in declarations of its intent, as Declaration (1) does, so as to remind subsequent administrations of the continuing obligations imposed by the Senate's treaty-making role under the United States Constitution.

*Declaration (2). Further Strategic Arms Reductions*

Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons, signed on July 1, 1968, requires all Parties "to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament and on a treaty on general and complete disarmament under strict and effective international control." Given the significant reductions in U.S. and Russian deployed strategic force levels in the Moscow Treaty, a reduction of nearly two-thirds below the level permitted by the START Treaty, the Secretary of State testified that "the Moscow Treaty represent[s] significant progress in meeting the obligations set forth in Article VI of the NPT."<sup>16</sup> Cognizant of that obligation, Presidents Bush and Putin, in their Joint Declaration of May 24, 2002, affirmed their intent "to carry out strategic offensive reductions to the lowest possible levels consistent with their national security requirements and alliance obli-

<sup>16</sup> Prepared Statement of Secretary of State Colin L. Powell, Hearings, p. 18.

gations, and reflecting the new nature of their strategic relations,” and called the Moscow Treaty “a major step in this direction.”<sup>17</sup> The presidents consciously left the door open to further reductions in the future. Declaration (2) encourages the President to continue strategic offensive reductions to the lowest possible levels consistent with national security requirements and alliance obligations of the United States. This is similar to declarations in the resolutions of ratification for the START and START II treaties.

*Declaration (3). Bilateral Implementation Issues*

Because of the new nature of the Moscow Treaty, the need for confidence and transparency and the absence of traditional verification or transparency provisions in the Treaty, the Bilateral Implementation Commission established by Article III of the Treaty may play a major role in building confidence in each Party’s ability to meet its obligations and in maintaining confidence that the reductions required by Article I will be completed on time. When the Senate considered the START II Treaty, it stated its expectation that the executive branch would offer to brief the Foreign Relations and Armed Services Committees before and after each meeting of the Joint Consultative and Inspection Commission (JCIC), which is the analogous body under the START regime. Those briefings have proved very useful to the Committees. This declaration therefore states a similar expectation of consultations and briefings regarding meetings of the Bilateral Implementation Commission under this Treaty, as well as any Moscow Treaty issues that are raised in the Consultative Group for Strategic Security or in other channels.

*Declaration (4). Non-strategic Nuclear Weapons*

The United States has sought for over a decade to limit and secure non-strategic nuclear weapons (NSNW). These weapons—sometimes known as “tactical” or “theater” nuclear weapons—threaten to erode the distinction between conventional and nuclear war. If not properly secured, they also threaten international peace and security by virtue of their small size and mobility. Numerous concerns have been expressed about the possibility that they could be stolen and used by a terrorist group. Last year, the Committee on Foreign Relations was briefed in closed session on that risk.

The Secretary of State argued strongly that a formal, verifiable agreement on reductions in non-strategic nuclear weapons was not feasible at this time. While members differ in their views on whether the United States should pursue such an agreement in view of the difficulties, the Committee is united in sharing the Secretary’s concern regarding Russian implementation of the Presidential Nuclear Initiatives of 1991–1992 and, as the Secretary noted in an answer for the record to the Committee, “how best to assist Russia to secure its NSNW from proliferation threats.”<sup>18</sup>

The Committee was pleased to receive the Secretary of State’s assurance that, “We plan to pursue transparency discussions on tactical nuclear weapons as a priority matter in the Consultative

<sup>17</sup> Joint Declaration, May 24, 2002, (available at <http://www.whitehouse.gov/news/releases/2002/05/20020524-2.html>).

<sup>18</sup> Hearings, p. 56.

Group for Strategic Security” (which then met in September 2002 and established a working group on these weapons) and that this issue will also be pursued “in the NATO-Russia channel.”<sup>19</sup> To underscore the importance of these discussions, the Committee recommends that the Senate add to the resolution of ratification a declaration supporting efforts to achieve “improved confidence regarding the accurate accounting and security of non-strategic nuclear weapons” of each Party.

*Declaration (5). Achieving Reductions*

Several witnesses testified to the Committee that achieving strategic offensive reductions in fewer than the 10 years provided in the Moscow Treaty was both feasible and desirable. Accelerated reductions could contribute greatly to transparency and verification, by removing any concern over whether the reductions required by Article I will be completed in time. Witnesses argued that if such reductions were to be achieved largely through down-loading warheads and airborne systems from their launchers, there was no reason why the time line for reductions could not be reduced significantly. The Committee does not know how readily swifter reductions could be achieved, but it does note the President’s statement that “current levels of our nuclear forces do not reflect today’s strategic realities.” It recommends a declaration calling for accelerated force reductions, therefore, but only “where feasible and consistent with U.S. national security requirements and alliance obligations.”

*Declaration (6). Consultations*

The Senate and this Committee have an institutional interest in the close observation of arms control negotiations and the successful implementation of resulting agreements. Past Administrations have recognized that consultations with the Senate prior to taking actions relating to signing, amending or withdrawing from such agreements may avert serious disagreements.

In briefing the members and staff of this Committee on the discussions that led to the signing of the Moscow Treaty, the present Administration has continued to act in the spirit of past arms control agreements, in which the Senate has been kept informed of all negotiations. In order that the Committee may continue to be assured of the complete and full implementation of the Treaty, two reports have been included in the recommended resolution of ratification. The report required by Condition (2) will include information on the intent and ability of the Parties to execute their obligations under Article I of the Treaty by December 31, 2012, and any actions taken or proposed to be taken to address any concerns that may arise.

Should it become necessary for a Party to withdraw from the Treaty, Article IV provides for three months’ notice of such a decision. Events could well occur between submissions of the annual report required in Condition (2) that would warrant informing and consulting the Senate. In any circumstance, the Senate would desire notification and consultation.

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<sup>19</sup> Ibid.

Secretary Powell stated in an answer for the record that such consultation would be forthcoming. He stated: "While it is the President who withdraws from treaties, the Administration intends to discuss any need to withdraw from the Treaty with the Congress, to include the Senate Foreign Relations Committee, prior to announcing any such action."<sup>20</sup> The Committee commends the Secretary's answer and believes future Administrations should adopt this policy.

To provide a formal expression of the Senate's concerns and expectations regarding action to extend, modify or withdraw from the Treaty, the Committee recommends a resolution of ratification containing Declaration (6), which urges the President to consult with the Senate prior to actions relevant to paragraphs 2 or 3 of Article IV. The Committee recognizes that this declaration cannot affect any authority the Constitution grants in this regard.

Should a circumstance arise where prior consultation with the Senate on a decision to modify, extend or withdraw from the Treaty is not feasible, notably if the Senate were out of session, the Committee hopes that the President, to the extent that it is feasible, will consult the leadership of the Senate and Committee. Declaration (6), while not binding on the President, is a formal request that the executive branch maintain the consultation policy enunciated in the Secretary of State's answer to the question for the record (cited above).

## VI. RESOLUTION OF RATIFICATION

*Resolved, (two thirds of the Senators present concurring therein),*

### SECTION 1. SENATE ADVICE AND CONSENT SUBJECT TO CONDITIONS AND DECLARATIONS.

The Senate advises and consents to the ratification of the Treaty Between the United States of America and the Russian Federation on Strategic Offensive Reductions (T. Doc. 107-8, in this resolution referred to as the "Moscow Treaty" or "Treaty"), subject to the conditions in section 2 and declarations in section 3.

### SEC. 2. CONDITIONS.

The advice and consent of the Senate to the ratification of the Moscow Treaty is subject to the following conditions, which shall be binding on the President:

(1) REPORT ON THE ROLE OF COOPERATIVE THREAT REDUCTION AND NONPROLIFERATION ASSISTANCE.—Recognizing that implementation of the Moscow Treaty is the sole responsibility of each party, not later than 60 days after the exchange of instruments of ratification of the Treaty, and annually thereafter on February 15, the President shall submit to the Committee on Foreign Relations and the Committee on Armed Services of the Senate a report and recommendations on how United States Cooperative Threat Reduction assistance to the Russian Federation can best contribute to enabling the Russian Federation to implement the Treaty efficiently and maintain the security and accurate accounting of its nuclear weapons and weapons-usable components and material in the current year. The

<sup>20</sup>Hearings, p. 68.

report shall be submitted in both unclassified and, as necessary, classified form.

(2) ANNUAL IMPLEMENTATION REPORT.—Not later than 60 days after exchange of instruments of ratification of the Treaty, and annually thereafter on April 15, the President shall submit to the Committee on Foreign Relations and the Committee on Armed Services of the Senate a report on implementation of the Treaty by the United States and the Russian Federation. This report shall be submitted in both unclassified and, as necessary, classified form and shall include—

(A) a listing of strategic nuclear weapons force levels of the United States, and a best estimate of the strategic nuclear weapons force levels of the Russian Federation, as of December 31 of the preceding calendar year;

(B) a detailed description, to the extent possible, of strategic offensive reductions planned by each party for the current calendar year;

(C) to the extent possible, the plans of each party for achieving by December 31, 2012, the strategic offensive reductions required by Article I of the Treaty;

(D) measures, including any verification or transparency measures, that have been taken or have been proposed by a party to assure each party of the other party's continued intent and ability to achieve by December 31, 2012, the strategic offensive reductions required by Article I of the Treaty;

(E) information relevant to implementation of this Treaty that has been learned as a result of Strategic Arms Reduction Treaty (START) verification measures, and the status of consideration of extending the START verification regime beyond December 2009;

(F) any information, insufficiency of information, or other situation that may call into question the intent or the ability of either party to achieve by December 31, 2012, the strategic offensive reductions required by Article I of the Treaty; and

(G) any actions that have been taken or have been proposed by a party to address concerns listed pursuant to subparagraph (F) or to improve the implementation and effectiveness of the Treaty.

### SEC. 3. DECLARATIONS.

The advice and consent of the Senate to the ratification of the Moscow Treaty is subject to the following declarations, which express the intent of the Senate:

(1) TREATY INTERPRETATION.—The Senate reaffirms condition (8) of the resolution of ratification of the Document Agreed Among the States Parties to the Treaty on Conventional Armed Forces in Europe (CFE) of November 19, 1990 (adopted at Vienna on May 31, 1996), approved by the Senate on May 14, 1997, relating to condition (1) of the resolution of ratification of the Intermediate-Range Nuclear Forces (INF) Treaty, approved by the Senate on May 27, 1988.



(2) Further strategic arms reductions.—The Senate encourages the President to continue strategic offensive reductions to the lowest possible levels consistent with national security requirements and alliance obligations of the United States.

(3) Bilateral implementation issues.—The Senate expects the executive branch of the Government to offer regular briefings, including consultations before meetings of the Bilateral Implementation Commission, to the Committee on Foreign Relations and the Committee on Armed Services of the Senate on any implementation issues related to the Moscow Treaty. Such briefings shall include a description of all efforts by the United States in bilateral forums and through diplomatic channels with the Russian Federation to resolve any such issues and shall include a description of—

(A) the issues raised at the Bilateral Implementation Commission, within 30 days after such meetings;

(B) any issues related to implementation of this Treaty that the United States is pursuing in other channels, including the Consultative Group for Strategic Security established pursuant to the Joint Declaration of May 24, 2002, by the Presidents of the United States and the Russian Federation; and

(C) any Presidential determination with respect to issues described in subparagraphs (A) and (B).

(4) NONSTRATEGIC NUCLEAR WEAPONS.—Recognizing the difficulty the United States has faced in ascertaining with confidence the number of nonstrategic nuclear weapons maintained by the Russian Federation and the security of those weapons, the Senate urges the President to engage the Russian Federation with the objectives of—

(A) establishing cooperative measures to give each party to the Treaty improved confidence regarding the accurate accounting and security of nonstrategic nuclear weapons maintained by the other party; and

(B) providing United States or other international assistance to help the Russian Federation ensure the accurate accounting and security of its nonstrategic nuclear weapons.

(5) ACHIEVING REDUCTIONS.—Recognizing the transformed relationship between the United States and the Russian Federation and the significantly decreased threat posed to the United States by the Russian Federation's strategic nuclear arsenal, the Senate encourages the President to accelerate United States strategic force reductions, to the extent feasible and consistent with United States national security requirements and alliance obligations, in order that the reductions required by Article I of the Treaty may be achieved prior to December 31, 2012.

(6) CONSULTATIONS.—Given the Senate's continuing interest in this Treaty and in continuing strategic offensive reductions to the lowest possible levels consistent with national security requirements and alliance obligations of the United States, the Senate urges the President to consult with the Sen-

ate prior to taking actions relevant to paragraphs 2 or 3 of Article IV of the Treaty.

#### VII. ARTICLE-BY-ARTICLE ANALYSIS

The President submitted an Article by Article Analysis of the Treaty to the Senate on June 20, 2002. The text of this analysis, which was also published by the Senate in Treaty Document 107-8, pages 5-10, is as follows:

#### ARTICLE-BY-ARTICLE ANALYSIS OF THE TREATY BETWEEN THE UNITED STATES OF AMERICA AND THE RUSSIAN FEDERATION ON STRATEGIC OFFENSIVE REDUCTIONS

The Treaty Between the United States of America and the Russian Federation on Strategic Offensive Reductions, signed at Moscow on May 24, 2002 (the Moscow Treaty) consists of a Preamble and five Articles.

#### TITLE AND PREAMBLE

The title of the Moscow Treaty is "Treaty Between the United States of America and the Russian Federation on Strategic Offensive Reductions." This title was deliberately chosen to reflect the fact that this Treaty focuses on reductions in strategic nuclear warheads, rather than on "strategic offensive arms," which traditionally have been considered to be delivery vehicles and launchers. For linguistic reasons, the title of the Russian language version of the Treaty is ". . . on Reductions in Strategic Offensive Potential." The English language text of the Treaty was agreed first, but the phrase "strategic offensive reductions" could not be literally translated into Russian. The substantive meanings of the titles are the same.

The Preamble to the Moscow Treaty sets forth the intentions of the Parties in broad terms. The first preambular paragraph designates the United States and Russia as "the Parties" to obviate the use of their full names throughout the Treaty. The second, third and fourth preambular paragraphs set forth the Parties' shared commitment to conducting their relations in the new century on a fundamentally different and more cooperative basis than had characterized their relations in the past. The reference to "mutual security" in the fourth paragraph refers to the non-threatening nature of the Parties' new strategic relationship; it does not imply a specific relationship between the Parties' forces. The fifth paragraph reaffirms the Parties' general, longstanding commitment to implementing significant reductions in strategic offensive arms. This paragraph introduces references to specific prior commitments and obligations by the Parties in the sixth, seventh and eighth paragraphs that immediately follow, including those in the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Reduction and Limitation of Strategic Offensive Arms of July 31, 1991 (the START Treaty) and the Treaty on Non-Proliferation of Nuclear Weapons of July 1, 1968 (the NPT). The sixth paragraph recognizes Joint Statements made by Presidents Bush and Putin in Genoa on July 22, 2001 and in Washington, DC on November 13, 2001 that detail the new basis for re-

lations between the United States and Russia. This preambular language does not imply any restrictions or obligations relating to defensive programs. The seventh and eighth paragraphs make reference to two existing agreements of the Parties with regard to nuclear weapons, the START Treaty and Article VI of the NPT. The final paragraph sets forth the Parties' conviction that this Treaty will establish more favorable conditions for actively promoting security and cooperation and enhancing international security.

#### ARTICLE I

Article I contains the central obligation of the Moscow Treaty. The first sentence of this paragraph obligates the Parties to reduce and limit their strategic nuclear warheads, as stated by the President of the United States of America on November 13, 2001 and as stated by the President of the Russian Federation on November 13 and December 13, 2001, respectively, so that by December 31, 2012 the aggregate number of such warheads does not exceed 1700–2200 for each Party. The Moscow Treaty's limits relate solely to the number of each Party's strategic nuclear warheads. The Moscow Treaty does not limit the number of U.S. or Russian inter-continental ballistic missiles (ICBMs) or submarine-launched ballistic missiles (SLBMs) or their associated launchers, or heavy bombers. Article I, by referencing the statements of both Presidents, makes clear that the Parties need not implement their reductions in an identical manner.

The United States will implement Article I as stated by President Bush on November 13, 2001: “. . . the United States will reduce our operationally deployed strategic nuclear warheads to a level between 1,700 and 2,200 over the next decade, a level fully consistent with American security.”<sup>21</sup> U.S. negotiators noted to their Russian counterparts that, in carrying out the reductions provided for in this Treaty, in using the term “operationally deployed strategic nuclear warheads” the United States means reentry vehicles on ICBMs in their launchers, reentry vehicles on SLBMs in their launchers onboard submarines, and nuclear armaments loaded on heavy bombers or stored in weapons storage areas of heavy bomber bases. The United States also made clear that a small number of spare strategic nuclear warheads (including spare ICBM warheads) would be located at heavy bomber bases and that the United States would not consider these warheads to be operationally deployed strategic nuclear warheads. The United States intends to reduce its operationally deployed strategic nuclear warheads in a manner consistent with these statements. In the context of this Treaty, it is clear that only “nuclear” reentry vehicles, as well as nuclear armaments, are subject to the 1700–2200 limit.

The method by which U.S. warhead numbers will be determined under the Moscow Treaty differs from the START Treaty methodology. The START Treaty contains counting rules that attribute specific numbers of warheads to each type of ICBM, SLBM or heavy bomber regardless of the actual number of warheads on the missile or bomber. These numbers may be different from both the

<sup>21</sup> Press conference by President Bush and Russian President Vladimir Putin. The East Room, on November 13, 2001.

actual capacity of the specific system and the number actually carried by the system.

Under the U.S. approach, certain strategic nuclear warheads, such as those nominally associated with submarines in overhaul or submarines modified for other purposes, those downloaded from ICBMs and SLBMs, and those nominally associated with deactivated Peacekeeper ICBMs, will continue to be subject to the START Treaty unless such ICBMs or SLBMs and their associated launchers are eliminated or converted in accordance with START Treaty procedures. At the same time, however, under the Moscow Treaty, once such warheads are no longer in operationally-deployed status, they will be included as part of the United States' reductions. Thus, among other things, missiles from which some warheads have been removed will be considered for purposes of the START Treaty as carrying more warheads than they in fact carry. By contrast, under the Moscow Treaty, the United States will limit its strategic nuclear warheads based on the actual number of warheads on missiles in their launchers and at bomber bases (other than spare warheads).

President Putin, for his part, stated at the Russian Embassy in Washington, DC on November 13, 2001:

Russia is stating its readiness to proceed with significant reductions of strategic offensive arms. That is why today we are proposing a radical program of further reductions of SOA—at the least, by a factor of three—to the minimum level necessary to maintain strategic equilibrium in the world.<sup>22</sup>

and in a statement on December 13, 2001:

a particularly important task in these conditions is to legally formalize the agreements that have been reached on further drastic, irreversible, and verifiable reductions in strategic offensive arms, which we believe should be at the level of 1,500–2,200 nuclear warheads for each side.<sup>23</sup>

President Putin did not state explicitly how Russia intends to implement its reductions. During the negotiations the Russians suggested that they anticipated reducing warheads by eliminating or converting missiles, launchers and heavy bombers. As noted above, Russia, like the United States, may reduce its strategic nuclear warheads by any method it chooses. Russia did not state conclusively during the negotiations how it intends to carry out its reductions.

The Moscow Treaty does not provide for sublimits or interim reduction levels or require a Party to reach the final reduction level prior to December 31, 2012. Therefore, prior to December 31, 2012, each Party is free to maintain whatever level of strategic nuclear warheads it deems appropriate, consistent with its obligations

<sup>22</sup> Speech of Russian Federation President Vladimir Putin to representatives of the American public and U.S. politicians, November 13, 2001, Russian Embassy in Washington [Official U.S. translation].

<sup>23</sup> Statement by Russian President Vladimir Putin on December 13, 2001, regarding the decision of the U.S. Administration to withdraw from the 1972 ABM Treaty [Official U.S. translation].

under the START Treaty and its obligation to meet the specified limit by the specified date.

The second sentence of Article I states that each Party shall determine for itself the composition and structure of its strategic offensive arms, based on the established aggregate limit for the number of such warheads. As noted earlier, the Moscow Treaty does not limit the total number of strategic offensive arms, or contain either numerical sublimits or bans on categories of forces. Under the Moscow Treaty, each Party will thus have flexibility in structuring its forces to reach these new low levels for strategic nuclear warheads. The Treaty does not restrict a Party's decisions regarding how it will implement the required reductions.

#### ARTICLE II

In Article II, the Parties recognize that the START Treaty remains in force in accordance with its terms. The purpose of this Article is to make clear that the Moscow Treaty and the START Treaty are separate. The START Treaty's provisions do not extend to the Moscow Treaty, and the Moscow Treaty does not terminate, extend or in any other way affect the status of the START Treaty. The START Treaty will remain in force until December 5, 2009, unless it is superseded by a subsequent agreement or extended.

#### ARTICLE III

Article III establishes a Bilateral Implementation Commission (BIC), a diplomatic consultative forum which shall meet at least twice a year, to discuss issues related to implementation of the Moscow Treaty.

#### ARTICLE IV

Article IV consists of three paragraphs covering ratification, entry into force, duration and withdrawal.

Paragraph 1 of Article IV provides that the Moscow Treaty shall be subject to ratification in accordance with the constitutional procedures of each Party and shall enter into force on the date of the exchange of instruments of ratification.

Paragraph 2 of Article IV provides that the Moscow Treaty shall remain in force until December 31, 2012 and may be extended by agreement of the Parties or superseded earlier by a subsequent agreement. Extension of the Treaty is not automatic but must be done by agreement of the Parties. Since such an extension is authorized by the Treaty, it would constitute an agreement pursuant to the Treaty and would accordingly not be subject to Senate advice and consent.

Paragraph 3 of Article IV provides that each Party, in exercising its national sovereignty, may withdraw from the Treaty upon three months written notice to the other Party. Unlike some other arms control agreements, this withdrawal clause is not tied to a Party's determination that extraordinary circumstances jeopardizing its supreme national interests exist. Rather, the Moscow Treaty includes a more general formulation that allows greater flexibility for each Party to respond to unforeseen circumstances.

Unlike several earlier arms control agreements, including the START Treaty, there are no specific provisions for either amending the Moscow Treaty or for making “viability and effectiveness” changes to the Treaty. Such provisions were not seen as necessary given the structure and content of this Treaty.

For international agreements submitted to the Senate that do not have specific amendment procedures, U.S. practice has been to submit amendments to the Senate for its advice and consent unless the Senate agrees that submission is not required.

#### ARTICLE V

Article V sets forth standard provisions for registration of the Treaty pursuant to Article 102 of the Charter of the United Nations.

#### VIII. CBO COST ESTIMATES

In response to a request from Senator Biden, the Congressional Budget Office (CBO) supplied the Committee with information on the possible budgetary impact of implementing the reductions mandated by Article I of the Moscow Treaty. In addition, the CBO responded to a request for estimates of the cost of various alternative strategic force structures and reduction rates. This correspondence is included in this section.

The CBO estimates the Administration would need to remove over the next ten years approximately 2,600 to 3,100 warheads from U.S. strategic offensive forces in order to meet the Treaty requirement of 1,700 to 2,200 deployed strategic nuclear warheads by December 31, 2012. Because the Administration has not yet determined how to achieve these reductions, the CBO looked at two possible paths.

Under the first path, the Administration would not retire any strategic platforms (beyond those already announced in the FY 2003–2007 defense planning), but instead remove warheads from Minuteman missiles, Trident submarines, and military bases where bombers are deployed. CBO estimates that these actions would cost \$105 or \$115 million through 2012, depending upon whether the final level is 2,200 or 1,700 warheads. Under the second path, the Administration would remove both warheads and delivery platforms from the U.S. strategic inventory, including retiring 150 Minuteman missiles and two of the oldest Trident submarines, and converting B–2 bombers to a conventional role only. Although costs would be incurred in the removal of warheads and the retirement of certain delivery systems, these costs would be more than offset by the savings from forgoing development and procurement of new systems to upgrade the two Trident submarines and 150 Minuteman missiles. Accordingly, the estimated net savings associated with this path are approximately \$5.1 billion through 2012.

The Committee recommends that the President give particular attention, as Moscow Treaty implementation proceeds, to the possibility that modest further reductions in strategic delivery systems after 2007 could lead to significant cost savings without endangering the national security.

U.S. SENATE,  
COMMITTEE ON FOREIGN RELATIONS,  
*Washington, DC, July 8, 2002.*

Mr. DAN L. CRIPPEN  
*Director, Congressional Budget Office,  
U.S. Congress, Washington, DC 20515*

DEAR MR. CRIPPEN:

The Committee on Foreign Relations will begin in July its hearing process on the Treaty on Strategic Offensive Reductions, which the President submitted to the Senate on June 20 for its advice and consent to ratification. The Committee would appreciate an analysis by the Congressional Budget Office of the costs associated with the implementation of this treaty.

In particular, I ask your Office to include in its analysis the following information:

- Costs that the United States will incur or avoid by taking the steps required under this treaty. Does the treaty require any steps which the Administration had not already planned?
- Projected costs of the various options the United States may choose in order to reach a level of 1,700 to 2,200 operationally deployed strategic nuclear warheads by December 31, 2012.
- Projected costs of possible verification and transparency measures, beyond those utilized under the START Treaty, that may be incurred in association with this treaty. One example of such a measure would be the separation of spare warheads from non-deployed warheads currently co-located at heavy bomber bases.
- Projected costs to the United States if all of the U.S. warheads taken out of operational deployment to meet the Treaty's reduction requirement are placed in storage, with half those warheads maintained in readiness for a speedy re-armament. What are the projected costs if all of these warheads are eliminated? If half are eliminated? Please include in this analysis the impact of warhead reductions on the costs associated with the Department of Energy's requirements for warhead re-manufacturing and tritium production.
- Projected costs of increasing U.S. assistance under the Cooperative Threat Reduction program and/or nonproliferation assistance programs to help Russia eliminate warheads that are removed from deployment pursuant to this treaty and secure any resulting fissile material. How will these projected costs change if Russia stores its downloaded warheads and U.S. assistance focuses on the security of the warheads?
- Costs to the United States of converting U.S. strategic bombers and ballistic missile submarines to non-nuclear missions, but maintaining a ready capability to revert to nuclear missions. What are the alternative costs of eliminating these delivery vehicles or irreversibly converting them to conventional capability?
- Implications for overall costs if the United States reduces its operationally deployed warheads to a level of 1,700 to 2,200 by 2007 instead of 2012, as called for under the treaty.

- Implications for overall costs if the United States, within 1–2 years of the treaty’s entry into force, lowers the operational status of forces scheduled for reduction by 2012.

I look forward to receiving a cost analysis by your Office on the implementation of this treaty by September 3, 2002, so that the Committee can make its recommendations regarding action on the treaty during this legislative session.

If you have any questions regarding this request, please feel free to contact the Committee’s staff director, Mr. Antony Blinken, or professional staff members Edward Levine or Jofi Joseph, at 224–4651. I understand that Committee staff have already discussed our needs with staff of the Defense, International Affairs, and Veterans’ Affairs Cost Estimates Unit in your Budget Analysis Division.

Sincerely,

JOSEPH R. BIDEN, JR., *Chairman.*

U.S. CONGRESS,  
CONGRESSIONAL BUDGET OFFICE,  
*Washington, DC, September 24, 2002.*

Honorable JOSEPH R. BIDEN JR., *Chairman*  
*Committee on Foreign Relations,*  
*United States Senate,*  
*Washington, DC.*

DEAR MR. CHAIRMAN:

As you requested, the Congressional Budget Office has prepared the attached estimate of the budgetary impact from implementing The Treaty Between the United States of America and the Russian Federation on Strategic Offensive Reductions, signed at the Moscow Summit on May 24, 2002. Under that treaty, the United States and Russia would reduce their number of strategic nuclear warheads to between 1,700 and 2,200, about two-thirds below current levels, by December 31, 2012.

If you wish further details on this estimate, we would be pleased to provide them. The CBO staff contacts are Raymond J. Hall (in the Budget Analysis Division), and J. Michael Gilmore (in the National Security Division).

Sincerely,

DAN L. CRIPPEN, *Director.*

Attachment.

ESTIMATED COSTS AND SAVINGS FROM IMPLEMENTING THE MOSCOW  
TREATY

SUMMARY

The Strategic Arms Reduction Treaty (START) limits the United States and the former countries of the Soviet Union (Russia, Belarus, Kazakhstan, and Ukraine) to 6,000 accountable warheads. The Treaty Between the United States of America and the Russian Federation on Strategic Offensive Reductions (informally known as the “Moscow Treaty”) calls for both countries to reduce that num-



ber of warheads to between 1,700 and 2,200 by 2012. The Administration first announced its intention to pursue those reductions at the conclusion of the Nuclear Posture Review (NPR) in January 2002. That review also set an interim goal of reducing the number of warheads available for immediate use to approximately 3,800 by 2007.

To meet the interim goal set by the NPR, the Administration would need to remove about 2,100 warheads from U.S. strategic offensive forces. The Administration's fiscal year 2003–2007 defense plan would partially achieve that goal by retiring all 50 Peacekeeper missiles, removing four Trident submarines from strategic service and converting them to a conventional (non-nuclear) role, and permanently converting all 81 B–1 bombers to a conventional role. In total, about 1,100 warheads would be removed by implementing that plan. To fully attain the NPR goal, however, the Department of Defense (DoD) would need to remove about 1,000 more warheads from delivery platforms. The Congressional Budget Office (CBO) estimates that the costs to remove those additional warheads would amount to roughly \$25 million over the 2003–2007 period and \$55 million over the 2003–2012 period. (Costs and savings provided in this estimate are expressed relative to the costs of operating strategic offensive nuclear forces and supporting activities under the Administration's fiscal year 2003–2007 defense plan. All cost estimates are in current dollars of budget authority.)

Achieving the Moscow Treaty goal of having no more than 1,700 to 2,200 warheads available for immediate use by 2012 would require the Administration to remove a total of 2,600 to 3,100 warheads from service. Those reductions could be achieved in many ways. In the absence of definitive plans from the Administration, CBO has examined two paths for achieving those reductions. The first path would keep most of the delivery platforms that were planned to be in place in 2007, whereas the second path would remove or retire some missiles and submarines. Implementing the first path would cost about \$25 million over the 2003–2007 period and about \$105 million over the 2003–2012 period, CBO estimates, if the United States reduced warheads to the 2,200 level (see Summary Table 1). Removing or retiring delivery platforms, in contrast, offers the potential for significant savings. CBO estimates that the second path would save about \$2.2 billion over the 2003–2007 period and \$5.1 billion through 2012. Reducing the number of available warheads to the lower level of 1,700 would not necessarily result in significant costs or savings beyond those estimated for the 2,200-warhead level, CBO estimates. Accelerating the warhead reductions to achieve the Moscow Treaty target by 2007 might necessitate some additional spending beyond that estimated for the paths mentioned above.

Summary Table 1.—Costs or Savings (–) of Two Paths to Achieve the Moscow Treaty's Warhead-Reduction Goal  
[In millions of dollars]

|  | Total,<br>2003–2007 | Total,<br>2008–2012 | Total,<br>2003–2012 |
|--|---------------------|---------------------|---------------------|
| Reduce warheads to Moscow Treaty Levels by 2012: |                     |                     |                     |
| Without Retiring Delivery Platforms .....        | 25                  | 80                  | 105                 |

Summary Table 1.—Costs or Savings (–) of Two Paths to Achieve the Moscow Treaty’s Warhead-Reduction Goal—Continued  
[In millions of dollars]

|  | Total,<br>2003–2007 | Total,<br>2008–2012 | Total,<br>2003–2012 |
|--|---------------------|---------------------|---------------------|
| Reduce warheads to Moscow Treaty Levels by 2012: |                     |                     |                     |
| By Retiring Some Delivery Platforms .....        | –2,165              | –2,920              | –5,085              |

Source: Congressional Budget Office.

Note: Costs and savings shown in this table are associated with approaches to reduce the number of warheads to the Moscow Treaty goal of 2,200. Reducing the number of warheads to 1,700 would not necessarily result in significant additional costs or savings.

CBO also investigated the possible budgetary impact of dismantling, instead of storing, weapons removed from service. Because warheads stored in a status preventing their immediate use by strategic forces would not count against the Moscow Treaty’s numerical limitations, no warheads would need to be destroyed. Dismantling one-half or more of the warheads removed to meet Moscow Treaty requirements could have substantial costs, depending on when the efforts might be scheduled. According to information provided by the National Nuclear Security Administration (NNSA) of the Department of Energy, dismantling one-half of the warheads by 2012 would exceed the planned capacity at its Pantex nuclear weapons production facility in Amarillo, Texas. If completion of dismantlement could be delayed until the 2020–2025 period, the planned capacity at Pantex would probably be sufficient.

CBO currently has insufficient information to estimate the effects that dismantling (instead of storing and maintaining) warheads might have on needed tritium and pit production capacities.<sup>1</sup> But because the NNSA’s current plans are based on maintaining an inventory consistent with levels under START, dismantling a significant fraction of that inventory ought to imply a concomitant reduction in needed steady-state tritium and pit production capacities.

CBO also examined issues relating to treaty verification. According to statements made by the Administration, the Moscow Treaty contains no additional verification provisions beyond those implemented for START. Other supplementary measures, including transparency measures, could be agreed to in the future, but CBO has no basis for predicting the nature or cost of such additional measures.

As part of this cost estimate, CBO also looked at the costs of converting strategic bombers and submarines to conventional missions while maintaining a ready capability to revert to a strategic role. The Administration has announced no plans for converting bombers and submarines to a conventional-only configuration while retaining the option to restore their nuclear capability. The details of such plans would be key in determining the costs for initial conversion as well as those to restore nuclear capability. Without that information, CBO has no basis for definitively estimating those costs,

<sup>1</sup>A modern thermonuclear weapon consists of a primary and a secondary. The primary uses fission (the splitting of atoms) to create enough energy to start a fission reaction in the secondary. The pit is a key component of the primary and is composed of fissionable material such as plutonium.

which could be either negligible or significant depending on the approach taken.

Lastly, CBO examined the possible savings from lowering the operational status of, or taking off high alert, strategic forces scheduled for retirement. The Administration has announced no plans to retire any delivery platforms beyond the Peacekeeper missiles that would be retired by 2005. The savings associated with lowering the operational status of such forces would probably be small.

#### INTRODUCTION

For most of the past 40 years, the Department of Defense has maintained a triad of strategic offensive nuclear forces consisting of missiles, submarines, and bombers. Those forces have been subject to the Strategic Arms Reduction Treaty since it took effect on December 5, 1994. That treaty limits the United States and the former countries of the Soviet Union (Russia, Belarus, Kazakhstan, and Ukraine) to 6,000 accountable warheads following the seven-year reduction period that ended on December 4, 2001.

Under START, the size of U.S. strategic offensive nuclear forces declined significantly, from over 8,800 accountable warheads at the treaty's inception to fewer than 6,000 warheads today. The declared force structure consists of 1,200 warheads on 500 Minuteman III missiles, 500 warheads on 50 Peacekeeper missiles, about 3,200 warheads on C4 and D5 missiles carried on 18 Trident submarines, and roughly 1,000 nuclear bombs and cruise missiles deployed on nearly 200 strategic bombers (see Table 1).

Table 1.—Comparison of Various Strategic Offensive Forces  
(In numbers of delivery platforms and deployed warheads)

| Weapon                     | Strategic Forces Under START Counting Rules |                       | Forces Planned for Deployment in 2007          |                       |                                     |                       |
|----------------------------|---|-----------------------|--|-----------------------|-------------------------------------|-----------------------|
|                            | Quantity                                    | Warheads <sup>1</sup> | The Administration's FY 2003–2007 Defense Plan |                       | An Approach to Achieve the NPR Goal |                       |
|                            |   |                       | Quantity                                       | Warheads <sup>2</sup> | Quantity                            | Warheads <sup>3</sup> |
| <b>ICBMs:</b>              |   |                       |  |                       |                                     |                       |
| Minuteman III .....        | 500   | 1,200                 | 500  | 1,200                 | 500                                 | 800                   |
| Peacekeeper .....          | 50  | 500                   | 0  | 0                     | 0                                   | 0                     |
| <b>SLBMs:</b>              |   |                       |  |                       |                                     |                       |
| Trident Submarines         |   |                       |  |                       |                                     |                       |
| Carrying C4 Missiles ..... | 6   | 864                   | 0  | 0                     | 0                                   | 0                     |
| Trident Submarines         |   |                       |  |                       |                                     |                       |
| Carrying D5 Missiles ..... | 12  | 2,304                 | 14   | 2,304                 | 14                                  | 1,656                 |
| <b>Bombers:</b>            |   |                       |  |                       |                                     |                       |
| B-1 .....                  | 81  | 81                    | (4)  | 0                     | (4)                                 | 0                     |
| B-2 .....                  | 21  | 21                    | 21   | 256                   | 21                                  | 256                   |
| B-52 .....                 | 94  | 940                   | 76   | 1,056                 | 76                                  | 1,056                 |
| <b>Total</b> .....         |   | <b>5,910</b>          |  | <b>4,816</b>          |                                     | <b>3,768</b>          |

Source: Congressional Budget Office based on data from the Department of Defense.

Note: FY = fiscal year; ICBM = intercontinental ballistic missile; NPR = Nuclear Posture Review; SLBM = submarine-launched ballistic missile; START = Strategic Arms Reduction Treaty.

<sup>1</sup> Under START, warheads are counted as follows: three warheads on each of 350 Minuteman missiles and one warhead on each of the remaining 150 Minuteman missiles; 10 warheads on each Peacekeeper missile; six warheads on each C4 missile and eight warheads on each D5 missile (each Trident submarine carries either 24 C4 missiles or 24 D5 missiles); one warhead on each B-1 and B-2 bomber and 10 warheads on each B-52 bomber.

<sup>2</sup>Under the Administration's plan, warheads are counted as follows: three warheads on each of 350 Minuteman missiles and one warhead on each of the remaining 150 Minuteman missiles; eight warheads on each D5 missile (for a total of 192 warheads on each of the 12 operationally deployed Trident submarines); 16 nuclear bombs on each of the 16 operationally deployed B-2 bombers; and from 12 to 20 cruise missiles on each of the 56 operationally deployed B-52 bombers.

<sup>3</sup>Under this approach, warheads are counted as follows: three warheads on each of 150 Minuteman missiles and a single warhead on each of the remaining 350 Minuteman missiles; either five or six warheads on each D5 missile (for a total of 138 warheads on each of the 12 operationally deployed Trident submarines); 16 nuclear bombs on each of the operationally deployed 16 B-2 bombers; and 12 to 20 cruise missiles on each of the 56 operationally deployed B-52 bombers.

<sup>4</sup>All B-1 bombers would be permanently converted to a conventional role.

The total number of accountable warheads on ballistic missiles is determined by the number of missiles, submarines, and bombers as well as the number of warheads declared on each of them. The original declarations were announced during the December 1987 Washington Summit between Presidents Reagan and Gorbachev. Since that time, the number of warheads on two missiles (the C4 and the Minuteman III) has been lowered; warhead counts on the other strategic platforms remain unchanged. Currently, the older C4 ballistic missile is declared to carry six warheads, and the newer D5 missile has eight warheads. The land-based Minuteman III ballistic missile currently has one or three warheads, depending on the Air Force base at which it is deployed, while the Peacekeeper missile carries 10 warheads. Under the provisions of START, warheads on strategic bombers are counted in one of two ways. Strategic bombers that are declared to carry long-range air-launched cruise missiles (the B-52s) count as 10 warheads each. Strategic bombers that are declared to not carry cruise missiles (the B-1s and B-2s) count as one warhead each.

#### *The Administration's 2003–2007 Defense Plan*

The Administration's fiscal year 2003–2007 defense plan would reduce the number of nuclear warheads, compared with today's levels, immediately available to U.S. strategic forces. The plan would lower the warhead count to about 4,800 by 2007 (see Table 1). The intent to pursue those reductions was first announced at the conclusion of the Nuclear Posture Review in January 2002. That review concluded that strategic forces equipped with between 1,700 and 2,200 warheads would be sufficient to maintain the security of the United States. The review also set an interim goal of reducing the number of nuclear warheads to approximately 3,800 by 2007. According to information provided by DoD, the fiscal year 2003–2007 defense plan would partially achieve that interim goal through:

- The retirement of all Peacekeeper missiles,
- The conversion of the four oldest Trident submarines to a conventional role, and
- The elimination of the capability to return the B-1 bombers to a nuclear role.

#### *The Moscow Treaty*

President George W. Bush and President Vladimir Putin signed the Moscow Treaty on May 24, 2002. That treaty, which is consistent with the results of the NPR, calls for both countries, by 2012, to maintain no more than 1,700 to 2,200 warheads in a status such that they are capable of immediate use by strategic offensive forces. (DoD and the National Nuclear Security Administration

refer to warheads in that status as “operationally deployed warheads.”) Under the terms of the treaty, each country would determine the numbers and types of bombers, submarines, and missile launchers that would constitute its strategic offensive forces and determine the number of warheads on each type of delivery platform. Warheads stored in a status preventing their immediate use by strategic forces would not count toward the treaty’s numerical limits. Thus, there is no requirement for any warheads to be destroyed under the terms of the Moscow Treaty. That treaty would also use the verification procedures of START to provide confidence and transparency in warhead reductions.

#### THE BUDGETARY IMPACT OF IMPLEMENTING THE MOSCOW TREATY

CBO has prepared estimates of the costs and savings that would result from reducing the U.S. arsenal of strategic weapons to comply with the Moscow Treaty. Specifically, CBO has estimated:

- The costs of reducing the U.S. arsenal to achieve the Administration’s goal to deploy about 3,800 warheads by 2007, and
- The costs and savings of reducing the U.S. arsenal to achieve the Moscow Treaty’s goal of between 1,700 and 2,200 warheads by 2012.

This paper also discusses the potential to accelerate the reductions in the number of warheads to achieve the Moscow Treaty’s goal by 2007. CBO’s estimates do not include any costs to build additional facilities to store the warheads and nuclear weapons that would be removed from delivery platforms because, according to DoD, the available storage capacity would be sufficient to accommodate all warheads removed from service.

#### *Costs of Meeting the Administration’s Goal of 3,800 Nuclear Warheads by 2007*

Achieving the goal of having about 3,800 warheads available for immediate use by 2007 would require that the Administration reduce the U.S. nuclear arsenal below the levels set forth in its fiscal year 2003–2007 defense program. On the basis of information provided by DoD, CBO assumes that those reductions would be achieved by removing about 1,000 warheads from Minuteman and D5 missiles (see Table 1). The costs to remove those warheads would amount to about \$25 million over the 2003–2007 period and \$55 million over the 2003–2012 period, CBO estimates.

*Remove Warheads from Minuteman Missiles.* Today, the Air Force deploys 500 Minuteman III missiles at three bases: 150 missiles at F.E. Warren Air Force Base (AFB) in Wyoming, 200 missiles at Malmstrom AFB in Montana, and 150 missiles at Minot AFB in North Dakota. Under START, the missiles at F.E. Warren AFB each carry a single warhead, whereas the missiles at the other two bases each carry three warheads, for a total of 1,200 warheads.

To reduce the number of warheads deployed on Minuteman missiles, the Air Force would convert an additional 200 missiles to a single-warhead configuration, CBO assumes. In all, 400 warheads would need to be removed and transported to storage facilities. According to the Air Force, it would need to replace the existing hard-

ware on the missiles (primarily hardware called bulkheads that would be used to deploy the warheads on the missiles) with new hardware to accommodate the single warhead. It would need to augment squadron personnel with contractor support to accomplish that effort. The costs to remove the 400 warheads would total about \$15 million over the 2003–2007 period, CBO estimates—about \$10 million to replace the bulkheads and about \$5 million to place the warheads in shipping and storage containers and then transport them to storage facilities. The estimate does not include any costs to buy the new bulkheads because the Air Force has already purchased that hardware. Also, it does not include any costs to buy shipping and storage containers because the Air Force now has about 620 of those containers available for use and plans to purchase an additional 250 containers.

The Air Force has indicated that the number of personnel at the storage locations might need to be increased to support the maintenance activities associated with the storage of additional warheads, but it has not provided CBO with estimates of those staffing requirements. CBO believes that those costs would be negligible, however.

*Remove Warheads from D5 Missiles.* Today, the Navy deploys 432 C4 and D5 missiles containing roughly 3,200 warheads on 18 Trident submarines. Eight of those submarines are based at the Naval Submarine Base (NSB) in Bangor, Washington, and the other 10 are stationed at the NSB in Kings Bay, Georgia. The Navy plans to convert four of the Trident submarines to a conventional role. By 2007, under the Administration's plan, each of the remaining 14 Trident submarines would be equipped to carry 24 D5 missiles and—assuming that eight warheads were loaded on each D5 missile—could carry a total of 192 warheads. According to the Navy, an average of two submarines a year would undergo a major overhaul and thus would not carry any missiles. The 12 operationally deployed Trident submarines would carry a total of 2,304 warheads (see Table 1). The C4 missiles that would be removed from the submarines would be transported to a DoD facility for disposal. The warheads that would be removed from those missiles would either be reloaded onto the newer D5 missiles or stored at a DoD facility.

In order to achieve the NPR goal, CBO expects that the Navy would reduce the number of warheads on the D5 missiles. CBO assumes that the 12 operationally deployed submarines would each be equipped with 18 missiles loaded with six older warheads (these older warheads are deployed on Mk4 reentry vehicles) and six missiles loaded with five newer warheads (these warheads are deployed on Mk5 reentry vehicles), for a total of 138 warheads on each vessel. In all, CBO estimates that 648 warheads would need to be removed from those vessels—54 warheads from each of the 12 Trident submarines. On the basis of information provided by the Navy, CBO estimates that removing the warheads from the missiles would not involve additional costs because that task would be accomplished by existing personnel as part of regular periodic maintenance. CBO also estimates that storing more warheads would not result in any significant additional costs. Finally, the estimate does not include any costs for modifying the existing mis-

siles because, according to the Navy, the missiles can accommodate a load of five or six warheads without modifications.

As stated in the NPR, the Administration aims to retain the capability to reconstitute U.S. strategic forces with larger numbers of warheads than the Moscow Treaty permits. This means that the Navy must have the capability to take all of the Mk4 reentry vehicles that would be removed from the C4 and D5 missiles and placed in storage and reload them back onto the D5 missiles quickly. The hardware used to put the Mk4 reentry vehicles on D5 missiles is called a release assembly. The Navy has purchased sufficient quantities of Mk4 release assemblies to support the lower number of deployed warheads but not enough to support a higher level of reconstituted warheads. To provide this reconstitution capability, the Navy has indicated that roughly 600 Mk4 assemblies would need to be purchased over the 2004–2012 period. CBO estimates that the costs for those assemblies would total about \$40 million through 2012.

*Costs and Savings from Meeting the Moscow Treaty's Goal of 1,700 to 2,200 Nuclear Warheads by 2012*

Achieving the goal of having no more than 1,700 to 2,200 warheads available for immediate use by 2012 would require the Administration to remove another 1,600 to 2,100 warheads from service by that date. CBO has examined two paths for achieving those additional reductions. The first path (see Option 1, below) would keep all of the strategic delivery platforms that were planned to be in place in 2007—500 Minuteman missiles, 14 Trident submarines, 76 B–52 bombers, and 21 B–2 bombers. That path is consistent with the goals outlined by the Administration in the NPR. The second path (see Option 2, below) would remove or retire some warheads and delivery platforms: it retires 150 Minuteman missiles and two additional Trident submarines, and it converts the B–2 bombers to a conventional role, removing them from the arsenal of U.S. strategic offensive nuclear forces. Table 2 shows the delivery platforms associated with the Administration's plan and the two options.

Table 2.—Comparison of CBO's Options to Achieve the Moscow Treaty Goal of 2,200 Warheads by 2012

(In numbers of delivery platforms and deployed warheads)

| Weapon   | The Administration's<br>FY 2003–2007<br>Defense Plan |                      | Option 1:<br>2,200 Warheads,<br>No Retirements <sup>1</sup> |                       | Option 2:<br>2,200 Warheads,<br>Fewer Platforms <sup>1</sup> |                       |
|--|--|----------------------|---|-----------------------|--|-----------------------|
|  | Quantity   | Warhead <sup>2</sup> | Quantity  | Warheads <sup>3</sup> | Quantity   | Warheads <sup>4</sup> |
| <b>ICBMs:</b>                                    |  |                      |   |                       |  |                       |
| Minuteman III .....                              | 500  | 1,200                | 500   | 500                   | 350  | 650                   |
| Peacekeeper .....                                | 0  | 0                    | 0   | 0                     | 0  | 0                     |
| <b>SLBMs:</b>                                    |  |                      |   |                       |  |                       |
| Trident Submarines<br>Carrying C4 Missiles ..... | 0  | 0                    | 0   | 0                     | 0  | 0                     |
| Trident Submarines<br>Carrying D5 Missiles ..... | 14   | 2,304                | 14  | 1,152                 | 12   | 1,110                 |
| <b>Bombers:</b>                                  |  |                      |   |                       |  |                       |
| B–1 .....  | ( <sup>5</sup> )                                     | 0                    | ( <sup>5</sup> )  | 0                     | ( <sup>5</sup> )   | 0                     |
| B–2 .....  | 21   | 256                  | 21  | 128                   | ( <sup>5</sup> )   | 0                     |

Table 2.—Comparison of CBO's Options to Achieve the Moscow Treaty Goal of 2,200 Warheads by 2012—Continued

(In numbers of delivery platforms and deployed warheads)

| Weapon      | The Administration's<br>FY 2003–2007<br>Defense Plan |                      | Option 1:<br>2,200 Warheads,<br>No Retirements <sup>1</sup> |                       | Option 2:<br>2,200 Warheads,<br>Fewer Platforms <sup>1</sup> |                       |
|-------------|--|----------------------|---|-----------------------|--|-----------------------|
|             | Quantity   | Warhead <sup>2</sup> | Quantity  | Warheads <sup>3</sup> | Quantity   | Warheads <sup>4</sup> |
| B–52 .....  | 76   | 1,056                | 76  | 420                   | 76   | 420                   |
| Total ..... |  | 4,816                |   | 2,200                 |  | 2,180                 |

Source: Congressional Budget Office based on data from the Department of Defense.

Notes: FY = fiscal year; ICBM = intercontinental ballistic missile; SLBM = submarine-launched ballistic missile.

<sup>1</sup> CBO has also postulated approaches to achieving the 1,700-warhead level in the Moscow Treaty. See Appendix A for detailed descriptions of the force structure for those approaches.<sup>2</sup> Under the Administration's plan, warheads are counted as follows: three warheads on each of 350 Minuteman missiles and one warhead on each of the remaining 150 Minuteman missiles; eight warheads on each of the 24 D5 missiles (for a total of 192 warheads on each of the 12 operationally deployed Trident submarines); 16 nuclear bombs on each of the 16 operationally deployed B–2 bombers; and from 12 to 20 cruise missiles on each of the 56 operationally deployed B–52 bombers.<sup>3</sup> Under Option 1, warheads are counted as follows: one warhead on each of 500 Minuteman missiles; four warheads on each of the 24 D5 missiles (for a total of 96 warheads on each of the 12 operationally deployed Trident submarines); eight nuclear bombs on each of the 16 operationally deployed B–2 bombers; and about eight cruise missiles on each of the 56 operationally deployed B–52 bombers.<sup>4</sup> Under Option 2, warheads are counted as follows: three warheads on each of 150 Minuteman missiles and a single warhead on each of the remaining 200 Minuteman missiles; either four or five warheads on each of the 24 D5 missiles (for a total of 111 warheads on each of the 10 operationally deployed Trident submarines); and about eight cruise missiles on each of the 56 operationally deployed B–52 bombers.<sup>5</sup> All B–1 bombers would be permanently converted to a conventional role. Under Option 2, all B–2 bombers would also be permanently converted to a conventional role.

Specific information about those two paths, which would reduce the number of warheads available for immediate use to 2,200, is presented below. Similar paths to reduce the number of available warheads to 1,700, which are discussed in detail in Appendix A, would have almost identical budgetary consequences.

*Option 1: Reduce the Number of Warheads to 1,700 or 2,200 Without Retiring Delivery Platforms from the Strategic Inventory.* This option illustrates how the Administration could reduce the nuclear arsenal to either 1,700 or 2,200 warheads available for immediate use without retiring any strategic platforms beyond those changes already set out in the 2003–2007 defense program. One way of reducing the nuclear arsenal to 2,200 warheads could involve the following actions:

- Reconfigure the remaining 350 Minuteman missiles to carry one warhead instead of three.
- Deploy only 96 warheads on each of the 12 operational Trident submarines (four warheads for each of the 24 missiles), and
- Remove warheads from military bases where bombers are deployed so that only eight nuclear weapons are available for immediate use on each operational strategic bomber.

CBO estimates that the costs to take those actions would amount to about \$25 million over the 2003–2007 period and \$105 million through 2012 (see Table 3). That estimate includes the \$55 million in costs to meet the Administration's goal of 3,800 warheads by 2007. The details are outlined below.

In another version of this option, the United States could reduce the number of nuclear warheads further, to about 1,700, if it deployed only 72 warheads on each Trident submarine, instead of the 96 warheads indicated above, and converted the B–2 bombers to a conventional non-nuclear role. CBO estimates that the costs to achieve this lower warhead level would amount to \$115 million



through 2012. (See Appendix A for details of this estimate, which is labeled Option 1A.)

*Missiles.* CBO assumes that the Air Force would reconfigure the remaining 350 missiles that currently carry multiple warheads to a single-warhead configuration by replacing the existing bulkheads with new ones. After that, the warheads would need to be prepared for transport to storage sites. The costs to remove the 700 warheads would total about \$25 million over the 2003–2012 period, CBO estimates—about \$15 million to replace the bulkheads and about \$10 million to place the warheads in shipping and storage containers and to transport them to storage facilities.

*Submarines.* In order to achieve the 2,200-warhead level, CBO assumes that by 2012 the Navy would load only four warheads on each of the 24 D5 missiles on each Trident submarine, for a total of 96 warheads per submarine. In total, 1,152 warheads would need to be removed. The cost to remove missiles from the submarines and warheads from the missiles would be negligible, CBO estimated, because these actions could be done as part of regular maintenance.

Table 3.—Costs or Savings (–) of Various Approaches to Achieving the Moscow Treaty Goal Relative to the Administration’s Fiscal Year 2003–2007 Defense Program  
(In millions of dollars)

|   | Warhead<br>Removal | Reduced<br>Operations | Canceled<br>Upgrades/<br>Purchases | Total,<br>2003–2012 |
|---|--------------------|-----------------------|------------------------------------|---------------------|
| Achieve Nuclear Posture Review Goal of 3,800 Warheads by 2007:  |                    |                       |                                    |                     |
| ICBMs .....   | 15                 | 0                     | 0                                  | 15                  |
| SLBMs .....   | 40                 | 0                     | 0                                  | 40                  |
| Bombers .....   | 0                  | 0                     | 0                                  | 0                   |
| Subtotal .....  | 55                 | 0                     | 0                                  | 55                  |
| Option 1: Reduce the Number of Warheads to 2,200 by 2012 Without Retiring Delivery Platforms <sup>1</sup> |                    |                       |                                    |                     |
| ICBMs .....   | 25                 | 0                     | 0                                  | 25                  |
| SLBMs .....   | 40                 | 0                     | 0                                  | 40                  |
| Bombers .....   | 40                 | 0                     | 0                                  | 40                  |
| Subtotal .....  | 105                | 0                     | 0                                  | 105                 |
| Option 2: Reduce the Number of Warheads to 2,200 by 2012 by Retiring Some Delivery Platforms <sup>1</sup> |                    |                       |                                    |                     |
| ICBMs .....   | 245                | –1,760                | –1,000                             | –2,515              |
| SLBMs .....   | 260                | –730                  | –2,150                             | –2,620              |
| Bombers .....   | 50                 | 0                     | 0                                  | 50                  |
| Subtotal .....  | 550                | –2,490                | –3,150                             | –5,085              |

Source: Congressional Budget Office.

Note: ICBM = intercontinental ballistic missile; SLBM = submarine-launched ballistic missile. Numbers may not add up to totals because of rounding.

<sup>1</sup> Costs and savings displayed reflect approaches to reducing current levels of warheads to the Moscow Treaty goal of 2,200 warheads. The costs to remove the warheads for Option 1 and 2 include the \$55 million to achieve the Nuclear Posture Review goal of 3,800 warheads by 2007. CBO estimates that reducing the number of warheads to the 1,700 level would not necessarily result in significant additional costs or savings beyond those estimated for reducing to the 2,200-warhead level. See Appendix A for a breakdown of those costs.

As mentioned above, to comply with the NPR, the Navy would need to purchase additional equipment to maintain the capability to reload eight warheads on each missile at some future time. The costs of that equipment would total about \$40 million over the 2003–2012 period, CBO estimates.

*Bombers.* CBO assumes that the Air Force would retain for immediate use on its bomber bases only eight nuclear weapons for each of the 16 operational B-2 bombers and 56 operational B-52 bombers to achieve the overall warhead level of 2,200. In that case, 128 nuclear bombs and the warheads on 636 cruise missiles would need to be removed from bomber bases. CBO estimates that the costs to remove the warheads and bombs, to purchase containers to place them in, and to transport them to facilities away from the bases would total about \$40 million in 2012. That estimate does not include any additional costs for shipping and storing the cruise missiles because, as under current Air Force plans, those missiles would be stored at the bases. (If the Air Force chose to store the cruise missiles away from the bomber bases, CBO estimates that shipping and storage costs for those cruise missiles would total about \$5 million in 2012.)

*Option 2: Reduce the Number of Warheads to 1,700 or 2,200 by Removing Delivery Platforms from the Strategic Inventory.* Another way to reduce the nuclear arsenal to 1,700 or 2,200 warheads would be to remove some warheads and delivery platforms from the strategic inventory. One approach for achieving the 2,200-warhead level could involve the following actions:

- Retire 150 Minuteman missiles,
- Reconfigure 200 of the remaining 350 Minuteman missiles to a single-warhead configuration,
- Retire two of the oldest Trident submarines,
- Deploy only 111 warheads on each of the remaining 10 operational Trident submarines,
- Convert the B-2 bombers to a conventional role, and
- Provide only eight nuclear weapons for use on each operational B-52 bomber.

CBO estimates that the costs to remove the warheads and nuclear weapons from the missiles, submarines, and bombers; transport the warheads and weapons to storage facilities; and retire 150 missiles and two submarines would amount to about \$370 million over the 2003–2007 period and \$550 million through 2012 (see Table 3). However, those costs would be more than offset by the \$5.6 billion in savings over 10 years that would result from forgoing development and procurement of new systems to upgrade the two Trident submarines and 150 Minuteman missiles retired under this option (saving \$3.1 billion) and from reduced operations costs (saving \$2.5 billion). In total, the net savings associated with this option would be about \$5.1 billion over the 2003–2012 period, CBO estimates. (That estimate is relative to the Administration’s fiscal year 2003–2007 defense plan and includes the \$55 million in costs to meet an interim goal of 3,800 warheads by 2007.) The details of this estimate are outlined below.

In a similar manner, the United States could reduce the nuclear warhead levels further, to about 1,700, if it equipped all 350 remaining Minuteman missiles to carry only one warhead and deployed only 96 warheads on each of the 10 operational Trident submarines, instead of the 111 warheads indicated above. CBO estimates that, relative to the Administration’s 2003–2007 defense plan, the net savings associated with attaining that level would

also total \$5.1 billion over the 2003–2012 period. (See Appendix A for further information about the details of this estimate, which is labeled Option 2A.)

*Missiles.* CBO assumes that the Air Force would retire the Minuteman wing that is currently composed of 150 single-warhead missiles starting in 2005 and that the retirements would be completed by the end of 2007. The savings from retiring those missiles would total about \$2.5 billion over the 2003–2012 period, CBO estimates. Of that sum, savings of \$1.8 billion would result from reduced operations costs over the 2005–2012 period, or about \$225 million a year. That estimate of savings includes the offsetting costs associated with securing and maintaining the empty silos. An additional \$1 billion in savings over the 2003–2007 period would result from canceling planned propulsion upgrades (about \$450 million) and guidance system upgrades (about \$550 million) for those 150 missiles (see Table 3). (If the upgrades were canceled for the 150 missiles, those missiles could not be reconstituted at some future time.)

However, those savings would be partially offset by one-time costs of about \$230 million for two activities. First, to retire the missiles, the Air Force would have to remove the warheads and guidance sets from the missiles and then dismantle the booster stages. According to the Air Force, it would need to augment squadron personnel with contractor support to accomplish that effort and prepare the components to be moved from the launch site. On the basis of information provided by the Air Force, CBO estimates that the costs to dismantle the missiles would total about \$90 million over the 2005–2007 period. Second, the Air Force would need to transport the warheads, guidance sets, and booster stages to storage sites. CBO assumes that the Air Force would transport the boosters and guidance sets to Hill AFB in Utah and the Utah Test Range and that the Air Force would reimburse the Department of Energy's National Nuclear Security Administration to transport the warheads to DoD storage facilities. The costs for transportation and storage would total about \$140 million over the 2005–2012 period, CBO estimates. Alternatively, the Air Force could choose to destroy the guidance sets. In that case, the Air Force would transport the guidance sets to the Boeing Guidance Repair Center in Ohio for their eventual destruction. CBO has not included those additional costs in the estimate because the Moscow Treaty does not require that the guidance sets be destroyed.

CBO also assumes that the Air Force would convert an additional 200 missiles with multiple warheads to a single-warhead configuration, removing 400 warheads as a result of that conversion. According to the Air Force, it would need to supplement squadron personnel with contractor support to accomplish that effort. CBO estimates that removing those warheads would cost about \$15 million over the 2004–2007 period, reflecting the costs of replacing the bulkheads (about \$10 million) and transporting the warheads to DoD storage facilities (about \$5 million). The estimate does not include any costs for buying the replacement bulkheads and buying more containers to ship and store the warheads because these items have already been purchased.

*Submarines.* By retiring two Trident submarines carrying the older C4 missiles when they would otherwise enter an overhaul (one in 2005 and another one the following year), the Navy would remove a total of 288 warheads (144 warheads for each submarine) from operational status.<sup>2</sup> The savings from retiring the submarines would total about \$730 million in reduced operations costs through 2012, CBO estimates, although those savings would be offset somewhat by one-time costs of about \$220 million to retire the submarines. CBO estimates no additional costs to transport the C4 missiles to DoD storage locations and eventually dispose of them because those missiles would be eliminated under the Administration's defense plan.

Retiring two Trident submarines by 2007 would save an additional \$2.2 billion in planned upgrades and purchases (see Table 3). Not overhauling the two submarines to accommodate the newer D5 missiles would save about \$0.9 billion over the 2003–2007 period, and not buying the 48 D5 missiles that would be deployed on the overhauled submarines would save about \$1.3 billion through 2012.

Alternatively, the Navy could choose to convert those two Trident submarines to a conventional role instead of retiring them. Based on recent experience, the conversion costs, which also include the cost to equip the submarines with 154 Tomahawk missiles, would total about \$2 billion, or roughly \$1 billion for each submarine, CBO estimates.

As in Option 1, CBO assumes an average of two submarines a year would undergo a major overhaul and thus not carry any missiles. Each of the 10 operationally deployed Trident submarines would deploy 111 warheads, or four to five warheads on each submarine's 24 D5 missiles as part of the approach to achieve the treaty's 2,200 level. (CBO assumes that 15 of the missiles would carry five W76 warheads and nine missiles would carry four W88 warheads.) In total, CBO calculates that 810 warheads would be removed from service, and the costs to remove them would be negligible.

To maintain the capability to redeploy eight warheads on each missile at some future time, the Navy would need to purchase additional hardware. CBO estimates that the costs of that hardware would total about \$40 million over the 2003–2012 period.

*Bombers.* Under this option, CBO assumes that the Air Force would convert all 21 B–2 bombers to a conventional role by the end of 2012. In that case, 256 nuclear bombs would be moved from the B–2 bases to storage facilities, at a total cost of about \$10 million in 2012, CBO estimates. But because the aircraft would continue to be used for non-nuclear missions, CBO estimates that there would be no savings from reduced operations.

As in Option 1, CBO assumes that the Air Force would retain for immediate use on its bomber bases only eight nuclear weapons for each of its 56 operational B–52 bombers. CBO estimates that the costs to remove the 636 warheads from service, purchase the containers to place them in, and store nuclear warheads at facilities away from the bases would total about \$40 million in 2012.

<sup>2</sup>Under the Administration's defense plan, these submarines would be upgraded to carry D5 missiles, with a total of 384 warheads on the two vessels.

*Accelerating Warhead Reductions to Achieve Moscow Treaty Goals by 2007*

The United States might be able to download warheads from strategic platforms more quickly than envisioned in either Options 1 or 2 described above (or Options 1A or 2A, which are described in Appendix A) to achieve Moscow Treaty goals by 2007. However, both the Air Force and the NNSA have indicated that accelerating the downloading of warheads could be difficult given current plans to retire Peacekeeper missiles and current capacity to transport warheads. Any resources required to overcome those constraints would increase the estimated costs of options that simply download warheads (Options 1 and 1A) and decrease the savings attributed to options that both download warheads and retire delivery platforms (Options 2 and 2A). In the absence of specific plans from the Air Force and the NNSA describing how they might work to achieve this accelerated goal, CBO has no basis for independently estimating those additional resource requirements.

In particular, the Air Force has indicated that current plans to retire the Peacekeeper missiles and upload the warheads from those missiles onto Minuteman missiles at F.E. Warren AFB would probably fully utilize all personnel at that base through 2007. Thus, additional efforts to download warheads from Minuteman missiles to achieve reductions five years earlier than assumed by CBO could prove difficult. The Air Force has also indicated that there may be insufficient space available to temporarily store the warheads while awaiting removal by the NNSA. That potential shortage of space could require either that DoD build more storage space or that the NNSA expand its fleet of transport vehicles.

Currently, the NNSA has about 25 transport trailers, around 56 armored tractors (for pulling the trailers), and 86 escort vehicles (for security). In addition, about 210 trained federal agents support those transport efforts. The NNSA plans to double those resources by 2008 to support refurbishing the arsenal of nuclear warheads and transporting plutonium from the Hanford Site in Washington and the Idaho Laboratory to the Savannah River Site in South Carolina. Therefore, efforts to meet the Administration's current plan and accelerate the warhead reductions to achieve Moscow Treaty goals by 2007 might require the NNSA to purchase more vehicles and hire more agents. Moreover, the 2,200-warhead goal established by the NPR is predicated on DoD and NNSA completing several other infrastructure initiatives. CBO does not have sufficient information to independently determine if those initiatives could be completed by 2007 or to estimate the costs to accelerate those efforts.

#### OTHER BUDGETARY ISSUES

CBO has also reviewed:

- The impact on the nuclear weapons production complex of dismantling, instead of storing, weapons removed from service;
- The costs of additional transparency measures associated with the Moscow Treaty, beyond those measures existing under START;

- The costs of converting strategic bombers and submarines to conventional missions but maintaining a ready capability to revert to a strategic role; and
- The savings from lowering the operational status of (taking off high alert) strategic forces scheduled for retirement by 2012.

*Impact on the Nuclear Weapons Production Complex of Dismantling Warheads*

Tie NNSA's plans for inspecting and refurbishing warheads and producing tritium and pits are based on maintaining an inventory of nuclear warheads consistent with the U.S. nuclear forces permitted under START and the Administration's fiscal year 2003–2007 defense plan. There might not be any additional costs to maintain those warheads in a condition for speedy redeployment should they be removed from the missiles and stored at a DoD facility to meet the Moscow Treaty's reduction requirements. Such an approach to implementing the treaty would simply change the locations of warheads, not the total number that must be maintained.

But dismantling, instead of storing, one-half or more of the warheads removed to meet the Moscow Treaty requirements could have substantial costs depending on when that task was performed. According to the NNSA, dismantling by 2012 one-half of the warheads that might be removed would cause a significant increase in workload at its Pantex facility. That increase would place the workload above current projections and beyond the capacity that will be provided once the three currently planned capital construction projects at Pantex are completed in 2007. If, however, completion of dismantlement could be delayed until the 2020–2025 period, the planned capacity at Pantex would probably be sufficient. The NNSA has not provided a specific estimate of the additional capacity that would be needed to complete dismantlement by 2012, and CBO currently lacks sufficient information to independently estimate that needed additional capacity and its cost.

Also according to the NNSA, changes in the nuclear stockpile associated with implementing the Moscow Treaty should have no significant effect on its current plans for pit and tritium production. That conclusion is not surprising because the total number of warheads stored and maintained under the Moscow Treaty would probably not differ significantly from the number maintained under START. The NNSA states that “the modern plutonium pit production facility that is planned to be operational by 2018 will provide a minimum single-shift capacity of 250 pits per year.”<sup>3</sup> The NNSA states further that “this minimum capacity will be needed to support the stockpile associated with the Moscow Treaty.” Similarly, the NNSA states that “there will be no near-term reduction in the immediate demand for tritium.” Thus, it is “committed to its plan to begin tritium production in Tennessee Valley Authority reactors in fall 2003, and to complete construction and begin operations of a new tritium extraction facility at the Savannah River Site so that tritium can be delivered to the stockpile in advance of need and maintain the five-year reserve.”

<sup>3</sup>NNSA's written responses to questions asked by CBO staff on July 22, 2002.

CBO currently lacks sufficient information to estimate in detail the effects that dismantling warheads instead of storing and maintaining them might have on needed tritium and plutonium pit production capacities. But if the NNSA's current plans are based on maintaining a START inventory, dismantling some fraction of that inventory ought to imply a concomitant reduction in needed steady-state tritium and pit production capacities. If all or one-half of the warheads removed from operational status under the Moscow Treaty were dismantled, the resulting inventories would be about one-third to two-thirds of the START inventory. This implies that the capacity needed to produce pits and tritium might be one-third to two-thirds of currently planned levels. Under those circumstances, the NNSA's current plans for the modern plutonium pit production facility and the tritium extraction facility might need to be reevaluated. Any savings that might be achieved by redesigning these facilities could be offset by the costs to expand the capacity at the Pantex facility to ensure that warheads could be dismantled in a timely manner, however.

#### *Transparency Measures*

The Moscow Treaty contains no additional verification provisions beyond those in START because, according to the Administration, U.S. security and the new strategic relationship with Russia do not require them. On the basis of funding levels for START program activities over the 1997–2002 period, CBO estimates that the costs for future transparency measures associated with the Moscow Treaty would total about \$50 million a year, assuming no change in the scope of verification efforts. CBO has no basis for estimating the costs of any additional measures that might be agreed to in the future.

#### *Costs of Converting Bombers and Submarines to Non-Nuclear Missions But Retaining the Option to Restore Nuclear Capability*

Apart from its previously announced intent to convert four Trident submarines to a conventional role and to retire the Peacekeeper missiles, the Administration has not yet developed detailed plans for implementing the reductions called for in the Moscow Treaty. In particular, it has announced no plans for converting bombers and submarines to a conventional-only configuration while retaining the option to restore their nuclear capability. The details of such plans would be important in determining both the costs for initial conversion as well as the costs to restore nuclear capability.

For example, as mentioned under Option 2, converting two additional Trident submarines equipped with C4 missiles to the conventional configuration now planned for four of the 18 submarines would cost about \$1 billion per submarine. Those conversions would modify space currently used for other purposes to accommodate special operations forces and would alter the existing missile tubes to accommodate missiles armed with conventional warheads, including Tomahawk cruise missiles. Although those modifications could probably be reversed, CBO has no basis for estimating the costs of doing so.

Converting existing nuclear-armed Trident submarines to a conventional configuration could also be accomplished in other ways.

The Administration has requested funds to explore converting the nuclear-armed, intercontinental range Trident ballistic missile to a version armed with a conventional warhead. Equipping Trident submarines with such a missile might require minimal modifications to the submarines. But again, CBO has no basis for estimating the costs to develop, modify, and test such a missile.

Similarly, the costs of converting bombers to a conventional-only configuration and subsequently restoring their nuclear capability depend on details not yet provided by the Administration. For example, one way that conversion could proceed in accordance with the Moscow Treaty would be to leave the existing physical configurations of the bombers unchanged while halting the training and other activities associated with nuclear missions and removing to remote storage all bomber-delivered nuclear warheads. In that case, costs associated with the subsequent restoration of nuclear capability would probably be negligible. But if the Administration decided to convert all B-52 bombers to a conventional-only configuration by removing the physical and electronic interfaces they now have for carrying nuclear-armed cruise missiles, conversion and restoration costs would probably be significant.

*Lowering the Operational Status of Strategic Forces Scheduled for Retirement by 2012*

Today, the United States and Russia keep hundreds of nuclear warheads in inventory, ready to launch within minutes. Lowering the operational status—sometimes called “dealerting”—increases the time that both countries have before they must decide whether to launch missiles in response to an attack. In general, lowering the operational status of strategic offensive forces would involve measures such as keeping the Trident submarines in patrol areas that are not within range of Russian targets, shutting off the switches in Minuteman missile silos, and keeping the strategic bombers off high alert. CBO expects that implementing any of those actions would not significantly change the current deployment schedule of those forces and, therefore, would have a negligible impact on the costs of operations.

APPENDIX A

CBO has also assessed the budgetary impact of reducing the number of warheads to about 1,700 under two scenarios—one without retiring delivery platforms and the other assuming retirement of 150 Minuteman missiles and two Trident submarines. Table A-1 shows the delivery platforms associated with the Administration’s plan and these two scenarios. The costs or savings are very similar to those that would result from a reduction to 2,200 warheads. This appendix describes the basis for that estimate.

*Option 1A: Reduce the Number of Warheads to about 1,700 Without Retiring Delivery Platforms from the Strategic Inventory.* The Administration could reduce the number of warheads to about 1,700 by taking the following actions:

- Reconfigure the remaining 350 Minuteman missiles to a single-warhead configuration,



- Deploy only 72 warheads on each of the 12 operational Trident submarines,
- Convert the B-2 bombers to a conventional role, and
- Remove operational weapons from storage areas at the bomber bases so that only eight nuclear weapons would be available for use on each operational bomber.

CBO estimates that the costs to implement those reductions would total about \$115 million over the 2003–2012 period, including the \$55 million necessary to meet an interim goal of 3,800 warheads by 2007 (see Table A-2). This cost is about \$10 million higher than the cost of Option 1, because it involves the removal of an additional 128 nuclear bombs from B-2 bombers. The costs for removing the additional 288 warheads from the Trident submarines would be negligible.

*Missiles.* The Air Force would remove 700 warheads by converting the 350 missiles that are currently configured to carry multiple warheads to a single-warhead configuration. The costs to remove those warheads would total about \$25 million over the 2003–2012 period, CBO estimates.

*Submarines.* Under this scenario, CBO assumes that the Navy would remove six D5 missiles from each Trident submarine, leaving only 18 D5 missiles per submarine, and would deploy four warheads on each of those missiles, for a total of 72 warheads on each submarine. In all, CBO calculates that 1,440 warheads would be removed. The costs to remove the missiles from the submarines and the warheads from the missiles would be negligible, CBO estimates, because those tasks could be done as part of regular maintenance activities.

To maintain the capability to reload eight warheads on each missile at some future time, the Navy would need to purchase additional equipment. CBO estimates that the costs of that equipment would total about \$40 million over the 2003–2012 period.

*Bombers.* As in Option 2, CBO assumes that the Air Force would convert all 21 B-2 bombers to a non-nuclear role in 2012. Removing 256 nuclear bombs, buying the containers to place them in, and transporting them to storage facilities would cost about \$10 million in 2012, CBO estimates. The Air Force would retain on its bomber bases for immediate use only eight nuclear weapons for each of its 56 operational B-52 bombers. CBO estimates that the costs to remove and store the 636 warheads at facilities away from the bomber bases would total about \$40 million in 2012.

*Option 2A: Reduce the Number of Warheads to About 1,700 by Removing Delivery Platforms from the Strategic Inventory.* Another way to reduce the number of warheads to 1,700 would be to remove some existing delivery platforms from the strategic inventory. One approach for implementing this option could involve the following actions:

- Retire 150 Minuteman missiles,
- Equip all remaining Minuteman missiles to carry only one warhead instead of three,
- Retire two of the oldest Trident submarines,
- Deploy only 96 warheads on each of the 10 operational Trident submarines,

- Convert the B-2 bombers to a conventional role, and
- Provide only eight nuclear weapons for use on each operational B-52 bomber.

This approach involves the same number of delivery platforms as Option 2, but 450 fewer warheads.

CBO estimates that the costs to remove the warheads and nuclear weapons from the launchers and bomber bases, transport the warheads and weapons to storage facilities, and retire 150 Minuteman missiles and two Trident submarines would total about \$560 million over the 2003–2012 period. Those costs would be more than offset, however, by the significant savings from reduced operations costs and from canceling upgrades and purchases for the submarines and missiles that would be retired under this option. As with Option 2, CBO estimates that the net savings associated with this option would total about \$5.1 billion over 10 years (see Table A-2).

*Missiles.* CBO assumes that the Air Force would retire 150 Minuteman missiles starting in 2005 (as in Option 2) and that the retirements would be completed by the end of 2007. The net savings from retiring the missiles would total about \$2.5 billion through 2012, CBO estimates. CBO also assumes that the Air Force would convert the remaining 350 Minuteman missiles to a single-warhead configuration. Removing the 700 warheads would cost an estimated \$25 million over the 2003–2012 period.

*Submarines.* CBO estimates that the net savings from retiring two Trident submarines, one in 2005 and another one the following year, would amount to about \$0.9 billion over the 2003–2007 period and about \$2.6 billion through 2012.<sup>4</sup>

Assuming that the Navy would deploy 96 warheads on each remaining Trident submarine, or four warheads on each of the submarine's 24 D5 missiles, CBO calculates that 960 warheads would be removed. The costs to remove those warheads would be negligible. However, to maintain the capability to redeploy eight warheads on each missile at some future time, the Navy would need to purchase additional equipment, which CBO estimates would cost about \$40 million over the 2003–2012 period.

*Bombers.* As in Option 2, CBO assumes that the Air Force would convert all 21 B-2 bombers to a conventional role in 2012, resulting in costs of \$10 million in that year to remove 256 bombs, buy the containers to place them in, and transport them to storage facilities. Similarly, the Air Force would provide only eight nuclear weapons for each of its 56 operational B-52 bombers. CBO estimates that the costs to remove the 636 nuclear weapons, purchase containers to place them in, and store them at facilities away from the bomber bases would total about \$40 million in 2012.

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<sup>4</sup>Under the Administration's defense plan, these submarines would be upgraded to carry D5 missiles, with a total of 384 warheads on the two vessels.

Table A-1.—Comparison of CBO's Options to Achieve the Moscow Treaty Goal of 1,700 Warheads by 2012

(In numbers of delivery platforms and deployed warheads)

| Weapon                     | The Administration's<br>FY 2003–2007<br>Defense Plan |                      | Option 1A:<br>1,700 Warheads,<br>No Retirements <sup>1</sup> |                       | Option 2A:<br>1,700 Warheads,<br>Fewer Platforms <sup>1</sup> |                       |
|----------------------------|--|----------------------|--|-----------------------|---|-----------------------|
|                            | Quantity   | Warhead <sup>2</sup> | Quantity   | Warheads <sup>3</sup> | Quantity  | Warheads <sup>4</sup> |
| <b>ICBMs:</b>              |  |                      |  |                       |   |                       |
| Minuteman III .....        | 500  | 1,200                | 500  | 500                   | 350   | 350                   |
| Peacekeeper .....          | 0  | 0                    | 0  | 0                     | 0   | 0                     |
| <b>SLBMs:</b>              |  |                      |  |                       |   |                       |
| Trident Submarines         |  |                      |  |                       |   |                       |
| Carrying C4 Missiles ..... | 0  | 0                    | 0  | 0                     | 0   | 0                     |
| Trident Submarines         |  |                      |  |                       |   |                       |
| Carrying D5 Missiles ..... | 14   | 2,304                | 14   | 864                   | 12  | 960                   |
| <b>Bombers:</b>            |  |                      |  |                       |   |                       |
| B-1 .....                  | ( <sup>5</sup> )                                     | 0                    | ( <sup>5</sup> )   | 0                     | ( <sup>5</sup> )  | 0                     |
| B-2 .....                  | 21   | 256                  | ( <sup>5</sup> )   | 0                     | ( <sup>5</sup> )  | 0                     |
| B-52 .....                 | 76   | 1,056                | 76   | 420                   | 76  | 420                   |
| <b>Total</b> .....         |  | <b>4,816</b>         |  | <b>1,784</b>          |   | <b>1,730</b>          |

Source: Congressional Budget Office based on data from the Department of Defense.

Notes: FY = fiscal year; ICBM = intercontinental ballistic missile; SLBM = submarine-launched ballistic missile.

<sup>1</sup>CBO has also postulated approaches to achieving the 2,200-warhead level in the Moscow Treaty. See Table 2 for detailed descriptions of the force structure for those approaches.<sup>2</sup>Under the Administration's plan, warheads are counted as follows: three warheads on each of 350 Minuteman missiles and one warhead on each of the remaining 150 Minuteman missiles; eight warheads on each of the 24 D5 missiles (for a total of 192 warheads on each of the 12 operationally deployed Trident submarines); 16 nuclear bombs on each of the 16 operationally deployed B-2 bombers; and from 12 to 20 cruise missiles on each of the 56 operationally deployed B-52 bombers.<sup>3</sup>Under Option 1A, warheads are counted as follows: a single warhead on each of the 500 Minuteman missiles; four warheads on each of the 18 D5 missiles (for a total of 72 warheads on each of the 12 operationally deployed Trident submarines); and about eight cruise missiles on each of the 56 operationally deployed B-52 bombers.<sup>4</sup>Under Option 2A, warheads are counted as follows: a single warhead on each of the 350 Minuteman missiles; four warheads on each of the 24 D5 missiles (for a total of 96 warheads on each of the 10 operationally deployed Trident submarines); and about eight cruise missiles on each of the 56 operationally deployed B-52 bombers.<sup>5</sup>All B-1 bombers would be permanently converted to a conventional role. Under Options 1A and 2A, all B-2 bombers would be permanently converted to a conventional role.

Table A-2.—Costs and Savings (–) of Alternative Approaches to Achieving the Moscow Treaty Goal Relative to the Administration's Fiscal Year 2003–2007 Defense Program

(In millions of dollars)

|   | Warhead<br>Removal | Reduced<br>Operations | Canceled<br>Upgrades/<br>Purchases | Total,<br>2003–2012 |
|---|--------------------|-----------------------|------------------------------------|---------------------|
| <b>Option 1A: Reduce the Number of Warheads to 1,700 by 2012 Without Retiring Delivery Platforms:<sup>1</sup></b> |                    |                       |                                    |                     |
| ICBMs .....   | 25                 | 0                     | 0                                  | 25                  |
| SLBMs .....   | 40                 | 0                     | 0                                  | 40                  |
| Bombers .....   | 50                 | 0                     | 0                                  | 50                  |
| <b>Subtotal</b> .....   | <b>115</b>         | <b>0</b>              | <b>0</b>                           | <b>115</b>          |
| <b>Option 2A: Reduce the Number of Warheads to 1,700 by 2012 by Retiring Delivery Platforms:<sup>1</sup></b>      |                    |                       |                                    |                     |
| ICBMs .....   | 250                | –1,760                | –1,000                             | –2,510              |
| SLBMs .....   | 260                | –730                  | –2,150                             | –2,620              |
| Bombers .....   | 50                 | 0                     | 0                                  | 50                  |
| <b>Subtotal</b> .....   | <b>560</b>         | <b>–2,490</b>         | <b>–3,150</b>                      | <b>–5,080</b>       |

Source: Congressional Budget Office.

Note: ICBM = intercontinental ballistic missile; SLBM = submarine-launched ballistic missile. Numbers may not add up to totals because of rounding.

<sup>1</sup>Costs and savings displayed reflect approaches to reducing current levels of warheads to the Moscow Treaty goal of 1,700 warheads. CBO has also postulated approaches to achieving the 2,200-warhead level in the Moscow Treaty. CBO's estimates for achieving that level are not significantly different in total from the costs displayed above.