NUCLEAR PROLIFERATION

CONFRONTING THE NEW CHALLENGES

Report of an
Independent Task Force
on Nuclear Proliferation

Sponsored by the Council on Foreign Relations
STEPHEN J. HADLEY, CHAIRMAN
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The Council on Foreign Relations is a nonprofit, nonpartisan organization that takes no position on issues. The Task Force takes responsibility for the content of this report.

The bipartisan Task Force was convened by the Council on Foreign Relations as an independent study project. The Task Force consisted of a diverse group of experts from the foreign policy, defense, arms control, and intelligence communities, academic and research institutions, and non-governmental organizations. It included individuals with high-level experience in all recent U.S. administrations. A list of task force members appears at the end of the report.

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Principal Conclusions and Recommendations: Chairman's Summary

In the interest of timely release of the Task Force Report, the Chairman has prepared this summary as a personal attempt to reflect the main perspectives and prescriptions advanced in the consensus document.

The international community stands at a historic crossroads. In less than three months, delegations from around the world will convene in New York City to decide whether to renew the nuclear Non-Proliferation Treaty (NPT). With 168 members, the NPT is the most broadly supported agreement of its kind in history. Yet despite this broad support, the outcome of the vote to extend the Treaty is very much in doubt. That outcome matters enormously.

Halting the spread of nuclear weapons must be a top priority not just for the United States but for the entire international community. But succeeding in this effort will be even harder in the future than it was in the past. Indeed, the risk of the spread of nuclear weapons — and perhaps even the risk of nuclear use — is probably greater now than it was during the dark days of the Cold War.

The Problem Is Harder than Before

The traditional route to proliferation—developing an indigenous nuclear weapons capability—presents much less of a technical challenge than it did even a few years ago. At the same time, the collapse of the Soviet Union, and political and economic turmoil in its successor states, offers an alternative—and easier—route to proliferation, as technical know-how, trained personnel, and even nuclear weapons themselves become potentially available for sale to the highest bidder.

Bidders could include not only nation-states but also radical subnational groups willing to use nuclear blackmail for their own purposes (or on behalf of a nation-state patron). These groups present

a particularly stressing challenge, for their activities are likely to be hard to detect, hard to deter, and hard to handle if deterrence fails.

While the number of nation-states presenting a new proliferation risk is relatively small, they are extremely challenging. The recent experiences with Iraq, North Korea, and the break-up of the former Soviet Union suggest the possibility of a "creeping concern" in the international community as to the continued viability and effectiveness of international efforts against nuclear proliferation. This concern can only be compounded by uncertainty as to whether the major powers are still committed to the effort. With so many states having the technical capability to design and build nuclear weapons, such concern and uncertainty could lead relatively quickly to an increase in the number of "covert" or even declared nuclear weapon states.

The Problem Is One All Nations Should Want to Solve

The United States has every interest in dispelling any doubt about its commitment to the effort against nuclear proliferation. With the end of the Cold War, "rogue" states or terrorist groups armed with nuclear weapons represent the most clear and present danger to U.S. forces and allies overseas —and potentially to the territory of the United States itself. The acquisition of nuclear weapons by a state or subnational group hostile to the United States, its friends and allies, could revolutionize the politics of important regions (including Asia and the Middle East) in ways highly prejudicial to U.S. interests and international stability.

At the same time, the success of the effort against nuclear proliferation is perhaps even more critical to the non-nuclear weapon states. Most of these states do not have the financial or military resources that the United States has for dealing with a proliferated world. Their support of the effort against nuclear proliferation is not a gift to the nuclear weapons states but an investment in their own national security.

A Revitalized Effort Against Proliferation Is Required

The Task Force was virtually unanimous that:

- The proliferation of nuclear weapons represents the most urgent and realistic threat not only to the security of the United States, its friends and allies, but also to the security of the entire international community.
- To handle successfully the nuclear proliferation challenges of the future, the international community must mount a revitalized effort against this threat, with new undertakings and new initiatives.
- To mount such a revitalized effort, the international community must move beyond viewing non-proliferation as a "bargain" between nuclear weapon and non-nuclear weapon states. It must see instead the common interest of all members of the international community in avoiding further nuclear proliferation. It must accept the common need for shared obligations and shared responsibilities.

To achieve consensus behind such a revitalized effort, the United States must show urgent, high-level, and sustained leadership. To do this the United States must maintain its own non-proliferation infrastructure, including intelligence assets, technical know-how, and prudent defense preparations. But it must also pursue creative policies and manifest real commitment.

A Revitalized Effort Should Have the Following Eight Elements

Our Task Force reviewed a broad range of proposals and ideas from which it synthesized a core group of initiatives and undertakings to serve as the basis for a revitalized effort against nuclear proliferation. Although focused on nuclear proliferation, many of these measures

would be equally applicable to efforts against the proliferation of chemical, biological, and other weapons of mass destruction (WMD).

What is significant about this work is that this Task Force, despite having members with highly divergent backgrounds, experiences, and views, nonetheless achieved rough consensus behind a common approach. Our hope is that this same approach could command a "bipartisan" consensus not only within the U.S. government but also within the international community as a whole. If so, then we would all be well on the road toward the revitalized effort that the nuclear proliferation challenges of the future will require.

The Task Forces conclusions and recommendations relate to each of these eight elements. Among them are:

An Extended NPT

The international non-proliferation regime warrants continued international support. The NPT should be indefinitely and unconditionally extended.

Sound Regional Strategies

Each instance of proliferation risk is unique and requires its own special strategy, tailored to its particular regional setting. (See pages 14–22.)

- The United States should have an explicit strategy for each region of proliferation concern (including East Asia, South Asia, and the Middle East). Each strategy should be comprehensive in its approach, bringing to bear the full variety of political, economic, and security factors affecting potential proliferation in that region.
- The United States must continue its multi-pronged approach to the problem of weakened nuclear controls in the former Soviet Union. This approach should include continued funding of a streamlined and expedited Nunn-Lugar program focused on weapons system de-activation, weapons dismantlement, and the accounting, storage, and control of nuclear weapons and fissile material.

Real Security Assurances

Defense treaties and security arrangements can serve to discourage proliferation by reassuring states facing potential nuclear and other threats. These relationships must be kept sturdy and reliable. At the same time, confidence-building and other similar measures have an important role to play in reducing tensions that may encourage proliferation. (See pages 22–24.)

A Strengthened IAEA

The International Atomic Energy Agency (IAEA) has a critical role to play in both deterring and detecting the diversion of civilian nuclear technology to a nuclear weapons program. The United States should take the lead in expanding the funding for IAEA inspection and safeguarding activities and should pay its dues promptly at the beginning of each calendar year. (See pages 24–25.)

- The IAEA should "expand the envelope" of its activities under existing safeguards agreements at locations where it suspects undeclared nuclear activity might be going on. This should include greater use of so-called "special" inspections and of environmental sampling.
- The IAEA should undertake "challenge inspections" that could be initiated, at IAEA discretion, upon a complaint from an aggrieved state, with the complaining state responsible for paying the costs of such inspections.

Strong Export Controls

A strong export control regime is a critical component of any enhanced effort against proliferation. States supporting the non-proliferation regime have little to fear from well-conceived export controls and much to fear from a world in which no such controls exist. (See pages 25–27).

- The United States should continue to seek a post-Cold War successor to the Coordinating Committee on Multilateral Export Controls (COCOM) but one reoriented to preventing the transfer

of sensitive technology, equipment, or personnel to potential proliferators. All nations that supply such technology, equipment, or personnel should cooperate in pursuing tougher, more uniform licensing and enforcement policies, and in developing real sanctions for violators.

- As to U.S. export policy, legitimate proliferation concerns may not be receiving sufficient weight in the face of commercial factors and the desire to avoid unilateral controls. While continuing to streamline and improve the timeliness of the system of export controls, interagency review and the right of the United States to take unilateral action should be preserved.

Sensible Civilian Uses of Fissile Material

The United States and all the parties to the NPT must honor their NPT (Article IV) commitment to provide nuclear energy assistance to NPT parties. At the same time, market realities and inherent proliferation concerns should shift the focus of such assistance to the most cost-effective and proliferation-resistant strategies and technologies. (See pages 27–29.)

- The United States should take further steps to discourage countries like Japan, France, Russia, and India from separating or using plutonium in the nuclear fuel cycle. At the same time, the United States should commit itself not to use U.S. consent rights to interfere with reprocessing and plutonium use programs of EURATOM countries and Japan.
- Higher priority should be given to providing nuclear energy assistance that does not implicate the nuclear fuel cycle (such as medical research and agriculture), and to providing greater technical assistance and financial support to both non-nuclear energy alternatives and to the safety and security of civilian nuclear facilities.

Counterproliferation

Prudent preparations to counter the use or threat of use of WMD need not contradict, but can support, the effort against proliferation. (See pages 29–31.)

- The United States should move swiftly to improve the capabilities of both its own and potential allies' forces and civilians to protect themselves against chemical and biological weapons (by protective clothing, masks, antidotes, detection devices, and the like).
- The United States should seek the support and cooperation of other states in developing counterproliferation policies and selected programs, thus helping to deter WMD threats by being prepared to deal with them if necessary.

Nuclear Disarmament

The United States and the other nuclear weapon states must reaffirm their NPT (Article VI) commitment to further progress toward the progressive elimination of nuclear weapons. At the same time, while further dramatic steps toward this objective—and a world of "radically few" nuclear weapons, measured in hundreds rather than thousands—are achievable, they will depend in large measure on whether the international community adopts the elements of the revitalized effort against proliferation described in this Task Force report. This is because the same undertaking and initiatives that offer the prospect of success on the non-proliferation front are needed to facilitate further reductions by the nuclear weapon states. (See pages 31–33.)

- In addition to implementing agreed reductions, the United States should take steps in parallel with Russia to "lengthen the nuclear fuse" by: lowering alert rates on strategic nuclear forces; deactivating, disabling, and disassembling nuclear delivery systems destined for reduction and elimination; and "escrowing" nuclear weapons removed from those systems.
- The United States should call upon China, France, and the United Kingdom to take these and other steps with respect to their nuclear forces to increase the safety and security of their nuclear deterrents by moving away from the hair-trigger postures of the Cold War.

I. Background

1. HOW SUCCESSFUL HAS THE NUCLEAR NON-PROLIFERATION EFFORT BEEN?

The nuclear non-proliferation effort mounted by the United States and other like-minded states over the last 30 years has had some real successes. The predictions of the early 1960s that the world would have 15 to 25 nuclear weapons states by the end of the century have not come true. Except for India's test of a nuclear explosive device in 1974 (declared to be for peaceful purposes), the years since those predictions have seen no confirmed test of a nuclear explosive device by states other than the five declared nuclear weapons states and no emergence of a new declared nuclear weapons state. Most of the states that were viewed as potential proliferation candidates in the 1960s—the industrialized states of Europe and Asia—clearly have the potential to develop nuclear weapons but have to date seemed content not to do so.

Important steps have been taken to address a new and serious proliferation challenge arising in the aftermath of the Cold War—managing the nuclear inheritance of the former Soviet Union. All of the tactical nuclear weapons of the former Soviet Union have been withdrawn to Russia. Ukraine, Kazakhstan, and Belarus have each pledged to give up all of the strategic nuclear weapons on its territory. All three countries have joined the Non-Proliferation Treaty (NPT) and signed full-scope safeguards agreements with the International Atomic Energy Agency (IAEA).

On the other hand, the reality is that there has been significant nuclear proliferation. It is all but certain that at least India, Pakistan, and Israel have nuclear weapons (or the capability to assemble nuclear weapons on short notice). Iraq would have had them in a few years but for the Gulf War, and more troubling still would

have had them notwithstanding its being a party to the NPT. Before voluntarily dismantling and publicly disclosing its nuclear inventory and joining the NPT, South Africa covertly assembled six nuclear weapons despite international export controls. North Korea may have sufficient nuclear material for one or two nuclear devices and has only recently declared a willingness to discontinue an ongoing program to generate more.

2. WHAT ACCOUNTS FOR THIS SUCCESS?

Even the most skeptical of our group would acknowledge that the nuclear non-proliferation regime—the NPT, the IAEA inspection and safeguards system, and associated export control arrangements such as the Nuclear Suppliers Group—has made a real contribution to dealing with the proliferation problem. The NPT and the broad (although not universal) adherence to it has helped establish an international norm against nuclear proliferation. Although this international norm arguably had little effect on the nuclear decisions of Iraq or North Korea, it has made it easier to build a consensus behind measures taken in response to these adverse developments and behind other non-proliferation measures (such as the Nuclear Suppliers Group and other export control arrangements, and the sanctions regime for Iraq). The existence of this norm may also be responsible at least in part for the fact that such proliferation as has occurred has remained relatively covert and undeclared, and may have strengthened the hand of those persons arguing the case for foregoing nuclear weapons programs within the councils of other national governments.

But our group would also all acknowledge that there are a number of other factors that have been perhaps equally if not more significant in such non-proliferation success as has been achieved. For example, the nuclear weapons programs pursued by Taiwan and South Korea were discontinued under strong political pressure from the United States (their closest ally). These decisions were facilitated by the existence of a strong security relationship (including the protection offered by U.S. nuclear weapons) between each of these

countries and the United States.

Internal economic and political factors can also be critical. It is likely that the severe recession in Argentina and especially Brazil in the early 1980s, the advance of political democracy in Latin America in general, and the quality of political leadership in Argentina and Brazil in particular, had a decisive impact on causing these two countries to give up their nuclear weapons programs. In South Africa, the prospect of majority rule, as well as the end of Soviet influence in Southern Africa, caused the Afrikaner regime to change policy in 1991 and to dismantle an existing nuclear inventory.

The conclusion from this rather cursory review is that the national decisions that have affected the success or failure of the effort against nuclear proliferation have been influenced by a variety of factors, of which the formal non-proliferation regime is an important factor but far from the only one. Further, the weight to be assigned to any one of these factors is highly dependent upon the particular regional setting, and the particular internal political situation, in which the nation in question finds itself, as well as the ability of the world community to manage and enforce the international non-proliferation regime.

3. WHAT ARE THE CHALLENGES FOR THE FUTURE?

The demise of the Soviet Union and the subsequent changes in the international security environment have combined with stubborn problems of longer standing to present formidable challenges to the international effort against proliferation for the remainder of this decade and into the twenty-first century. In the near term, it has created a whole new set of concerns relating especially to Russia, as well as some of the other former Soviet republics, as a potential source of proliferation.

Without in any way suggesting any regret over the collapse of the Soviet Union, it may still be said that as far as the effort against proliferation is concerned, the collapse deprived the United States of

a generally supportive ally in the fight against proliferation. Further, the current political instability and economic distress in a number of former Soviet republics have offered potential proliferators less expensive and less time-consuming alternatives to developing a nuclear weapon capability indigenously. Technical know-how, trained personnel, nuclear materials, and even nuclear weapons themselves are potentially available to anyone with sufficient financial means to buy them (the "loose nukes" and "brain drain" problems), despite efforts by responsible Russian and other officials. By obviating the need to develop indigenous nuclear capability, this route to proliferation can occur both much more quickly and with less time or opportunity for detection, and is now also more open to subnational groups (both extremist and criminal).

At the same time, the traditional route to proliferation—developing a nuclear weapon capability indigenously—may present much less of a technical challenge than it did even a few years ago. The necessary information is more readily available and the requisite technical capability more widely dispersed. Three decades ago the proliferation candidate states were the advanced industrial states of Europe and Asia. Now states like Iraq and Iran can reach the technical threshold of nuclear capability.

Further, the end of the Cold War has given new life to regional tensions and rivalries that had been suppressed in the face of the overwhelming East-West confrontation. The rebirth of these new regional tensions and rivalries may give new impetus to efforts to acquire nuclear weapons. Moreover, the end of the Cold War has also brought into question the continued credibility and viability of alliances and security relationships that although born of the East-West confrontation were nonetheless important factors in certain national decisions to eschew nuclear weapons.

Finally, the demonstration of U.S. conventional military capability in the Gulf War may have had the perverse effect of emphasizing to some the importance of weapons of mass destruction (including nuclear weapons) as a potential counter to a U.S. conventional capability that is beyond the technical or financial reach of most other states, including the nuclear threshold states. At the same time,

however, this conventional capability has freed the United States as a military matter from having to rely on nuclear weapons as a response to conventional and perhaps in some circumstances even to nuclear attack from these countries.

The irony in all of this is that the public perception in the United States and elsewhere is that, with the end of the Cold War, the risk of nuclear weapons use has been dramatically reduced. This is, of course, true to the extent that the risk was of an overwhelming Soviet nuclear attack (although Russian nuclear capability remains substantial). But the risk of the spread of nuclear weapons to "rogue" states or renegade subnational groups—and perhaps even the possibility of nuclear use—may in fact have increased. The potential impact of such a development on the international security environment is vastly underappreciated.

4. WHAT ARE THE PROSPECTS FOR SUCCESSFULLY MEETING THESE CHALLENGES?

The number of states generally viewed as currently presenting a new proliferation risk (Iraq, Iran, North Korea) is relatively small but extremely challenging. The South Africa experience prior to 1991, Iraq's use of its NPT membership as a cover to move down the proliferation road, and North Korea's attempt to revoke its NPT commitment and evade its IAEA safeguard obligations may have given rise to a "creeping concern" in the minds of many national leaders about the future of the overall non-proliferation effort despite recent steps by the IAEA and others to shore up the non-proliferation regime. This concern can only be compounded by uncertainty in the post-Cold War world as to whether the major powers are still committed to the effort against proliferation and to those alliances and security relationships that were such a critical factor in some of its past successes. All this is made even more acute by the potential availability of nuclear technology, trained personnel, nuclear material, and possibly even intact nuclear warheads from the former Soviet Union.

The world community is watching closely and will draw its own conclusions from how the current proliferation challenges are handled. With so many states having the technical potential to design and engineer nuclear weapons, lack of confidence in the overall effort against proliferation could relatively quickly lead to a dramatic increase in the number of covert (or even declared) nuclear weapon states. Such states as Algeria, Libya, Egypt, Syria, Saudi Arabia, Japan, South Korea, and Taiwan could join the list of countries of proliferation concern.

Even if we avoid such grim and rather apocalyptic outcomes, the situation will remain fluid and full of ambiguity. Past successes are not irreversible. The non-proliferation issue will have to be worked continually. The question for the United States will be what priority the effort against proliferation should have in relation to other foreign and security policy objectives, and how much diplomatic capital and national resources (economic and potentially military) should be put into the effort.

The view of our group is that the effort against proliferation should be one of the most important national security and foreign policy priorities not only of the United States but also of the international community as a whole. We believe that the current effort—and the existing non-proliferation regime—are at a crossroads. If the international community is going to handle successfully the proliferation challenges of the future, it will need a revitalized effort with new undertakings and initiatives supported by the entire international community.

II. A Revitalized Effort Against Proliferation

It is commonplace to view the initial approach to non-proliferation as embodied in the NPT as premised on a "bargain" between the nuclear weapon states on the one hand and the non-nuclear weapon states on the other. Under this view, the non-nuclear weapon states gave up under Article II of the NPT the right to their own nuclear deterrents in exchange in large measure for a commitment by the nuclear weapon states under Article VI of the NPT "to cessation of the nuclear arms race at an early date and to nuclear disarmament."

In recent years, the United States, the Soviet Union, and now Russia have reaffirmed the ABM Treaty and have reached agreements and understandings (the INF, START I, and START II agreements and declared reciprocal unilateral reductions in deployed tactical nuclear weapons) that if fully implemented will reduce U.S. and former Soviet deployed nuclear weapons by at least eighty percent from their peak levels during the Cold War. Three former Soviet republics (Ukraine, Kazakhstan, and Belarus) have agreed to give up nuclear weapons located on their territory. The United States, Russia, Britain, and France (but not China) are observing a moratorium on nuclear testing, and all five of these states are negotiating a comprehensive test ban treaty (CTBT). The United States and its Western allies are reducing dramatically their reliance on nuclear weapons in their national security strategies.

But these steps have not been taken as a favor to the non-nuclear weapon states or as a price for their adherence to the NPT. They have been taken because they are viewed by the nuclear weapon states as in their own national security interests.

Similarly, the adherence of non-nuclear weapon states to the NPT is not of primary benefit to the nuclear weapon states but to the non-nuclear weapon states themselves. For it is non-nuclear weapon states that would be most at risk from a breakdown in the non-

It is time to move beyond the old NPT "bargain" to an approach that better reflects the common interest that all members of the international community share in avoiding further proliferation and strengthening the existing regime. Because of new proliferation challenges and "creeping concern" about the viability of the current non-proliferation regime, success will require a revitalized effort based on the undertakings and initiatives described briefly below and discussed in more detail in Part III of this report. These undertakings and initiatives reflect the shared responsibility of all states for the success of the effort.

Such an approach is also the only route for further progress toward a world without nuclear weapons envisioned by the NPT and declared as a long-term goal by U.S. presidents from the present back to the dawn of the nuclear age. Although this remains the objective, everyone recognizes the difficulties. Nuclear weapons cannot be disinvented. The knowledge to design and build these weapons will remain even as arsenals are disassembled. But whether one is optimistic or pessimistic about actually achieving the eventual elimination of nuclear weapons, the further reduction of these weapons is an attainable objective that invites wide consensus today. Recent global and regional developments now make it possible to envision further dramatic steps toward this objective and a world with "radically few" nuclear weapons, measured in hundreds rather than thousands. But this will require steps not simply by the nuclear weapon states but by the non-nuclear states as well.

To move toward a world of "radically few" nuclear weapons will require not only further nuclear reductions by the nuclear weapon states but also real success on the non-proliferation front. Such success will hinge to a large extent on the adoption by the international community of the elements of a revitalized effort against proliferation as described in this report. Thus the very undertakings and initiatives that offer the prospect of success on the non-proliferation front will also facilitate further reductions by the nuclear weapon states.

To be sure, the United States and Russia may go beyond the dramatic reductions in the START II agreement to still lower levels

of nuclear weapons. But without the assumption of new responsibilities by the other nuclear and non-nuclear weapon states as outlined in this report, it is likely that the United States and Russia will be reluctant to make additional far-reaching adjustments to their nuclear force postures. Moreover, under this approach, there will be a greater chance that the United Kingdom, France, and China will pursue reductions in their nuclear arsenals as well.

In general, what will be required is further movement toward a world of disclosure and transparency as to nuclear matters by both nuclear weapon and non-nuclear weapon states. This will require a strict verification and enforcement regime (detection, inspection, monitoring, and sanctions). It will require developing and deploying the means to deter and to protect states from the risks posed by those that might seek to use weapons of mass destruction (WMD) to threaten or attack their neighbors. It will require substantial progress in resolving underlying security concerns and regional tensions.

Such an approach will have the following elements:

1. *Sound Regional Strategies.*
Nuclear weapon states will not further radically reduce their reliance on nuclear weapons if it will create risk or instability. Neither will states with relatively covert and undeclared nuclear capabilities (India, Pakistan, and Israel). Further, states that rely on the protection of nuclear weapon states for their security against troublesome neighbors (particularly neighbors armed with nuclear weapons) will need assurance that further radical reductions in the nuclear arsenals of their nuclear allies or nuclear patrons will not erode their security or stimulate neighbors or adversaries to acquire nuclear weapons.

2. *Real Security Assurances.*
To move to a world of "radically few" nuclear weapons, underlying security concerns and regional tensions must be addressed. For states that have relied on alliances or patrons for protection against nuclear and other threats, these security relationships must remain sturdy and reliable. They offer the kind of real security assurances that can make a difference in discouraging proliferation. Where feasible and in U.S.

interests, non-nuclear states at risk might be given additional assurances that action will be taken on their behalf in the event they are threatened with nuclear attack. While the support of an international consensus and the legitimation of international institutions (such as regional security organizations and/or the United Nations Security Council) may be useful, any such security assurances must above all be credible and backed up by real military capability.

3. *A Strengthened IAEA.*
A nation that defied the non-proliferation norm to acquire even a few nuclear weapons would become a major regional power if not a significant player on a global scale. In most cases, this would represent less a threat to the nuclear weapon states themselves than to neighboring non-nuclear weapon states. Thus the entire international community has an interest in having significantly greater confidence in the efficacy of the IAEA inspection and safeguards system. This means improved detection capabilities, expanded rights to conduct inspections, and more effective safeguards over nuclear programs for peaceful purposes. Similar arrangements are needed for other weapons of mass destruction.

4. Strong Export Controls.
Similarly, for their own security, all states, but particularly the non-nuclear weapon states, should be prepared to support effective export controls. When states align themselves in campaigns against such controls, they undercut their own security. States clearly demonstrating good-faith adherence to non-proliferation regimes have little to fear from well-conceived export controls and much to fear from a world in which no such controls exist.

5. Sensible Civilian Uses of Fissile Material.
Parties to the NPT must stand by their commitment under Article IV of the NPT to provide nuclear energy assistance to developing countries. But market realities and inherent proliferation concerns should shift the focus of this assistance. This applies particularly to the plutonium fuel cycle. While fully respecting U.S. international com-

mitments, the use of plutonium in the nuclear fuel cycle should be discouraged.

6. Counterproliferation.
Restraints against proliferation may not always be able to prevent nuclear weapons and other weapons of mass destruction from ending up in the hands of a hostile power. Prudent defense planning and preparations that permit nations to defend against such threats need not be inimical to the non-proliferation effort, but can support it. They can reduce the incentive to seek weapons of mass destruction and the means for delivering them by reducing the likelihood that they will confer a decisive military advantage on the proliferator. They can give states that have a potential proliferator as a neighbor and need to deal with the threat posed by WMD weapons an alternative to developing such weapons themselves.

7. Nuclear Disarmament.
The nuclear weapon states should continue to reduce their reliance on nuclear weapons as an element of their national security. They can do this by speeding implementation of the reductions to which the United States and Russia have already agreed. They can remove their nuclear forces from the hair-trigger status of the Cold War by reducing their alert status. They can deactivate, disable, and disassemble nuclear delivery systems slated for dismantlement and elimination. They can separate their nuclear warheads from those delivery systems and place those warheads in a kind of "strategic escrow" prior to dismantlement.

All these measures increase the safety and security of nuclear weapons and accelerate the process of implementing unilateral or agreed reductions. With adequate safeguards, measures for de-alerting, deactivating, disabling, disassembling, and "strategic escrowing" could also be applied to the remaining active operational forces as a way of reducing nuclear risk and enhancing reassurance. These measures would be reversible as a hedge against the collapse of the process of implementing reductions or a breakdown in the non-proliferation

regime and the emergence of new nuclear powers. If this did not occur, however, and the process of reduction could be sustained over the longer term, nuclear weapon states might consider the utility of "non-weaponized" deterrence postures.

In the context of the NPT review and extension conference, the nuclear weapon states must reaffirm their commitment to Article VI of the NPT and to further move toward the progressive elimination of nuclear weapons.

III. Implementing Measures

Russia and the United States have important roles to play, not only in the efforts made by the nuclear weapon states in relation to their own forces but also in the leadership of the effort against proliferation more generally. Russia must be encouraged to be an effective partner in both, and the appropriate regime for such cooperation must be found. France, the United Kingdom, Germany, Japan, and China should be encouraged to join in leading the non-proliferation effort. France, the United Kingdom, and China should take steps to reduce the risk inherent in their own nuclear postures through de-alerting, deactivation, disassembly, and the like. They will also have to consider reducing the size of their nuclear arsenals if the international community is actually to move toward a world of "radically few" nuclear weapons.

Threshold nuclear weapon states have received the benefits of the non-proliferation regime without being burdened by its obligations. Yet, if the regime were to unravel, India, Pakistan, and Israel would be among the states whose interests and security would be most undermined. The precept of shared responsibility also applies to threshold states. If conditions are not yet right for them to join the non-proliferation regime as full non-nuclear participants, they must, at a minimum, refrain from actions that increase proliferation or nuclear risks in their own regions. They should take concrete steps to reduce regional tensions and to establish conditions whereby long-standing and divisive disputes can be resolved. Israel has successfully begun such steps with its Arab neighbors and with the Palestinian people. Unfortunately, India and Pakistan have not yet done so.

China is perhaps the single biggest "wild card" in regard to the future nuclear postures of the nuclear weapon states, the efficacy of export control regimes, and proliferation scenarios in both East and South Asia. China seems to be gradually embracing the norms of the

international non-proliferation regime—joining the NPT, professing adherence to the Missile Technology Control Regime (MTCR) guidelines, and agreeing to stop nuclear tests by the end of 1996. At the same time, however, it has engaged in activities that have harmed the effort against proliferation, such as its apparent supply of M-11 missile technology to Pakistan and its offer of nuclear reactors to Iran. Engaging China is critical to the future success of the non-proliferation effort.

The Non-Proliferation Treaty itself can continue to make a real contribution to the overall non-proliferation effort. It can continue to lend international political weight to non-proliferation norms which, while not self-enforcing, can provide the basis for international collective action to prevent and possibly redress proliferation.

As part of a revitalized non-proliferation effort, the Non-Proliferation Treaty should be indefinitely extended. The Treaty is not a gift from the non-nuclear weapon states to the nuclear weapon states; it is a necessary basis for the improved security of all parties. It is the conclusion of this study that the NPT regime can and should be saved, and can play an important role in a revitalized effort against proliferation.

The upcoming NPT review and extension conference in April-May 1995 provides an opportunity to begin building support for the elements of this revitalized approach to the effort against proliferation. In promoting that objective, the United States and Russia should make clear that they are prepared to go well below START II force levels if the elements of this revitalized approach are adopted and implemented.

1. SOUND REGIONAL STRATEGIES

While pursuing measures to strengthen the effort against proliferation on a global level, of critical (and some would say even more critical) importance are sound regional strategies. These strategies should be designed to maintain the support of key regional states currently committed to the effort against proliferation while at the

same time providing a positive context for dealing successfully with potential proliferators.

These strategies need to be tailored to the particular situation in the region and the specific factors that may motivate or dissuade potential proliferators. But while tailored to the particular region, the strategies nonetheless must be comprehensive in approach: coordinating and bringing to bear all the variety of influences that affect the decisions states make with respect to proliferation. This approach was adopted with respect to both Ukraine and North Korea, and whatever may be the differing views within our group on the U.S.-North Korea "Agreed Framework" signed in October 1994, we can still agree upon the value of a multifaceted approach. However, as the case of North Korea demonstrated, tensions may arise between non-proliferation concerns and other regional considerations.

The Former Soviet Union

The situation in the former Soviet Union currently presents the most formidable proliferation challenge. This is not simply because the breakup of the former Soviet Union and political and economic instability there have raised the prospect of nuclear materials, technology, trained personnel, and nuclear weapons spilling outside its former borders. It is also because internal troubles have deflected particularly Russia from pursuing the kind of strong non-proliferation policy that characterized the former Soviet Union.

A principal objective of U.S. policy should be to enlist Russia as a partner in the overall effort against proliferation. This historically has been, and can be in the future, an area of important strategic cooperation between the two countries. It will not only facilitate U.S. ability to assist Russia in dealing with the proliferation challenge arising from within its own borders, but will also provide a strong partner in pursuing the agenda described in this paper for a new revitalized effort against proliferation.

At the same time, the United States needs also to pursue positive programs of support that will encourage Ukraine, Kazakhstan, and Belarus to continue along the path toward denuclearization. As a matter of political reality, this can potentially conflict with the

objective of close cooperation with Russia. It will be a challenge for American diplomacy to pursue both objectives successfully and in parallel.

Both to advance toward these objectives, and to take advantage of the opportunities that realization of these objectives will provide, the United States should:

- Renew and reinvigorate biannual Russian-American discussions on non-proliferation to emphasize a cooperative, bilateral partnership in this area. These discussions should be expanded to encompass a wide range of WMD programs in countries of proliferation concern, as well as joint strategies for addressing them.
- Pursue a comprehensive transparency and material accountancy control system for military and civilian fissile materials in Russia and the United States, with an immediate priority of obtaining an accurate inventory of warheads and special nuclear materials. Such a system should include means to verify the ongoing reliability of this information and the rate and magnitude of the warhead dismantlement process.
- Continue to ensure the security and safe storage and disposition of nuclear warheads and special nuclear material in both the United States and Russia. Congress should continue to provide adequate funding for these activities.
- Streamline the statutory procedures and the regulations of the Cooperative Threat Reduction (Nunn-Lugar) program to expedite its execution and ensure that it is focused on funding those programs in the former Soviet Union that: (1) expedite the dismantlement of nuclear warheads, (2) accelerate the "de-alerting," deactivation, and dismantlement of offensive nuclear systems, and (3) inventory and safely store civilian stocks of plutonium and highly enriched uranium. Congress should continue to provide adequate funding for these activities.
- Maintain the interlocking web of political, economic, and cooperative military measures with Ukraine, Kazakhstan, and Belarus to reassure these countries that the West respects and supports their independence and sovereignty and that safeguarding their national

security does not require that they possess nuclear weapons.

- Through the Partnership for Peace and the North Atlantic Cooperation Council, support NATO's joint military activities with Ukraine, Kazakhstan, and Belarus to reassure these countries of Europe's ongoing interest in their security and sovereignty.
- Work closely with the non-Russian states of the former Soviet Union in a determined but low-profile effort to remove all weapons-usable material from these countries, if necessary by transferring this material for storage in the United States (trying not to highlight our willingness to bargain over caches of such material).
- Continue to work with Russia to minimize both reliance on civilian reprocessing and further production of civilian plutonium.

Europe

The United States extended its nuclear umbrella to Western Europe and stationed non-strategic nuclear weapons there as part of a strategy to deter the overwhelming Soviet nuclear and conventional threat to Europe. This policy had as a side benefit the effect of reducing the need or incentive for European states to develop their own nuclear weapons.

The historic Soviet threat is gone, and the Alliance has quite rightly dramatically reduced its reliance on nuclear weapons. Yet the continued vitality of the NATO alliance and a continued U.S. role in Europe are necessary and can make a continuing contribution to the effort against proliferation. There is some cause for concern that the withdrawal of the U.S. nuclear umbrella and its nuclear weapons from Europe might encourage some nations to reexamine their non-nuclear status.

To remove any risk of such a result, a regional strategy for Europe should:

- Maintain the vitality of NATO and the U.S. presence in Europe, thereby preserving the Alliance's non-proliferation benefits.
- Actively support the Organization for Security and Cooperation in Europe (the OSCE, successor to the CSCE) and the Conventional Forces in Europe (CFE) and Open Skies Treaties and other efforts

aimed at increasing transparency and building confidence to help sustain a solid and credible regional security architecture.

- Support economic growth in Central and Eastern Europe and increased integration with the West to show the Western commitment to these states and to try to avert new security threats that could stimulate proliferation.

East Asia

This region has great potential for nuclear proliferation in at least three different ways. China is both a nuclear weapon state and a potential source of technology for nuclear weapons and the means to deliver them for potential proliferators. The decisions by Japan, South Korea, and Taiwan to forswear nuclear weapons, notwithstanding their advanced technical capabilities, could be upset in the face of a threatening China or a nuclear North Korea or an American withdrawal from the region. North Korea is one of the two or three potential global proliferators of greatest concern, with an active nuclear program that it has only recently agreed to terminate and a record of selling ballistic missile equipment and technology to countries of proliferation concern.

The United States has a key role to play in maintaining the stability required to avoid future proliferation in the region. Since there is no central security arrangement that binds these parties together, this influence must be exercised in a manner tailored to the particular situation of each country. The United States must also determine the priority it will assign to non-proliferation vis-a-vis other issues, such as trade and human rights with China.

A reasonable strategy in this region should:

- Maintain visible support for U.S. security commitments in the region, including continued deployments of U.S. armed forces.
- Acknowledging China's pivotal role and influence in preserving stability in Asia and reinforcing the international non-proliferation regime, continue the broad engagement with China and move vigorously and expeditiously to establish contacts on non-proliferation, arms control, and export control matters with a broad

range of Chinese officials, especially from the military. These exchanges should occur on a regular basis.

- Offer technical assistance, including training, manuals, and other materials, to help China institute procedures, regulations, laws, and mechanisms to enhance its control over exports of proliferation concern.
- Work to bring China into the MTCR and Nuclear Suppliers Group as a formal member.
- As to North Korea, the United States should work closely with the IAEA, as well as continue to rely on National Technical Means, to verify that the North is abiding fully with both the spirit and the letter of its October 1994 agreement with the United States. The United States must be prepared to withdraw the benefits promised to North Korea and impose penalties and other sanctions if North Korea violates or obstructs the full and timely implementation of the agreement.
- At the same time, the North Korean nuclear deal should be placed within a larger strategic framework for the Korean peninsula. North Korea must be made to understand that its massive conventional forces, ballistic missile, and (probable) chemical capabilities cannot be left intact if it wishes to engage the outside world as a responsible and reasonable international actor. Progress on this front, such as North Korean adherence to the MTCR guidelines, signing the Biological and Toxin Weapons Convention (BWC) and Chemical Weapons Convention (CWC), and a serious CFE-type process consistent with the December 1991 North-South reconciliation accord, will result in progress in both political and economic engagement, including participation in programs of the multilateral development banks.

South Asia

While proliferation in South Asia continues to be covert and unacknowledged, it makes the region a potential nuclear flash point in light of continuing tensions between India and Pakistan over Kashmir and the record of armed conflict between these two states three times in the last 48 years. Bilateral and regional efforts to diminish tensions are

currently inadequate, and the possible introduction of nuclear-capable ballistic missiles by India and Pakistan will create new tensions and even greater concerns about the outcome of another crisis. At the same time, Pakistan sees its nuclear capability as a deterrent to India, while India sees its nuclear capability as a deterrent to China, with whom it shares a disputed border, as well as a potent symbol of modernity and Great Power status.

In light of this situation, a strategy for this region should begin with a realistic recognition that "rolling back" existing nuclear capabilities does not appear feasible at this time and for the immediate future. Rather, the priority should be for an active political and diplomatic process that will seek to lessen or resolve underlying sources of tension. Such a process should promote and encourage confidence-building measures between India and Pakistan, and try to involve China in a constructive role. If this process succeeds, it may provide a real opportunity to achieve a gradual winding down of the relatively covert nuclear standoff on the subcontinent. In the interim, without legitimating them internationally, an effort should be made to cap existing WMD and ballistic missile capabilities and head off any further expansion.

Consequently, a strategy for this region should:

- Reaffirm bilateral and multilateral support for fully implementing existing confidence-building measures and urge adoption of new measures to help manage, and seek to resolve peacefully, issues of tension and instability between India and Pakistan.
- Recognizing China's special relationship with Pakistan, and the opportunity for improved Chinese-Indian security relations, encourage China to undertake confidence-building diplomacy in southern Asia, particularly on issues that would contribute to preventing a nuclear and ballistic missile arms race in the region.
- Rely on a mix of incentives and disincentives to constrain current WMD capabilities, aimed specifically at capping nuclear weapons programs and heading off the deployment of ballistic missiles. Emphasize through quiet bilateral and multilateral diplomacy with India and Pakistan that it is not in the larger strategic or economic

interests of either country to take steps that might increase regional proliferation anxieties, particularly by deploying missiles or conducting some form of nuclear testing.

- Pursue joint efforts with Japan, Germany, and other major trade partners and international financial institutions to press for nuclear and missile restraints in the region.

Middle East

The proliferation issue simply cannot be addressed in this region apart from an overall strategy for permanent peace. The defeat of Iraq and recent progress in the Middle East peace process offer some hope in this regard. But in this region at this time, non-proliferation concerns must take a back seat to promoting the peace process and the security of friends and allies.

A strategy for this region should:

- Maintain existing U.S. security commitments to Israel, Egypt, Saudi Arabia, Kuwait, and other Gulf states to avoid creating security anxieties that might be a spur to proliferation. Encourage and support confidence-building measures among the states of the region.
- In the context of progress in the Middle East peace process, quietly urge Israel to undertake those non-proliferation steps that it can take, consistent with its appraisal of its own national security interests, toward the goal of a Middle East WMD-free zone — a goal that has already officially been endorsed by a number of Middle East countries, including Israel.
- For Iraq, maintain strict enforcement of UN resolutions permanently barring the regeneration of Iraq's WMD programs.
- For Iran, work to strengthen the existing multilateral policy of nuclear technology denial, and redouble efforts to dissuade Russia and China from transferring nuclear power reactors or other nuclear equipment or technology to Iran. At the same time, it must be recognized that Iran's geopolitical influence in the Persian Gulf and Western strategic interests eventually may require a broader reengagement with Iran. Such a reengagement would be facilitated

by a change in Iran's current policies regarding the Middle East peace process, terrorism, human rights, and WMD. If the opportunity presents itself and is deemed to be in the national interest, such a reengagement could enhance non-proliferation policy.

2. REAL SECURITY ASSURANCES

Positive security assurances to countries that might become subject to nuclear attack or blackmail have always been an element of non-proliferation strategy. Such security assurances are at the heart of many U.S. defense arrangements. But in this context, these security assurances take the form of security guarantees that are embedded in formal treaties and backed up by deployed forces.

In the blanket "positive security assurances" given in 1968 by the United States, Britain, and the Soviet Union, the three powers each pledged to provide or support assistance to any non-nuclear NPT state threatened by nuclear aggression. These assurances could be made more credible by strengthening the mandate of the United Nations Security Council in the non-proliferation field. This is not because of any false hope that the Security Council could be an independent actor in making good on any such assurance. The Security Council showed great promise for dealing effectively and expeditiously with threats to international peace and security after Iraq's invasion of Kuwait and again after the Gulf War in drafting and enforcing resolutions for the dismantlement of Iraq's WMD programs. But more recently it has disappointed many observers with its handling of the North Korean nuclear dispute, the war in Bosnia, and the increasing prospect of divisive disputes over such things as the continuation of sanctions on Iraq.

The point here, however, is that the Security Council is not an independent source of policy or of the means for implementing policy. It cannot play that role. Its actions and effectiveness will always be a function of the will, cohesiveness, and capability of its members. Still, an enhanced formal role for the Security Council could afford

the United States and other interested states additional support for actions they might feel compelled to take in any event to deal with a situation of proliferation concern. This does not mean that the United States should or would resort to the Security Council in every case or give up the right to take unilateral action. But Security Council backing was useful in the Gulf War and could be again.

Additionally, the United States has on occasion offered special positive assurances that go beyond the blanket assurances but remain outside of and less rigorous than any formal treaty or alliance arrangement. We have done this recently in connection with Ukraine. Where it serves U.S. national security interest, the United States should be prepared to do so again. But to be effective in reassuring and deterring, such security assurances must be credible. The more generalized their application, the more removed from actual capabilities for enforcement, the more they involve less than the fundamental national security interests of the pledging state, the less useful they will become.

The United States has also issued blanket "negative security assurances" since 1978, which it reaffirmed at the 1990 NPT Review Conference. Some members of our group expressed skepticism about such assurances. Those assurances consist of pledges by nuclear weapon states not to use nuclear weapons against a non-nuclear weapon state not allied with a nuclear weapon state or associated with a nuclear weapon state in an attack. By its terms, such an assurance would eliminate any deterrent effect nuclear weapons might have against non-nuclear weapons of mass destruction or against imbalances in conventional weapons that favored non-nuclear aggressors. Further, lacking means of enforcement, such assurances would only be as good as the good faith of the states that were making them.

The dominant view of our group, however, was that these possible drawbacks were outweighed by the contribution that such assurances could make to a revitalized non-proliferation effort and to achieving the indefinite extension of the NPT, if formalized and affirmed by all the declared nuclear weapon states.

To achieve all these objectives:

- The president of the UN Security Council should make explicit that the January 31, 1992, statement that the proliferation of WMD constitutes a threat to international peace and security includes WMD activities not necessarily limited to violations of legal obligations, and that such activities may warrant a Security Council response.
- The United States and like-minded states should seek to use the next Security Council summit as an opportunity to reaffirm the Council's support for the IAEA and safeguards inspections, including the principle of special inspections.
- The United States should seek a UN Security Council resolution endorsed by all five permanent members that affirms and strengthens the positive security assurances made by the United States, United Kingdom, and Soviet Union in 1968.
- The United States should seek a UN Security Council resolution endorsed by all five permanent members that reaffirms the negative security assurances based on the June 12, 1978, U.S. formulation to the UN Special Session on Disarmament.

3. A STRENGTHENED IAEA

The kind of strategy that could lead to a world in which nuclear weapons are a diminishing factor would require increased disclosure and transparency about nuclear matters by both nuclear weapon and non-nuclear weapon states. In addition to national measures, this will involve the IAEA in an important way.

Revelations in the aftermath of the Gulf War of the extent of the Iraqi nuclear program revealed the real inadequacies of the inspection and safeguard system as then administered by the IAEA. For whatever reason, it was not only unable to prevent Iraq's covert nuclear weapons program but was also unable to detect it. Since then, however, we have seen a reinvigoration of the IAEA and a new assertiveness in the discharge of its responsibilities. This is critical

because the IAEA will have an important role to play in any enhanced effort against proliferation.

The following measures should be adopted:

- The United States should take the lead in expanding the funding of the IAEA, with special priority for inspection and safeguarding activities. Consistent with this policy, the United States should pay its dues promptly at the beginning of each calendar year.
- IAEA members should expand their intelligence sharing with the IAEA about possible safeguards violations.
- The IAEA should, within the context of existing safeguards agreements, expand the envelope of its activities at undeclared locations, including greater use of special inspections (so that they become more "normal" than "special"), and environmental sampling.
- Consistent with a more expansive view of IAEA activities, the IAEA should propose to undertake "challenge inspections" that could be initiated, at IAEA discretion, upon a complaint from an aggrieved state, with the complaining state responsible for paying the costs of such inspections.
- The United States has agreed to let the IAEA safeguard its excess defense nuclear material (although real technical hurdles must first be addressed). The United States should also propose that the IAEA be given the right to inspect all fissile material production facilities in the United States. The United States should urge the other nuclear weapon states to adopt both these measures for their own national nuclear programs.
- The IAEA should be given the lead responsibility of verifying any fissile material production cut-off treaty.

4. STRONG EXPORT CONTROLS

The IAEA inspection system, even if significantly enhanced, can only detect proscribed nuclear weapon activity. While risk of detection may deter such activity, it cannot, strictly speaking, prevent it.

Export controls can, however, make a major contribution to preventing such activity. A strong export control regime is a critical component of any enhanced effort against proliferation.

An effective system of export controls raises issues about the proper balance between combating proliferation and commercial and foreign policy considerations — and about the proper balance between multilateral and unilateral controls. Our concern is that, if anything, commercial considerations and efforts to avoid unilateral controls have in recent times received too much attention at the expense of legitimate proliferation concerns.

The following measures should be adopted:

- The United States should take the lead to enhance the system of sanctions against countries or entities that allow exports of sensitive goods and technologies of proliferation concern in violation of national law or agreed multilateral guidelines.
- The United States should continue to pursue tougher, more uniform licensing and enforcement policies among members of the Nuclear Suppliers Group, the Australia Group, and the Missile Technology Control Regime.
- The United States should take the lead in efforts to establish a successor to the Coordinating Committee on Multilateral Export Controls (COCOM) to control the transfer of armaments and dual-use technologies (in the nuclear and other fields, both relating to weapons and delivery systems) to regions or countries of proliferation concern.
- New U.S. legislation on export controls should maintain the right of the United States to take unilateral action and should require stringent control procedures (including single-country veto, if possible) in the successor export control mechanism to COCOM.
- As a general matter, greater weight should be given to nonproliferation relative to commercial and foreign policy considerations. There should be a readiness if necessary to employ unilateral controls in critical national security cases when full multilateral controls are not achievable.
- To assist the business community and promote the export of

technology, the administration and Congress should work together in continuing to streamline the system of export control regulations and in allowing export control decisions to be made in timely fashion, but without diminishing full interagency review.

- Greater attention should be given to items of particular proliferation concern, such as large (10-15 MW) research reactors.
- The United States should press its MTCR partners, in addition to strengthening their own export controls, to be active diplomatically with non-parties to encourage more restraint in their missile technology transfers.

5. SENSIBLE CIVILIAN USES OF FISSILE MATERIALS

The non-proliferation regime has from the beginning been premised upon the right of all nations to acquire and use nuclear materials for peaceful purposes but subject to safeguards that would prevent these materials from being diverted to nuclear weapons programs. While parties to the NPT should stand by their commitment to provide nuclear energy assistance to developing countries, market realities and inherent proliferation concerns should shift the focus of such assistance. The aim should be to promote the most cost-effective and proliferation-resistant pathways to economic development, particularly in energy sectors.

At the same time, the United States should take further steps to discourage countries from separating or using plutonium in the nuclear fuel cycle. In terms of timely warning of diversion, it is simply not possible to safeguard reprocessing plants fully. The largest impediment to acquiring nuclear weapons is difficulty in obtaining special nuclear materials, and a plutonium fuel cycle would ease that problem. Yet Japan, France, Russia, the United Kingdom, India, and others are pursuing this option. Although the ultimate decision to embark on a civil plutonium economy is theirs to make, they must recognize that in current and projected market conditions their refusal to abandon planned plutonium separation or use programs legitimizes

an activity that is extremely dangerous from a proliferation standpoint and for which there is no current or foreseeable economic rationale. It also adds to plutonium stockpiles for which there is currently no acceptable disposal option.

Specific policy elements reflecting the foregoing approach should include the following:

- Higher priority should be given by the IAEA and states in a position to do so to transferring technologies and providing assistance in connection with peaceful uses of nuclear energy that do not implicate the nuclear fuel cycle, such as medical research and agriculture.
- The IAEA and nuclear weapon states should provide greater technical assistance and financial support with respect to the safety and security of civilian nuclear facilities.
- The industrialized countries should announce a new commitment to promoting non-nuclear energy alternatives in the developing world, reorienting their own technical and financial assistance programs to give priority to these alternatives over nuclear power, and urging multilateral financial institutions to do the same. (The World Bank has already decided on economic grounds not to fund nuclear power projects.)
- Although the use of peaceful nuclear explosives (PNEs) has become far less attractive during the past few decades, it is nonetheless enshrined in Article V of the NPT. The NPT review and extension conference (NPTREC) should therefore declare that there are no current or potential benefits from the peaceful applications of nuclear explosives adequate to justify the serious proliferation risks they entail.
- The United States should continue (and seek support from other states for) policies aimed at minimizing and eventually eliminating civil uses of HEU (e.g., reduced enrichment for test and research reactors, spent fuel take-backs).
- All states should discourage reprocessing and the production of highly enriched uranium in general but particularly in regions of proliferation concern, such as the Korean peninsula, South Asia, and the Middle East.

- The NPT review and extension conference should acknowledge, based on documented explosive tests, that civil plutonium can be used in nuclear explosives.
- The United States should adopt a declaratory policy that discourages countries from using plutonium in the nuclear fuel cycle, including performing and publicizing official studies of the economic and non-proliferation costs of the plutonium economy.
- At the same time, the United States should commit itself not to use U.S. consent rights to interfere with reprocessing and plutonium use programs of EURATOM countries and Japan. The United States, EURATOM, and Japan should seek to develop a code of conduct for those states engaged in reprocessing and civilian uses of plutonium including provisions to avoid excess or insufficiently protected plutonium stockpiles.

6. COUNTERPROLIFERATION

The term "counterproliferation" as used by our group means prudent preparations by the United States and other members of the international community to counter the use or threat of use of WMD by states that may come to possess such weapons through a capability to defend against such weapons and to attack them in a crisis. In addition, such prudent preparations could also help to retard proliferation. Some of our group fear that states might be spurred to greater proliferation efforts by programs designed to counter proliferation, and are particularly concerned in this regard about the pursuit of new programs to seek out and destroy weapons of mass destruction. Others believe that a strong case can be made that the incentives for others to seek such weapons and associated delivery systems could be reduced to the extent that countermeasures make them appear less usable and/or more costly and risky to obtain.

As an example, nuclear capabilities that come to be seen as unlikely to survive to hit their prospective targets should be less intimidating to neighbors, less promising as a means for achieving decisive political-military outcomes in a crisis or war, and, correspondingly, a less attractive investment for potential proliferators. Similarly, some allies protected by missile defenses and other

counterproliferation measures might see the acquisition of their own nuclear deterrent forces as less necessary. Pursuit of a carefully chosen program of counterproliferation measures need not contradict, but could support the nonproliferation efforts of the United States and other responsible states. Such measures not only could enhance the U.S. ability to defend itself, they also could augment the international community s capacity to respond to threats to the peace.

Thus, the group supports the following counterproliferation measures:

- The United States should move swiftly to improve the capabilities of both its own and potential allies forces and civilians to protect themselves against attack by chemical and biological weapons. Measures should include improved detectors, vaccines, antidotes, masks, and protective clothing, as well as preparations for quickly disseminating information and supplies that could protect threatened allied forces and concentrations of civilians. It remains to be seen whether the United States and other states will have the foresight to make the investment required even as to military forces, much less as to civilian populations.
- The United States should seek the broad support and cooperation of other states in developing counterproliferation policies and selected programs. International support would make efforts to undermine the potential value of weapons of mass destruction far more effective. In addition, the United States should not bear the many risks and burdens of countering proliferation single-handedly. Winning and maintaining broad international support for counterproliferation depends upon shared development of the concepts and capabilities involved, with NATO and other international security institutions. Specific measures benefiting from international support include exercises with key allies and friends aimed at identifying and developing approaches and capabilities to stand up jointly to political-military challenges that could be posed by WMD-armed regional adversaries, thereby helping to deter such threats by preparing to deal with them if necessary.

A majority of the group supports the following additional measures:

- The United States should invest in conventional defensive systems against theater ballistic missiles, cruise missiles, and aircraft capable of delivering weapons of mass destruction, recognizing that the scope and capabilities of such systems require careful assessment on cost-effectiveness, stability, and other grounds, including any impact on the ABM Treaty. Efforts should also be made to develop improved technical and operational means to detect and deal with delivery of weapons of mass destruction by other means. While perfect defenses against all conceivable means of delivery of such weapons will not be feasible, real progress on this problem can be made.
- The United States should seek improved conventional capabilities (including weapons and sensors) to locate and destroy production, storage, and support facilities for weapons of mass destruction and their associated delivery systems. The decision actually to use such capabilities would involve important political factors and could be heavily affected by the degree of international political support and legitimacy it had achieved through such things as prior authorization by the UN Security Council or by a regional security organization. But such a decision would also have to involve such factors as the immediate and indirect costs of not acting, including the possibility that inaction would stimulate proliferation.

7. NUCLEAR DISARMAMENT

Some in our group do not believe that non-nuclear weapon states make decisions about whether or not to pursue a nuclear weapon program based on the behavior of the nuclear weapon states. Others believe that there is a strong correlation between the behavior of the nuclear powers on the one hand and the actual behavior of the non-nuclear weapon states on the other. The dominant position is that there is at least an indirect correlation between the behavior of the

nuclear weapon states and their ability to affect the decision-making of threshold and non-nuclear weapon states. Under this view, nuclear disarmament measures by the nuclear weapon states satisfy the equity demands made by government officials and publics in the non-nuclear weapon states and thereby help gain broader international political support for efforts to stem proliferation.

More broadly, however, as outlined in Part II of this report, there is an opportunity to use the current efforts that are being made to reduce dramatically reliance on nuclear weapons — and a willingness to contemplate going to progressively lower levels of nuclear weapons — to create a revitalized and more effective non-proliferation effort.

There are a number of steps that are being taken and can be taken to show a willingness to move toward such a radically different security environment. One of them is a comprehensive ban on nuclear weapon testing (a CTB). Several of our members believe that the case has not been made that a CTB will materially contribute to non-proliferation, is verifiable, and is in the U.S. interest. But the more dominant view is that a CTB is good in itself, and that a continuing strong commitment to a CTB would facilitate achieving the indefinite extension of the NPT and the revitalized non-proliferation effort this group has in mind.

A. Comprehensive Test Ban Treaty

- The more dominant view of the group is that the United States should seek a permanent CTBT as soon as possible, and toward this end, should seek to table a draft text supported by Russia and other key states at the Conference on Disarmament by the April 1995 NPT review conference, and should develop a strategy for gaining as wide adherence to the treaty as possible.

B. Reduction of Offensive Nuclear Forces

- As part of the effort to sustain the NPT, the United States should maintain its support for eventual "general and complete disarma-

ment," "cessation of the arms race," and "eventual elimination" of nuclear weapons.

- The United States should take steps in parallel with Russia to "lengthen the nuclear fuse" by lowering alert rates, deactivating, disabling, and disassembling delivery systems destined for reduction and elimination, and "escrowing" nuclear weapons removed from those systems.
- The United States should call upon, encourage, and cooperate with China, France, and the United Kingdom to take these and other steps to lengthen the nuclear fuse and to increase the safety and security of their nuclear deterrents by moving away from the hair-trigger postures of the Cold War.
- The United States and Russia should indicate that they are prepared to go well below START II force levels as part of a revitalized non-proliferation effort.

C. Cutoff of Fissile Material Production

- The United States should seek agreement to a multilateral fissile material production cutoff treaty banning further production of fissile material for nuclear explosives and placing all newly produced fissile materials for other purposes under safeguards. It should be noted that such an agreement would not affect fissile material that a state produced outside of safeguards before it became a member.
- As an immediate first step, the United States should call on all nations voluntarily and even before entry into force of the multilateral fissile material cutoff treaty to cease production of fissile materials for nuclear explosives and to cease any production outside of safeguards of fissile material for other purposes.

Appendices

TREATY ON THE NON-PROLIFERATION OF NUCLEAR WEAPONS

Signed at Washington, London, and Moscow, July 1, 1968
Ratification advised by U.S. Senate, March 13, 1969
Ratified by U.S. President, November 24, 1969
U.S. ratification deposited at Washington, London, and Moscow, March 5, 1970
Proclaimed by U.S. President, March 5, 1970
Entered into force, March 5, 1970

The States concluding this Treaty, hereinafter referred to as the "Parties to the Treaty,"

Considering the devastation that would be visited upon all mankind by a nuclear war and the consequent need to make every effort to avert the danger of such a war and to take measures to safeguard the security of peoples,

Believing that the proliferation of nuclear weapons would seriously enhance the danger of nuclear war,

In conformity with resolutions of the United Nations General Assembly calling for the conclusion of an agreement on the prevention of wider dissemination of nuclear weapons,

Undertaking to cooperate in facilitating the application of International Atomic Energy Agency safeguards on peaceful nuclear activities,

Expressing their support for research, development and other efforts to further the application, within the framework of the International Atomic Energy Agency safeguards system, of the principle of safeguarding effectively the flow of source and special fissionable materials by use of instruments and other techniques at certain strategic points,

Affirming the principle that the benefits of peaceful applications of nuclear technology, including any technological by-products which may be derived by nuclear-weapon States from the development of nuclear explosive devices, should be available for peaceful purposes to all Parties of the Treaty, whether nuclear-weapon or non-nuclear weapon States,

Convinced that, in furtherance of this principle, all Parties to the Treaty are entitled to participate in the fullest possible exchange of scientific information for, and to contribute alone or in cooperation with other States to, the further development of the applications of atomic energy for peaceful purposes,

Declaring their intention to achieve at the earliest possible date the cessation of the nuclear arms race and to undertake effective measures in the direction of nuclear disarmament,

Urging the cooperation of all States in the attainment of this objective,

Recalling the determination expressed by the Parties to the 1963 Treaty banning nuclear weapon tests in the atmosphere, in outer space and under water in its Preamble to seek to achieve the discontinuance of all test explosions of nuclear weapons for all time and to continue negotiations to this end,

Desiring to further the easing of international tension and the strengthening of trust between States in order to facilitate the cessation of the manufacture of nuclear weapons, the liquidation of all their existing stockpiles, and the elimination from national arsenals of nuclear weapons and the means of their delivery pursuant to a treaty on general and complete disarmament under strict and effective international control,

Recalling that, in accordance with the Charter of the United Nations, States must refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the Purposes of the United Nations, and that the establishment and maintenance of international peace and security are to be promoted with the least diversion for armaments of the world's human and economic resources,

Article I

Each nuclear-weapon State Party to the Treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and not in any way to otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices.

Article II

Each non-nuclear-weapon State Party to the Treaty undertakes not to receive the transfer from any transfer or whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices.

Article III

1. Each non-nuclear-weapon State Party to the Treaty undertakes to accept safeguards, as set forth in an agreement to be negotiated and concluded with the International Atomic Energy Agency in accordance with the Statute of the International Atomic Energy Agency and the Agency's safeguards system for the exclusive purpose of verification of the fulfillment of its obligations assumed under this Treaty with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices. Procedures for the safeguards required by this article shall be followed with respect to source or special fissionable material whether it is being produced, processed or used in any principal nuclear facility or is outside any such facility. The safeguards required by this article shall be applied to all source or special fissionable material in all peaceful nuclear activities within the territory of such State, under its jurisdiction, or carried out under its control anywhere.

2. Each State Party to the Treaty undertakes not to provide: (a) source or special fissionable material, or (b) equipment or material especially designed or prepared for the processing, use or production of special fissionable material, to any non-nuclear-weapon State for peaceful purposes, unless the source or special fissionable material shall be subject to the safeguards required by this article.

3. The safeguards required by this article shall be implemented in a manner designed to comply with article IV of this Treaty, and to avoid hampering the economic or technological development of the Parties or international cooperation in the field of peaceful nuclear activities, including the international exchange of nuclear material and equipment for the processing, use or production of nuclear material for peaceful purposes in accordance with the provisions of this article and the principle of safeguarding set forth in the Preamble of the Treaty.

4. Non-nuclear-weapon States Party to the Treaty shall conclude agreements with the International Atomic Energy Agency to meet the requirements of this article either individually or together with other States in accordance with the Statute of the International Atomic Energy Agency. Negotiation of such agreements shall commence within 180 days from the original entry into force of this Treaty. For States depositing their instruments of ratification or accession after the 180-day period, negotiation of such agreements shall commence not later than the date of such deposit. Such agreements shall enter into force not later than eighteen months after the date of initiation of negotiations.

Article IV

1. Nothing in this Treaty shall be interpreted as affecting the inalienable right of all the Parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with articles I and II of this Treaty.

2. All the Parties to the Treaty undertake to facilitate, and have the right to participate in, the fullest possible exchange of

equipment, materials and scientific and technological information for the peaceful uses of nuclear energy. Parties to the Treaty in a position to do so shall also cooperate in contributing alone or together with other States or international organizations to the further development of the applications of nuclear energy for peaceful purposes, especially in the territories of non-nuclear-weapon States Party to the Treaty, with due consideration for the needs of the developing areas of the world.

Article V

Each Party to the Treaty undertakes to take appropriate measures to ensure that, in accordance with this Treaty, under appropriate international observation and through appropriate international procedures, potential benefits from any peaceful applications of nuclear explosions will be made available to non-nuclear-weapon States Party to the Treaty on a nondiscriminatory basis and that the charge to such Parties for the explosive devices used will be as low as possible and exclude any charge for research and development. Non-nuclear-weapon States Party to the Treaty shall be able to obtain such benefits, pursuant to a special international agreement or agreements, through an appropriate international body with adequate representation of non-nuclear-weapon States. Negotiations on this subject shall commence as soon as possible after the Treaty enters into force. Non-nuclear-weapon States Party to the Treaty so desiring may also obtain such benefits pursuant to bilateral agreements.

Article VI

Each of the Parties to the Treaty undertakes 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.

Article VII

Nothing in this Treaty affects the right of any group of States to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories.

Article VIII

1. Any Party to the Treaty may propose amendments to this Treaty. The text of any proposed amendment shall be submitted to the Depositaory Governments which shall circulate it to all Parties to the Treaty. Thereupon, if requested to do so by one-third or more of the Parties to the Treaty, the Depositary Governments shall convene a conference, to which they shall invite all the Parties to the Treaty, to consider such an amendment.

2. Any amendment to this Treaty must be approved by a majority of the votes of all the Parties to the Treaty, including the votes of all nuclear-weapon States Party to the Treaty and all other Parties which, on the date the amendment is circulated, are members of the Board of Governors of the International Atomic Energy Agency. The amendment shall enter into force for each Party that deposits its instrument of ratification of the amendment upon the deposit of such instruments of ratification by a majority of all the Parties, including the instruments of ratification of all nuclear-weapon States Party to the Treaty and all other Parties which, on the date the amendment is circulated, are members of the Board of Governors of the International Atomic Energy Agency. Thereafter, it shall enter into force for any other Party upon the deposit of its instrument of ratification of the amendment.

3. Five years after the entry into force of this Treaty, a conference of Parties to the Treaty shall be held in Geneva, Switzerland, in order to review the operation of this Treaty with a view to assuring that the purposes of the Preamble and the provisions of the Treaty are being realized. At intervals of five years thereafter, a majority of the Parties to the Treaty may obtain, by submitting a

proposal to this effect to the Depositary Governments, the convening of further conferences with the same objective of reviewing the operation of the Treaty.

Article IX

1. This Treaty shall be open to all States for signature. Any State which does not sign the Treaty before its entry into force in accordance with paragraph 3 of this article may accede to it at any time.

2. This Treaty shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of the United States of America, the United Kingdom of Great Britain and Northern Ireland and the Union of Soviet Socialist Republics, which are hereby designated the Depositary Governments.

3. This Treaty shall enter into force after its ratification by the State, the Governments of which are designated Depositaries of the Treaty, and forty other States signatory to this Treaty and the deposit of their instruments of ratification. For the purposes of this Treaty, a nuclear-weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to January 1, 1967.

4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Depositary Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or of accession, the date of the entry into force of this Treaty, and the date of receipt of any requests for convening a conference or other notices.

6. This Treaty shall be registered by the Depositary Governments pursuant to article 102 of the Charter of the United Nations.

Article X

1. Each Party shall in exercising its national sovereignty have the right to withdraw from the Treaty if it decides that extraordinary events, related to the subject matter of this Treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other Parties to the Treaty and to the United Nations Security Council three months in advance. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests.

2. Twenty-five years after the entry into force of the Treaty, a conference shall be convened to decide whether the Treaty shall continue in force indefinitely, or shall be extended for an additional fixed period or periods. This decision shall be taken by a majority of the Parties to the Treaty.

Article XI

This Treaty, the English, Russian, French, Spanish and Chinese texts of which are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this Treaty shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.

IN WITNESS WHEREOF the undersigned, duly authorized, have signed this Treaty.

DONE in triplicate, at the cities of Washington, London, and Moscow, this first day of July, one thousand nine hundred sixty-eight.

Signatories to the Treaty on the Non-Proliferation of Nuclear Weapons

COUNTRY	Date of Signature	Date of Deposit of Ratification	Date of Deposit of Accesion (A) or Succession (S)
Afghanistan*	7/1/68	2/4/70	
Albania**			9/12/90 (A)
Algeria			1/12/95 (A)
Antigua and Barbuda			6/17/85 (S)
Armenia			7/15/93 (A)
Australia*	2/27/70	1/23/73	
Austria*	7/1/68	6/27/69	
Azerbaijan			9/22/92 (A)
Bahamas, The			8/11/76 (S)
Bahrain			11/3/88 (A)
Bangladesh*			8/31/79 (A)
Barbados	7/1/68	2/21/80	
Belarus			7/22/93 (A)
Belgium*	8/20/68	5/2/75	
Belize			8/9/85 (S)
Benin	7/1/68	10/31/72	
Bhutan*			5/23/85 (A)
Bolivia	7/1/68	5/26/70	
Botswana	7/1/68	4/28/69	
Brunei*			3/26/85 (A)
Bulgaria*	7/1/68	9/5/69	
Burkina Faso	11/25/68	3/3/70	
Burundi			3/19/71 (A)
Cambodia			6/2/72 (A)
Cameroon	7/17/68	1/8/69	
Canada*	7/23/68	1/8/69	
Cape Verde			10/24/79 (A)
Central African Republic			10/25/70 (A)
Chad	7/1/68	3/10/71	
China			3/9/92 (A)
Columbia**	7/1/68	4/8/86	
Congo			10/23/78 (A)
Costa Rica*	7/1/68	3/3/70	
Cote d' Ivoire*	7/1/68	3/6/73	
Croatia			6/29/92 (S)
Cyprus*	7/1/68	2/10/70	
Czech Republic*			1/1/93 (S)
Denmark	7/1/68	1/3/69	
Dominica			8/10/84 (S)
Dominican Republic*	7/1/68	7/24/71	
Ecuador*	7/9/68	3/7/69	
Egypt*	7/1/68	2/26/81 (1)	
El Salvador*	7/1/68	7/11/72	
Equatorial Guinea			11/1/84 (A)
Estonia			1/7/92 (A)
Ethiopia*	9/5/68	2/5/70	
Fiji*			7/14/72 (S)
Finland*	7/1/68	2/5/69	
France			8/3/92 (A)
Gabon			2/19/74 (A)

COUNTRY	Date of Signature	Date of Deposit of Ratification	Date of Deposit of Accesion (A) or Succession (S)
Gambia,* The	9/4/68	5/12/75	
Germany,* (Fed. Rep.)	11/28/69	5/2/75 (1,2)	
Georgia			3/7/94 (A)
Ghana*	7/1/68	5/4/70	
Greece*	7/1/68	3/11/70	
Grenada			9/2/75 (S)
Guatemala*	7/26/68	9/22/70	
Guinea			4/29/85 (A)
Guinea-Bissau			8/20/76 (S)
Guyana			10/19/93 (A)
Haiti	7/1/68	6/2/70	
Holy See*			2/25/71(A) (1)
Honduras*	7/1/68	5/16/73	
Hungary, * Republic of	7/1/68	5/27/69	
Iceland*	7/1/68	7/18/69	
Indonesia*	3/2/70	7/12/79 (1)	
Iran*	7/1/68	2/2/70	
Iraq*	7/1/68	10/29/69	
Ireland*	7/1/68	7/1/68	
Italy*	1/28/69	5/2/75 (1)	
Jamaica*	4/14/69	3/5/70	
Japan*	2/3/70	6/8/76 (1)	
Jordan*	7/10/68	2/11/70	
Kazakhstan			2/14/94 (A)
Kenya	7/1/68	6/11/70	
Kiribati*			4/18/85 (S)
Korea, Democratic People's Republic of			12/12/85 (A)
Korea,* Republic of	7/1/68	4/23/75	
Kuwait	8/15/68	11/17/89	
Kyrgyzstan			7/5/94 (A)
Laos	7/1/68	2/20/70	
Latvia			1/31/92 (A)
Lebanon*	7/1/68	7/15/70	
Lesotho*	7/9/68	5/20/70	
Liberia	7/1/68	3/5/70	
Libya*	7/18/68	5/26/75	
Liechtenstein*			4/20/78 (A) (1)
Lithuania			9/23/91 (A)
Luxembourg*	8/14/68	5/2/75	
Madagascar*	8/22/68	10/8/70	
Malawi*			2/18/86 (S)
Malaysia*	7/1/68	3/5/70	
Maldives*	9/11/68	4/7/70	
Mali	7/14/69	2/10/70	
Malta*	4/17/69	2/6/70	
Mauritania			10/26/93 (A)
Mauritius*	7/1/68	4/8/69	
Mexico*	7/26/68	1/21/69 (1)	
Moldova			10/11/94 (A)
Mongolia*	7/1/68	5/14/69	
Morocco*	7/1/68	11/27/70	
Mozambique			9/4/90 (A)
Myanmar (Burma)			12/2/92 (A)
Namibia			10/2/92 (A)

COUNTRY	Date of Signature	Date of Deposit of Ratification	Date of Deposit of Accesion (A) or Succession (S)
Nauru*			6/7/82 (A)
Nepal*	7/1/68	1/5/70	
Netherlands*	8/20/68	5/2/75 (3)	
New Zealand*	7/1/68	9/10/69	
Nicaragua*	7/1/68	3/6/73	
Niger			10/9/92 (A)
Nigeria*	7/1/68	9/27/68	
Norway*	7/1/68	2/5/69	
Panama	7/1/68	1/13/77	
Papua New Guinea*			1/13/82 (A)
Paraguay*	7/1/68	2/4/70	
Peru*	7/1/68	3/3/70	
Philippines*	7/1/68	10/5/72	
Poland*	7/1/68	6/12/69	
Portugal*			12/15/77 (A)
Qatar			4/3/89 (A)
Romania*	7/1/68	2/4/70	
Russia (5)	7/1/68	3/5/70	
Rwanda			5/20/75 (A)
St. Kitts & Nevis			3/22/93 (A)
St. Lucia*			12/28/79 (S)
St. Vincent & the Grenadines			11/6/84 (S)
San Marino	7/1/68	8/10/70	
Sao Tome & Principe			7/20/83 (A)
Saudi Arabia			10/3/88 (A)
Senegal*	7/1/68	12/17/70	
Seychelles			3/12/85 (A)
Sierra Leone			2/26/75 (A)
Singapore*	2/5/70	3/10/76	
Slovakia			1/1/93 (S)
Slovenia			4/7/92 (A)
Solomon Islands			6/17/81 (S)
Somalia	7/1/68	3/5/70	
South Africa*			7/10/91 (A)
Spain *			11/5/87 (A)
Sri Lanka*	7/1/68	3/5/79	
Sudan*	12/24/68	10/31/73	
Suriname*			6/30/76 (S)
Swaziland*	6/24/69	12/11/69	
Sweden*	8/19/68	1/9/70	
Switzerland*	11/27/69	3/9/77 (1)	
Syrian Arab Republic	7/1/68	9/24/69	
Tanzania			5/31/91 (A)
Thailand*			12/2/72 (A)
Togo	7/1/68	2/26/70	
Tonga			7/7/71 (S)
Trinidad & Tobago	8/20/68	10/30/86	
Tunisia*	7/1/68	2/26/70	
Turkey*	1/28/69	4/17/80 (1)	
Turkmenistan			9/29/94 (A)
Tuvalu*			1/19/79 (S)
Uganda			10/20/82 (A)
Ukraine			12/5/94 (A)
United Kingdom	7/1/68	11/27/68 (4)	
United States	7/1/68	3/5/70	

COUNTRY	Date of Signature	Date of Deposit of Ratification	Date of Deposit of Accesion (A) or Succession (S)
Uruguay*	7/1/68	8/31/70	
Uzbekistan			5/2/92
Venezuela*	7/1/68	9/25/75	
Vietnam,* Socialist Republic			6/14/82 (A)
Western Samoa*			3/17/75 (A)
Yemen (6)	11/14/68	6/1/79	
Yugoslavia, Socialist Federal Republic	7/10/68	3/4/70	
Zaire*	7/22/68	8/4/70	
Zambia			5/15/91 (A)
Zimbabwe			9/26/91 (A)
Taiwan (7)	7/1/68	1/27/70 (5)	

Total: 168 (does not include Taiwan or SFR Yugoslavia, which has dissolved)

NOTES

Dates given are the earliest dates on which a country signed the Treaty or deposited its instrument of ratification or accession — whether in Washington, London, or Moscow. In the case of a country that was a dependent territory which became a party through succession, the date given is the date on which the country gave notice that it would continue to be bound by the terms of the Treaty.

(1) With Statement.

(2) The former German Democratic Republic, which united with the Federal Republic of Germany on 10/3/90, had signed the NPT on 7/1/68 and deposited its instrument of ratification on 10/31/69.

(3) Extended to Netherlands Antilles and Aruba.

(4) Extended to Aguilla and territories under the territorial sovereignty of the United Kingdom.

(5) Russia has given notice that it would continue to exercise the rights and fulfill the obligations of the former Soviet Union arising from the NPT.

(6) The Republic of Yemen resulted from the union of the Yemen Arab Republic and the People's Democratic Republic of Yemen. The table indicates the date of signature and ratification by the People's Democratic Republic of Yemen; the first of these two states to become a party to the NPT. The Yemen Arab Republic signed the NPT on 9/23/68 and deposited its instrument of ratification on 5/14/86.

(7) On 1/27/70, an instrument of ratification was deposited in the name of the Republic of China. Effective 1/1/79, the United States recognized the People's Republic of China as the sole legal government of China. The authorities on Taiwan state that they will continue to abide by the provisions of the Treaty and the United States regards them as bound by the obligations imposed by the Treaty.

* Entries with asterisk have NPT safeguards agreements that have entered into force as of 10/31/92.

** Non-NPT, full-scope safeguards agreement in force.

A NUCLEAR CHRONOLOGY

1945
August: The United States drops atom bombs on Hiroshima and Nagasaki.

1946
June: The Baruch and Gromyko plans for international control of atomic energy are presented to the United Nations.

1949
August: The Soviet Union explodes its first atomic device.

1952
October: The United Kingdom explodes its first atomic device.

1953
December: President Dwight Eisenhower announces "Atoms for Peace," a plan to share the peaceful benefits of nuclear energy.

1957
July: The International Atomic Energy Agency begins operations.

1960
February: France tests its first atomic device.

1962
October: The Cuban Missile Crisis.

1963
August: The Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water (the Limited Test Ban Treaty) is signed.

1964
October: China tests its first atomic device.

1967
February: The Treaty for the Prohibition of Nuclear Weapons in Latin America (the Treaty of Tlatelolco) is signed.

1970
July: The nuclear Non-Proliferation Treaty (NPT) is opened for signature. The United States and Soviet Union begin the Strategic Arms Limitation Talks (SALT).

1974
May: India detonates a self-proclaimed peaceful nuclear explosive.

1974–1978
The Nuclear Suppliers Group (NSG) agrees upon guidelines governing nuclear exports.

1977–1980
The International Nuclear Fuel Cycle Evaluation (INFCE) is conducted.

1987
December: The United States and Soviet Union sign the Intermediate-range Nuclear Forces (INF) Treaty, which eliminates all ballistic missiles with ranges between 500 and 5,500 kilometers.

1990
October: The Bush administration does not certify to Congress in accordance with the Pressler amendment that Pakistan "does not possess a nuclear explosive device and that the proposed United States assistance program will reduce significantly the risk that Pakistan will possess a nuclear explosive device"; the U.S. ends economic and military assistance to Pakistan.

1991

April: After Iraq's defeat in the Persian Gulf War and the discovery of its clandestine nuclear weapons efforts, the UN Security Council calls for "the destruction, removal and rendering harmless" of the country's nuclear weapons program.

July: The United States and Soviet Union sign the START I Treaty, which will reduce the nuclear arsenals of each country to 6,000 accountable warheads within the seven-year implementation period.

December: Argentina and Brazil sign the Quadripartite Agreement, under which the IAEA assumes responsibility for comprehensively safeguarding their nuclear activities.

The Soviet Union ceases to exist; strategic nuclear weapons are stationed in the newly sovereign states of Russia, Ukraine, Kazakhstan, and Belarus.

1992

May: Belarus, Kazakhstan, Ukraine, and Russia sign the Lisbon Protocol, under which they become parties to the START I Treaty as successors to the former Soviet Union; Belarus, Kazakhstan, and Ukraine also commit themselves in this Protocol to join the NPT as non-nuclear weapon states "in the shortest possible time."

1993

January: The United States and Russia sign the START II Treaty, which will reduce the strategic nuclear arsenals of each country to 3,000–3,500 warheads by the year 2003 (if not sooner).

March: President F.W. de Klerk of South Africa announces that his country dismantled six nuclear weapons in 1990—91 before it joined the NPT.

1994

October: The United States and North Korea sign the "Agreed Framework" nuclear deal in which Pyongyang promises to dismantle its graphite-moderated reactors and reprocessing facility, to remove its spent nuclear fuel from the country, and eventually to comply fully with its NPT and IAEA safeguards commitments, in return for the provision of two light-water reactors and heating oil.

December: Ukraine joins the NPT.

1995

April: The NPT review and extension conference meets in New York

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