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WEAPONS OF MASS DESTRUCTION: CURRENT NUCLEAR PROLIFERATION CHALLENGES

HEARING

BEFORE THE

SUBCOMMITTEE ON NATIONAL SECURITY, EMERGING THREATS, AND INTERNATIONAL RELATIONS

OF THE

COMMITTEE ON GOVERNMENT REFORM

HOUSE OF REPRESENTATIVES

ONE HUNDRED NINTH CONGRESS

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WEAPONS OF MASS DESTRUCTION: CURRENT NUCLEAR PROLIFERATION CHALLENGES

TUESDAY, SEPTEMBER 26, 2006

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON NATIONAL SECURITY, EMERGING THREATS, AND INTERNATIONAL RELATIONS,
COMMITTEE ON GOVERNMENT REFORM,
Washington, DC.

The subcommittee met, pursuant to notice, at 1:35 p.m. in room 2157, Rayburn House Office Building, Hon. Christopher Shays (chairman of the subcommittee) presiding.

Present: Representatives Shays, Kucinich, Waxman, Lynch, Duncan, Porter, Platts, and Van Hollen.

Staff present: J. Vincent Chase, chief investigator; R. Nicholas Palarino, Ph.D., staff director; Robert A. Briggs, analyst; Kaleb Redden, Presidential management fellow; Karen Lightfoot, minority communications director/senior advisor; Andrew Su, minority professional staff member; Earley Green, minority chief clerk; and Jean Gosa, minority assistant clerk.

Mr. SHAYS. A quorum being present, the Subcommittee on National Security, Emerging Threats, and International Relations hearing entitled, "Weapons of Mass Destruction: Current Nuclear Proliferation Challenges," is called to order.

If the Treaty on Non-Proliferation of Nuclear Weapons, NPT, had not been created nearly 40 years ago and consistently upheld, it is likely there would be many more countries with nuclear weapons. As President Ronald Reagan urged at the 15th signing anniversary of the NPT, "All states should rededicate themselves to achieving the purposes of this important treaty and to ensure its continued vitality."

Since 1968, nearly 190 nations have signed on to the NPT and pledged not to pursue nuclear weapons nuclear weapons in exchange for access to the benefits of peaceful nuclear technology and a commitment by the United States, Russian, France, Britain, and China, all nuclear-weapon states, to negotiate nuclear disarmament.

In 1987 President Reagan encapsulated a key point of the NPT's success when he famously said to then-Soviet Leader Mikhail Gorbachev, "Trust, but verify." The International Atomic Energy Agency, the IAEA, safeguards system verifies compliance with the NPT. This system has been the cornerstone of efforts to prevent the proliferation of nuclear weapons, but a powerful global nuclear threat still remains today. The treaty obviously is not perfect. States such as India, Pakistan, and North Korea have declared the

have nuclear weapons. Terrorist organizations such Al Qaeda continue to seek chemical, biological, radiological, and even nuclear weapons.

In the face of these threats, rededication to the NPT is especially critical to ensure international peace, stability, and security.

Today we focus on challenges the world community faces from nuclear weapons proliferation and how the nonproliferation regime can be strengthened to effectively counter this threat to our civilization.

We look forward to three panels of distinguished witnesses testifying before our committee today who will answer these questions:

Why has the Treaty on Non-Proliferation of Nuclear Weapons failed to prevent the spread of nuclear weapons?

Second, what steps should be taken to strengthen compliance with the Treaty on the Non-Proliferation of Nuclear Weapons?

We will first hear from Dr. Hans Blix, formerly the chief of United Nations weapons inspection in Iraq and now chairman of the Weapons of Mass Destruction Commission.

On panel two we are joined by Mr. William Tobey, Deputy Administrator for Defense Nuclear Nonproliferation, National Nuclear Security Administration, Department of Energy; Mr. Andrew Semmel, Deputy Assistant Secretary of State, International Security and Nonproliferation, Department of State; Mr. Jack David, Deputy Assistant Secretary of Defense for Combating Weapons of Mass Destruction and Negotiations Policy, Department of Defense; and Mr. Gene Aloise, Director, Natural Resources and Environment, Government Accountability Office.

Our third panel of witnesses include Ambassador Thomas Graham, chairman of the Bipartisan Security Group, Global Security Institute; Mr. Baker Spring, the F. M. Kirby Research Fellow for National Security Policy, The Heritage Foundation; Mr. Jonathan Granoff, President, Global Security Institute; Mr. Henry Sokolski, Executive Director of the Nonproliferation Education Center; and Professor Frank von Hippel, Co-Chairman of the International Panel on Fissile Materials.

We welcome all of our witnesses.

[The prepared statement of Hon. Christopher Shays follows:]

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Statement of Representative Christopher Shays
September 26, 2006

If the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) had not been created nearly 40 years ago and consistently upheld, it is likely there would be many more countries with nuclear weapons.

As President Ronald Reagan urged at the fifteenth signing anniversary of the NPT, "All states should rededicate themselves to achieving the purposes of this important treaty and to ensure its continued vitality."

Since 1968, nearly 190 nations have signed on to the NPT, and pledged not to pursue nuclear weapons in exchange for access to the benefits of peaceful nuclear technology and a commitment by the United States, Russia, Britain, France and China—all nuclear-weapons states—to negotiate nuclear disarmament.

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But a powerful global nuclear threat still remains today. The Treaty is not perfect. States such as India, Pakistan and North Korea have declared they have nuclear weapons. Terrorist organizations such as al-Qaeda continue to seek chemical, biological, radiological and even nuclear weapons.

In the face of these threats, rededication to the NPT is especially critical to ensure international peace, stability and security.

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- What steps should be taken to strengthen compliance with the Treaty on the Non-Proliferation of Nuclear Weapons?

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Panel III witnesses include Ambassador Thomas Graham, Chairman of the Bipartisan Security Group, Global Security Institute; Mr. Baker Spring, the

F. M. Kirby Research Fellow for National Security Policy, The Heritage Foundation; Mr. Jonathan Granoff, President, Global Security Institute; Mr. Henry Sokolski, Executive Director of the Nonproliferation Education Center; and Professor Frank von Hippel, Co-Chairman of the International Panel on Fissile Materials.

We welcome all our witnesses.

Mr. SHAYS. At this time we will recognize the distinguished ranking member of the subcommittee, Mr. Kucinich.

Mr. KUCINICH. And I would like to yield to the distinguished ranking member of the full committee.

Mr. SHAYS. Absolutely.

Mr. KUCINICH. Mr. Waxman from California.

Mr. SHAYS. The gentleman, Mr. Waxman, has the floor.

Mr. WAXMAN. Thank you both very much, particularly Mr. Kucinich, because I do have a conflict in my schedule and wanted to go ahead of him.

Mr. Chairman, I am pleased you have called this important hearing.

I want to extend a special welcome to Dr. Blix. It is an honor to have you here today.

I would like to focus my opening statement on Iraq. As we all know, President Bush took this Nation to war based on his claim that Saddam Hussein would provide nuclear weapons to terrorists unless the United States forcibly stopped him. Exaggerated claims were also made by Vice President Cheney and Defense Secretary Rumsfeld. On the eve of the war, for example, the Vice President declared Saddam Hussein had reconstituted nuclear weapons, and the Defense Security boasted he knew precisely where those nuclear weapon of mass destruction were located.

Well, all of them proved false. No weapon of mass destruction were found. We learned the President's nuclear claims were based on obviously forged and discredited documents and information, and we discovered Saddam Hussein's relationship with Al Qaeda was actually one of acrimony rather than cooperation.

As a result of the administration's rush to war, the United States now finds itself in an intractable, expensive, and worsening crisis. A string of recent reports suggests that the administration's entire effort in Iraq is coming apart at the seams. For example, yesterday the L.A. Times reported, Army Chief of Staff General Peter Schoomaker took the unprecedented step of withholding a mandatory budget plan as a protest to Secretary Rumsfeld that the Army could not maintain its current activity levels in Iraq. The general is seeking a stunning 41 percent increase over current funding levels.

Also yesterday, the nonpartisan Government Accountability Office issued a report revealing the Pentagon's own auditors have identified $3.5 billion in questioned and unsupported charges by contractors in Iraq—$3.5 billion. That is astonishing. That is an amount as much as we have spent on the entire reconstruction of Afghanistan.

Earlier this month, General Mark Scheid, the Chief of Logistics War Plans for Afghanistan and Iraq, complained that Secretary Rumsfeld actually prohibited post-war planning, fearing that the American public would not support a sustained occupation. And when General Scheid argued that this planning was critical, Secretary Rumsfeld said he would fire the next person that said that.

But the most damning indictment, however, came this weekend when press reports revealed that American intelligence agencies completed a national intelligence estimate concluding that the Iraq

war has increased the danger of terrorism against the United States, spawning a new generation of Islamic radicalism.

According to these press reports, all of the administration's 16 intelligence agencies disagree with claims by the President and Republican congressional leaders that the war in Iraq has made us safer. To the contrary, they believe that the war in Iraq has made the threat of terrorism worse by fanning Islamic extremism and providing a training ground for lethal methods that are exported to other countries.

The litany of incompetence is staggering. It is as if a massive category ten version of Hurricane Katrina struck the Middle East, and the Bush administration was called in to handle the response. But no matter how bad things get, the President's reflexive response is "stay the course." And Vice President Cheney, like Michael Brown of this disaster, continues to insist that he would not have done a single thing differently.

Today, I hope that Dr. Blix can shed some light on how the United States can avoid these pitfalls in the future, especially as the Bush administration is confronted with the delicate diplomatic task of coaxing Iran to fully adopt the goals of nuclear nonproliferation and we confront North Korea with the risk of nonproliferation, as well as we fear he may sell his weapons, even nuclear weapons, to terrorists.

Mr. Chairman, I am pleased we are holding this hearing. Let's get some more information and hopefully we won't make the same mistakes again.

[The prepared statement of Hon. Henry A. Waxman follows:]

Opening Statement of
Rep. Henry A. Waxman, Ranking Minority Member
Committee on Government Reform
Before the National Security Subcommittee
Hearing on Nuclear Nonproliferation

September 26, 2006

Thank you, Mr. Chairman, for calling this important hearing on the global nuclear threat. I would like to extend a special welcome to Dr. Blix. It is rare for Congress to receive testimony from United Nations officials, and we are honored to have you here today.

I would like to focus my opening statement on Iraq. As we all know, President Bush took this nation to war based on his claim that Saddam Hussein would provide nuclear weapons to terrorists unless the United States forcibly stopped him.

Exaggerated claims were also made by Vice President Cheney and Defense Secretary Rumsfeld. On the eve of war, for example, the Vice President declared that Saddam Hussein had reconstituted nuclear weapons. And the Defense Secretary boasted that he knew precisely where the weapons of mass destruction were located.

All of them proved false. No weapons of mass destruction were found. We learned that the President's nuclear claims were based on obviously forged documents and discredited information provided by friends of Ahmed Chalabi. And we discovered that Saddam Hussein's relationship with al Qaeda was actually one of acrimony rather than cooperation.

As a result of the Administration's rush to war, the United States now finds itself in an intractable, expensive, and worsening crisis. A string of recent reports suggests that the Administration's entire effort in Iraq is coming apart at the seams.

For example, yesterday the *Los Angeles Times* reported that the Army chief of staff, General Peter Schoomaker, took the unprecedented step of withholding a mandatory budget plan as a protest to Secretary Rumsfeld that the Army could not maintain its current activity levels in Iraq. The general is now seeking a stunning 41% increase over current funding levels.

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- Earlier this month, General Mark Scheid, the chief of logistics war plans for Afghanistan and Iraq, complained that Secretary Rumsfeld actually prohibited post-war planning, fearing that the American public would not support a sustained occupation. When General Scheid argued that this planning was critical, Secretary Rumsfeld said he "would fire the next person that said that."

  And last week, a book published by an investigative reporter from the *Washington Post* revealed that a Defense Department political appointee, James O'Beirne, directed an organized and systemic screening process to hire Republican loyalists, rather than qualified experts, for key positions at the U.S.-run Coalition Provisional Authority. Pentagon officials allegedly posed blunt questions about who applicants voted for and what their views were on abortion. This may help explain why the CPA made so many critical blunders, such as disbanding the Iraqi Army and providing thousands of recruits for the budding insurgency.

  The most damning indictment, however, came this weekend when press reports revealed that American intelligence agencies completed a National Intelligence Estimate concluding that the Iraq war has <u>increased</u> the danger of terrorism against the United States, spawning a new generation of Islamic radicalism.

According to these press reports, all of the Administration's 16 intelligence agencies disagree with claims made by the President and Republican congressional leaders that the war in Iraq has made us safer. To the contrary, they believe that the war in Iraq has made the threat of terrorism worse by fanning Islamic extremism and providing a training ground for lethal methods that are exported to other countries.

This litany of incompetence is staggering. It's as if a massive Category 10 version of Hurricane Katrina struck the Middle East, and the Bush Administration was called in to handle the response. But no matter how bad things get, the President's reflexive response is to just "stay the course." And Vice President Cheney, like the Michael Brown of this disaster, continues to insist that he would not have done a single thing differently.

Today, I hope that Dr. Blix can shed some light on how the United States can avoid these pitfalls in the future, especially as the Bush Administration is confronted with the delicate diplomatic task of coaxing Iran to fully adopt the goals of nuclear nonproliferation.

Thank you, Mr. Chairman.

Mr. SHAYS. I thank the gentleman very much.

At this time Mr. Waxman would have been recognized, so I am assuming, Mr. Kucinich, you now have the floor.

Mr. KUCINICH. I want to thank Mr. Waxman for his statement and for his leadership.

Mr. Chairman, thank you for calling this subcommittee meeting. I think it was on June 6, 2006, our witness Dr. Blix was on Meet the Press and he was asked could the war in Iraq have been avoided. That is a compelling question, not only with respect to the discussion of weapon of mass destruction, but looking at the path the administration has set us upon, a path of preemption and unilateralism, the question could a war be avoided is instructive not only with respect to reflecting on what has passed, but in looking at what is prologued. so we are not only here talking about forensics; we are speaking about the future of the world and our capability to be able to assess what is happening and get what is really going on and be able to, from that point, draw policies for our Nation and the world which are sane and which are true.

Our country has lost credibility. In the last 6 years the U.S. administration has backtracked on international treaties and conventions, the administration misused the threat of weapon of mass destruction to invade Iraq, and the administration has pursued inconsistent approaches to nations who have or are seeking nuclear weapons.

One of the biggest challenges to our nonproliferation goals may, in fact, be our own policies and actions. The U.S. had rejected the Comprehensive Test Ban Treaty, refused to sign the Land Mine Treaty, withdrawn from the ABM Treaty, has not or unsigned the Kyoto Protocol, blocked the Verification Protocol for the Biological Weapons Convention, and this week, at the request of the President, Congress is poised to legalize torture of foreign nationals, despite the Geneva Conventions.

The U.S. administration has established a record of unilateralism that undercuts our Nation's credibility in the eyes of the world. The U.S. invaded Iraq in March 2003, despite the lack of reliable evidence of weapon of mass destruction by U.N. inspectors, and in response this administration championed multiple justifications for the invasion of Iraq, such as regime change and democracy. The evolving justifications led to increased uneasiness in the world about U.S. intentions.

Think about it for a moment. We were told and have been told repeatedly, well, it was just bad intelligence, when, in fact, now we are seeing that there are numerous people throughout the Federal Government who warned the administration that the information they were about to offer to the public as a justification for the war was false, fraudulent, hoax.

And so we are here in part to reassess the awful path that has been taken, policies built on a potempkin village of massive fraud and lies. It is good that Mr. Blix is here. Thank you, because when you ask could the war be avoided, Mr. Blix said on Meet the Press, "I think so. We carried out about 700 inspections. We have been to about three dozens of sites which the intelligence had given us, and in none of these cases did we find any weapon of mass destruction. If we had been allowed a couple of months more we would

have been able to go to all of the sites given by intelligence and found no weapons since there weren't any."

What was the rush to war all about? Somebody owes an explanation to the 2,700 families of American soldiers who gave their life. What was this war about? And what about all of the ones who have been injured? What about the maybe 200,000 Iraqis that have lost their lives and perhaps a million that have been injured. What was it all about? What was the rush about?

The growing lack of U.S. credibility greatly affects the perception of U.S. objections to an Iranian nuclear program. The administration has drawn a hard line on Iran's nuclear intentions, peaceful or not. To date the administration refuses to directly talk with Iran until Iran ceases all enrichment operations, despite the possibility that Iran's enrichment may be for peaceful uses only and therefore legal under the Non-Proliferation Treaty.

The U.S. finds itself lacking credibility in nuclear weapons proliferation. The administration has promoted new nuclear weapons for the United States in the form of bunker busters and new weapons research. The U.S. negotiated a favorable nuclear agreement with India, despite India's refusal to join the NPT and their acquisition of nuclear weapons. The U.S. supports the dictatorship in Pakistan, despite their refusal to join the Non-Proliferation Treaty and despite their acquisition and proliferation of nuclear weapons. And the U.S. refuses to acknowledge Israel's possession of nuclear weapons, despite the obvious implications that has on the surrounding nations' desires to acquire nuclear weapons.

The U.S. has effectively awarded several nations who have recently acquired nuclear weapons. Many of these nations are neighbors of nations that the U.S. is applying great pressure upon. The U.S. must treat its allies and adversaries differently, but if we are to prevent further proliferation anywhere we must oppose it everywhere, even and especially when it concerns an ally; otherwise, the world's tough neighborhoods will get a lot more dangerous due to arms races that our own in consistencies promote.

We don't know if the U.S. has negotiated with Iran in good faith. There is evidence the administration has not. According to independent accounts in The New Yorker, GQ, ABC News, and The Guardian, the U.S. has already put operatives on the ground in Iraq to gather intelligence and prepare targeting for an invasion. It is working with MEK opposition groups to conduct lethal operations and stabilizing operations, and according to this week's Time Magazine the Navy has issued deployment orders for mine sweepers to review plans for a possible blockade of the Strait of Hormuz, an Iranian port, all about WMDs.

Before I wrap up, Mr. Chairman, I have a September 25, 2006 Time article, "What Would War Look Like." Without objection, I would like it introduced in the hearing record.

Mr. SHAYS. Without objection.

[The information referred to follows:]

1 of 7 DOCUMENTS

Time

September 25, 2006
U.S. Edition

What Would War Look Like?

BYLINE: Michael Duffy; Reported by Brian Bennett/Baghdad; James Graff/Paris; Scott MacLeod/ Cairo; J.F.O. McAllister/ London; Tim McGirk/ Jerusalem; Azadeh Moaveni/ Tehran; Mike Allen; Sally B. Donnelly; Elaine Shannon; Mark Thompson; Douglas Waller; Michael Weisskopf; Adam Zagorin/ Washington

SECTION: WORLD; Pg. 38 Vol. 168 No. 13

LENGTH: 3153 words

HIGHLIGHT: A flurry of military maneuvers in the Middle East increases speculation that conflict with Iran is no longer quite so unthinkable. Here's how the U.S. would fight such a war--and the huge price it would have to pay to win it

A flurry of military maneuvers in the Middle East increases speculation that conflict with Iran is no longer quite so unthinkable. Here's how the U.S. would fight such a war--and the huge price it would have to pay to win it

[This article consists of a complex diagram. Please see hardcopy of magazine or PDF.]

The first message was routine enough: a "Prepare to Deploy" order sent through naval communications channels to a submarine, an Aegis-class cruiser, two minesweepers and two mine hunters. The orders didn't actually command the ships out of port; they just said to be ready to move by Oct. 1. But inside the Navy those messages generated more buzz than usual last week when a second request, from the Chief of Naval Operations (CNO), asked for fresh eyes on long-standing U.S. plans to blockade two Iranian oil ports on the Persian Gulf. The CNO had asked for a rundown on how a blockade of those strategic targets might work. When he didn't like the analysis he received, he ordered his troops to work the lash up once again.

What's going on? The two orders offered tantalizing clues. There are only a few places in the world where minesweepers top the list of U.S. naval requirements. And every sailor, petroleum engineer and hedge-fund manager knows the name of the most important: the Strait of Hormuz, the 20-mile-wide bottleneck in the Persian Gulf through which roughly 40% of the world's oil needs to pass each day. Coupled with the CNO's request for a blockade review, a deployment of minesweepers to the west coast of Iran would seem to suggest that a much discussed--but until now largely theoretical--prospect has become real: that the U.S. may be preparing for war with Iran.

No one knows whether--let alone when--a military confrontation with Tehran will come to pass. The fact that admirals are reviewing plans for blockades is hardly proof of their intentions. The U.S. military routinely makes plans for scores of scenarios, the vast majority of which will never be put into practice. "Planners always plan," says a Pentagon official. Asked about the orders, a second official said only that the Navy is stepping up its "listening and learning" in the Persian Gulf but nothing more--a prudent step, he added, after Iran tested surface-to-ship missiles there in August during a two-week military exercise. And yet from the State Department to the White House to the highest reaches of the military command, there is a growing sense that a showdown with Iran--over its suspected quest for nuclear weapons, its threats against Israel and its bid for dominance of the world's richest oil region--may be impossible to avoid. The chief of the U.S. Central Command (Centcom), General John Abizaid, has called a commanders conference for later this month in the Persian Gulf--sessions he holds at least quarterly--and Iran is on the agenda.

On its face, of course, the notion of a war with Iran seems absurd. By any rational measure, the last thing the U.S. can afford is another war. Two unfinished wars--one on Iran's eastern border, the other on its western flank--are daily depleting America's treasury and overworked armed forces. Most of Washington's allies in those adventures have made it clear they

will not join another gamble overseas. What's more, the Bush team, led by Secretary of State Condoleezza Rice, has done more diplomatic spadework on Iran than on any other project in its 51/2 years in office. For more than 18 months, Rice has kept the Administration's hard-line faction at bay while leading a coalition that includes four other members of the U.N. Security Council and is trying to force Tehran to halt its suspicious nuclear ambitions. Even Iran's former President, Mohammed Khatami, was in Washington this month calling for a "dialogue" between the two nations.

But superpowers don't always get to choose their enemies or the timing of their confrontations. The fact that all sides would risk losing so much in armed conflict doesn't mean they won't stumble into one anyway. And for all the good arguments against any war now, much less this one, there are just as many indications that a genuine, eyeball-to-eyeball crisis between the U.S. and Iran may be looming, and sooner than many realize. "At the moment," says Ali Ansari, a top Iran authority at London's Chatham House, a foreign-policy think tank, "we are headed for conflict."

So what would it look like? Interviews with dozens of experts and government officials in Washington, Tehran and elsewhere in the Middle East paint a sobering picture: military action against Iran's nuclear facilities would have a decent chance of succeeding, but at a staggering cost. And therein lies the excruciating calculus facing the U.S. and its allies: Is the cost of confronting Iran greater than the dangers of living with a nuclear Iran? And can anything short of war persuade Tehran's fundamentalist regime to give up its dangerous game?

ROAD TO WAR

The crisis with Iran has been years in the making. Over the past decade, Iran has acquired many of the pieces, parts and plants needed to make a nuclear device. Although Iranian officials insist that Iran's ambitions are limited to nuclear energy, the regime has asserted its right to develop nuclear power and enrich uranium that could be used in bombs as an end in itself--a symbol of sovereign pride, not to mention a useful prop for politicking. Iran's President Mahmoud Ahmadinejad has crisscrossed the country in recent months making Iran's right to a nuclear program a national cause and trying to solidify his base of hard-line support in the Revolutionary Guards. The nuclear program is popular with average Iranians and the élites as well. "Iranian leaders have this sense of past glory, this belief that Iran should play a lofty role in the world," says Nasser Hadian, professor of political science at Tehran University.

But the nuclear program isn't Washington's only worry about Iran. While stoking nationalism at home, Tehran has dramatically consolidated its reach in the region. Since the 1979 Islamic revolution, Iran has sponsored terrorist groups in a handful of countries, but its backing of Hizballah, the militant group that took Lebanon to war with Israel this summer, seems to be changing the Middle East balance of power. There is circumstantial evidence that Iran ordered Hizballah to provoke this summer's war, in part to demonstrate that Tehran can stir up big trouble if pushed to the brink. The precise extent of coordination between Hizballah and Tehran is unknown. But no longer in dispute after the standoff in July is Iran's ability to project power right up to the borders of Israel. It is no coincidence that the talk in Washington about what to do with Iran became more focused after Hizballah fought the Israeli army to a virtual standstill this summer.

And yet the West has been unable to compel Iran to comply with its demands. Despite all the work Rice has put into her coalition, diplomatic efforts are moving too slowly, some believe, to stop the Iranians before they acquire the makings of a nuclear device. And Iran has played its hand shrewdly so far. Tehran took weeks to reply to a formal proposal from the U.N. Security Council calling on a halt to uranium enrichment. When it did, its official response was a mosaic of half-steps, conditions and boilerplate that suggested Tehran has little intention of backing down. "The Iranians," says a Western diplomat in Washington, "are very able negotiators."

That doesn't make war inevitable. But at some point the U.S. and its allies may have to confront the ultimate choice. The Bush Administration has said it won't tolerate Iran having a nuclear weapon. Once it does, the regime will have the capacity to carry out Ahmadinejad's threats to eliminate Israel. And in practical terms, the U.S. would have to consider military action long before Iran had an actual bomb. In military circles, there is a debate about where--and when--to draw that line. U.S. intelligence chief John Negroponte told TIME in April that Iran is five years away from having a nuclear weapon. But some nonproliferation experts worry about a different moment: when Iran is able to enrich enough uranium to fuel a bomb--a point that comes well before engineers actually assemble a nuclear device. Many believe that is when a country becomes a nuclear power. That red line, experts say, could be just a year away.

WOULD AN ATTACK WORK?

The answer is yes and no.

No one is talking about a ground invasion of Iran. Too many U.S. troops are tied down elsewhere to make it possible, and besides, it isn't necessary. If the U.S. goal is simply to stunt Iran's nuclear program, it can be done better and more safely

by air. An attack limited to Iran's nuclear facilities would nonetheless require a massive campaign. Experts say that Iran has between 18 and 30 nuclear-related facilities. The sites are dispersed around the country--some in the open, some cloaked in the guise of conventional factories, some buried deep underground.

A Pentagon official says that among the known sites there are 1,500 different "aim points," which means the campaign could well require the involvement of almost every type of aircraft in the U.S. arsenal: Stealth bombers and fighters, B-1s and B-2s, as well as F-15s and F-16s operating from land and F-18s from aircraft carriers.

GPS-guided munitions and laser-targeted bombs--sighted by satellite, spotter aircraft and unmanned vehicles--would do most of the bunker busting. But because many of the targets are hardened under several feet of reinforced concrete, most would have to be hit over and over to ensure that they were destroyed or sufficiently damaged. The U.S. would have to mount the usual aerial ballet, refueling tankers as well as search-and-rescue helicopters in case pilots were shot down by Iran's aging but possibly still effective air defenses. U.S. submarines and ships could launch cruise missiles as well, but their warheads are generally too small to do much damage to reinforced concrete--and might be used for secondary targets. An operation of that size would hardly be surgical. Many sites are in highly populated areas, so civilian casualties would be a certainty.

Whatever the order of battle, a U.S. strike would have a lasting impression on Iran's rulers. U.S. officials believe that a campaign of several days, involving hundreds or even thousands of sorties, could set back Iran's nuclear program by two to three years. Hit hard enough, some believe, Iranians might develop second thoughts about their government's designs as a regional nuclear power. Some U.S. foes of Iran's regime believe that the crisis of legitimacy that the ruling clerics would face in the wake of a U.S. attack could trigger their downfall, although others are convinced it would unite the population with the government in anti-American rage.

But it is also likely that the U.S. could carry out a massive attack and still leave Iran with some part of its nuclear program intact. It's possible that U.S. warplanes could destroy every known nuclear site--while Tehran's nuclear wizards, operating at other, undiscovered sites even deeper underground, continued their work. "We don't know where it all is," said a White House official, "so we can't get it all."

WHAT WOULD COME NEXT?

No one who has spent any time thinking about an attack on Iran doubts that a U.S. operation would reap a whirlwind. The only mystery is what kind. "It's not a question of whether we can do a strike or not and whether the strike could be effective," says retired Marine General Anthony Zinni. "It certainly would be, to some degree. But are you prepared for all that follows?"

Retired Air Force Colonel Sam Gardiner, who taught strategy at the National War College, has been conducting a mock U.S.-Iran war game for American policymakers for the past five years. Virtually every time he runs the game, Gardiner says, a similar nightmare scenario unfolds: the U.S. attack, no matter how successful, spawns a variety of asymmetrical retaliations by Tehran. First comes terrorism: Iran's initial reaction to air strikes might be to authorize a Hizballah attack on Israel, in order to draw Israel into the war and rally public support at home.

Next, Iran might try to foment as much mayhem as possible inside the two nations on its flanks, Afghanistan and Iraq, where more than 160,000 U.S. troops hold a tenuous grip on local populations. Iran has already dabbled in partnership with warlords in western Afghanistan, where U.S. military authority has never been strong; it would be a small step to lend aid to Taliban forces gaining strength in the south. Meanwhile, Tehran has links to the main factions in Iraq, which would welcome a boost in money and weapons, if just to strengthen their hand against rivals. Analysts generally believe that Iran could in a short time orchestrate a dramatic increase in the number and severity of attacks on U.S. troops in Iraq. As Syed Ayad, a secular Shi'ite cleric and Iraqi Member of Parliament says, "America owns the sky of Iraq with their Apaches, but Iran owns the ground."

Next, there is oil. The Persian Gulf, a traffic jam on good days, would become a parking lot. Iran could plant mines and launch dozens of armed boats into the bottleneck, choking off the shipping lanes in the Strait of Hormuz and causing a massive disruption of oil-tanker traffic. A low-key Iranian mining operation in 1987 forced the U.S. to reflag Kuwaiti oil tankers and escort them, in slow-moving files of one and two, up and down the Persian Gulf. A more intense operation would probably send oil prices soaring above $100 per bbl.--which may explain why the Navy wants to be sure its small fleet of minesweepers is ready to go into action at a moment's notice. It is unlikely that Iran would turn off its own oil spigot or halt its exports through pipelines overland, but it could direct its proxies in Iraq and Saudi Arabia to attack pipelines, wells and shipment points inside those countries, further choking supply and driving up prices.

That kind of retaliation could quickly transform a relatively limited U.S. mission in Iran into a much more complicated one involving regime change. An Iran determined to use all its available weapons to counterattack the U.S. and its allies would present a challenge to American prestige that no Commander in Chief would be likely to tolerate for long. Zinni, for one, believes an attack on Iran could eventually lead to U.S. troops on the ground. "You've got to be careful with your assumptions," he says. "In Iraq, the assumption was that it would be a liberation, not an occupation. You've got to be prepared for the worst case, and the worst case involving Iran takes you down to boots on the ground." All that, he says, makes an attack on Iran a "dumb idea." Abizaid, the current Centcom boss, chose his words carefully last May. "Look, any war with a country that is as big as Iran, that has a terrorist capability along its borders, that has a missile capability that is external to its own borders and that has the ability to affect the world's oil markets is something that everyone needs to contemplate with a great degree of clarity."

CAN IT BE STOPPED?

Given the chaos that a war might unleash, what options does the world have to avoid it? One approach would be for the U.S. to accept Iran as a nuclear power and learn to live with an Iranian bomb, focusing its efforts on deterrence rather than pre-emption. The risk is that a nuclear-armed Iran would use its regional primacy to become the dominant foreign power in Iraq, threaten Israel and make it harder for Washington to exert its will in the region. And it could provoke Sunni countries in the region, like Saudi Arabia and Egypt, to start nuclear programs of their own to contain rising Shi'ite power.

Those equally unappetizing prospects--war or a new arms race in the Middle East--explain why the White House is kicking up its efforts to resolve the Iran problem before it gets that far. Washington is doing everything it can to make Iran think twice about its ongoing game of stonewall. It is a measure of the Administration's unity on Iran that confrontationalists like Vice President Dick Cheney and Defense Secretary Donald Rumsfeld have lately not wandered off the rhetorical reservation. Everyone has been careful--for now--to stick to Rice's diplomatic emphasis. "Nobody is considering a military option at this point," says an Administration official. "We're trying to prevent a situation in which the President finds himself having to decide between a nuclear-armed Iran or going to war. The best hope of avoiding that dilemma is hard-nosed diplomacy, one that has serious consequences."

Rice continues to try for that. This week in New York City, she will push her partners to get behind a new sanctions resolution that would ban Iranian imports of dual-use technologies, like parts for its centrifuge cascades for uranium enrichment, and bar travel overseas by certain government officials. The next step would be restrictions on government purchases of computer software and hardware, office supplies, tires and auto parts--steps Russia and China have signaled some reluctance to endorse. But even Rice's advisers don't believe that Iran can be persuaded to completely abandon its ambitions. Instead, they hope to tie Iran up in a series of suspensions, delays and negotiations until a more pragmatic faction of leadership in Tehran gains the upper hand.

At the moment, that sounds as much like a prayer as a strategy. A former CIA director, asked not long ago whether a moderate faction will ever emerge in Tehran, quipped, "I don't think I've ever met an Iranian moderate--not at the top of the government, anyway." But if sanctions don't work, what might? Outside the Administration, a growing group of foreign-policy hands from both parties have called on the U.S. to bring Tehran into direct negotiations in the hope of striking a grand bargain. Under that formula, the U.S. might offer Iran some security guarantees-- such as forswearing efforts to topple Iran's theocratic regime--in exchange for Iran's agreeing to open its facilities to international inspectors and abandon weapons-related projects. It would be painful for any U.S. Administration to recognize the legitimacy of a regime that sponsors terrorism and calls for Israel's destruction--but the time may come when that's the only bargaining chip short of war the U.S. has left. And still that may not be enough. "[The Iranians] would give up nuclear power if they truly believed the U.S. would accept Iran as it is," says a university professor in Tehran who asked not to be identified. "But the mistrust runs too deep for them to believe that is possible."

Such distrust runs both ways and is getting deeper. Unless the U.S., its allies and Iran can find a way to make diplomacy work, the whispers of blockades and minesweepers in the Persian Gulf may soon be drowned out by the cries of war. And if the U.S. has learned anything over the past five years, it's that war in the Middle East rarely goes according to plan.

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NOTES: See also cover story on page 32 of same issue.; See also additional image(s) in Cover Description file and Table of Contents of same issue.

GRAPHIC: PHOTO: AFP--GETTY ; WAR GAMES; An Iranian submarine trawls the waters of the Persian Gulf during military exercises last April
ILLUSTRATION: TIME Graphic by Joe Lertola and Kathleen Adams
PHOTO: ABBAS--MAGNUM; THE AGITATOR; Ahmadinejad, shown saluting crowds in Ardabil Province, insists on Iran's natural right to nuclear technology

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Mr. KUCINICH. So, in conclusion, according to the Washington Post, U.N. inspectors dispute Iran report by House panel, September 14, 2006. A House Intelligence Committee staff report on Iran has come under scrutiny for making false, misleading, and unsubstantiated assertions about Iran's nuclear program. The final committee staff report "included at least a dozen claims that were either demonstrably wrong or impossible to substantiate," including the gross exaggeration that the level of uranium enrichment by Iranian nuclear plants has now reached weapons grade levels of 90 percent, when in reality the correct enrichment level was found by the International Atomic Energy Agency to be about 3.6 percent.

Worse yet, the DNI reviewed the staff report before publication and these exaggerations remained in the final version.

The administration's conduct at the U.N. would lack credibility if, indeed, it is true that we are following all of the steps necessary for military attack. This subcommittee has attempted to find out. In June our subcommittee held a classified Members briefing at my request to investigate. Unfortunately, neither the Department of State nor the Department of Defense participated. They refused to appear at a classified hearing. Nearly 3 months later the subcommittee has not been able to question State or DOD directly on these reports.

Mr. Chairman, thank you very much for giving me this opportunity to present this. I know that your interest in being here are the interests of the American people.

Mr. SHAYS. I thank the gentleman very much.

Mr. Lynch, thank you.

Mr. LYNCH. Thank you, Mr. Chairman. I want to thank you and also Ranking Member Kucinich for holding this hearing. I would also like to thank Dr. Hans Blix and all of our distinguished panelists today for helping this subcommittee with its work.

Mr. Chairman, it is well known that in the months leading up to the March 2003 U.S. invasion of Iraq the Bush administration consistently asserted and communicated to this Congress as their primary rationale for confronting Iraq that Saddam Hussein's regime's active weapon of mass destruction program posed a "grave and imminent security threat to the United States and to the stability of the Middle East region." However, since the commencement of hostilities in Iraq we have come to find out that the threat posed by Saddam was not imminent, as the current administration asserted, and that the capacity for redevelopment of weapon of mass destruction was virtually nonexistent.

Between November 27, 2002, and the withdrawal of U.N. personnel on March 18, 2003, the U.N. Monitoring, Verification, and Inspection Commission headed by Dr. Blix conducted 731 inspections of 411 sites and, according to the Commission's May, 2003, quarterly report, "In the period during which it performed inspections and monitoring in Iraq, the Commission did not find evidence of the continuation or resumption of programs of weapon of mass destruction." Similarly, as of this date, U.S. forces have not located either WMD or WMD-related sites, according to CRS reports of September, 2006.

In short, our intelligence proceeding the March, 2003, invasion was significantly flawed, leading Dr. Blix to publicly comment that,

"there was not enough critical thinking, neither in the intelligence agencies nor at the Governmental level, prior to military action in Iraq."

Now, in this subcommittee we have asked on five separate occasions—Mr. Kucinich, myself, and Mr. Waxman, the ranking member of the full committee—that we hold congressional hearings on how we were mislead by the intelligence report supplied by the administration and to investigate whether we were deliberately misled in our decision to authorize military force against Saddam Hussein.

But the investigation and inquiry is not merely looking back, it is also forward-looking, because now, almost 4 years later, we are now seeking to address the potential security threat posed by Iran's nuclear technology activities, and specifically the country's pursuit of a uranium enrichment program. While Iranian President Mahmoud Ahmadinejad, his public threats against the United States and Israel, continued developments in Iran's nuclear technology capabilities and Iran's sponsorship of terrorism do strongly indicate that Iran does pose a serious strategic threat to the U.S.

Significant gaps continue to remain in our intelligence on Iran's nuclear weapons capabilities. According to the House Intelligence Committee's August, 2006, bipartisan staff report on the Iranian threat, "We lack critical information needed for analysts to make many of their judgments with confidence about Iran, and we don't know nearly enough about Iran's nuclear weapon program." Furthermore, they continue, "Although it is likely that Iran is pursuing nuclear weapons, there is still a possibility that Iran could be engaged in a denial and deception campaign to exaggerate progress on its nuclear programs such as Saddam Hussein apparently did concerning his WMD programs."

Mr. Chairman, drawing upon the lessons of our collective experience in Iraq and given the intelligence gaps that remain regarding Iran's nuclear program, I would suggest at least part of today's hearing include a discussion on whether arms limitations and disarmament must necessarily include a dialog on how best to facilitate the timely confirmation and gathering of accurate and comprehensive information on WMD threats so that we can better assess a particular state's nuclear plans, goals, and capabilities and promote the development of effective national and international policy. To this end, I again welcome Dr. Hans Blix and our panelists' thoughts on how address existing intelligence gaps regarding nuclear proliferation advancements, as well as other means by which to strengthen the nuclear nonproliferation regime. Again, I would like to thank all of your for your testimony.

I yield back the balance of my time.

Mr. SHAYS. Thank you very much.

Mr. Duncan.

Mr. DUNCAN. I have no statement, Mr. Chairman. Thank you for calling this hearing.

Mr. SHAYS. You are welcome.

We will take care of some business.

I ask unanimous consent that all members of the subcommittee be permitted to place an opening statement in the record and that the record remain open for 3 days for that purpose.

Without objection, so ordered.

I ask further unanimous consent that all witnesses be permitted to include their written statement in the record.

Without objection, so ordered.

We have three panels, so it is going to be a fairly long day. This is ultimately about weapon of mass destruction, current nuclear proliferation challenges.

Dr. Blix, we welcome you. I just want you to know that Members may ask questions that are somewhat off the issue here and they are free to ask those questions. What I will be doing on my turn, I will be asking you questions like why doesn't the Nuclear Non-Proliferation Treaty address the issues of nuclear terrorism, how should the Nuclear Non-Proliferation Treaty be amended to address the threat of nuclear terrorism. I just wanted you to know I will be wanting to get in these issues of how has the nonproliferation regime shifted to combat the threat of nuclear terrorism and asking you a variety of other issues of where we need to see amendments to the treaty and what efforts our country should be making.

You may be asked questions about Iraq and you can answer or not answer, depending on your decision.

As you know, we swear in our witnesses. I appreciate your willingness to be sworn in. When you become a diplomat again we won't swear you in.

[Witness sworn.]

Mr. SHAYS. Note for the record our witness has responded in the affirmative.

I thank you, Dr. Blix, because I went to see you a few years ago in Stockholm and wanted to ask the question why did Saddam Hussein want us to think he had weapon of mass destruction, and you were very generous in spending about 2 hours of your time from a vacation. I will never forget that visit, and I am very appreciative that you would have been so generous with your time. I appreciate that you would be here today and say that we are eager to hear your testimony.

Thank you, Dr. Blix. You have the floor.

STATEMENT OF HANS BLIX, CHAIRMAN, THE WEAPON OF MASS DESTRUCTION COMMISSION

Dr. BLIX. Thank you very much, Chairman Shays. I am pleased to be invited by you and by the subcommittee to the Hearing on nonproliferation challenges.

The NPT is a central instrument through which non-nuclear states commit themselves to remain without nuclear weapons, and for the nuclear weapon states, five of them, to commit themselves to prevent a further spread of weapons and to act for nuclear disarmament.

I note with appreciation the efforts that you have made, Chairman Shays and others, to move into the U.S. Congress the resolution 133 of last year, which underlines the importance of the NPT and of the need for disarmament measures on behalf of the nuclear weapon states. And then I remind you that next year is the first preparatory committee meeting for the NPT Review Conference that is to take place in 2010, so I think it is time now to begin to

think what are countries going to say at next year's preparatory meeting.

As the chairman of the WMD Commission, which was an independent commission which was established or financed by the Swedish government, I remain keenly interested in the question of nuclear weapons and the NPT, and as the former Director General of the International Atomic Energy Association, I am responsible for the safeguard system. I also have a continuing interest in it and, of course, as chairman of the Hamlich in New York I have a lot of hands-on experience, shall we say.

I have submitted some written testimony to the Commission and I have also submitted a few corrections in it, which I hope you will take note of, but at this point, Mr. Chairman, I would like to stress the following:

The first point is I think there is a very strong need at the world community, including the United States, to become aware of the erosion that has taken place in the implementation of the NPT, both on the side of non-nuclear weapon states, or states that should have remained non-nuclear, and on the part of nuclear weapon states. Kaufianan was talking about the world sleepwalking into a new phase of disarmament, and that commission which I headed and which presented this report, Weapons of Terror, precisely says that we think that there is a need for a revival of the efforts of arms control and disarmament.

I received questions from your commission and I have answered them in my written submission, but here I would like to rather think of chronologically what may be of most of all needed at the present time. And then I would agree with those that say that Iran is an acute case. Iran and North Korea are acute cases and they need to be dealt with acutely. They are on the top of the agenda in the media and I think they should be on the top of our agenda.

In the case of Iran, the commission that I chaired has commented in detail upon it, and we have also commented in detail about North Korea. We agree with those who say that it is desirable that Iran should suspend the enrichment program. The question is how one will get to that, and I think we agree, we say that the first condition is that one should try to create a situation in which the country does not feel a need for nuclear weapons. We, therefore, point particularly to the question of security.

Most countries that have gone for nuclear weapons have done it because they felt a security need. Certainly India looked at China, Pakistan looked at India, Israel looked at the Arab states, and so forth. In the case of Iran, too, one should keep that in mind. And how can one do that?

Well, I think that to compare the efforts made to get North Korea to stay away from nuclear weapons, you find that in the negotiations the North Koreans had been offered assurances about security, and they have also been told that they might get diplomatic relations with both Japan and the United States, and thereby being taken out of the ostracism to which they have, for various good reasons, been subjected. Both of these measures are there in order to assure them that their security would not be threatened, that they would not need nuclear weapons.

I think the same thinking would be needed in the case of Iran. From what we have seen about the offered diplomatic negotiations, there has been nothing held out about either security or diplomatic relations.

These are the two most acute cases, but if I go in the order of acuteness then I would say that the Comprehensive Test Ban Treaty is next in line. It is now celebrating its tenth anniversary. The Commission thinks that there could be a positive domino effect if the U.S. were to ratify. We, frankly, directly urge the United States to reconsider the position it has when the Senate rejected the Comprehensive Test Ban Treaty. We think that if the U.S. were to ratify it, then very likely others would follow—China, India, Pakistan, Iran, etc.

At the present time I think there is particular importance in getting the U.S. and China, because the two countries are involved in the negotiations with North Korea and it would be highly desirable that North Korea ratify the CTBT, because if they don't the treaty cannot enter into force. That ought to be an element in the negotiations, but it might be hard, both for the U.S. and for China, to urge the North Koreans to ratify the CTBT so long as they, themselves, have not done so.

Next in line on my list would be the Fissile Material Cutoff Treaty; that is to say, the treaty that will demand prohibit the production of plutonium and rich uranium for weapons purposes. The United States has recently tabled a draft on that subject in Geneva at the Disarmament—well, not in the Disarmament Conference, because it is not meeting as such, but, at any rate, for the conference.

That draft, which I think has been welcomed, nevertheless misses one important point, that is verification. It always used to be felt and the U.S. supported in the past such a treaty with verification, and this draft does not contain it.

I think when we look at the negotiation that has been done between the United States and India, you will appreciate that it is a severe lack in that draft submitted by the U.S., because if India, under this agreement with the United States, would be able to import nuclear fuel, there is also a possibility—I am not saying that it is a reality, but the possibility that they could use their own uranium for making more material for weapons. And if there is no agreement on the prohibition on making more material for weapons and no verification of it, then there is certainly a risk that both Pakistan and China would not trust such an agreement, and hence an FMCT with verification would be very important and we would hope that the U.S. would amend its proposal in this direction.

Next the ultimate point would be Biological Weapons Convention which will come up for a review conference later this year, toward the end of this year, where there are no provisions about implementation. This is certainly a weakness in the convention and the Commission that I headed came to the conclusion that we would need a multifaceted instrument for the implementation of it, including a secretariat, including also means of verification.

And the last point, Mr. Chairman, that I mention is the Space Treaty. Next year there will be a conference on the Outer Space Treaty, and we know that not long ago some states in Geneva

wanted to take up the issue of space weaponization and it was turned down. There were two states that were against it, the United States and the U.K. Accordingly, since the conference operates by unanimity, they could not land on the work program.

There is relatively little public discussion in the world about the risk of weaponization of space, but there is a lot of money spent on it, and the Commission which I headed takes up the issue and points to the need that we also embark on that.

So all these measures, I think if movements were made of them that would also help to strengthen the Non-Proliferation Treaty.

Thank you.

[The prepared statement of Dr. Blix follows:]

To the House Government Reform Committee
Subcommittee on National Security, Emerging Threats, and International Relations

Congress of the United States, House of Representatives

The subcommittee has been kind to invite me to a hearing on 26 September 2006 on the subject of
Weapons of Mass Destruction: Current Nuclear Proliferation Challenges

I shall be glad to attend and testify.

In 2003 I returned to my home country, Sweden, after having served for a little more than three years as Chairman of the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC) whose task it was to identify and eliminate weapons of mass destruction in Iraq. On my return home I was asked by the Swedish Foreign Minister, Ms. Anna Lindh, who was later tragically murdered, to establish an international commission to examine ways in which the world could counter and eliminate the threat of weapons of mass destruction. I accepted the offer.

The Weapons of Mass Destruction Commission was mainly financed by the Swedish Government but worked completely independently. On 1 June 2006 it presented a report unanimously adopted by its fourteen members: *"Weapons of Terror. Freeing the World of Nuclear, Biological and Chemical Arms."* The report (available at www.wmdcommission.org) deals extensively with the subject of the hearing to which you have kindly invited me. My answers to the questions will naturally be inspired by the reasoning and conclusions of the Commission that I chaired. However, the answers are mine and the Commission bears no responsibility for them.

In reply to nine questions which have been specified in your invitation I send you the attached written testimony.

Yours Sincerely

Hans Blix

US Congress hearing Blix attachment Sept 06
Attachment to letter by Hans Blix

1. What steps should be taken to strengthen compliance under the Nuclear Non-Proliferation Treaty?

The NPT may be said to aim at making the world free of nuclear weapons. Non-nuclear weapon states were invited to commit themselves to remain free of nuclear weapons and five nuclear weapon states were invited to commit themselves to negotiations aiming at nuclear disarmament. The parallel invitations also constituted a bargain. Non-nuclear weapon states would not make commitments, which would be immediately operative, unless the nuclear weapon states committed themselves to move toward disarmament.

To achieve the aim of a nuclear weapon free world through the treaty two things would be required**: universality** of adherence and **full compliance** with commitments.

The treaty has been adhered to by more states than any other arms control agreement, but it failed to attain universality. **India, Israel and Pakistan** did not join and are deemed to have nuclear weapons. In addition, **North Korea** has withdrawn from the treaty. On the other hand, **South Africa** did away with its nuclear weapons and joined the treaty as a nuclear-weapon free state.

It is improbable that **India and Pakistan** would abandon their nuclear weapons except in the context of all other nuclear weapon states doing the same. **Israel,** which does not acknowledge having nuclear weapons, has supported the concept of a zone (including Israel) free from weapons of mass destruction in the Middle East. A movement away from nuclear weapons by the five nuclear weapon states parties to the NPT would in all likelihood be joined by India, Israel and Pakistan.

North Korea has declared that it possesses nuclear arms. Negotiations have been pursued to induce North Korea to abandon its indigenous nuclear programme by offering the country assurances about its security, diplomatic relations to end isolation and economic assistance.

As to **compliance,** nearly all **non-nuclear weapon states parties** to the NPT have a good record – verified through IAEA safeguards. However, Iraq, Libya and North Korea (before it withdrew) sought clandestinely to develop nuclear weapons in violation of their commitments.

Iraq was found out through the IAEA inspections carried out in 1991 after the Gulf War and its material capabilities for making nuclear weapons were destroyed.

Libya's efforts secretly to move to nuclear weapons were discovered through intelligence and subsequent inspections. The elimination of the program was secured through negotiations conducted by the US and the UK.

North Korea agreed in 1992 to freeze its nuclear program but must be assumed to have continued secretly to work on a weapons program in the absence of extensive inspection. Current negotiations aim at bringing such program to an end, bringing North Korea back to the NPT as a non-nuclear weapon state and establishing effective **verification of its future compliance**.

Iran claims to be in full **compliance** with the NPT and to pursue a program to enrich uranium exclusively to obtain an indigenous source of fuel for its nuclear power program. Brazil and Japan are other non-nuclear weapon states which have indigenous enrichment programs. However, many governments suspect Iran intends – **in non-compliance** with its NPT commitments – to use the enrichment programme to develop nuclear weapons.

Many efforts have been and are being spent seeking evidence of past and present Iranian intentions. At this stage such efforts seem largely futile. Whatever the intentions of the regime (or parts of it) might have been in the past or may be now, they could change in the future. On the other hand, if Iran were induced to suspend its efforts to develop an industrial scale enrichment program, any nuclear weapon program would be pushed off for the amount of time it would take to restart the enrichment programme and produce the amount of highly enriched uranium required for a weapon.

Currently, there is a need to learn if it would be at all possible to induce Iran to suspend the enrichment program and, if the answer is yes, which the inducements would need to be. As in the case of North Korea there is a

search for effective inducements. Differently from that case, however, security assurances and future official relations have not been reported as inducements offered.

A large number – if not all – of the non-nuclear weapon states parties to the NPT consider that the **nuclear weapon states parties** are seriously **failing in compliance with their commitments** under the treaty to move to nuclear disarmament. They acknowledge the importance of agreements reached and the reduction in nuclear arsenals but point to the end of momentum in the arms control and disarmament field, the lack of constructive negotiations and, indeed, set-backs in the last decade.

The report of the Weapons of Mass Destruction Commission describes a large number of measures that could be taken in order to move on in the field of nuclear arms control and disarmament – from moving nuclear weapons away from hair trigger alert to examining how states can adapt their defense programs to a life without nuclear weapons.

There is little doubt that action to bring the **Comprehensive Test Ban Treaty** into force is the item **highest on the agenda**. There is very strong global support for the treaty, which has been ratified by 135 states including France, Russia and the UK. However, for entry into force the treaty still needs ratification by ten states, notably China, the US, North Korea, India, Pakistan, Israel or Iran. It is gives some hope that there is bipartisan support in the US congress for ratification. No other measure in the field of arms control could help more to dispel the current gloom and despair about arms control and to give hope than an entry into force of the CTBT. Continued reliance on the current moratorium is risky. Media have reported suspicions that North Korea might move to nuclear tests. The agreement now sought with North Korea must ensure that North Korea ratifies the CTBT. Yet, this might be difficult to demand, so long as two of the leading negotiating states have not, themselves, ratified.

There are many other items that should be on a new active agenda for arms control and disarmament in compliance with Art. VI of the NPT. Let me just mention a treaty providing a verified prohibition of the production of enriched uranium and plutonium for weapons (FMCT); the withdrawal of nuclear weapons to the countries that own them; non-first use declarations; measures to prevent an arms race in space.

2, Why has the Nuclear Proliferation Treaty failed to prevent the spread of nuclear weapon?

First of all we should perhaps clarify that while in the domestic sphere citizens are obliged to abide by the laws, whether or not they agree with them and are likely to be punished if they do not comply, states may join or not join, ratify or not ratify treaties, depending upon their will and the advantages and disadvantages they see. Hence, to attract adherence and compliance to treaties it is of importance to create such conditions that states want to join.

Through the NPT non-nuclear states could signal to neighbours and the world that they would not become nuclear threats and they could receive such signals. They could obtain commitments by the nuclear weapon states parties that these would negotiate toward nuclear disarmament. They would thereby participate in what they may have seen as a positive global development toward peace. They could further expect easy conditions to obtain peaceful nuclear technology.

For most states the cost they would pay as parties to the NPT was limited: a commitment not to acquire nuclear weapons and international verification. In most – but not all – cases they did not see any security reasons to forego the nuclear weapon option. In any case it was very often one that was beyond their technical ability. It is not surprising, therefore, that the treaty has gained such vast adherence.

Before addressing the shortcomings of the treaty we should note its considerable successes. For instance, all countries in the **Southern hemisphere** are free of nuclear weapons. Recently, a zone free of nuclear weapons was declared by countries, which are parties to the NPT in Central Asia. Not all the states which have joined the treaty were self-evident candidates. Many would be able to make nuclear weapons and many are big or medium sized states, e.g. Algeria, Argentina, Brazil, Germany, Japan, South Africa. Many are located in areas of tension, e.g. Egypt and other Arab states, Turkey and Viet Nam. It should also be noted that when the Soviet Union was dissolved, **Byelorussia, Kazakstan and Ukraine** received guarantees about security, handed over their nuclear weapons to Russia and joined the NPT.

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The fulfillment of the aim of the NPT – making the world free of nuclear weapons – raised the need for **universal adherence**. The three states that have not joined – India, Israel and Pakistan – have most likely decided to stay outside because they judged that their respective **security situations** required nuclear weapons. They will hardly abandon their nuclear weapons except in a global or possibly – in the case of Israel – a big regional company.

In the view of the Weapons of Mass Destruction Commission nuclear weapons may be particularly dangerous in some hands but constitutes a **danger in anybody's hands**. Pakistan is a volatile state. Its possession of nuclear weapons underlines the need for the whole world to move away from the nuclear weapons.

Just as security considerations are important behind some states' non-adherence such considerations may also figure among the factors which have led some states' failure to comply. **Iran's enrichment program** appears to go back to the 1980s. If there were intentions to acquire nuclear weapons or getting closer to the option, these might well have been based in suspicions that Saddam Hussein in Iraq was working to develop nuclear weapons and that Iran's security required a response. The suspicion would have been right.

It is conceivable that the rulers of **North Korea and Libya**, two countries that for various – understandable – reasons have been ostracized, have thought they would be less likely to be attacked if they possessed nuclear weapons. They might also have sought recognition as significant players or thought they could force concessions in return for abandoning the weapons. It is difficult, on the other hand, to see that **Iraq** under Saddam Hussein had any security need to develop nuclear weapons. Iraq did not expect any attacks from Israel or Iran. It is more likely that Saddam Hussein sought nuclear weapons as a tool for an expansionist Iraqi policy and perhaps a threat against Israel.

3. Why do some countries lack confidence in the non-proliferation regime?

There is the possibility that some state party may withdraw and develop nuclear weapons. As experience shows there is also the possibility that some state will clandestinely seek to develop these weapons. The IAEA verification system detected that North Korea did not correctly report how

much plutonium it had produced, but it was whistle blowers who first pointed to Iran's non-declared enrichment program and intelligence that detected Libya's nuclear programme. The Iraqi programme was neither detected by IAEA safeguards, nor by intelligence, nor was it reported by any defectors. It became known with the first IAEA inspection after the Gulf War.

With a stronger inspection system in the IAEA secret programs stand a much greater risk of detection or, at least, suspicion. Intelligence is also of great importance. Defectors do not generally come to international organizations and intelligence has enormous resources for surveillance of various kinds. Intelligence does not, on the other hand, have the right that international inspection has, to enter facilities on the ground and demand documentation and explanations. Governments should make full use of both sources of information.

4. How does unilateralism versus multilateralism approaches to global security affect prospects for the abolition of nuclear weapons?

In the view of the Weapons of Mass Destruction Commission a multilateralist approach to global security and disarmament is indispensable. No single country, however powerful, can successfully play the role of a world sheriff. The resources will not be enough. The NPT exemplifies the multilateralist approach. South Africa unilaterally renounced nuclear weapons but the three states which did not join the treaty will abandon their nuclear weapons only in company with the other nuclear weapon states. Influencing North Korea and Iran is also hardly possible through a unilateralist approach.

5. To what extent have non-proliferation sanctions affected the policies of rogue regimes?

The sanctions inflicted on **Iraq** after the Gulf War in 1991 were draconian and probably important to influence the regime to eliminate the weapons of mass destruction it had already in the early 90s. Moreover, these sanctions impoverished the country, which impeded – but did not exclude – further weapons developments. One must not forget, however, that the sanctions on Iraq carried a horrible cost for the Iraqi people.

The sanctions imposed on **Libya** may well have over time influenced the regime and contributed to the settlement it eventually made with the US and UK.

Broad economic sanctions on **Iran** would probably bring support that might otherwise not be available to the government and be perceived by Iranian public opinion as punishment by the big and rich countries.

6. What stricter international controls over fissile material should be implemented to keep the material out of the hands of terrorists?

For quite a number of years the controls over fissile material have been strengthened all over the world and this is a process that is not costly and that should continue. While one cannot exclude the possibility that terrorists may seek to acquire or develop nuclear weapons and try to make use of them, the enterprise to make such a weapon and organize delivery of it would be a rather big one. Experience – which may not be a guide to the future -- shows that simpler means have been preferred. It is for that reason that there is a greater concern about 'dirty bombs', i.e. bombs containing radioactive material such as cobalt or cesium, which will not cause fission but if spread through a conventional explosion could contaminate a central area of a city and spread terror. Hence, stricter control over such material is practically important. The more so as it is found in many places in society, e.g. hospitals and industry.

7. Why has the international community failed to adopt "no-first use" policies?

The majority of states in international community would gladly see the adoption of such a rule and it is often requested. However, it is the states possessing nuclear weapons that have the ability to declare such policies and – with the exception of China – they do not. We have rather seen a retrograde evolution in that several nuclear weapon states appear ready to threaten to use nuclear weapons in retaliation for any use of other weapons of mass destruction, such as biological or chemical. This is giving a wider scope for the use of nuclear weapons when the development should go in the opposite direction. The BC weapons have existed a long time without this doctrine.

8. What steps should be taken to strengthen nuclear material and technology export controls?

Export controls are important means of making it more difficult for any state or non-governmental group bent on developing nuclear weapons or "dirty bombs". They have been applied by exporting states for a long time and may be in need of greater transparency and openness. They have often been criticized as cartels or closed clubs. Nevertheless, Resolution 1540 of the Security Council requires states to put in place effective export controls and urges all states in a position to do so to help. The ability of the network organized by the Pakistani scientist A.Q , Khan to export nuclear equipment showed the need both for legislation and administrative means of implementation. With a growing number of suppliers in more countries greater alertness is needed.

The Proliferation Security Initiative (PSI) is a kind of export control mechanism, under which a number of states have agreed to cooperate by exchanging intelligence and by readiness to interdict and seize illicit international shipments of WMD related items. While the authors of the initiative claim great success, many states have been suspicious of the initiative and suggested that it should be operated under the authority of some international organization. It is possible that the activity has some deterrent effect. The world has not been given much information to judge how useful this initiative has been.

9. How successful are cooperative threat reduction programs in stemming proliferation of nuclear material?

For a very long time there have been programs promoting the conversion of nuclear research reactors to the use of low enriched uranium rather than highly enriched uranium. To ensure that fissile material is securely protected in storage and transport is equally practically important. The measures are not controversial and they may well be worth the resources spent on them.

Mr. SHAYS. Thank you very much, Dr. Blix.

Doctor, the bottom line is you focus on weapon of mass destruction and they include chemical, biological, radiological material, and nuclear; is that correct?

Dr. BLIX. Yes.

Mr. SHAYS. But today we are going to focus pretty much on the nuclear side.

Dr. BLIX. OK.

Mr. SHAYS. At this time I would recognize Mr. Duncan for 10 minutes. We are going to do the 10-minute rule.

Mr. DUNCAN. Well, I won't take up that much time, Mr. Chairman, but I do thank you for recognizing me at this point.

One thing I am curious about, Dr. Blix, how hard or how easy is it to make nuclear waste? So many people in our country seem to have the opinion that just somebody, some very small group like two or three people, if they knew what they were doing, they could make a suitcase nuclear bomb and carry it over here some way. I am just curious as to how you would respond to that. I wonder. I assume it is a very difficult thing that would involve many people, but I am just wondering about that.

Dr. BLIX. Mr. Chairman, I am a lawyer and I am not very good at making nuclear weapons, but I did read some time ago about some Ph.D.'s in California that had been given a year to try to do it and it was claimed, at any rate, that they were able to do so within the span of a year. Nevertheless, we see what Iraq has tried and we see what the North Koreans have been trying, and the Iraqis had come to the stage of enriching uranium at very old-fashioned methods before they switched onto centrifuge. It took them a long time.

There are some doubts as to whether the North Koreans really have a nuclear weapon. They have declared that they have them, but there are some people who think that they have found it difficult to do it with plutonium, that this might be a reason that they have switched and want to have enrichment. They have been active for a great many years. I was, myself, in North Korea in the beginning of the 1990's, and saw the reprocessing plant, and they have been at it for a long time.

Now, it is reported that the Iranians' enrichment program started some time in the 1980's, in the late 1980's. They then speculate why would they do it. My guess would be that they were suspicious about Iraq. They were right. I mean, that was the time when Saddam Hussein actually was working on it. But this is now 20 years ago, and the report was last spring that they had succeeded in enriching some gram quantity, a milligram quantity, 3.5 percent, so it cannot be all that easy to do it.

Mr. DUNCAN. Well, the more general question then, which do you think is the more dangerous threat for a nuclear weapon, a rogue nation or a terrorist group?

Dr. BLIX. I think rogue nations, to use your term, is much the more danger, greater danger, because states, on the whole, have much greater capacity. It requires a lot of infrastructure if you are to build it up yourself by starting from enrichment.

Now, considerably some group could steal a weapon somewhere. Well, then they would avoid all that problem. But in the disar-

mament community I think there is more concern when it comes to terrorists that they might go for dirty bombs. Dirty bombs are not based upon fission, an explosion, but they are based upon putting together cesium or cobalt or some such stuff which is radioactive, and you combine that with explosives and set it off somewhere in an urbanized area. Then you can have a lot of contamination and a lot of terror certainly happening.

These materials, cesium and cobalt, are things that are pretty much spread over the world in industry and hospitals.

Mr. DUNCAN. Now, how many nations have what you would describe as major weapon of mass destruction?

Dr. BLIX. Well, if you count them all, if you include the biological and chemical, then you come fairly high up in number. I don't know whether it is 35 or 40 or 50 or something.

Mr. DUNCAN. Right.

Dr. BLIX. But when you confine yourself to the nuclear, then you have eight or nine, depending upon whether you include North Korea.

Mr. DUNCAN. Eight or nine have nuclear weapons?

Dr. BLIX. Five original centers, if I use the expression, and then, in addition to that, India, Pakistan, and Israel, and then maybe North Korea.

Mr. DUNCAN. So the United States and most of our allies, then you would have the rogue nations such as North Korea, if they have it?

Dr. BLIX. I think there is some misunderstanding that the world is full of would-be proliferators, that any country would like to have it. I don't think that is the case. If you look at the map and you ask yourself, well, what about Egypt, what about Syria, what about Turkey? I think when you begin to look at the concrete cases you become a little more skeptical. I mean, longer-term, yes. It is not a matter. And if Iran were to move ahead and if North Korea were to move ahead, that could have domino effects in the longer term.

I think it could also have longer-term effect if we do not get an objective effort at arms control and disarmament, if they simply say that they will be constructing new types of nuclear weapons, if the U.K. takes a decision that they will prolong their Trident program far into the next century, and if the military doctrines will allow a greater fighting use for nuclear weapons, then we may also have a new risk such as we had when the NPT was drafted once.

Mr. DUNCAN. Which countries in the Middle East are signatories to the treaty?

Dr. BLIX. Well, I think all apart from Israel are.

Mr. DUNCAN. All of them except Israel?

Dr. BLIX. Yes.

Mr. DUNCAN. All right.

Thank you very much, Mr. Chairman.

Mr. SHAYS. Would the gentleman yield time to me?

Mr. DUNCAN. Sure. I yield back.

Mr. SHAYS. Dr. Blix, I would like to just focus first on the issue of I would like to separate the material versus the weapon, itself. My concern isn't a suitcase bomb, because I think that tends to be more sophisticated. My concern isn't the weapons at the head of a

missile. That is very sophisticated. But I have gone to Los Alamos and I have seen a nuclear weapon constructed with pretty basic material. It is not sophisticated. It was fairly large. It was pretty awkward. But my view is a terrorist doesn't care how big it is, how inefficient it is. As long as they can get a nuclear explosion, they have achieved their objective.

So I want to separate the capability to make the weapon and the challenge in getting the weapons grade material. Which is your biggest concern on the part of not a rogue nation but on the part of people within potentially a rogue nation.

Dr. BLIX. Well, the focus of international tension has been more on the material, on enrichment. We see today very active discussion about limitation of enrichment in the world.

The thought is that there will be more nuclear power used in the world, and I agree and I support that notion, but the fear is expressed at the same time that then there will be a need for more enrichment capability. And if you have enrichment capability to 3 percent, you also have it to 93 percent, so there is a justified concern about that, an active discussion in which the U.S. Government has some ideas, Mr. Abardi in India has come forward, the international fuel bank, and so forth.

I think this is valid and an important discussion that will take a good deal of time, and that is the major focus.

Now, when it comes to the missile, the ready-made things, their request is delivery, and you refer to the suitcase bombs. I remember we discussed it in our commission and it was not rejected that small, small nuclear weapons could exist. The Russian general—I think Libid was his name, was talking about that and was denied at the time by Russian authorities. However, apparently they can become rather small. I think it is a particular reason why one would wish to eliminate so-called tactical nuclear weapons. We differentiate between the strategic weapons, which are bigger and use missiles, or the tactical ones. You have had nuclear artillery, have had nuclear mines. They cannot be very big. And, of course, if they are stored in any manner that is not secure, then they would pose great risk.

We were proposing in this report that for the European theater, European and Russian theater, that there should be no nuclear weapons at all in western Europe, that all nuclear weapons should be in countries that own them, so that U.S.-made nuclear weapons would be withdrawn from the European continent. But at the same token, that the Russians should withdraw their tactical nuclear weapons into central storage into Russia.

All in all we think that one should go further on with the destruction of tactical nuclear weapons. The agreement between Bush and Gorbachev in the early times was not a binding agreement. Our Commission think that it should be made such.

Mr. SHAYS. When I was confronted with weapons grade material, when I held plutonium in my hand it was warm to the touch but I could still hold it. When I held enriched uranium, it didn't generate the type of heat and it was small. It seemed to me a huge concern that it could get outside the hands of the government that actually produced it.

With North Korea, we negotiated a treaty to stop their plutonium program, and then this administration recognized they were doing enriched uranium. It strikes me that enriched uranium is a bigger concern, given its capability of detonation. Am I correct? I mean, I am talking about a terrorist getting hold of weapons grade material. Wouldn't our biggest concern be enriched uranium?

Dr. BLIX. Well, we know that North Korea has plutonium. We cannot be absolutely sure that they have weapons, but they have plutonium. The IAEA inspections that we set in motion early in the 1990's concluded and showed that they had more plutonium than they had declared. That was how the whole crisis began. And then an agreement was reached with the so-called agreed framework under which they would freeze their nuclear program, and they did not make any more plutonium during the 1990's until that agreed framework sort of collapsed. And when it collapsed the world also began to suspect that they were going for enrichment, and they declared so at one time but they withdrew the statement. It is still suspected that they did.

Mr. SHAYS. But the question I have—and I want to turn it over to Mr. Kucinich—is I am talking about the weapons grade material getting in the hands of a terrorist, not a rogue nation using a more sophisticated plutonium weapon. My question to you—and if you don't have an opinion, that is OK—isn't our concern, when it relates to terrorists, that the more-easily detonated weapon is one using enriched uranium, and that would be our biggest fear in terms of terrorists getting hold of it?

Dr. BLIX. I am not sure I hear every word. I am a little poor in hearing. But I understand that you are asking about the differentiation between an enriched uranium involvement and plutonium involvement.

Mr. SHAYS. Right, and which is a weapon of choice for a terrors, which weapons grade material would be?

Dr. BLIX. I think enriched uranium.

Mr. SHAYS. Right.

Dr. BLIX. That is the judgment I have of experts.

Mr. SHAYS. Because if you get plutonium it needs to be a more-sophisticated weapon, right?

Dr. BLIX. Yes. That is my understanding.

Mr. SHAYS. Right. And our concern or my concern is that terrorists have the capability to build a weapon that could detonate enriched uranium. They would have a harder time creating a weapon for plutonium. That was basically——

Dr. BLIX. Yes. That is my understanding. It is harder to make a bomb with it, but the advantage is that it is smaller.

Mr. SHAYS. Well, the advantage of any sophisticated weapon is that it is smaller, but a sophisticated weapon is important if you want to put it on the tip of a missile, but if you are willing to stick it in a room you don't give a darn how big it is or in a big van. You don't care its size, you don't care its looks, you don't care how streamlined it is, you don't care about anything other than can you get this thing to create a nuclear explosion.

Dr. BLIX. I would agree with you.

Mr. SHAYS. OK. Let me call on Mr. Kucinich.

Mr. KUCINICH. Again, I want to begin by thanking once more the chair of this subcommittee. I think that, despite the fact, Mr. Chairman, that you and I may have our differences on some of these issues, I want to say that without—and I think this needs to be said, in fairness—without your active participation and your active efforts, there wouldn't be much public oversight at all in this House of Representatives, and I just want to make sure that is said because, you know, we are in a political environment here where it needs to be recognized when people have the courage to open up discussions at times that it might not be the most politically opportune for the administration.

I want to begin by again thanking Dr. Blix. Dr. Blix, you spoke about space weaponization, which is an issue that I have been concerned about for years. As a matter of fact, there is a bill that I have introduced in the last few Congresses to ban the weaponization of space that now has 35 cosponsors.

Are you familiar with the administration plan called Vision 2020? Mr. Chairman and Dr. Blix, Vision 2020 in its literature is about the weaponization of space and claims that it is the destiny of the United States to achieve "the ultimate high ground," which is domination from space.

Could you explain to this subcommittee why such an ambition may be counterproductive?

Dr. BLIX. Well, I think that any such measure is likely to draw countermeasures from the other side. I am old enough to have participated in the creation of the Outer Space Committee of the United Nations, and the conclusion of the Outer Space Treaty, which sought to insulate and to immunize space from weaponization, and where the parties even commit themselves to pursue the exploration of space in a manner that would not lead to any contamination. But that sort of cautionary attitude that we had those days seems to be gone altogether when we are talking about the risk of even placing weapons there.

The risk of anything going off by mistake and debris spreading in that area is one that I think has not been much discussed publicly and which might be a disaster. We have an army of engineers who are using space for our mobile phones and GPS and all of it and investing billions if not trillions of money in it, and then we have another army of engineers who are busy to find out how we can shoot down, how we can destroy it. I think all that requires much more of the public discussion, and I was sorry that this item was not agreed to be discussed in Geneva at the present time.

Mr. KUCINICH. You have never seen any evidence that there are weapons of mass destruction on the moon, have you?

Dr. BLIX. On the moon?

Mr. KUCINICH. Right.

Dr. BLIX. No. I think that is an area where they had prohibited. Nuclear weapons are prohibited in various environments, of course.

Mr. KUCINICH. I think that your recommendation 45 about calling on states to renounce the deployment of weapons in outer space is something that this Congress and the next Congress is going to have to have intensive hearings on.

I noted your discussion about what happens when nations aspire to gain nuclear weapons. We are talking about Iran. Do you think

that it would be in the interest of the United States to have direct talks with Iran or any other country that had the ambitions, stated or assumed, for nuclear weapons?

Dr. BLIX. Yes. I think so. I think that the negotiations that have been carried out by the Europeans, the U.K., France, and Germany have been geared in the right direction.

First of all, I have told the Iranians that they need not go for enrichment to have fuel for their reactors. They can have national assurance of supply. Although Iran has had poor experiences of such assurance of supply in the past, I think there could be arrangements made under which Russia and others would assure them of supply. I don't think that there really is strong economic reasons for Iran to go to an enrichment program. It would be much cheaper for them to buy enriched uranium in the international market as Sweden or Switzerland does. I think it is probably the assurance of supply that could be a relevant factor.

Iran does not have very much uranium in the ground, so eventually they would be dependent upon import, anyway.

The Europeans then I think have taken the intelligence stand of yes, we will offer you an assurance of supply. That is the first point.

But moreover I think they have also been wise in stating that we will actually support a peaceful nuclear program in your country. We will be ready to sell you reactors, but only the peaceful sector, but thereby, nevertheless, underlying in that, we are not against Iran as a high technology country. We are not trying to suppress a developing country here from coming into the modern age. I think that is a wise step, as well.

And then there is economic good that they are offered membership to the World Trade Organization and the investment, and so forth, but what has been missing, I think, so far is any talk about assurances of security.

Mr. KUCINICH. You know, that is the next point, and that is that if you are going to seek to avert some kind of a crisis from building, first, direct talks; second, there has to be assurances that you are not going to attack the country; is that correct?

Dr. BLIX. Yes.

Mr. KUCINICH. Because if Iran thought that the United States was going to attack it, what type of behavior would most likely occur with respect to nuclear issues?

Dr. BLIX. Yes. I think that one is likely to get better results with an offer of security than with threats of attack.

There is one further element, Mr. Congressman, that I think is relevant. That is this business about preconditions. I mean, the Security Council has said now in a resolution that they demand of Iran that they should suspend the enrichment program, and thereafter there is a willingness to sit down and to discuss what could they be given.

Well, think of a game of cards. Who wants to toss away your trump card before you sit down to play? So it seems to me that is very understandable from the Iranians' point of view that here is their leverage, that they might continue with enrichment, and they are apparently now ready to sit down to discuss that. Whether in

the last resort they would go along I don't know, but I certainly think that ought to be explored.

Mr. KUCINICH. As I am sure you are aware, the Intelligence Committee of the U.S. House of Representatives released a staff report last month on Iran entitled Recognizing Iran as a Strategic Threat: an Intelligence Challenge for the United States. Subsequent to its release, the IAEA responded that the report contained erroneous, misleading, and unsubstantiated information. Are you familiar with the report?

Dr. BLIX. Yes.

Mr. KUCINICH. I understand that the report's author used both open and classified U.S. intelligence information to reach the conclusion that Iran was actively pursuing a nuclear program and presented a formidable threat to the U.S. I am concerned about the gross exaggerations made in the report. For example, the staff report stated that the uranium enrichment level at the Natans Pilot Fuel Enrichment Plant was at "weapons grade levels." Now, according to the IAEA, the enrichment level at that plant is only 3.6 percent. Do you believe that a 3.6 percent enrichment level is weapons grade?

Dr. BLIX. No, of course not.

Mr. KUCINICH. And how many centrifuges would be required to enrich uranium to weapons grade level?

Dr. BLIX. I really don't know how many. It depends on how long time working in centrifuges.

Mr. KUCINICH. Could it take thousands?

Dr. BLIX. Yes, it could. Yes. Very likely. They have what is cascade now of 168 centrifuges, or something like that, but with that they cannot do very much.

Mr. KUCINICH. Now, this report also insinuated that IAEA safeguards inspector, Christopher Charlier, was removed from his position for raising concerns about Iran's nuclear program and concluding that Iran sought to acquire weapons. My question is, What are the rights and duties of Iran toward allowance of safeguards and inspectors within its territory?

Dr. BLIX. Well, it was mistaken on behalf of the investigators. The reality is that under the safeguard system the recipient country can veto and say no to any inspector. They have a right to do so. They don't have that under the OPCW, the chemical sphere, and I think it is pity that they have it in this nuclear sphere, but that is a reality with which the acting general of the IAEA will have to live. So I think the Iranians raised an objective to Mr. Charlier and then he had no choice. He had to drop him from active inspection, which doesn't mean that he doesn't work on the issues in the IAEA. I don't know whether he does.

Mr. KUCINICH. How many IAEA inspectors, if you know this, have currently looked at Iran's program in accordance with their safeguards agreement?

Dr. BLIX. According to the newspaper that I saw, they have about 200 inspectors whom Iran has approved.

Mr. KUCINICH. Is that a large number?

Dr. BLIX. Normal. Normal number.

Mr. KUCINICH. That is normal.

Mr. Chairman, are we going to have another round of questions?

Mr. SHAYS. We will have another round. I haven't yet used my time, and my colleague from Massachusetts hasn't used his first round. I will go to you first and then I will conclude with my round and then we will do another round.

You have the floor, sir.

Mr. LYNCH. Thank you, Mr. Chairman.

Dr. Blix, again I want to thank you for being here today.

The minority has asked on five separate occasions to have hearings on the intelligence on weapon of mass destruction prior to the invasion of Iraq. We have asked on five occasions and we have yet to get permission from the leadership of the majority.

You have written a book about that period that is central to our inquiry, and so I would like to just as you, you have written a book describing your experiences as the head of the U.N. inspection team in Iraq in 2002 and 2003, the period that we are desirous of looking at. The book is called, Disarming Iraq, and it provides, I think, a fairly astute and keen insight into the weeks and months directly before the war. I would just like to ask you a couple of questions about your observations.

One of the most interesting and probably the most disturbing parts of your book is your description of how the Bush administration manipulated the intelligence in order to make its case for the war. As we all remember, the centerpiece for the Bush administration's case for war was that Saddam Hussein, while he didn't have the launching capabilities for a nuclear strike against the United States, the fear here in Washington and elsewhere was that if he constructed a nuclear weapon he could deliver it to terrorists who could then work its way into the United States.

This is what you say in your book. I will quote the passage here. It is at page 270. You say that, "If there was any one weapons area where all, including the U.S., had felt Saddam was disarmed, it was the nuclear area. It took much twisted evidence, including a forged uranium contract—" the Niger document, I presume—"to conjure up a revived Iraqi nuclear threat, even one that was somewhat distant. It is far more probable that the governments were conscious that they were exaggerating the risks they saw in order to get the political support they would not otherwise have had."

This would be a central part of our inquiry if we were allowed in other forums.

Could you tell me more about this, about what the effect of the credibility of the U.S. Government became as a result of these, as you described, exaggerations?

Dr. BLIX. In the autumn of 2002, when we started our inspections in Iraq—and I will say also that I don't think Saddam would have gone along with inspections if it had not been for the military buildup by the United States. I am not a passivist. I am not someone who says that you must never use military pressures.

Mr. LYNCH. I understand.

Dr. BLIX. I think that had a positive effect. But in that autumn of 2002 they wanted to describe the Iraqi threat in stark terms in order to get support for the pressures they wanted and eventually the war that they waged. But already that autumn you had American experts like David Albright here in Washington who said that the well-known aluminum tubes that were described as were being

used in centrifuges, that it was very doubtful whether that was true.

We heard about the uranium contract with Nigeria, but my colleague, Elbarday, succeeded me when I was in charge. I was not in charge. But I was somewhat skeptical about it when I heard about it because import of yellow cake that was very long—yellow cake is a long way from a nuclear weapon. I ask myself why would they want to have yellow cake. That was my layman's reaction.

It took a long time before the IAEA got a copy of this agreement, and it took them, I think, less than a day to see that it was a forgery. I know all the debates and I read some about them here in Washington about the Valerie claim and Mr. Wilson and so forth. What I would like to stress is that my colleague and friend Elbarday, he sat in the Security Council next to me before the war broke out and he said that we have had this contract and I can tell you that is not authentic. That was diplomatic language, it was not authentic. It was a forgery. So it was something that was known before the war.

When I write in my book that I think that they did not exercise sufficient critical thinking about it, and I think that in the autumn of 2002 one should ask oneself with very critical thinking what is this. As it seems at any rate it was known within then, there were doubts, skepticism within the administration about the validity of the contract; nevertheless, as I said somewhere else, I think, they chose to replace question marks by exclamation marks.

Mr. LYNCH. Just to followup on that, we are talking about a very, very critical decisionmaking process within our Government, within the U.S. Government. I was a new Congressman at the time, sat in on dozens of briefings with Secretary Powell at that time, the National Secretary Advisor, Condoleeza Rice, went to the White House and sat with CIA Director Tenant, met with the joint chiefs. All of the info that we were getting was consistent with the fact that there was an imminent threat from Saddam Hussein.

Additionally, in the interest of a broad base of information, I sat with David Kay, who I believe was the chief weapons inspector under the Clinton administration before you, sir.

Dr. BLIX. No.

Mr. LYNCH. Certainly in that time after the first Gulf War when they were removing materials.

Dr. BLIX. No.

Mr. LYNCH. So maybe not just before you, but some time prior, and Martin Indike, who was also a Clinton administration official in the Middle East, as well. All of that information was in harmony. It was all wrong, but it was in harmony.

Given the perspective that you had and have, how do you reconcile that, that all of that information was going in a totally different direction? And we are not talking about one or two facts; we are talking about a steady drumbeat of information fed to the press, fed to the Congress that led inexorably to an invasion, and now, in retrospect, given the hard facts, given the lengthy inspections on the ground there, the physical verification, and then reexamination of information that we have been given previously—the Nigere documents, the tubes, all of that—do you have any further thoughts on that?

Dr. BLIX. Yes, I think that, to me, one of the lessons of the intelligence and Iraq affair is that one should take international verification and inspection more seriously. I think there was a tendency to disregard what comes out of an international organization and to give automatic credence or much greater credence to national intelligence. I am not against national intelligence. I have met many of them. I have great regard, respect for many of them, put their lives at stake, and so forth, and I think it is necessary in the age of terrorism. I am not against it. But I simply think that here you have a government sitting on the center. They are interested in what is going on in rogue countries or elsewhere. They get streams of information. They get streams of information from their own intelligence and they also get the information from international inspection, from the chemical people and from the nuclear people. They can compare.

They operate with very different sources. The intelligence, they have a lot of defectors. They spend billions of dollars to listen to our telephone conversations, etc., and some things are sifted out of this. That may be valuable. International organizations do not receive the defectors. They don't go to them. They can't give asylum. They go to the country. But they are on the ground. They can go into the buildings. They can ask for documents and they can ask for explanations.

Hence, I think the government that sits there and has both sources, they should rely on both sources. I think that in the case of Iraq, regrettably they did not pay so much attention to it, or at least they didn't appear to pay much attention to what the international inspections said.

Even now when you look at Iran we hear various stories and speculations that, well, we can listen to that, but most of the information that has come out of Iran, nevertheless, comes from the IAEA investigation of it.

Mr. LYNCH. Thank you.

I yield back, Mr. Chairman.

Mr. SHAYS. Thank you.

Dr. BLIX. Can I add, Mr. Chairman, something about the costs, also? If I remember rightly, the cost of the IAEA safeguards inspection per year was certainly far below $100 million when I was there. I think it is still below $100 million per year. When you think about the intelligence cost to look after Iraq, Iran, North Korea, I think you will see that is a very good bargain to have international inspection.

Mr. SHAYS. Let me take my 10 minutes for the first round and just ask you, actually, before I start my set of questions, do you give the United States credit for having impact on Libya? And then I am going to ask you, does the United States get any credit in outing Iran and North Korea, in your opinion, to the fact that they were moving forward with a program that should concern us?

I have maybe a view that Europe didn't seem to think Iran was moving forward and North Korea wasn't moving forward, so set me straight if I am wrong, but I would like to get your opinion.

Dr. BLIX. You asked about Libya?

Mr. SHAYS. First, yes.

Dr. BLIX. Well, I don't know enough about the background of it. Libya was always one of those places where you felt there was a little smoke coming out. I was there, myself, once and I saw the research reactor, which was in rather miserable condition at that time.

Mr. SHAYS. I am not suggesting that they were advanced, but they were moving forward with a program?

Dr. BLIX. Yes, it is clear that they did, and it was not the IAEA that discovered it.

Mr. SHAYS. Right.

Dr. BLIX. This came rather through intelligence, and then they intercepted their ship which contained, I think, various equipment.

Mr. SHAYS. And so my question is, you know, with all the beating up that the United States gets, do we and others deserve a little credit in turning that around? They gave us their program, as well as other weapon of mass destruction program, and I use the Israelis as the harshest critics. They said this is a turn-around that is for real.

Dr. BLIX. Yes. It may well be that the U.S. has the credit. How much goes to the U.S. and how much goes to the U.K. I cannot tell you.

Mr. SHAYS. Fair enough.

Dr. BLIX. But the two of them together, yes.

Mr. SHAYS. Does the United States deserve any credit for calling the question on North Korea, because the sense was North Korea stopped their program. They negotiated. They just were doing another program which to me just spoke totally against the spirit of their agreement. Does the United States deserve any credit in confronting and exposing the fact that North Korea was, in fact, moving forward with a program?

Dr. BLIX. Well, the U.S. satellites had picked up the reprocessing plant in North Korea before the IAEA was there. We were allowed to carry out safeguard inspections.

Mr. SHAYS. I am not putting criticism on the IAEA. That is not my point.

Dr. BLIX. No. I realize that. But I think that the first discovery that they were not honest came through the Agency.

Mr. SHAYS. So the United States is basically saying we have a problem here. So my next question is, What kind of credit does the United States deserve in terms of saying Europe, you basically said Iran is not moving forward with the program, we disagree. Who basically deserves credit in calling the question on Iran?

Dr. BLIX. I think the Europeans were concerned about the enrichment program, but they did not assert that it was a program intended for nuclear weapons. I think they had moved somewhat in that direction after some of the evidence that has come up, the fact that the Iranians were receiving documents about research and then centrifuges.

Mr. SHAYS. Do you have any sympathy for the United States and the Brits, given that we basically helped bring attention to three countries that were moving forward with a nuclear program?

Dr. BLIX. I think we should all be concerned about that, and I certainly——

Mr. SHAYS. But do you give the United States any credit for its efforts in each of those?

Dr. BLIX. Yes.

Mr. SHAYS. Because you deservedly have reason to be concerned about Iraq. Let me ask you, finally, the outing of the father in Pakistan of their nuclear program, who basically is responsible for outing and calling Pakistan on the fact that they were incredibly culpable in spreading a knowledge of a nuclear program to other countries? Who deserves credit for that?

Dr. BLIX. As far as I know the discovery came in the context of the Libyan affair——

Mr. SHAYS. Right.

Dr. BLIX [continuing]. When they intercepted the ship and then they tried to find out where did the material come from. That was intelligence.

Mr. SHAYS. Yes, that was intelligence. Again, it is the United States, Great Britain maybe more than the United States——

Dr. BLIX. Yes.

Mr. SHAYS. So I just want to say, when I think of that I say well good for you, United States. Good for you.

Dr. BLIX. I agree with you. I think both intelligence and inspection are desirable, both.

Mr. SHAYS. Right.

Dr. BLIX. I am not against intelligence, but I am against an exaggerated and non-critical examination of it.

Mr. SHAYS. Fair enough. Let me ask you, I want to focus on the Non-Proliferation Treaty as it relates to terrorism. I basically conclude—and tell me if you agree—I basically conclude that the terrorists are not going to be able to create weapons grade material. The question is are they going to be able to get it from some country. That is where my fear is. But I have no question about the capability of terrorists to be able to create a very inefficient, large, bulky weapon that could create a nuclear explosion. So my question isn't with whether they can build it. I think they can and I think they will. Really the question comes to this whole hearing: how do we make sure that weapons grade material doesn't get into their hands?

Europe is not totally in agreement with it, but the 911 Commission said we are not fighting terrorism, we are confronting Islamist terrorists. They were pretty clear about it. It was ten members, Republicans and Democrats, Liberals and Conservatives. They all agreed on that one point. We are confronting Islamist terrorists.

I basically conclude you are not going to find them in Iceland. Our basic concern is in the Middle East, candidly, and obviously through Pakistan and so on.

I want to know, do you find that the Non-Proliferation Treaty in any way addresses the concern of nuclear terrorism, basically a nuclear weapon and a weapons grade material getting in the hands of terrorists? If you think it does, tell me how it does. If you think it doesn't, tell me where it doesn't.

Dr. BLIX. Well, sir, treaties are concluded between states and between governments, and I would take the view that a country that has adhered to the Non-Proliferation Treaty is obliged not only to make sure that it doesn't, itself, require nuclear weapons, but is re-

sponsible for what is happening within its territory. If one had any uncertainty about that, I think that the resolution adopted by the Security Council, 1540, would dispel any such uncertainty. That enjoins the countries, parties to the treaties, to make sure that also individuals in their country are respecting the treaty, so I think we have to look to the governments for this. But the effect of 1540 also—and this is the possibility of states helping countries to set up machinery for the implementation of the treaty.

Mr. SHAYS. What would your position be if Pakistan has basically experienced a coup in which radical Islamists—I am not saying terrorists, but radical Islamists—take it over, very sympathetic to terrorist organizations?

Dr. BLIX. I think Pakistan is about more dangerous spots in the world. It is a very volatile country with a lot of people with extreme views, so it is not an entirely unrealistic fear that we have about it.

Mr. SHAYS. But in terms of our capability to respond, I guess the question is how would we respond. I will just tell you my bias. I know we found no weapon of mass destruction in Iraq. I believe we would. I believe that not finding them, having voted to go there, along with 295 other Members of Congress, I lost credibility with my constituents because I said we would find them, but I sure as hell don't blame the President of the United States for my vote. That would be like a former Governor blaming the generals for supporting the war in Iraq saying he was brainwashed. I made my vote based on my research. Period. Case closed.

But this subcommittee also conducted the hearing on the Oil-for-Food-Program, and we learned that Saddam undersold his oil and got kickbacks and overpaid for commodities and got kickbacks, and the report said no weapon of mass destruction and Saddam Hussein basically bought off the French and the Russians in the Security Council. Terek Assiz made it very clear that Saddam never thought the United States would ever remove Saddam from power because of his support with the French and the Russians. It gets to my question. It sounds to me like we are in an untenable position if, in fact, we have to have everyone sign off before we would take action against a country that could, in fact, very willingly transfer weapons grade material to terrorist organizations.

What I am going to ask, my last question, In this real world that we live in, how do we deal with that? Do we wait for the French to give us permission, the Russians to give us permission, the IAEA to say with all its members we want inspections? I don't even know what inspections would achieve, because the bottom line is Pakistan has the weapons and they can choose to show you the ones they have and choose to not show you others that they have.

That is what I wrestle with. Tell me, in this world that my daughter is going to grow up in, how we deal with that kind of scenario under the systems that you have so much respect for.

Dr. BLIX. Well, I think you have described another perspective which one cannot totally exclude. So far I think we have seen all the governments that have nuclear weapons have been averse to having any of those going into the hands of terrorists, and certainly Saddam, with all his brutality, did not tolerate any terrorism, did not contribute any weapon of mass destruction to them.

But when you mention Pakistan, which is also in my mind, is that the only country in which you can have a regime change with a very different——

Mr. SHAYS. No. It is the one I just chose to give.

Dr. BLIX. No. I agree with you.

Mr. SHAYS. I chose them because the father of their nuclear program was very willing to export his knowledge to some very troubled areas of the world.

Dr. BLIX. Yes. But you could also have a case in which some other big country with nuclear weapons can, perhaps not to give terrorists, but you would have a totally different threat picture.

Mr. SHAYS. I would like Mr. Kucinich to have his time and my last round. When I come back, I really want to just kind of nail down what the options are. I want to basically nail down whether the NPT meets the need in this terrorist age or whether it needs to be amended and how it should be amended.

And let me just say I will defer that, because I want Mr. Kucinich to have the time. I have my red light and I have gone on 2 minutes beyond.

Mr. Kucinich, you have the time.

I am sorry, Mr. Platts, do you choose to ask any questions into the first round?

Mr. PLATTS. Mr. Chairman, if I could ask just one?

Mr. SHAYS. Sure.

Mr. PLATTS. Hopefully it has not been asked. I apologize for my late arrival.

Mr. SHAYS. You can ask. You have the right to ask any question you want, sir.

Mr. PLATTS. Thank you, Mr. Chairman.

Dr. Blix, I certainly appreciate your service to citizens throughout the world and the important work you have done.

In your written testimony, your answers talking about Iran specifically and use of economic sanctions and how it worked regarding Iraq versus Libya, and then specifically Iran, and you talk about that if we imposed economic sanctions, as is being discussed at the U.N. Security Council, that it would maybe more empower the Iranian government. The way I read your answer, maybe kind of embolden them with stronger public support.

What would you suggest? How do we deal with a country like Iran, or if it was North Korea, if the sanctions are not the way to do it because it is going to strengthen that government as opposed to undercut their ability to move forward with nuclear weapon development? What would be your best suggestion in the alternative?

Dr. BLIX. Personally, I do not think that the threat of economic sanctions is a very smart way of approaching them. I think that the carrots which have been put on the table, the assurance that they will not be attacked, that the economic advantage would be great, that they will have an assurance of supply is a far better method, and that they will more be nationally offended by the threat of sanctions, and that, if anything, a vast number of people in Iran who may be skeptical about their government will rally to a government to a hard line position when they feel that it is under pressure.

There is some notion I read in the papers that you must have both carrots and sticks, and, as it were, sticks and threats are indispensable, but to my mind you have carrots and you have absence of carrots from the other side. That is also a sort of punishment.

I think in the case of Iran that will better. Above all, I don't think that they have tried all the carrots they could call. We are pointed to the quest of security. We are pointing also to relations, to be not friendly, that the rest of the world will show friendship, but simply accept them and deal with them.

We also point to one other possibility mentioning that if you look at the Middle East as a particular tense place, maybe they could copy the idea from the Korean peninsula where the north and the south are agreed that neither north nor south will have either enrichment or reprocessing. The Middle East, if one were to agree that none of the countries in that area would have either enrichment or reprocessing, that would mean that Israel would also have to give up reprocessing, more reprocessing. They wouldn't affect the bombs that we assume they never, but they would have to give up.

I think that if one exercises one's imagination about the Iranians, maybe there can be more that will attract them to a suspension of enrichment, which is not a very economic interest anyway.

Mr. PLATTS. Thank you, Dr. Blix. Thank you, Mr. Chairman.

Mr. SHAYS. Thank you. We are going to go another round and maybe not take the full 10 minutes each, but whatever.

Mr. Kucinich, we will start with you.

Mr. KUCINICH. Thank you very much, Mr. Chairman.

This discussion again about WMDs reflects back on decisions that were made that took this country into war and a presumption of a nation having WMDs, and it is also prospective in terms of what kind of a policy do we have to help to reign in proliferation.

I think that there are many Members of Congress who voted to take this country into war who did it based on what they felt was the right thing to do based on the evidence that was presented to them. We see WMDs being at the center of this discussion with respect to Iraq, but now we know that the case that was presented to the Congress was one where there were certain people in the government presenting a case that they basically already made the decision to go to war, notwithstanding any evidence that was brought forward from even within that very administration.

For example, the attempt to conflate 9/11 with Iraq, the attempt to beat the drums and say Iraq had weapon of mass destruction, even though there was plenty of information available at the time—international community had their doubts, weapons inspectors had their doubts, people inside the administration had their doubts—we pursued a policy of attack based on lies, tried to connect Al Qaeda with Hussein. It was wrong. Iraq had nothing to do with the anthrax attack. Iraq was not trying to get uranium or aluminum tubes for the purpose of processing uranium. They weren't buying yellow cake from Niger. That was a hoax. The mobile weapons labs that the Secretary of State talked about at the United Nations, hoax.

So here it is. We didn't have to go to war. There is a way to use diplomacy to avert nuclear escalation.

Now, Dr. Blix, it goes without saying that an attack on another nation will de-stabilize a government, but if you de-stabilize a government does that increase the risks of nuclear proliferation by non-state actors within that government's territory?

Dr. BLIX. It depends on much material they have in the territory. We haven't talked at all about the cleaning up operations and the threat reduction programs that will convert research reactors from high-enriched uranium to low-enriched uranium, and so forth. There are a great many very useful, practical, not very controversial measures that are taken in this area.

Mr. KUCINICH. Does it go without saying, though, that if you weaken a state you increase the power of non-state actors within that state?

Dr. BLIX. It may happen that if you de-stabilize a government that there will be a greater scope for non-state actors. That is possible. I don't think it is axiomatic that it will happen though.

Mr. KUCINICH. Do you believe Iran is trying to develop nuclear weapons?

Dr. BLIX. I think there have been some indications pointing in that direction, but I don't think it is conclusive. I think that after the experience we have had in Iraq one should be a little careful to jump to the conclusions. I think that constructing a 40-megawatt heavy water reactor is something they could have avoided if they want to avoid suspicions, because that is a very good plutonium producer.

And I don't think that necessarily hiding the program is conclusively showing that they have weapons. It was illegal. It was a violation of the safeguards agreement, yes. But having feared that they could be sabotaged, that there could be bombing maybe, they kept it secret for that purpose. I don't think it is conclusive, but it is certainly an indication. There are others, but I don't think it is conclusive.

Mr. KUCINICH. Then would you say there is indisputable evidence that the Iran program is an imminent threat to the security of the region or of the United States?

Dr. BLIX. They will certainly increase the tension in the Middle East if they proceed with a program of enrichment. There is a lot of talk about trying to explore the intentions of the Iraqis, and if they have an intention to go for weapons then it is contrary and it is a violation of the NPT. If they don't have that intention, it is not a violation.

However, I think at this point the intention is immaterial. There is no use in searching for the intention, because it could damage them if you found really good, strong evidence that they intended to go for weapons. But if you don't find it, it is not going to help anyway. Everybody is going to say they can change the intention. If we accept today that they don't have intention, then in 2 years time they could change the intention. I think that I side with those who feel that it would be desirable that one persuade Iran to stay away from the enrichment program. They do not have really economic needs for it. One can cover the assurance of supply, but the security I think still is something that has not been broached, and if one tries to impose sanctions or harsher methods before those cards have been tried, then I think one is doing it prematurely.

Above all, Mr. Chairman, I think that we haven't discussed the question of preventive strikes and preemptive action, which are unilateral actions. The U.N. charter says that if there is an armed attack then you have the right to exercise self defense in the case of an armed attack or even imminent armed attack.

Now, in the case of the Iraq in 2002, no one could say that we were facing an imminent attack.

Mr. KUCINICH. So Iraq was not an imminent threat?

Dr. BLIX. Absolutely not. And in the case of Iran today, with a country that has produced perhaps a gram quantity of uranium of 3.5 percent, one cannot say that is a threat.

Mr. KUCINICH. Iran is not an imminent threat?

Dr. BLIX. It is not a threat today. It could become later on. But I think that there is another article in the U.N. charter in chapter six—not chapter seven, chapter six—about situations that can develop into threats, and that I think is the chapter that they should use.

There is also the possibility of using force under the authority of the United Nations, not unilateral force. These are two different things. The Security Council can decide and can authorize military action even if there is not an armed attack, so the Security Council has much broader authority than individual member states have.

Mr. KUCINICH. Have you ever heard of a report that 3 years ago Iran offered a dialog with the United States including full cooperation on nuclear programs?

Dr. BLIX. No, I am not familiar with it. I might have read about it.

Mr. KUCINICH. Mr. Chairman, for the record I would like to introduce a copy of this for this hearing. It is from the Washington Post on June 18, 2006. The headline is, "In 2003 U.S. Spurned Iran's Offer of Dialogue. Some Officials Lament Lost Opportunity." First graph says, "Just after the lightning takeover of Baghdad by U.S. forces 3 years ago, an unusual two-page document spewed out of a fax machine at the Near East Bureau of the State Department. It was a proposal from Iran for a broad dialog with the United States, and the fax suggested everything was on the table, including full cooperation on nuclear programs, acceptance of Israel, and the termination of Iranian support for Palestinian militant groups.

I think that the discussion that Dr. Blix has brought up here about direct talks may put us in a position where we can reconcile what may have been lost opportunities with being able to capitalize on some new thinking.

I'd like to put this on the record.

Mr. SHAYS. We will put this on the record, without objection. Thank you.

[The information referred to follows:]

In 2003, U.S. Spurned Iran's Offer of Dialogue
Some Officials Lament Lost Opportunity

By Glenn Kessler
Washington Post Staff Writer
Sunday, June 18, 2006; A16

Just after the lightning takeover of Baghdad by U.S. forces three years ago, an unusual two-page document spewed out of a fax machine at the Near East bureau of the State Department. It was a proposal from Iran for a broad dialogue with the United States, and the fax suggested everything was on the table -- including full cooperation on nuclear programs, acceptance of Israel and the termination of Iranian support for Palestinian militant groups.

But top Bush administration officials, convinced the Iranian government was on the verge of collapse, belittled the initiative. Instead, they formally complained to the Swiss ambassador who had sent the fax with a cover letter certifying it as a genuine proposal supported by key power centers in Iran, former administration officials said.

Last month, the Bush administration abruptly shifted policy and agreed to join talks previously led by European countries over Iran's nuclear program. But several former administration officials say the United States missed an opportunity in 2003 at a time when American strength seemed at its height -- and Iran did not have a functioning nuclear program or a gusher of oil revenue from soaring energy demand.

"At the time, the Iranians were not spinning centrifuges, they were not enriching uranium," said Flynt Leverett, who was a senior director on the National Security Council staff then and saw the Iranian proposal. He described it as "a serious effort, a respectable effort to lay out a comprehensive agenda for U.S.-Iranian rapprochement."

While the Iranian approach has been previously reported, the actual document making the offer has surfaced only in recent weeks. Trita Parsi, a Middle East expert at the Carnegie Endowment for International Peace, said he obtained it from Iranian sources. The Washington Post confirmed its authenticity with Iranian and former U.S. officials.

Parsi said the U.S. victory in Iraq frightened the Iranians because U.S. forces had routed in three weeks an army that Iran had

failed to defeat during a bloody eight-year war.

The document lists a series of Iranian aims for the talks, such as ending sanctions, full access to peaceful nuclear technology and a recognition of its "legitimate security interests." Iran agreed to put a series of U.S. aims on the agenda, including full cooperation on nuclear safeguards, "decisive action" against terrorists, coordination in Iraq, ending "material support" for Palestinian militias and accepting the Saudi initiative for a two-state solution in the Israeli-Palestinian conflict. The document also laid out an agenda for negotiations, with possible steps to be achieved at a first meeting and the development of negotiating road maps on disarmament, terrorism and economic cooperation.

Newsday has previously reported that the document was primarily the work of Sadegh Kharazi, Iran's ambassador to France and nephew of Iranian Foreign Minister Kamal Kharazi and passed on by the Swiss ambassador to Tehran, Tim Guldimann. The Swiss government is a diplomatic channel for communications between Tehran and Washington because the two countries broke off relations after the 1979 seizure of U.S. embassy personnel.

Leverett said Guldimann included a cover letter that it was an authoritative initiative that had the support of then-President Mohammad Khatami and supreme religious leader Ali Khamenei.

Secretary of State Condoleezza Rice has stressed that the U.S. decision to join the nuclear talks was not an effort to strike a "grand bargain" with Iran. Earlier this month, she made the first official confirmation of the Iranian proposal in an interview with National Public Radio.

"What the Iranians wanted earlier was to be one-on-one with the United States so that this could be about the United States and Iran," said Rice, who was Bush's national security adviser when the fax was received. "Now it is Iran and the international community, and Iran has to answer to the international community. I think that's the strongest possible position to be in."

Current White House and State Department officials declined to comment further on the Iranian offer.

Paul R. Pillar, former national intelligence officer for the Near East and South Asia, said that it is true "there is less daylight between the United States and Europe, thanks in part to Rice's energetic diplomacy." But he said that only partially offsets the fact that the U.S. position is "inherently weaker now" because of Iraq. He described the Iranian approach as part of a series of efforts by Iran to engage with the Bush administration. "I think there have been a lot of lost opportunities," he said, citing as one example a failure to build on the useful cooperation Iran provided in Afghanistan.

Richard N. Haass, head of policy planning at the State Department at the time and now president of the Council on Foreign Relations, said the Iranian approach was swiftly rejected because in the administration "the bias was toward a policy of regime change." He said it is difficult to know whether the proposal was fully supported by the "multiple governments" that run Iran, but he felt it was worth exploring.

"To use an oil analogy, we could have drilled a dry hole," he said. "But I didn't see what we had to lose. I did not share the assessment of many in the administration that the Iranian regime was on the brink."

Parsi said that based on his conversations with the Iranian officials, he believes the failure of the United States to even respond to the offer had an impact on the government. Parsi, who is writing a book on Iran-Israeli relations, said he believes the Iranians were ready to dramatically soften their stance on Israel, essentially taking the position of other Islamic countries such as Malaysia. Instead, Iranian officials decided that the United States cared not about Iranian policies but about Iranian power.

The incident "strengthened the hands of those in Iran who believe the only way to compel the United States to talk or deal with Iran is not by sending peace offers but by being a nuisance," Parsi said.

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Mr. KUCINICH. Have you seen any statements from Iran with respect to their intentions of the use of nuclear power? Have you heard any statements about it?

Dr. BLIX. Yes. They have made many of them.

Mr. KUCINICH. Have you heard them say that weapon of mass destruction do not have any place in the defensive doctrine of the Islamic Republic?

Dr. BLIX. Yes.

Mr. KUCINICH. Do you give any credibility to that?

Dr. BLIX. Well, Mr. Afsanjami, whom I met on two occasions, said the same thing to me, that this would be contrary to their religion. However, as an international inspector I certainly would not take such statements just for granted, but I think we have to look at all the facts.

Mr. KUCINICH. Well, verification certainly is one of them.

Dr. BLIX. Yes.

Mr. KUCINICH. And what kind of confidence-building measures could be introduced to take us to a point where we could reopen inspections, get verification, and avert another war?

Dr. BLIX. I think if negotiations were to go forward, maybe there would be an opportunity of that, because at the present time the Iranians are only accepting inspection under the old type of safeguards. They did for a long time accept the inspection under the strengthened safeguards regime, and that was as a confidence-building measure. And when the case of Iran was moved to the Security Council against their protest, that was when they said all right, we will now also not accept these more-intrusive inspections. So I think if there were to be some relaxation or some negotiations, maybe as a part of those negotiations and part of the deal that they would have to accept more-intrusive inspections if there were to be such.

Mr. KUCINICH. I thank you Dr. Blix.

Mr. Chairman, this is really the crux of my concern about our policies toward Iran. I mean, Dr. Blix has made the case that direct talks in connection with the guarantee of not attacking. My concern is that we have seen a lot of information on the record that covert action has been generated against Iran, that the Strategic Air Command has selected 1,500 bombing targets that enable deployment toward the Strait of Hormuz is in the offing. We have seen the Subcommittee on Intelligence report that appears to be somewhat tricked up with respect to its assertions about the level of weapons grade uranium enrichment.

So rather than go through all that again, it seems to me it would be a lot better for the world if we at least tried direct talks and tried to find a way that you could get the kind of inspections and verifications that can de-escalate this conflict.

I thank Dr. Blix and thank you, Mr. Chairman.

Mr. SHAYS. Thank you very much.

Dr. Blix, I will be having some questions, but Mr. Van Hollen is here and I want to make sure that he is recognized for 10 minutes.

Mr. VAN HOLLEN. Thank you, Mr. Chairman. I am sorry to be a little late. I was on the floor of the House speaking on a bill before the Congress.

I want to begin by thanking you, Dr. Blix, for your service at the United Nations as the head of the weapons inspection effort in Iraq, and only say that I wish the United States had listened to you more carefully, and I believe that if we had taken heed of your request for additional time so that weapons inspectors could complete their work we would not be in the situation we are in in Iraq, so I thank you for your service and I also thank you for getting it right, despite lots of pressures from lots of different places to try and spin the information in ways that certain people would like to have it spun. So thank you for being a straight shooter on that.

Let me just ask you, with respect to the efforts to secure fissile material, nuclear material, around the world, I would like you to give us an assessment, if you could, of where we are. In the United States we have the Nunn-Luger program to try and buy up what we commonly refer to as loose nukes with the former Soviet Union. There are obviously other sources of fissile material around the world.

The bipartisan 911 Commission, when they gave their final report card to the Congress with respect to nonproliferation efforts, they gave the U.S. Government a D, a failing grade, when it came to the effort to secure weapon of mass destruction.

I would like, if I could get it, your assessment, not necessarily with respect to only U.S. efforts, but our worldwide efforts to get a handle on this material. Thank you.

Dr. BLIX. Well, sir, I would hate to grade the efforts. We have seen such efforts for a very long time. I mentioned a while ago the conversion of research reactors from the use of high-enriched uranium to low-enriched uranium. That has been going on from the time that I was at the IAEA, and it is a long time now since the cold war ended and money and efforts have been put into Russia in order to secure the material, put better locks on the doors, etc., and to move back into Russia and material that was abroad. In Kazakhstan and other places there was quite a dramatic expedition for Kazakhstan. I think the latest case I read about was some place in former Serbia, former Yugoslavia, where there was material. So I think that has been doing on for some time, and certainly the situation ought to be much better now than it was 10 years ago.

But, as I said a while ago, I don't think it is a terribly expensive program compared to many other things that we do in the nuclear field, and therefore I favor the threat reduction programs and the other measures that are being taken. I think they are money well invested. I do not feel quite as alarmed as some of my colleagues are. The risks are not zero, but the world has been active and the U.S. has been very diligently active for a long time, and I express my appreciation for that, too.

Mr. VAN HOLLEN. If I could just followup, Mr. Chairman, on that issue, in addition to just sort of continuing the program at its current pace, do you have any recommendations for what we should do to speed up the process of trying to track down these different sources? I guess let me ask you this: do you have a fair amount of confidence that we have, No. 1, identified all these sources, the existence of loose nuclear material, No. 1? And, No. 2, do you have a high level of confidence that it is being guarded, protected in a

way that it is not stolen or made off with by people who we don't want to have it fall into their hands?

I just try to get a rough assessment, because, as I said, the bipartisan Commission gave us just last December a D in the U.S. Government in this area, and I am curious as to what additional measures, if any, you think we should be taking.

Dr. BLIX. You have probably looked at more material than I have, but I think I would have been more lenient in my grading of it. I mean, Russia was off to a fairly regimented state, and I think the communist system kept fairly good control, but there could have been sloppiness in that regime, as well. But considering that they have been active for such a long time now, I would feel a little less worried about it.

Mr. VAN HOLLEN. In the interest of time, Mr. Chairman, I know we have a couple more panels here.

Mr. SHAYS. Thank you very much.

Mr. Platts, do you have any questions?

Mr. PLATTS. No.

Mr. SHAYS. OK. Let me not take my full 10 minutes, but let me first ask you the scenario. There may not be a good answer, but the question is: what does the world do when a nation, say like Pakistan, for instance, is under the command of a coup, a very Islamic state sympathetic to potential Islamist terrorists? What are the mechanisms available to contain the weapons grade material before there is the possibility of it getting in the hands of terrorists?

Dr. BLIX. I don't think I have a good answer to give you, Chairman Shays, on that. It would be a very severe situation.

A little moment ago I said that the U.N. charter allows states to take action, military action, in self defense against an armed attack, and that is interpreted nowadays to be an imminent threat from an armed attack. But beyond that, if the world wants to take an armed action of some kind, the Security Council can authorize it.

Mr. SHAYS. The challenge we have, candidly, is that, you know, it just takes one no vote from the permanent members of the Security Council, and we saw that very clearly from our standpoint that France and Russia were not entirely without conflict, to say it in a gentle way, about any movement in Iraq even if Saddam had weapons. That is the challenge. The oil for food program was pretty clear about its consequence. So not necessarily, but it is something that obviously would you agree the world is going to have to wrestle with, and would it be better to wrestle with the mechanism before that happens or wait until it happens?

Dr. BLIX. Well, I would feel a little less pessimistic about the Security Council. After all, we have seen that in the case of Iran the Council has, even though it is only a minute quantity of uranium that has been enriched, the Council, with the support or acceptance by the Russians and the Chinese, has gone along with threatening of a sanction.

Mr. SHAYS. Let me ask you this: is there any doubt in your mind where the Iranians are headed?

Dr. BLIX. Yes.

Mr. SHAYS. There is doubt?

Dr. BLIX. See, I don't think it is conclusively shown. I pointed to indications such as the 40-megawatt reactor. But I think, especially after the experience in Iraq, I don't want to jump to conclusions, and frankly I don't think that it matters very much what their intentions are.

Mr. SHAYS. Let me ask you, though, short of sanctions—I realize this is the stick, but short of sanctions—it seems to me sanctions are one step before actually using military force.

Dr. BLIX. Yes.

Mr. SHAYS. What is surprising to me is the lack of willingness on the part of the western European nations to use sanctions.

Dr. BLIX. I share that view. I think the threat of sanctions is counterproductive vis-a-vis Iran now. I think that they are much more likely to make the Iranians dig down their heels and be feeling that they are being treated unfairly, and that the carrots are more effective.

Mr. SHAYS. OK.

Dr. BLIX. If I may return to the other situation which you described, which is a scary one when you have perhaps a country like Pakistan or other countries and you have a coup and you have some people who seem very dangerous in power, that I am saying that the Security Council would have to grapple with it. I am not so pessimistic about the possibility of coming to agreement in the Security Council when they were able to come to an agreement even in the case of Iran. I think that they might also come to agreement in how they would wrestle with the situation. It is by no means a given that Russia or China would take that with equanimity.

Mr. SHAYS. Do you think that Iran has a unique situation, given its wealth and particularly natural gas and oil, as well? do you think that gives them a bargaining chip that may compromise sound decisions on the part of western Europe, in particular, and other nations dependent on energy?

Dr. BLIX. I am not quite sure I get it.

Mr. SHAYS. The question is this: is the challenge with Iran that in some cases those nations that don't want them to move forward with a nuclear program have the concern that Iran, given its incredible wealth of natural gas and oil, are in a position to manipulate Europe, in particular, and Europe is somewhat compromised by the fact that we are dealing with a nation that has this economic energy resource that they can use as a bargaining chip?

Dr. BLIX. I don't think that the French or the Russians are very much influenced by the economic relations with Iran. I think the Russians are sincere when they say that they are also very eager that iran should not move to nuclear weapons. They are neighbors with Iran. So I wouldn't immediately ascribe some oil motivations on their part for going slowly.

I think the Europeans, too, have wanted more to go for the carrots than for the sticks, and on that——

Mr. SHAYS. And admittedly I am not from Europe and I have limited knowledge, but I read that action candidly as, in part, the fact that they are very dependent on energy from that part of the world.

Dr. BLIX. We all are.

Mr. SHAYS. Well, we all are indirectly, in some cases directly. We all are.

Dr. BLIX. Yes.

Mr. SHAYS. But the sense that we get, living where we live here, is that we can't get the Europeans to be definitive enough. The Iranians know it and know that we are divided, Europe and the United States, and believe that a United States embargo is basically inconvenient but not destructive. Their big concern is what Europe does. My concern is, if Europe doesn't step up and doesn't confront Iran, they almost force the worst alternative, which is armed conflict, which I think is unlikely, but it strikes me that is where they push us if they, in fact, aren't willing to use the one tool that could have impact.

Dr. BLIX. But you are really visiting the possibility of an escalation before one has exhausted the various cards. In my view there are still cards available. They should be tried. I cannot guarantee you that they will work in the end, but I think they must be tried before you contemplate some further action.

Mr. SHAYS. Given we didn't find weapon of mass destruction in Iraq, I know our credibility has been hurt, but in the end let me ask this last question then. What is the consequence of an Iran with a nuclear weapons program? Tell me the consequence. Is it something that I should be willing to accept? Do you anticipate Saudi Arabia and Egypt responding? Do you anticipate that its impact would be minimal or quite significant?

Dr. BLIX. I think the impact of a North Korea moving on or the domino effects there could be more serious, because we already saw the reactions in Japan on the North Koreans testing missiles, which did not hit any Sea of Japan, I think they were, where they expected them to be. But if they move on and if Japan were to abandon its policy, which is very strongly rooted, and I think it would move a lot to move Japan away from nonproliferation, but if it were to, then I think that the tension in the Far East between China——

Mr. SHAYS. Let me——

Dr. BLIX. That is, I think, a more serious perspective, getting back to the point where you are.

Mr. SHAYS. Let me just say, though, more serious concerned to very serious is still both serious. So how do you rate Iran? If they get a nuclear program, do you anticipate Egypt and Saudi Arabia, in particular——

Dr. BLIX. There is a different time perspective. I mean, Japan is a country that has enormous amounts of enriched uranium and plutonium sitting on it, and in the Middle East you don't have that.

Mr. SHAYS. Let's forget North Korea because I am going to concede North Korea would be hugely detrimental.

Dr. BLIX. In the Middle East the countries there—Egypt, Saudi Arabia, Syria, Turkey—they are not at that level. They have a long way——

Mr. SHAYS. But would it compel them to get to that level?

Dr. BLIX. Well, that is a speculation. I don't think——

Mr. SHAYS. Well, that is what we have to do in this business. We have to speculate. I mean, that is part of—we do have to speculate. I mean, in my travels to the Middle East—and they are frequent,

very frequent—we have a sense that Cutter has already basically come to the conclusion that Iran is going to be a far more dominant power, may have a nuclear program, and we are already seeing Al Jazeera even be far more sympathetic to Iran than they were before. That is what we are seeing. We call that hedging your bets.

How do Saudi Arabia and Egypt hedge their bets? Do they start to develop a nuclear program or do they just cave in to and accept Iran has it and they don't?

Dr. BLIX. Well, we have seen no signs of their moving in that direction.

Mr. SHAYS. OK.

Dr. BLIX. It would take a long time before they would be able to do so. But I share your view. I mean, my starting point that it would be desirable to persuade Iran to stay away from it and that we have many carrots. There are many carrots that could still be used for that purpose.

Mr. SHAYS. Well, I didn't intend to use my 10 minutes, but you are such an interesting man. Let me do this. Is there any question that we should have asked you that we didn't? I mean, we have a number, but we are not going to ask. We will write you a question or two, if you don't mind responding, but is there anything you want to put on the record?

Dr. BLIX. You touched upon one issue which is also close to my heart, and that is that of energy. Under the areas of the world which are dangerous, really dangerous, Middle East and Central Asia is also getting fairly tense, and they are areas in which you have a lot of oil and gas resources, I think that trying to restrain the consumption of oil and gas is an important, very important mission. Of course, most people talk about it in terms of hydrocarbons and in terms of global warming and emission or carbon dioxide, and I share that completely. I think I am more worried long-term about global warming than I am worried about weapon of mass destruction long term. I think we can solve the second issue.

However, this means that going for peaceful nuclear power is a good thing; that we need to rely on it. I am not against wind power and not against solar power, but you are not solving energy problems of Shanghai or Calcutta by these; therefore, I am in favor of the Chinese developing their nuclear. When I was IAEA I tried to give maximum assistance to the Chinese in the field of safety and waste disposal. I think the same way of the Indian program. Many of my friends in the disarmament area are very averse to the Indian program, and I can also see and I have pointed out here the dangers in the field of proliferation with India, but basically to assist India to get the latest technology to develop nuclear power for energy, which will reduce somewhat their demand for fossil fuels, I think is possible.

Mr. SHAYS. You raise the question. I am so sorry to just have to extend this, but do you compliment the United States on our outreach to India, or are you critical to our outreach to India as it relates to nuclear?

Dr. BLIX. Both.

Mr. SHAYS. OK.

Dr. BLIX. And the Commission takes that view. We say it s not our job to discuss energy within the Commission. Some people

would have been negative to that. But on the nonproliferation side, yes there are dangers, and we feel that they could be remedied, I think, if the U.S. were to go ahead with a convention prohibiting the production of fissile material for weapons purposes. If they joined that, if it were verification, then Indian enrichment plant and reprocessing plants would also be under inspection and there would not be a risk that Pakistan and China would fear that India would accumulate more weapons and hence the risk that Pakistan and China would also increase.

Mr. SHAYS. OK. That is the criticism. What is the positive?

Dr. BLIX. That is a criticism, yes.

Mr. SHAYS. Give me the positive. Since you have both, let's make sure we put on the record the positive. What is the positive?

Dr. BLIX. The positive side, organizing the energy side, that India would have access to the most modern technology for peaceful nuclear power and therefore would restrain its thirst for oil.

Mr. SHAYS. OK. Thank you so very, very much for being here.

Is there any last point you want to make or are we all set?

Dr. BLIX. No. I was grateful for the credit that we got as inspectors and that we were looking for the truth. We did not assert that there are no weapon of mass destruction. We have been criticized by some people saying you could have saved the situation by saying there were none, but we were actually working as inspectors should. We looked at the ground, we——

Mr. SHAYS. Are we talking about Iraq?

Dr. BLIX. In Iran I think they are also being entirely professional. I think the IAEA has done—I haven't followed in such detail, but we act as international civil servants. The job of civil servants is to compile a dossier for the decisionmakers, the Security Council or the government. We were not politicizing. We were trying to be very factual and professional, and I think there is a great value in that.

While criticism of the intelligence community has been that they are bent, in some cases, bent a little to the interests of the decisionmakers, we did not do that.

Mr. SHAYS. I think that is clear. Again, we appreciate your very noble work and your long service to your country and to the United Nations and to this issue, in particular. You are a man of great distinction and you honor our subcommittee by your presence here. We thank you so much.

We will have a 1-minute recess and then we will get to our next panel.

[Recess.]

Mr. SHAYS. Our second panel is William H. Tobey, Deputy Administrator for Defense Nuclear Nonproliferation, National Nuclear Security Administration, Department of Energy; Mr. Andrew K. Semmel, Deputy Assistant Secretary, International Security and Nonproliferation, Department of State; Mr. Jack David, Deputy Assistant Secretary of Defense for Combating WMD and Negotiations Policy, Department of Defense; and Mr. Gene Aloise, Director, Natural Resources and Environment, Government Accountability Office.

This is a panel of four members. We appreciate their presence. I am going to thank the Executive Department for their willingness

to have a legislative member sit in so we did not have to have four panels. That makes it move a little more quickly.

We will start with Mr. Tobey, and we will go to Mr. Semmel and then Mr. Jack David.

Mr. David, it is my understanding that this may be your last official act serving for the Government; is that correct, sir?

Mr. DAVID. Yes, sir, unless there is something in the next 2 days that you have in mind.

Mr. SHAYS. Well, let me just say all of us thank you for your service to our country. I just want to applaud you. Thank you very much.

Mr. DAVID. Thank you very much.

[Applause.]

Mr. SHAYS. Let me welcome all of our witnesses. I thank you for your extraordinary patience. We didn't think this first panel would go as long as it did, but in hindsight we probably should have.

I hope that you feel free to respond to anything you have heard asked during the first panel. Your full statement will be submitted for the record.

We will, again, start with you, Mr. Tobey.

I think I need to say for the record that two of our witnesses happen to be from Connecticut. Mr. Tobey, actually you are a constituent, so that makes it very awkward for me. And Mr. Jack David, you are also from Connecticut, but not from the District, less awkward. Welcome to both of you.

Mr. Tobey, you have the floor.

STATEMENTS OF WILLIAM H. TOBEY, DEPUTY ADMINISTRATOR FOR DEFENSE NUCLEAR PROLIFERATION, NATIONAL NUCLEAR SECURITY ADMINISTRATION, DEPARTMENT OF ENERGY; ANDREW K. SEMMEL, DEPUTY ASSISTANT SECRETARY, INTERNATIONAL SECURITY AND NONPROLIFERATION, DEPARTMENT OF STATE; JACK DAVID, DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR COMBATING WEAPON OF MASS DESTRUCTION AND NEGOTIATIONS POLICY, DEPARTMENT OF DEFENSE; AND GENE ALOISE, DIRECTOR, NATURAL RESOURCES AND ENVIRONMENT, GOVERNMENT ACCOUNTABILITY OFFICE

STATEMENT OF WILLIAM H. TOBEY

Mr. TOBEY. Thank you, Mr. Chairman. I should actually perhaps point out that when I am not in New Canaan I am in Bethesda, Maryland.

Mr. VAN HOLLEN. I was going to say I am a little confused because I thought Mr. Tobey was my constituent.

Mr. SHAYS. Well, let me ask you this: where do you vote?

Mr. TOBEY. I vote in Maryland, but when the President nominated me he said of Connecticut.

Mr. VAN HOLLEN. We won't take it any farther then.

Mr. SHAYS. No, he has friends in the District. Let's leave it at that.

OK, Mr. Tobey, we will get back to business.

Mr. TOBEY. Thank you, Mr. Chairman.

Mr. SHAYS. And we will strike out all that we said from the record when we get a chance.

OK, you are on. Mr. Tobey, welcome to this hearing. You have the floor.

Mr. TOBEY. Thank you, sir. Thank you for the opportunity to testify on a vital topic. I offer summary remarks and ask that my written testimony be submitted for the record.

Under President Bush's direction the United States has taken many steps to meet this complex and dangerous threat on proliferation. Last week I accompanied Secretary Bodman to Vienna to attend the General Conference of the International Atomic Energy Agency. It is clear that the work of the IAEA and the effectiveness of the Nuclear Non-Proliferation Treaty and its associated instruments is a major international concern.

Over the past 35 years the NPT has scored important victories, but serious challenges remain. Examples include the violations of Iran and North Korea, the dispersion of sensitive nuclear technologies by proliferation networks and terrorists seeking WMD capabilities.

It is the goal of the United States to address these challenges in ways that strengthen and supplement the Non-Proliferation Treaty. In my testimony today I will highlight our efforts to reduce and protect nuclear stockpiles, to strengthen the nonproliferation regime, and to promote the Global Nuclear Energy Partnership.

In the area of nuclear reductions our record is undeniably strong. Since 1988 the Department of Energy has dismantled more than 13,000 weapons and has completed the dismantlement of most nonstrategic nuclear weapons. By the end of 2012 the stockpile will be at its smallest level in several decades.

Mr. SHAYS. Mr. Tobey, I am embarrassed to say after 10 years this is the first time I think I have ever failed to swear in a panel. The only one we have never sworn in was the senior Senator from West Virginia because I chickened out, but I am not intimidated by any of you. I need you to stand and swear you in. I am so sorry.

[Witnesses sworn.]

Mr. SHAYS. You are reading from your written statement. We know that all of your statement is the truth and you are sworn in and everything that proceeded is the truth, and you are on. I am so sorry to interrupt you.

Mr. TOBEY. Certainly, sir.

We have also removed 374 metric tons of highly enriched uranium from Defense stocks, converting 92.2 metric tons to low-enriched uranium and reserving 17.4 metric tons to support the President's proposal on reliable access to nuclear fuel.

Our efforts with Russia to secure nuclear materials are also without precedent. We have eliminated more than half of 500 metric tons of highly enriched uranium from Russian weapons in an agreement running through 2013. The United States and Russia have committed to dispose of 34 metric tons each of excess weapons plutonium. Under the Bratislava Initiative agreed by President Bush and by Russian President Putin in 2005, we are accelerating by 2 years, to 2008, the securing of weapons grade fissile materials in Russia. These materials will be out of circulation and protected against theft.

Second, I would like to highlight is our work to improve the nuclear nonproliferation regime within the existing NPT framework and through new mechanisms. In his speech of February 11, 2004, President Bush challenged the world's leading nuclear supplies to strengthen controls on the most sensitive nuclear technologies and enrichment and reprocessing to assure fuel supplies to states with reliable access at reasonable cost, so long as those states forego enrichment and reprocessing technologies and are in good standing with their nonproliferation commitments. These initiatives are under discussion in the Nuclear Supplies Group and at the International Atomic Energy Agency.

In addition to strengthening international arrangements, the Department is working with more than 70 states worldwide to prevent illicit trafficking of nuclear materials and WMD technologies and to update international guidelines for the physical protection of nuclear materials and facilities.

Third, I would like to highlight an initiative that President Bush recently announced, the Global Nuclear Energy Partnership. Through GNEP we propose new measures in proliferation-resistant technologies that will facilitate achieving the NPT's twin goals: promotion of peaceful nuclear uses and prevention of nuclear proliferation. Our aim is to provide energy and security using mechanisms that allow states to avoid the burdens associated with long-term storage of spent fuel in uranium enrichment programs that serve no rational economic or energy purpose.

Finally, I would note that President Bush and President Putin at St. Petersburg launched the global initiative to combat nuclear terrorism. This initiative provides the means to carry out the mandates of U.N. Security Council Resolution 1540. While great progress has been made to prevent proliferation, much more work needs to be done, and the Department of Energy is committed to addressing the nonproliferation challenges of our changing world and we look forward to working with Congress and our international partners in accomplishing still more in the future.

Thank you.

[The prepared statement of Mr. Tobey follows:]

Statement of William Tobey
Deputy Administrator for Defense Nuclear Nonproliferation
National Nuclear Security Administration
U.S. Department of Energy
Before the House Government Reform Committee
Subcommittee on National Security, Emerging Threats, and International Relations

Weapons of Mass Destruction: Reviving Disarmament

Thank you for the opportunity to testify today on a topic vital to our national security. The proliferation of weapons of mass destruction represents the most serious threat to the United States and the international community. The threat, while not new, is growing, and taking on new and more complex and dangerous dimensions. Under President Bush's direction, the U.S. government has taken many steps to meet the evolving threat that we face.

Last week, I accompanied Secretary Bodman to Vienna to attend the General Conference of the International Atomic Energy Agency (IAEA), which is celebrating its fiftieth anniversary. The IAEA was born out of the need to foster peaceful uses of the atom and guard against its diversion to weapons. Fifty years is a useful point to assess the international nonproliferation regime and the challenges that face it. The questions raised by the Subcommittee are important, and I welcome the opportunity with my colleagues from the Departments of State and Defense to address them.

There are not two nuclear energies: one peaceful and another for military use. Many of the materials and facilities needed to produce power are the same as those used with nuclear weapons. Managing this situation has been one of the great global challenges of the last fifty years, and remains one today.

The good news is that the Nuclear Nonproliferation Treaty (NPT) has scored critical victories over its 35-year history. There are not twenty or thirty nuclear weapon states today as predicted in the 1960s. South Africa dismantled a nuclear weapons program and joined the NPT where it remains a party in good standing. Argentina and Brazil also joined the NPT after many years of pursuing enrichment and reprocessing capabilities outside of safeguards. Ukraine, Kazakhstan and Belarus chose to forego nuclear weapons left on their territories after the Soviet collapse; each acceded to the NPT, making the choice – the correct choice – to part with nuclear weapons under difficult circumstances. Most recently, Libya made the strategic decision to renounce its nuclear and other WMD programs and is now re-engaging with the international community.

Yet norms alone are not sufficient to prevent proliferation. Iran and North Korea are pursuing nuclear capabilities in violation of their nonproliferation and safeguards obligations. Clandestine nuclear trading networks, including those led by A.Q. Khan, aided these programs and dispersed sensitive nuclear technologies. After 9/11, meeting the danger of nuclear terrorism has also gained in primacy and urgency. Organizations and individuals with violent, subversive aims will seek the most violent, indiscriminate weapons to achieve those aims.

We also find countries criticizing the United States for failing to take meaningful steps towards disarmament. Some of these same states see in our Iran policy proof that we seek to inhibit peaceful uses of nuclear energy. I respectfully disagree. We are significantly reducing the U.S. stockpile from its heights during the Cold War, and have offered new policy proposals to secure the safe expansion of nuclear energy on a scale not seen in history.

Nuclear Reductions

In the area of nuclear reductions, our record is known and undeniably strong, but a few facts deserve repeating.

- The Department of Energy has dismantled more than 13,000 weapons since 1988.
- Under the 2002 Moscow Treaty, operationally deployed U.S. and Russian strategic nuclear warheads will not exceed 1,700 to 2,200 each by December 31, 2012.
- In 2003, the Department of Energy completed dismantlement of most non-strategic nuclear weapons, limiting our stockpile of these systems to less than one-tenth of Cold War levels.
- Finally, in May 2004, President Bush approved a plan that will cut the U.S. stockpile by almost one-half from the 2001 level. By the end of 2012, the

Department of Energy's disarmament efforts will have reduced the stockpile to its smallest level in several decades.

In addition to weapons dismantlement, the Department of Energy is making tremendous progress to reduce and eliminate fissile material made surplus to defense requirements. Again, a few points are worth mentioning:

- In 1994, the United States removed 174 metric tons of highly enriched uranium (HEU) from defense stocks. As of July 2006, 92.2 metric tons of this total had been converted to low enriched uranium.
- The United States last year announced that 17.4 metric tons of excess HEU would be set aside to support fuel assurances for states that refrain from pursuing national enrichment and reprocessing programs and abide by international nonproliferation norms.
- In 2005, the Department withdrew an additional 200 metric tons of HEU, declaring that this material would no longer be available for use in nuclear weapons.

These are unilateral actions that contribute to nonproliferation and improve our security posture by eliminating proliferation-attractive materials. Our work in partnership with Russia and others to secure nuclear materials left over from the Cold War provides equally compelling evidence of the strong commitment of the United States to the NPT's goals. Let me offer a few highlights:

- We are eliminating 500 MT of Russian weapons HEU in a 20-year agreement through 2013. More than half of this material has been eliminated to date – enough for roughly 10,000 nuclear weapons;
- The United States and Russia committed to dispose of 68 metric tons of excess U.S. and Russian weapons-grade plutonium (34 metric tons each);
- We are accelerating by two years, to 2008, securing weapons-grade fissile materials in Russia. This includes HEU and weapons-grade plutonium in civilian facilities and military warhead storage sites; and
- We are helping Russia to close down its remaining three plutonium production reactors.

These are significant achievements.

Building On and Off of the Regime

The NPT does not address nuclear terrorism. "Terrorism" does not appear in the text of the NPT or in any IAEA safeguards agreement. Nuclear terrorism was not seen as a significant military danger at the time of the NPT's drafting. Moreover, given that the NPT encourages peaceful civilian nuclear programs, proliferators have been able to acquire nuclear technology within the parameters of the Treaty and could use this technology for nuclear weapons purposes or as cover for their clandestine nuclear weapons programs. Clearly, actions are needed to prevent abuses of the NPT regime.

In his February 11, 2004 speech, President Bush warned against proliferators, such as Iran and North Korea, cynically manipulating the NPT to pursue nuclear weapons under the cover of peaceful programs. To address this problem, the President challenged the world's leading nuclear suppliers to ensure that states have reliable access at a reasonable cost to fuel for civilian reactors, so long as those states forego the most sensitive nuclear technologies – enrichment and reprocessing. The President also called on the Nuclear Suppliers Group (NSG) to strengthen controls on enrichment and reprocessing technologies to ensure they do not spread beyond those states already having "full scale, fully functioning" enrichment and reprocessing plants.

We continue to work with our partners in the NSG to adopt new controls and policies for enrichment and reprocessing technologies, and to support other critical actions, such as endorsing the Additional Protocol as a new condition of supply.

President Bush's comprehensive strategy to combat proliferation also includes new approaches beyond the NPT that address state and non-state proliferation, for example: the Proliferation Security Initiative (PSI) to interdict trade in WMD materials and technologies to and from state and no-state actors of proliferation concern; UN Security Council resolution 1540, which requires states to adopt strict export controls with civil or criminal penalties, adopt and enforce laws to prohibit the manufacture, acquisition or transfer of WMD and establish controls to secure at-risk materials; and the recently announced Global Initiative to Combat Nuclear Terrorism. The Global Initiative calls on all states concerned with the nuclear threat to international peace and security to make a

commitment, consistent with relevant international frameworks, to develop partnership capacity to combat nuclear terrorism and proliferation on a determined and systematic basis. We now have both the legal mandate and the international framework to take effective action to prevent proliferation. Additionally, many of the Department of Energy's own programs are already addressing the problem of nuclear terrorism, including the Second Line of Defense Program and the Global Threat Reduction Initiative. Working in close concert with our USG interagency counterparts and foreign partners under the framework of existing efforts, we will continue to build upon the "defense-in-depth" strategy to further reduce the threat of nuclear terrorism.

Effective action implies both political will and capacity. Through our international safeguards, physical protection, export control and border security programs, the Department is providing technical expertise to assist our partners in building this capacity and the infrastructure to prevent proliferation. Our nonproliferation and nuclear security programs involve more than 70 countries – or more than a third of all UN members, and our budget to support these activities has more than doubled since 9/11.

In addition to strengthening national nonproliferation programs, we are updating international obligations and guidelines for the physical protection of nuclear materials and facilities. In July 2005, an amendment to the Convention on the Physical Protection of Nuclear Materials and Facilities (CPPNM) to broaden the scope to cover all civilian nuclear materials and facilities was adopted by diplomatic conference, and is now in the process of being ratified by states parties to the CPPNM. The amendment also included stronger provisions for criminal penalties and prevention of sabotage. In addition, we

plan to recommend updates to the international physical protection guidelines in IAEA INFCIRC/225. These guidelines must be adjusted to meet the evolving threat environment.

Global Nuclear Energy Partnership

The Department's programs that build nonproliferation infrastructure contribute to a related goal – preparing conditions for the safe and secure expansion of nuclear energy. In the coming decades, as electricity requirements to meet economic growth targets worldwide soar, nuclear energy is expected to make a substantial comeback. This conclusion is gaining increasing worldwide acceptance.

To enable the more widespread use of nuclear energy in ways that support nonproliferation, the United States has proposed the Global Nuclear Energy Partnership … or GNEP. Through GNEP, we propose to establish the basis for greater international access to the peaceful uses of nuclear energy and a strengthened nonproliferation regime.

GNEP would seek to promote proliferation-resistant reactors designed to meet the needs of developing economies, utilizing advanced technologies that make it difficult to remove materials or modify facilities without detection by the IAEA or the host state.

The GNEP technologies will require further development, but we are very eager to build international support for the principles underlying GNEP and establish a fuel supply framework involving suppliers and recipients. As a first step, the United States is urging

IAEA endorsement of a concept for back-up supply put forward by six "enrichment" states – the U.S., France, the U.K., Germany, the Netherlands, and Russia. As noted, the United States has also set aside materials for a nuclear fuel reserve and we encourage others to join us, as Russia has proposed to do through the establishment of an international fuel service center at a Russian facility. Diversity in back-up supply mechanisms will promote confidence that supply disruptions, unrelated to nonproliferation violations, will be addressed quickly.

Through GNEP, our aim is to provide energy and security, using mechanisms that allow states to avoid the cost, safety, security, and safeguards burdens associated with long-term storage of spent fuel and uranium enrichment programs that serve no rational economic or energy purpose.

Looking to the Future

The last fifty years have seen amazing advancements in nuclear technology, as well as an alarming growth in interest by terrorists and rogue states in nuclear weapons. As we look ahead to the next fifty years, we will need to continue to strengthen our efforts to prevent proliferation, while also enabling the legitimate growth of nuclear power as a safe, clean, and secure energy alternative. GNEP plays an important role in achieving both objectives.

While great progress has been made to prevent proliferation, much more work remains to be done. The Department of Energy is committed to addressing the nonproliferation

challenges of our changing world, and we look forward to working with Congress and our international partners in accomplishing still more in the future.

Mr. SHAYS. Thank you, Mr. Tobey.

Mr. Semmel.

STATEMENT OF ANDREW K. SEMMEL

Mr. SEMMEL. Let me say, Mr. Chairman, first of all that I regret that I neither live in Connecticut or Maryland, but I am looking for new housing.

Mr. SHAYS. It is a great place to live.

Mr. SEMMEL. I live in Virginia, unfortunately.

I am pleased to have the opportunity to come before this committee to discuss the Nuclear Non-Proliferation Treaty, the NPT, and steps needed to strengthen the NPT regime. I might say that I appreciate the very thoughtful set of questions that you have sent in your letter of invitation. My prepared statement, which is longer, will address these questions more directly.

It is clear, Mr. Chairman, that the nuclear nonproliferation regime and the NPT face serious and unprecedented challenges today, with unresolved cases of noncompliance and even withdrawal from the treaty. The regime is now at a critical crossroads. One road leads to a crisis stemming from noncompliance of states' parties and the weakening of a nonproliferation regime. The other leads to a strengthening of the treaty regime to keep it strong through the 21st century.

At this moment in history the first order of business must be to ensure that those states not in compliance with their NPT obligations come back into compliance, that no new states develop the capability to produce nuclear weapons, and that no terrorist entity has access to sensitive nuclear materials. Failure to achieve these goals will undermine the NPT and the critical role it plays in promoting nuclear nonproliferation.

The NPT is intended to stop the spread of nuclear weapons and materials related to the production of these weapons. That we could be here today, 36 years after the treaty entered into force, and not count 20 or more nuclear weapon states as some predicted in the 1960's is a sign of the treaty's success. That other states have stepped back from pursuing nuclear weapons capabilities also testifies to its success. But the historical record of success of the NPT should not induce complacency. There is much more work to be done.

One of the key concerns that other states have raised regarding the NPT is the claim that the nuclear weapons states, and particularly the U.S., are not doing enough to fulfill the disarmament provisions embedded in article six of the NPT. Some non-nuclear weapon states argue that, since the nuclear weapon states have not totally eliminated their nuclear weapons stockpiles, the NPT is failing, and that they, the non-nuclear weapon states, should not be required to comply with their obligations to abstain from pursuing nuclear weapons capabilities. They take this view, despite the significant reductions in nuclear arsenals by the United States, Russia, the U.K., France, particularly since the end of the cold war.

We have to explore a range of options and approaches to nonproliferation. The United States has taken a number of unilateral steps that serve to reduce our reliance on nuclear weapons and to reduce the U.S. nuclear stockpile. These are spelled out in detail

in my longer statement, but let me mention here briefly that we have done some of the following:

We have dismantled 13,000 nuclear weapons since 1988.

We have not produced any fissile material for weapons since the late 1980's.

The production of our weapons, HEU, halted in 1964.

We have dismantled more than 3,000 non-strategic nuclear weapons.

Our article six record is significant, and the trend lines in reliance on nuclear weapons have been steadily downward. The chief challenge to the security benefits of the NPT come not from the supposed failure of the nuclear weapon states to disarm, but from the proliferation activities of the treaty's non-nuclear weapon states. While we have been downsizing our nuclear stockpiles, others have started or advanced their nuclear weapons programs. North Korea withdrew from the NPT and then announced it has nuclear weapons. The Kahn network was illegally shipping nuclear materials and weapons designs to other states and Iran's secret nuclear sites at Natans and elsewhere were exposed.

Bilateral efforts between the United States and Russia have led to significant cuts in both nations' nuclear arsenals and stockpiles of fissile materials for use in nuclear weapons. The cooperative threat reduction programs that began in the mid to early 1990's have been instrumental in reducing stockpiles of strategic weapons. Our CTR programs have also been instrumental in redirecting former nuclear weapons scientists to peaceful, sustainable employment.

Multilaterally we are seeking to strengthen the nuclear nonproliferation regime in a number of ways. I will just mention a few: through the full implementation of United Nations Security Council 1540, through universal adherence to the IAEA's additional protocol, through efforts at the Nuclear Suppliers Group to make the additional protocol a condition of nuclear supply, through the creation of the IAEA Committee on Safeguards and Verification, through the expansion of the proliferation security initiative, and through closing the NPT loophole by restricting enrichment and reprocessing technology, to site a few examples.

Increasing emphasis on nonproliferation and compliance in multilateral fora, such as the various export control regimes, border security programs, and the convention of the physical protection of nuclear materials are helping to engineer a much-needed paradigm, a shift in the global nuclear nonproliferation regime.

That said, if multilateral organization arrangements fail to impose consequences on those such as North Korea and Iran who violate their nonproliferation commitments, the credibility of such fora will be called into question. The continued failure of the Conference on Disarmament in Geneva, for example, to break the linkages on issues so that negotiation on a fissile material cutoff treaty can begin is emblematic of this problem.

Let me conclude by saying that to be successful we have to be able to adapt to changing circumstances and utilize a full range of nonproliferation tools, some of which I have cited today. We must have a global nonproliferation architecture that ranges from limiting access to dangerous materials and technology and securing

them at the source, to enacting export and border patrols, to impeding WMD-related shipments during transport, and to enforcing domestic, regulatory, and administrative practices to guard against illegal activity.

At the core of all this architecture is the NPT. Without a global consensus as embodied in the NPT, we and other like-minded countries could not marshal enough support to tackle the increasingly important and complex proliferation problems.

That concludes my statement, Mr. Chairman.

[The prepared statement of Mr. Semmel follows:]

Committee on Government Reform

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Subcommittee on National Security, Emerging Threats and International Relations

"Weapons of Mass Destruction: Current Nuclear Proliferation Challenges"

Prepared Statement of Andrew K Semmel
Deputy Assistant Secretary of State
International Security and Nonproliferation Bureau

September 26, 2006

I am pleased to have an opportunity to come before this committee to discuss the Nuclear Non-Proliferation Treaty (NPT) and the appropriate steps needed to strengthen the NPT regime. I appreciate the thoughtful set of questions posed in your letter of invitation to testify. We ask ourselves these same questions. My presentation is, in large part, tailored to respond to your questions.

It is clear that the nuclear nonproliferation regime and the NPT face serious challenges today. These challenges are more complex and serious than those that the regime has faced in the past. The regime is now at a crossroads. One road leads to a crisis stemming from the noncompliance of States Parties; the other leads to strengthening the treaty regime to keep it strong for the 21st century. We can strengthen implementation of the NPT in many ways but the first order of business must be to ensure that those states not in compliance today come back into compliance and that no new states develop the capability to produce nuclear weapons and no terrorist entity has access to sensitive nuclear materials.

The Nuclear Non-Proliferation Treaty is intended to stop the spread of nuclear weapons and material related to the production of such weapons. That we can be here today, thirty-six years after the Treaty entered into force, and not count twenty or more nuclear weapon states – as some predicted in the 1960s -- is a sign of the Treaty's success. NPT parties can be justly proud of the NPT's contribution to global security.

In some cases, the existence of the NPT has been valuable in restraining the pursuit of nuclear weapons. Some states gave up their programs for developing nuclear weapons, while others, such as South Africa dismantled their existing stockpile and program and joined the NPT. Libya's recent termination of its clandestine program is another success of the non-proliferation regime.

I would now like to address some of the key concerns that other states have raised regarding the NPT. Foremost among these is the erroneous claim that the nuclear weapons states, and particularly the U.S., are not doing enough to fulfill the exhortation in Article VI of the NPT 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."

Some non nuclear-weapon States argue that, since NWS have not totally eliminated their nuclear weapon stockpiles the NPT is failing and/or that they – the non-nuclear-weapon states – should not be required to strictly comply with their NPT Article II obligations to not pursue nuclear weapons capabilities.. They take this view despite the demonstrable accomplishments in reducing nuclear arsenals by the United States, Russia, the UK, and France.

Among the U.S. accomplishments are the following.

On June 30 of this year the last W-56 warhead was dismantled

On September 19, 2005 the final MX "Peacekeeper" missile was retired.

Over 3000 non-strategic nuclear weapons have been dismantled.

The United States has dismantled more than 13,000 nuclear weapons since 1988.

The United States is now in the process of drawing down its operationally deployed strategic nuclear warheads to the level of 1700-2200, about one-third of the 2002 level.

Upon completion of the Moscow Treaty reductions in 2012, we will have reduced about 80 percent of the strategic nuclear warheads we deployed in 1991.

While ignoring such accomplishments, critics tend to give China, the one Nuclear Weapon State that is increasing its arsenal a free pass. They claim discrimination and resent having agreed to give up the right to develop nuclear weapons while others are allowed to have and keep them. While many of these countries point to the supposed "deal" of the NWS eliminating nuclear weapons in exchange for the Non-Nuclear Weapon States (NNWS) forgoing them, they fail to acknowledge another aspect of the NPT where, by forgoing nuclear weapon programs, they are able to receive assistance to pursue peaceful nuclear programs under comprehensive safeguards. They also fail to acknowledge the significant security benefits that *they* derive from the nonproliferation provisions of the NPT.

This brings us to the peaceful use of nuclear energy. The first paragraph of Article IV of the NPT provides that "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." In the second paragraph all Parties "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." Through the first paragraph, all States Party to the NPT have accepted the condition that their nuclear activities must be carried out in conformity with Articles I and II of the Treaty. Claims by Iran that it is fully entitled under the NPT to receive nuclear cooperation in pursuing its allegedly peaceful nuclear program despite its failure to abide by Articles II or III are untenable. Clearly, confidence in the NPT, as well as states ability to engage in peaceful nuclear cooperation, will be eroded if countries can ignore and even flout their non-proliferation commitments under the Treaty.

The challenge before us is how to bring states such as Iran and North Korea into compliance with the NPT and how to avoid a situation whereby their actions beget a world with more proliferation. It should be clear that dealing with this challenge requires the firm collective action of NPT parties in dealing with violations and violators.

Mr. Chairman, a variety of unilateral, bilateral, and multilateral approaches to global security must be explored in addressing nuclear nonproliferation and disarmament.

The United States has taken many unilateral steps that serve to reduce reliance on nuclear weapons, and reduce the U.S. nuclear stockpile. Bilateral efforts between the United States and Russia have led, and continue to lead, to significant cuts in the two nations' nuclear arsenals and their respective stockpiles of fissile material for use in nuclear weapons.

I mentioned earlier many unilateral steps the U.S. has taken regarding its weapons stockpile. In addition the U.S. has unilaterally removed approximately 184 tons of highly enriched uranium and 52 tons of plutonium from nuclear weapons programs, and placed much of this material under IAEA safeguards. Approximately 90 tons of highly enriched uranium has been down-blended to low enriched uranium for use in civilian fuel.

The U.S. also works bilaterally on nuclear security issues where this is effective. The cooperative threat reduction programs that began in the early and mid-1990s have been instrumental in reducing proliferation of illicitly trafficked nuclear material. According to the International Atomic Energy Agency's (IAEA) recent report on illicit trafficking of nuclear material from 1993 to 2005, the frequency and quantity of illicitly trafficked nuclear material have dropped since the early 1990s. We believe this directly corresponds to the establishment of USG cooperative threat reduction programs such as those well known programs established by the Department of Defense, as well as the Department of Energy's Material Protection Control and Accounting and Second Line of Defense programs and demonstrates their success in stemming proliferation of nuclear material.

CTR programs have also been instrumental in redirecting nuclear weapons scientists to peaceful, sustainable employment.

Additionally, the Department of State utilizes two mechanisms that help to examine the effectiveness of USG cooperative threat reduction and USG nonproliferation assistance programs. The Nuclear Trafficking Response Group (NTRG) coordinates the USG response to reports of nuclear smuggling and the Nuclear Smuggling Outreach Initiative (NSOI) engages states at risk for nuclear smuggling to improve their anti-nuclear smuggling capabilities. These two processes allow us to review known

smuggling incidents and understand the efficacy of USG nonproliferation assistance.

In many cases, despite repeated highlighting of these accomplishments by the U.S. and Russia, the proponents of nuclear disarmament fail to give appropriate credit to those efforts.

On a multilateral basis we are seeking to strengthen nuclear non-proliferation by: full implementation of UNSCR 1540, universal adherence to the IAEA Additional Protocol, and the expansion of the Proliferation Security Initiative. The United States proposal for a Global Nuclear Energy Partnership (GNEP) to expand the use of nuclear energy as an environmentally friendly energy source, reduce waste, and discourage the spread of sensitive nuclear fuel cycle capabilities is another place where multilateralism can make a useful contribution. Increasing emphasis on non-proliferation and compliance in multilateral fora and arrangements can help engineer, over time, a much-needed paradigm shift in the global nuclear non-proliferation regime.

That said, if multilateral fora fail to impose consequences on those who violate their non-proliferation commitments under the NPT, such as North Korea and Iran, the capacity of such fora to deal with these larger and more complex issues will continue to be called into question. Similarly, the continued failure in the Conference on Disarmament in Geneva to break the linkages with unrelated issues in order to begin negotiation of a Fissile Material Cutoff Treaty (FMCT) is emblematic of this problem.

The United States sees no reason to pursue an expansion of its Negative Security Assurances (NSAs), and remains opposed to the negotiation of a binding global NSA treaty. The demand for NSAs from the P-5 originated during the Cold War, when NNWS were alarmed at the prospect of being "caught in the middle" of nuclear confrontation between the superpowers. There is no longer a "middle" along these lines. In the NPT context, today's divide is between those seeking to acquire nuclear weapons in violation of their NPT obligations and those determined to prevent that from happening. The best assurance against nuclear aggression today to directly address the nuclear threat that the DPRK and the Iranian regimes pose to regional and global security, and to deal with illegal proliferation networks such as that formerly run by A.Q. Khan.

Nonproliferation sanctions have weighed heavily on rogue regimes' pursuit of WMD programs. Nonproliferation sanctions, specifically the Iran and Libya Sanctions Act, affected Libya's past policies regarding WMD and support for international terrorism by raising the cost of continuing those policies. The political and economic costs played a role in prompting Colonel Gadaffi's 2003 determination that the pursuit of WMD ran counter to Libya's national security.

Because nonproliferation sanctions cast a spotlight on the activities of a particular state, they help induce other countries and non-state entities to take notice. One of the more noticeable effects of the U.S. Executive Order 13382 has been calling attention to the proliferation activities of particular North Korean and Iranian entities. Banks and other institutions have terminated their business relationships with their North Korean and Iranian counterparts, further impeding North Korea's and Iran's pace of technical advancement.

Recognizing that the proliferation of WMD and related materials, including nuclear weapons and materials, is clearly a threat to international peace and security, the UN Security Council unanimously adopted Resolution 1540 to address certain gaps in the non-proliferation regime. This Resolution requires states to enact and enforce effective legal and regulatory measures to prevent proliferation, with a particular focus on preventing WMD proliferation activities of non-state actors. .

At its core, Resolution 1540 is consistent with UN member states' good faith implementation of their other non-proliferation commitments because it requires states to take concrete steps to combat proliferation. The resolution requires member states to adopt and enforce effective measures to maintain appropriate physical protection and to establish controls against export, transshipment brokering and financing.

The United States has actively pushed for many additional tools to strengthen nuclear material and technology export controls, which will help to keep the material out of the hands of terrorists.

For example, the U.S. encourages all UN Member States to take steps to implement UNSCR 1695, including adopting additional national regulations where appropriate authorities are not in place. Unanimously adopted on July 15, 2006, the Resolution requires Member States to prevent

the transfer of missile and missile-related items, materials, goods, or technology to or from the DPRK's WMD or missile programs. It also requires states to prevent the transfer of financial resources in relation to North Korea's missile or WMD programs.

The Proliferation Security Initiative (PSI) is one of these new tools. First proposed by President Bush in Krakow, Poland on May 31, 2003, nearly 80 nations have now endorsed the statement of principles guiding this effort against the international outlaws that traffic in deadly materials. We are pleased that the PSI was supported by Secretary General Annan and the UN High Level Panel on Threats, Challenges and Change. We reaffirm our determination to strengthen this important new tool.

In his February 2004 speech at the National Defense University, the President proposed that the members of the Nuclear Suppliers Group (NSG) should refuse to sell uranium enrichment or plutonium reprocessing equipment or technology (ENR) to any state that does not already possess full-scale functioning enrichment or reprocessing plants. We introduced the President's February 2004 proposal for blocking the further spread of ENR technology in the NSG in March 2004, and since then the proposal has been extensively discussed in both the NSG and the G-8. Notwithstanding strong opposition in both the NSG and G-8, we have continued to press for agreement on the President's original proposal to ban the transfer of ENR equipment and technology to states that do not posess full-scale functioning plants. We oppose the indigenous development of new enrichment facilities in states not already possessing such facilities because we believe such projects would make it easier for other states to justify ENR programs.

In its July 2006 statement following the St. Petersburg Summit, the G-8 agreed that it would be prudent not to inaugurate any new ENR supply initiatives in the next year. We are prepared to consider as an interim measure a criteria-based approach to ENR transfers so long as the criteria proposed would clearly exclude Iran and other states seeking nuclear weapons from the receipt of ENR technology and equipment, and not provide a checklist that would permit such transfers to problem states. To date, however, we have not seen a criteria-based proposal that meets our requirements.

The President, in partnership with President Putin, also announced in July the Global Initiative to Combat Nuclear Terrorism, an effort to bring

together a growing network of nations that are determined to take effective steps to prevent, protect against, and respond to terrorists seeking to acquire and use nuclear weapons. We are placing a high priority on our efforts to accelerate the development of partnership capacity to combat the threat of nuclear terrorism by working with other departments and agencies and with partner nations to take practical steps to increase our cooperation, including by developing a robust set of multinational exercises and holding expert-level meetings to share best practices. Through these efforts we believe we can help to strengthen nuclear nonproliferation by leveraging and bolstering our existing capabilities.

The United States has continually pressed to strengthen IAEA safeguards since the signing of the NPT. The Additional Protocol, which provides for significant new methods of acquiring information about a states nuclear activities, and for enhanced access by IAEA inspectors, was successfully negotiated in 1997. Since then we have been pressing countries to adhere to the Additional Protocol; almost all non-nuclear weapons states with significant nuclear activities have now signed an additional protocol. In 2004, during our Presidency of the G8, we led an effort to press countries that had not yet done so to conclude safeguards agreements and Additional Protocols with the IAEA. This included a joint letter from G8 all Foreign Ministers. These efforts have continued under the British and Russian G8 Presidencies in 2005 and 2006. We also persuaded Foreign Ministers at the Asia Pacific Economic Cooperation (APEC) forum to adopt the goal of concluding an Additional Protocol by the end of 2005. It was particularly significant that Malaysia concluded an Additional Protocol in 2005.

The President proposed in his February 11, 2004 NDU speech that the NSG agree to require signature of an Additional Protocol (AP) as a condition of supply for transfers of nuclear trigger list items and related technologies by the end of 2005. When the United States tabled this proposal at the March 2004 meeting of the NSG Consultative Group (CG), there was broad support, but the majority of NSG members preferred a British/Austrian proposal requiring implementation of an AP as a condition of supply for nuclear trigger list transfers.

The NSG has continued to discuss the AP proposal; however, several members are not prepared to join a consensus. Two states, Brazil and Argentina, oppose making the AP a condition of supply, at least at this time. France and Russia propose a more limited approach of making the AP a

condition of supply only for transfer of "sensitive" technologies, including enrichment and reprocessing. G-8 leaders have called for support of the AP as an essential new standard in the field of nuclear supply arrangements and said that G-8 members should work to amend the NSG Guidelines accordingly. The NSG has agreed that the AP proposal should remain on the agenda until consensus is reached.

Last year, the IAEA Board of Governors adopted unanimously our proposal to establish a Committee on Safeguards and Verification (CSV) to strengthen the Agency's ability to ensure that countries comply with their nonproliferation obligations. This is a work in progress and the Committee is holding its fourth meeting today in Vienna.

In addition, the United States believes firmly that a ban on the future production of fissile material for use in nuclear weapons or other nuclear explosive devices would strengthen international peace and security and the nuclear non-proliferation regime, in part by placing limits on fissile material that could fall into terrorist hands. On May 18th of this year, the United States introduced a draft text for a Fissile Material Cutoff Treaty, or FMCT, at the Conference on Disarmament in Geneva. The United States urges the Conference on Disarmament to begin negotiations on an FMCT, and calls on every nation publicly to declare a national moratorium on the production of fissile material for use in nuclear weapons, as has been done by the United States, until a treaty is negotiated.

Mr. Chairman, to be successful, we must be able to adapt to changing circumstances and utilize a full range of nonproliferation tools, some of which I have cited today. We must have a global nonproliferation architecture that ranges from limiting access to dangerous materials and technology and securing them at their source, to enacting export and border controls, to impeding WMD-related shipments during transport, and to enforcing domestic regulatory and administrative practices to guard against illegal proliferation activity. At the core of this architecture is the NPT. Without a global consensus as embodied in the NPT, we and other like-minded countries could not marshal enough support to tackle the increasingly important and complex proliferation problems.

As President Bush said in March: "The United States remains firmly committed to its obligations under the NPT. Our record demonstrates this

commitment… The United States will continue to play a leading role in strengthening the nonproliferation regime."

That concludes my statement Mr. Chairman. I would be glad to respond to your questions.

Thank you very much.

Mr. SHAYS. Thank you, Mr. Semmel.
Mr. David.

STATEMENT OF JACK DAVID

Mr. DAVID. Chairman Shays, Congressman Van Hollen, I will try to abbreviate very substantially the formal written statement I submitted, and also to reduce in size my oral statement, as well, in view of what my colleagues have said, which I fully endorse with the Defense Department.

I thank you for the opportunity to testify on weapon of mass destruction, current nuclear proliferation challenges, on this my last week as Deputy Assistant Secretary of Defense for Combating WMD and Negotiations Policy. President Bush is committed to countering the threat of nuclear proliferation, and the Department of Defense's role in supporting the President is based on his 2002 National Strategy to Combat Weapons of Mass Destruction and his 2006 National Security Strategy.

Our goal is summarized by these words from the President's 2004 State of the Union Address: America is committed to keeping the world's most dangerous weapons out of the hands of the most dangerous regimes.

Multilateral arms control and nonproliferation treaties and regimes are key components of our strategy, with the Nuclear Non-Proliferation Treaty, the NPT, at the forefront. President Bush has called the NPT "a critical contribution to international security." The NPT is a principal element of an expanding legal framework devised to curb the development of nuclear weapons programs. We have sought to strengthen it.

In February, 2004, President Bush, addressing an audience of the National Defense University on curbing WMD, offered proposals to strengthen the NPT. He urged the creation of a new committee specifically mandated to concentrate on safeguards and additional protocol issues. He asked that all members of the NPT complete and adhere to safeguards and additional protocol agreements. He asked that the additional protocol be a condition for a state to receive support for its civil nuclear program.

U.S. efforts to address nuclear proliferation go beyond supporting and trying to strengthen the NPT. In May, 2003, President Bush launched the proliferation security initiative, which now boasts more than 75 participating states. The United States also played a leading role in the April, 2004, U.N. Security Council passage of resolution 1540, which requires states to control who may possess and export WMD-related material and technology.

The cooperative threat reduction program administered by the Department of Defense is another major effort to thwart nuclear proliferation. DOD's CTR efforts successfully assist Russia, Belarus, Kazakhstan, and Ukraine in dealing with the disposition of nuclear warheads and materials.

Since 2002, DOD's CTR efforts have included portal programs to detect illicit movement of nuclear materials, as well as programs to move WMD to central locations where they can be secured. These programs are part of the proliferation prevention initiative.

The nuclear nonproliferation measures we and other countries have supported have not been successful in all respects. World re-

gimes, unscrupulous profiteers, and non-state actors such as the A.Q. Kahn network have traded in nuclear materials and technology. This illicit trade has provided important assistance to the nuclear weapons programs of other countries, including Libya and Iran.

We live in an era where economic pressures and competition for fossil fuels make nuclear energy an important alternative to guaranteeing the world prosperity. With the use of nuclear energy comes the immense challenge of safeguarding nuclear technology and materials from uses that can bring about horrible consequences.

State and non-state actors with bad motives are ever ready to create a nightmare out of the dream of energy sufficiency. It is to prevent such an outcome that we must do all we can to prevent proliferation of nuclear materials.

Thank you very much.

[The prepared statement of Mr. David follows:]

Committee on Government Reform

Subcommittee on National Security, Emerging Threats and International Relations

"Weapons of Mass Destruction: Current Nuclear Proliferation Challenges"

Prepared Statement of Jack David
Deputy Assistant Secretary of Defense for Combating WMD and Negotiations Policy

September 26, 2006

Chairman Shays, Ranking Member Kucinich, members of the subcommittee, it is an honor to appear before you today. I thank you for the opportunity to testify on "**Weapons of Mass Destruction: Current Nuclear Proliferation Challenges**."

President Bush is committed to countering the threat that nuclear proliferation poses to international peace and security. The Department of Defense takes its guidance for performing its role in this effort from the President's 2002 National Strategy to Combat Weapons of Mass Destruction and 2006 National Security Strategy. DoD's goal is adopted in its entirety from those words by President Bush in his January 20, 2004, State of the Union address, which said: "America is committed to keeping the world's most dangerous weapons out of the hands of the most dangerous regimes."

The National Strategy to Combat Weapons of Mass Destruction encompasses three pillars of which nonproliferation is one. Through active nonproliferation diplomacy the strategy embraces multilateral arms control and nonproliferation treaties and regimes as key components. The Nuclear Nonproliferation Treaty (NPT) is at the forefront of those. The NPT is intended to make the world a safer and more secure place for all of us erecting a number of barriers against the proliferation of nuclear weapons. Last year, in recognition of the treaty's 35th anniversary, President Bush called the NPT "a critical contribution to international security."

The NPT entered into force in 1970. This was an historic event. The nations of the world agreed to a treaty to prevent the spread of nuclear weapons and weapons technology, to promote cooperation in the peaceful uses of nuclear energy, and to further the goal of peace through the steady reduction of nuclear weapons stockpiles. At the time, many experts predicted that there would be a multiple of the then existing five Nuclear Weapons States by the end of the twentieth century. The fact that nothing like this happened is a testament to the substantial success of the treaty. The NPT is the

principal element of an expanding legal framework devised to curb the development of nuclear weapons programs through its nonproliferation obligations. NPT member states, of which there are 189—are promised the availability of assistance to use nuclear energy and materials in peaceful pursuits as long as they adhere to these nonproliferation obligations. Member states can take advantage of nuclear fuel sharing that will facilitate the development and use of nuclear power even if they do not have the resources to develop their own nuclear fuel cycles. They can also avail themselves of opportunities to share in the benefits of nuclear research in areas like medicine, nuclear safety, agriculture and many other applications of nuclear technology. The benefits of adhering to the NPT's nonproliferation objectives and abiding by its rules can expand in the future, by participation in efforts like President Bush's Global Nuclear Energy Partnership.

The United States has sought to strengthen the NPT, especially in recent years. In February 2004 President Bush, addressing an audience at the National Defense University on curbing WMD, offered proposals to enhance the NPT regime's ability to deal with nuclear proliferation issues. Among these proposals, the President urged the creation of a new committee specifically mandated to concentrate on Safeguards and Additional Protocol issues, thereby increasing the IAEA's ability to police compliance with safeguards required under the Treaty. The Departments represented on this panel worked hard to make this proposal a reality by fostering the creation of a new IAEA Committee on Safeguards and Verification (CSV).

The CSV had its first meeting in December 2005. We are working hard to energize the CSV to work to strengthen the IAEA's ability to oversee members' compliance with their safeguards agreements by developing new technologies to detect activities in violation of their agreements, increasing the use of special inspections, and maintaining an adequately sized technical staff. We continue to press for increased accountability for those NPT States that violate their agreements, and expect the work of the CSV increasingly will help that effort.

In the same February 2004 National Defense University speech in which the President proposed the CSV, the President urged that all members of the NPT not only complete and adhere to Safeguards agreements, but that they also join the IAEA's Additional Protocol. Moreover, in the same speech, President Bush proposed that a condition of a state receiving support for its civil nuclear program be its signing the Additional Protocol.

The Additional Protocol is a very important nuclear nonproliferation tool. The Additional Protocol improves the IAEA's ability to detect cheating by increasing reporting requirements about nuclear fuel cycle activities, and by adding significantly to the IAEA's authority to conduct inspections where it suspects irregularities on the part of member States. In response to member States' concerns that such intrusive monitoring would jeopardize proprietary information, the Additional Protocol sets forth an obligation

on the part of the IAEA to maintain a stringent regime to ensure effective protection against disclosure of commercial, technological and industrial secrets. This regime is to be approved periodically by the Agency's Board of Governors, on which the U.S. sits.

The United States has joined the other nuclear weapons states in signing an Additional Protocol and the Congress is considering implementing legislation currently.

US efforts to address the threat of nuclear proliferation go beyond supporting and trying to improve compliance with the NPT. In May 2003 President Bush launched the Proliferation Security Initiative (PSI), which now boasts more than 75 participating States. Additionally, the United States played a leading role in the April 2004 UN Security Council passage of Resolution 1540, which acts against proliferation and proliferators of weapons of mass destruction, including nuclear weapons, by requiring all States to adopt domestic legislation to govern exports of WMD, their means of delivery and related material, including by establishing criminal or civil penalties for export violations and to prohibit the manufacture possession or proliferation of the same.

On May 18, 2006 the United States tabled a draft Fissile Material Cutoff Treaty at the Conference on Disarmament in Geneva. This draft treaty is complementary to the NPT. It provides for definitions for fissile material and the processes used to make it. It proscribes the production of new fissile material for the purpose of use in nuclear weapons and explosive devices. The draft treaty provides a mechanism for addressing cheating that includes referral to the UN Security Council. The draft will be discussed in negotiations with other nations in the Conference on Disarmament, with a view toward arriving at a final text at the earliest possible time.

The Cooperative Threat Reduction Program (CTR), administered by the Department of Defense, is yet another major US effort to protect against nuclear proliferation. At the outset of the program, it focused on preventing proliferation of WMD including nuclear materials, warheads and their delivery systems by helping to eliminate their delivery systems and account for and improve security at the places where these materials are located to ensure that WMD would not fall into the hands of terrorists. Since 2003 the CTR has been expanded to address WMD "on the move" by including border portal programs to detect illicit movement of nuclear materials as well as programs to move WMD to central locations where they can be secured. These programs work closely and in concert with DOE and State programs.

Over the years, CTR programs have included the following successful efforts:

- DoD helped former Soviet States such as Belarus, Kazakhstan, and Ukraine, return nuclear weapons located in their territories to Russia.

- Starting in February 2000 DoD helped Russia provide security for the transshipment of trainloads of nuclear weapons to dismantlement and storage facilities. So far, CTR has provided assistance for the security of at least 315 trainloads.

- DoD and the Department of Energy together helped upgrade security at nine permanent and three temporary nuclear weapons storage sites in Russia, fulfilling commitments made by President Bush in Bratislava on February 24, 2005. DoD and DoE have concluded agreements with Russia to complete security upgrades of an additional ten permanent and three temporary sites by the end of 2008.

- In 2002, the DoD initiated the CTR-supported Proliferation Prevention Initiative (PPI). This program, complementary to similar DOE programs, helps partner countries to build nuclear detection capabilities at portals through which such materials may pass.

- The PPI enhances prospects for interdicting nuclear materials in the Black and Caspian Sea basins. Currently, PPI is working in Ukraine, Uzbekistan, Kazakhstan, Moldova and Azerbaijan.

The nuclear nonproliferation measures we and other countries have supported could be strengthened. Rogue regimes, unscrupulous profiteers, and non-state actors have traded in nuclear materials and technology, sometimes successfully. The A. Q. Khan Network, which provided important assistance to Libya's nuclear program is a notorious example. And, as we all know, the Iranian regime is working assiduously to gain nuclear weapons with which to advance its hegemonic ambitions in defiance of its NPT and IAEA obligations. The nonproliferation initiatives, policies, and programs I have described, such as PSI and the Additional Protocol, can help to curb these unwelcome aspects of the global marketplace.

We live in an era where economic pressures combined with the competition for fossil fuels make nuclear energy an important alternative to guaranteeing world prosperity. Along with the use of nuclear energy comes the immense responsibility of safeguarding nuclear technology and materials from uses that can bring about terrible consequences. State and non-state actors with bad motives are ever ready to create a nightmare out of what should be the ingredients fulfilling the good dream of energy sufficiency. It is to prevent such an outcome that we must do all we can to prevent proliferation of nuclear weapons through transfers of nuclear equipment, technology and materials.

Mr. SHAYS. Thank you.
Mr. Aloise.

STATEMENT OF GENE ALOISE

Mr. ALOISE. Mr. Chairman and members of the subcommittee, I am pleased to be here today to discuss IAEA's safeguard program and other measures to halt the spread of nuclear weapons and materials.

Reports about the clandestine nuclear weapons programs in North Korea, Iran, and Libya, as well as covert nuclear trafficking networks have increased international concerns about the spread of weapon of mass destruction. Since the NPT came into force in 1970, IAEA safeguards have been a cornerstone of U.S. and international efforts to prevent nuclear proliferation. In addition to safeguards, other U.S. and international efforts to prevent the spread of nuclear weapons, materials, and technologies have included the Nuclear Suppliers Group and U.S. assistance to Russia and other countries to secure nuclear materials and warheads.

My remarks today will focus on our most recent report on IAEA safeguards system because safeguards is the most important mechanism used to ensure compliance with the NPT.

Despite successes in uncovering some countries' undeclared nuclear activities, safeguards experts acknowledge that a determined country can still conceal a nuclear weapons program. IAEA continues to strengthen safeguards by more aggressively seeking assurances that a country is not pursuing a clandestine nuclear program. To help do this, IAEA uses measures such as conducting short-notice and unannounced inspections, collecting and analyzing environmental samples, and using unattended measurement and surveillance systems.

State Department and IAEA officials told us that safeguards have successfully revealed undisclosed nuclear activities in countries such as Iran. Despite successes, IAEA safeguards have limitations. If a country decides to divert nuclear material or conduct undeclared activities, it will deliberately work to prevent the Agency from discovering this. Furthermore, any assurances by IAEA that a country is not engaged in undeclared activities cannot be regarded as absolute, and, importantly, there are a number of weaknesses that hamper the Agency 's ability to effectively implement safeguards, including:

IAEA has only limited information about the nuclear activities of Pakistan, India, Israel, and North Korea. Since these countries are not members of the NPT, they do not have comprehensive safeguards agreements and are not required to declare all their nuclear material.

Another weakness is that more than half of the NPT signatories have not yet adopted the additional protocol, a separate agreement designed to give IAEA nuclear authority to search for covert nuclear activities. Further, safeguards are significantly limited or not applied in about 60 percent of the NPT signatories, because either these countries have not signed comprehensive safeguard agreements or they claim they possess only small quantities of nuclear material and are exempt from most safeguards measures.

Last, IAEA is facing a human capital crisis that threatens the safeguards missions. In 2005 we reported that over 50 percent of senior safeguards inspectors and high-level safeguards officials are retiring in the next 5 years. In our 2005 report we recommended a number of actions designed to address the weaknesses in IAEA's safeguards program.

IAEA has been called upon by its member states to assume a greater role in reducing the risks of nuclear proliferation; however, as its responsibilities continue to expand, the Agency faces a broad array of challenges that hamper its ability to fully implement its safeguards system.

Mr. Chairman and members of the subcommittee, that concludes my statement. I would be happy to address any questions you may have.

[The prepared statement of Mr. Aloise follows:]

United States Government Accountability Office

GAO

Testimony

Before the Subcommittee on National Security, Emerging Threats, and International Relations, Committee on Government Reform, House of Representatives

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NUCLEAR NONPROLIFERATION

IAEA Safeguards and Other Measures to Halt the Spread of Nuclear Weapons and Material

Statement of Gene Aloise, Director
Natural Resources and Environment

GAO-06-1128T

September 26, 2006

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Highlights

Highlights of GAO-06-1128T, testimony before the Subcommittee on National Security, Emerging Threats, and International Relations, Committee on Government Reform, House of Representatives

NUCLEAR NONPROLIFERATION

IAEA Safeguards and Other Measures to Halt the Spread of Nuclear Weapons and Material

Why GAO Did This Study

The International Atomic Energy Agency's (IAEA) safeguards system has been a cornerstone of U.S. efforts to prevent nuclear weapons proliferation since the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) was adopted in 1970. Safeguards allow IAEA to verify countries' compliance with the NPT. Since the discovery in 1991 of a clandestine nuclear weapons program in Iraq, IAEA has strengthened its safeguards system. In addition to IAEA's strengthened safeguards program, there are other U.S. and international efforts that have helped stem the spread of nuclear materials and technology that could be used for nuclear weapons programs. This testimony is based on GAO's report on IAEA safeguards issued in October 2005 (*Nuclear Nonproliferation: IAEA Has Strengthened Its Safeguards and Nuclear Security Programs, but Weaknesses Need to Be Addressed*, GAO-06-93 [Washington, D.C.: Oct. 7, 2005]). This testimony is also based on previous GAO work related to the Nuclear Suppliers Group—a group of more than 40 countries that have pledged to limit trade in nuclear materials, equipment, and technology to only countries that are engaged in peaceful nuclear activities—and U.S. assistance to Russia and other countries of the former Soviet Union for the destruction, protection, and detection of nuclear material and weapons.

www.gao.gov/cgi-bin/getrpt?GAO-06-1128T.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Gene Aloise at (202) 512-3841 or aloisee@gao.gov.

What GAO Found

IAEA has taken steps to strengthen safeguards, including conducting more intrusive inspections, to seek assurances that countries are not developing clandestine weapons programs. IAEA has begun to develop the capability to independently evaluate all aspects of a country's nuclear activities. This is a radical departure from the past practice of only verifying the peaceful use of a country's declared nuclear material. However, despite successes in uncovering some countries' undeclared nuclear activities, safeguards experts cautioned that a determined country can still conceal a nuclear weapons program. In addition, there are a number of weaknesses that limit IAEA's ability to implement strengthened safeguards. First, IAEA has a limited ability to assess the nuclear activities of 4 key countries that are not NPT members—India, Israel, North Korea, and Pakistan. Second, more than half of the NPT signatories have not yet brought the Additional Protocol, which is designed to give IAEA new authority to search for clandestine nuclear activities, into force. Third, safeguards are significantly limited or not applied to about 60 percent of NPT signatories because they possess small quantities of nuclear material, and are exempt from inspections, or they have not concluded a comprehensive safeguards agreement. Finally, IAEA faces a looming human capital crisis caused by the large number of inspectors and safeguards management personnel expected to retire in the next 5 years.

In addition to IAEA's strengthened safeguards program, there are other U.S. and international efforts that have helped stem the spread of nuclear materials and technology. The Nuclear Suppliers Group has helped to constrain trade in nuclear material and technology that could be used to develop nuclear weapons. However, there are a number of weaknesses that could limit the Nuclear Suppliers Group's ability to curb proliferation. For example, members of the Suppliers Group do not always share information about licenses they have approved or denied for the sale of controversial items to nonmember states. Without this shared information, a member country could inadvertently license a controversial item to a country that has already been denied a license from another member state.

Since the early 1990s, U.S. nonproliferation programs have helped Russia and other former Soviet countries to, among other things, secure nuclear material and warheads, detect illicitly trafficked nuclear material, and eliminate excess stockpiles of weapons-usable nuclear material. However, these programs face a number of challenges which could compromise their ongoing effectiveness. For example, a lack of access to many sites in Russia's nuclear weapons complex has significantly impeded the Department of Energy's progress in helping Russia secure its nuclear material. U.S. radiation detection assistance efforts also face challenges, including corruption of some foreign border security officials, technical limitations of some radiation detection equipment, and inadequate maintenance of some equipment.

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss the International Atomic Energy Agency's (IAEA) safeguards program and other measures to halt the spread of nuclear weapons and material. Revelations about the clandestine nuclear programs of North Korea, Iran, and Libya, as well as clandestine nuclear trafficking networks, have significantly increased international concerns about the spread of weapons of mass destruction. Since the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) came into force in 1970, IAEA's safeguards system has been a cornerstone of U.S. and international efforts to prevent nuclear weapons proliferation. The NPT expanded IAEA's original inspection responsibilities by requiring signatory non-nuclear weapons states—countries that had not manufactured and detonated a nuclear device before January 1, 1967—to agree not to acquire nuclear weapons and to accept IAEA safeguards on all nuclear material used in peaceful activities.[1] Most countries have negotiated an agreement with IAEA, known as a comprehensive safeguards agreement.

Safeguards allow the agency to independently verify that non-nuclear weapons states that signed the NPT are complying with its requirements. Under the safeguards system, IAEA, among other things, inspects all facilities and locations containing nuclear material, as declared by each country, to verify its peaceful use. However, the discovery in 1991 of a clandestine nuclear weapons program in Iraq confirmed the need for a broader and more effective approach to safeguards. As a result, IAEA began to strengthen its safeguards system in the mid-1990s to provide assurance that non-nuclear weapons states were not engaged in undeclared nuclear activities.

In addition to IAEA's strengthened safeguards program, other U.S. and international efforts to prevent nuclear weapons proliferation have included the Nuclear Supplier's Group—a group of more than 40 countries that have pledged to limit trade in nuclear materials, equipment, and technology to only countries that are engaged in peaceful nuclear activities—and U.S. assistance to Russia and other states of the former

[1]Under the NPT, nuclear weapons states pledged to facilitate the transfer of peaceful nuclear technology to non-nuclear weapons states, but not to assist them in acquiring nuclear weapons.

Soviet Union to, among other things, secure nuclear material and warheads.

My remarks will focus on our report on IAEA safeguards issued in October 2005.[2] I will also address issues related to previous GAO work on the Nuclear Suppliers Group's restrictions on nuclear trade[3] and U.S. assistance to Russia and other countries of the former Soviet Union for the destruction, protection, and detection of nuclear weapons and material.

Summary

IAEA has taken steps to strengthen safeguards by more aggressively seeking assurances that countries have not engaged in clandestine nuclear activities, but the agency still cannot be certain that countries are not developing secret weapons programs. In a radical departure from the past practice of only verifying the peaceful use of a country's declared nuclear material at declared facilities, IAEA has begun to develop the capability to independently evaluate all aspects of a country's nuclear activities by, among other things, conducting more intrusive inspections and collecting and analyzing environmental samples to detect traces of nuclear material at facilities and other locations. Department of State and IAEA officials told us that IAEA's strengthened safeguards measures have successfully revealed previously undisclosed nuclear activities in Iran, South Korea, and Egypt. In the case of Iran, IAEA and Department of State officials noted that strengthened safeguards measures, such as collecting and analyzing environmental samples, helped the agency verify some of Iran's nuclear activities. The measures also allowed IAEA to conclude in September 2005 that Iran was not complying with its safeguards obligations because it failed to report all of its nuclear activities to IAEA. As a result, in July 2006, Iran was referred to the U.N. Security Council, which in turn demanded that Iran suspend its uranium enrichment activities or face possible diplomatic and economic sanctions. Despite these successes, a group of safeguards experts recently cautioned that a determined country can still conceal a nuclear weapons program. For example, IAEA does not have unfettered inspection rights and cannot make visits to suspected sites anywhere at any time.

[2]GAO, *Nuclear Nonproliferation: IAEA Has Strengthened Its Safeguards and Nuclear Security Programs, but Weaknesses Need to Be Addressed*, GAO-06-93 (Washington, D.C.: Oct. 7, 2005).

[3]GAO, *Nonproliferation: Strategy Needed to Strengthen Multilateral Export Control Regimes*, GAO-03-43 (Washington, D.C.: Oct. 25, 2002).

There are a number of weaknesses that hamper IAEA's ability to effectively implement strengthened safeguards. First, IAEA has a limited ability to assess the nuclear activities of 4 key countries that are not NPT members—India, Israel, North Korea, and Pakistan. Second, more than half, or 111 out of 189, of the NPT signatories have not yet brought the Additional Protocol into force, including the United States. A third weakness in implementing strengthened safeguards is that safeguards are significantly limited or not applied in about 60 percent, or 112 out of 189, of the NPT signatory countries—either because they have an agreement (known as a small quantities protocol) with IAEA, and are not subject to most safeguards measures, or because they have not concluded a comprehensive safeguards agreement with IAEA. IAEA cannot verify that these countries are not diverting nuclear material for nonpeaceful purposes or engaging in secret nuclear activities. Fourth, while IAEA is increasingly relying on the analytical skills of its staff to detect countries' undeclared nuclear activities, the agency is facing a looming human capital crisis. In the next 5 years, IAEA will experience a large turnover of senior safeguards inspectors and high-level management officials. Delays in filling critical safeguards positions limit IAEA's ability to implement strengthened safeguards.

In addition to IAEA's strengthened safeguards program, there are other U.S. and international efforts that have helped stem the spread of nuclear materials and technology. The Nuclear Suppliers Group has helped to constrain the trade in nuclear material and technology that could be used to develop nuclear weapons. There are currently 45 countries that participate in this voluntary, nonbinding regime and they have pledged to limit trade in nuclear materials, equipment, and technology to only countries that are engaged in peaceful nuclear activities. The Nuclear Suppliers Group has also helped IAEA verify compliance with the NPT. For example, it helped convince Argentina and Brazil to place their nuclear programs under IAEA safeguards in exchange for international cooperation to enhance their nuclear programs for peaceful purposes. Since 1992, the Nuclear Suppliers Group has required that other countries have comprehensive safeguards agreements with IAEA as a condition of supply for nuclear-related items. Despite these benefits, there are a number of weaknesses that could limit the Nuclear Suppliers Group's ability to curb proliferation. We found that members of the Nuclear Suppliers Group do not always share information about licenses they have approved or denied for the sale of controversial items to nonmember states. Without this shared information, a member country could inadvertently license a controversial item to a country that has already been denied a license from another Nuclear Suppliers Group member

state. We also found that Nuclear Suppliers Group members did not promptly review and agree upon common lists of items to control and approaches to controlling them. Without this agreement, sensitive items may still be traded to countries of concern.

Since the early 1990s, U.S. nonproliferation programs have helped Russia and other former Soviet countries secure nuclear material and warheads, detect illicitly trafficked nuclear material, eliminate excess stockpiles of weapons-usable nuclear material,[4] and halt the continued production of weapons-grade plutonium.[5] While these programs have had some successes, they also face a number of challenges which could compromise their ongoing effectiveness. For example, a lack of access to many sites in Russia's nuclear weapons complex has significantly impeded the Department of Energy's (DOE) progress in helping Russia secure its nuclear material. We reported in 2003 that DOE had completed work at only a limited number of buildings in Russia's nuclear weapons complex, a network of sites involved in the construction of nuclear weapons where most of the nuclear material in Russia is stored. While DOE has reported progress on gaining access to many of these sites, we are currently re-examining DOE's efforts in this area and the challenges the agency faces in completing its program. Furthermore, to combat nuclear smuggling, since 1994, the Departments of Energy, Defense, and State have provided radiation detection equipment to 36 countries, including many countries of the former Soviet Union. However, as we reported in March 2006, U.S. radiation detection assistance efforts also face challenges, including corruption of some foreign border security officials, technical limitations of some radiation detection equipment, and inadequate maintenance of some equipment.

Background

IAEA is an independent organization affiliated with the United Nations. Its governing bodies include the General Conference, composed of representatives of the 138 IAEA member states, and the 35-member Board of Governors, which provides overall policy direction and oversight. The Secretariat, headed by the Director General, is responsible for

[4]Weapons-usable nuclear material is uranium enriched to 20 percent or greater in uranium-235 or uranium-233 and any plutonium containing less than 80 percent of the isotope plutonium-238 and less than 10 percent of the isotopes plutonium-241 and plutonium-242. These types of material are of the quality used to make nuclear weapons.

[5]A listing of relevant U.S. nuclear nonproliferation programs can be found in appendix III.

implementing the policies and programs of the General Conference and Board of Governors. The United States is a permanent member of the Board of Governors.

IAEA derives its authority to establish and administer safeguards from its statute, the Treaty on the Non-proliferation of Nuclear Weapons and regional nonproliferation treaties, bilateral commitments between states, and project agreements with states.[6] Since the NPT came into force in 1970, it has been subject to review by signatory states every 5 years. The 1995 NPT Review and Extension conference extended the life of the treaty indefinitely, and the latest review conference occurred in May 2005. Article III of the NPT binds each of the treaty's 184 signatory states that had not manufactured and exploded a nuclear device prior to January 1, 1967 (referred to in the treaty as non-nuclear weapon states) to conclude an agreement with IAEA that applies safeguards to all source and special nuclear material in all peaceful nuclear activities within the state's territory, under its jurisdiction, or carried out anywhere under its control.[7]

The five nuclear weapons states that are parties to the NPT—China, France, the Russian Federation, the United Kingdom, and the United States—are not obligated by the NPT to accept IAEA safeguards. However, each nuclear weapons state has voluntarily entered into legally binding safeguards agreements with IAEA, and has submitted designated nuclear materials and facilities to IAEA safeguards to demonstrate to the non-nuclear weapon states their willingness to share in the administrative and commercial costs of safeguards. (App. I lists states that are subject to safeguards, as of August 2006.)

India, Israel, and Pakistan are not parties to the NPT or other regional nonproliferation treaties. India and Pakistan are known to have nuclear weapons programs and to have detonated several nuclear devices during

[6]Regional treaties, including the Treaty for the Prohibition of Nuclear Weapons in Latin America (the 1967 Treaty of Tlatelolco), the South Pacific Nuclear Free Zone Treaty (the 1985 Treaty of Rarotonga), the African Nuclear-Weapon-Free Zone Treaty (the 1995 Treaty of Pelindaba), and the Southeast Asia Nuclear-Weapon-Free Treaty (the 1995 Bangkok Treaty) require each participating country to conclude a comprehensive safeguards agreement with IAEA. Additionally, in February 2005, five Central Asian states announced that they had reached agreement on the text of a treaty to establish a nuclear-weapon-free zone.

[7]Nuclear materials include source materials, such as natural uranium, depleted uranium, and thorium, and special fissionable materials, such as enriched uranium and plutonium.

May 1998. Israel is also believed to have produced nuclear weapons. Additionally, North Korea joined the NPT in 1985 and briefly accepted safeguards in 1992 and 1993, but expelled inspectors and threatened to withdraw from the NPT when IAEA inspections uncovered evidence of undeclared plutonium production. North Korea announced its withdrawal from the NPT in early 2003, which under the terms of the treaty, terminated its comprehensive safeguards agreement.

IAEA's safeguards objectives, as traditionally applied under comprehensive safeguards agreements, are to account for the amount of a specific type of material necessary to produce a nuclear weapon, and the time it would take a state to divert this material from peaceful use and produce a nuclear weapon. IAEA attempts to meet these objectives by using a set of activities by which it seeks to verify that nuclear material subject to safeguards is not diverted to nuclear weapons or other proscribed purposes. For example, IAEA inspectors visit a facility at certain intervals to ensure that any diversion of nuclear material is detected before a state has had time to produce a nuclear weapon. IAEA also uses material-accounting measures to verify quantities of nuclear material declared to the agency and any changes in the quantities over time. Additionally, containment measures are used to control access to and the movement of nuclear material. Finally, IAEA deploys surveillance devices, such as video cameras, to detect the movements of nuclear material and discourage tampering with IAEA's containment measures.

The Nuclear Suppliers Group was established in 1975 after India tested a nuclear explosive device. In 1978, the Suppliers Group published its first set of guidelines governing the exports of nuclear materials and equipment. These guidelines established several requirements for Suppliers Group members, including the acceptance of IAEA safeguards at facilities using controlled nuclear-related items. In 1992, the Suppliers Group broadened its guidelines by requiring countries receiving nuclear exports to agree to IAEA's safeguards as a condition of supply. As of August 2006, the Nuclear Suppliers Group had 45 members, including the United States. (See app. II for a list of signatory countries.)

IAEA Has Strengthened Its Safeguards Program, but Weaknesses Need to Be Addressed

IAEA has taken steps to strengthen safeguards by more aggressively seeking assurances that a country is not pursuing a clandestine nuclear program. In a radical departure from past practices of only verifying the peaceful use of a country's declared nuclear material at declared facilities, IAEA has begun to develop the capability to independently evaluate all aspects of a country's nuclear activities. The first strengthened safeguards steps, which began in the early 1990s, increased the agency's ability to monitor declared and undeclared activities at nuclear facilities. These measures were implemented under the agency's existing legal authority under comprehensive safeguards agreements and include (1) conducting short notice and unannounced inspections, (2) collecting and analyzing environmental samples to detect traces of nuclear material, and (3) using measurement and surveillance systems that operate unattended and can be used to transmit data about the status of nuclear materials directly to IAEA headquarters.

The second series of steps began in 1997 when IAEA's Board of Governors approved the Additional Protocol.[8] Under the Additional Protocol, IAEA has the right, among other things, to (1) receive more comprehensive information about a country's nuclear activities, such as research and development activities, and (2) conduct "complementary access," which enables IAEA to expand its inspection rights for the purpose of ensuring the absence of undeclared nuclear material and activities. Because the Additional Protocol broadens IAEA's authority and the requirements on countries under existing safeguards agreements, each country must take certain actions to bring it into force.

For each country with a safeguards agreement, IAEA independently evaluates all information available about the country's nuclear activities and draws conclusions regarding a country's compliance with its safeguards commitments. A major source of information available to the agency is data submitted by countries to IAEA under their safeguards agreements, referred to as state declarations. Countries are required to provide an expanded declaration of their nuclear activities within 180 days of bringing the Additional Protocol into force. Examples of information provided in an Additional Protocol declaration include the manufacturing of key nuclear-related equipment; research and development activities related to the nuclear fuel cycle; the use and contents of buildings on a

[8]Model Protocol Additional to the Agreement(s) Between State(s) and the International Atomic Energy Agency for the Application of Safeguards.

nuclear site; and the location and operational status of uranium mines. The agency uses the state declarations as a starting point to determine if the information provided by the country is consistent and accurate with all other information available based on its own review.

IAEA uses various types of information to verify the state declaration. Inspections of nuclear facilities and other locations with nuclear material are the cornerstone of the agency's data collection efforts. Under the Additional Protocol, IAEA has the authority to conduct complementary access at any place on a site or other location with nuclear material in order to ensure the absence of undeclared nuclear material and activities, confirm the decommissioned status of facilities where nuclear material was used or stored, and resolve questions or inconsistencies related to the correctness and completeness of the information provided by a country on activities at other declared or undeclared locations. During complementary access, IAEA inspectors may carry out a number of activities, including (1) making visual observations, (2) collecting environmental samples, (3) using radiation detection equipment and measurement devices, and (4) applying seals. In 2004, IAEA conducted 124 complementary access in 27 countries.

In addition to its verification activities, IAEA uses other sources of information to evaluate countries' declarations. These sources include information from the agency's internal databases, open sources, satellite imagery, and outside groups. The agency established two new offices within the Department of Safeguards to focus primarily on open source and satellite imagery data collection. Analysts use Internet searches to acquire information generally available to the public from open sources, such as scientific literature, trade and export publications, commercial companies, and the news media. In addition, the agency uses commercially available satellite imagery to supplement the information it receives through its open source information. Satellite imagery is used to monitor the status and condition of declared nuclear facilities and verify state declarations of certain sites. The agency also uses its own databases, such as those for nuclear safety, nuclear waste, and technical cooperation, to expand its general knowledge about countries' nuclear and nuclear-related activities. In some cases, IAEA receives information from third parties, including other countries.

IAEA Has Taken Steps to Strengthen Safeguards, but Detection of Clandestine Nuclear Weapons Programs is Not Assured

Department of State and IAEA officials told us that strengthened safeguards measures have successfully revealed previously undisclosed nuclear activities in Iran, South Korea, and Egypt. Specifically,

- IAEA and Department of State officials noted that strengthened safeguards measures, such as collecting and analyzing environmental samples, helped the agency verify some of Iran's nuclear activities. The measures also allowed IAEA to conclude in September 2005 that Iran was not complying with its safeguards obligations because it failed to report all of its nuclear activities to IAEA. As a result, in July 2006, Iran was referred to the U.N. Security Council, which in turn demanded that Iran suspend its uranium enrichment activities or face possible diplomatic and economic sanctions.

- In August 2004, as a result of preparations to submit its initial declaration under the Additional Protocol, South Korea notified IAEA that it had not previously disclosed nuclear experiments involving the enrichment of uranium and plutonium separation. IAEA sent a team of inspectors to South Korea to investigate this case. In November 2004, IAEA's Director General reported to the Board of Governors that although the quantities of nuclear material involved were not significant, the nature of the activities and South Korea's failure to report these activities in a timely manner posed a serious concern. IAEA is continuing to verify the correctness and completeness of South Korea's declarations.

- IAEA inspectors have investigated evidence of past undeclared nuclear activities in Egypt based on the agency's review of open source information that had been published by current and former Egyptian nuclear officials. Specifically, in late 2004, the agency found evidence that Egypt had engaged in undeclared activities at least 20 years ago by using small amounts of nuclear material to conduct experiments related to producing plutonium and highly enriched uranium. In January 2005, the Egyptian government announced that it was fully cooperating with IAEA and that the matter was limited in scope. IAEA inspectors have made several visits to Egypt to investigate this matter. IAEA's Secretariat reported these activities to its Board of Governors.

Despite these successes, a group of safeguards experts recently cautioned that a determined country can still conceal a nuclear weapons program. IAEA faces a number of limitations that impact its ability to draw conclusions—with absolute assurance—about whether a country is developing a clandestine nuclear weapons program. For example, IAEA does not have unfettered inspection rights and cannot make visits to

suspected sites anywhere at any time. According to the Additional Protocol, complementary access to resolve questions related to the correctness and completeness of the information provided by the country or to resolve inconsistencies must usually be arranged with at least 24-hours advanced notice. Complementary access to buildings on sites where IAEA inspectors are already present are usually conducted with a 2-hour advanced notice. Furthermore, IAEA officials told us that there are practical problems that restrict access. For example, inspectors must be issued a visa to visit certain countries, a process which cannot normally be completed in less than 24 hours. In some cases, nuclear sites are in remote locations and IAEA inspectors need to make travel arrangements, such as helicopter transportation, in advance, which requires that the country be notified prior to the visit.

A November 2004 study by a group of safeguards experts appointed by IAEA's Director General evaluated the agency's safeguards program to examine how effectively and efficiently strengthened safeguards measures were being implemented. Specifically, the group's mission was to evaluate the progress, effectiveness, and impact of implementing measures to enhance the agency's ability to draw conclusions about the non-diversion of nuclear material placed under safeguards and, for relevant countries, the absence of undeclared nuclear material and activities. The group concluded that generally IAEA had done a very good job implementing strengthened safeguards despite budgetary and other constraints. However, the group noted that IAEA's ability to detect undeclared activities remains largely untested. If a country decides to divert nuclear material or conduct undeclared activities, it will deliberately work to prevent IAEA from discovering this. Furthermore, IAEA and member states should be clear that the conclusions drawn by the agency cannot be regarded as absolute. This view has been reinforced by the former Deputy Director General for Safeguards who has stated that even for countries with strengthened safeguards in force, there are limitations on the types of information and locations accessible to IAEA inspectors.

A Number of Weaknesses Impede IAEA's Ability to Effectively Implement Strengthened Safeguards

There are a number of weaknesses that hamper IAEA's ability to effectively implement strengthened safeguards. IAEA has only limited information about the nuclear activities of 4 key countries that are not members of the NPT—India, Israel, North Korea, and Pakistan. India, Israel, and Pakistan have special agreements with IAEA that limit the agency's activities to monitoring only specific material, equipment, and facilities. However, since these countries are not signatories to the NPT, they do not have comprehensive safeguards agreements with IAEA, and

are not required to declare all of their nuclear material to the agency. In addition, these countries are only required to declare exports of nuclear material previously declared to IAEA. With the recent revelations of the illicit international trade in nuclear material and equipment, IAEA officials stated that they need more information on these countries' nuclear exports. For North Korea, IAEA has even less information, since the country expelled IAEA inspectors and removed surveillance equipment at nuclear facilities in December 2002 and withdrew from the NPT in January 2003. These actions have raised widespread concern that North Korea diverted some of its nuclear material to produce nuclear weapons.

Another major weakness is that more than half, or 111 out of 189, of the NPT signatories have not yet brought the Additional Protocol into force, as of August 2006. (App. I lists the status of countries' safeguards agreements with IAEA). Without the Additional Protocol, IAEA must limit its inspection efforts to declared nuclear material and facilities, making it harder to detect clandestine nuclear programs. Of the 111 countries that have not adopted the Additional Protocol, 21 are engaged in significant nuclear activities,[8] including Egypt, North Korea, and Syria.

In addition, safeguards are significantly limited or not applied in about 60 percent, or 112 out of 189, of the NPT signatory countries—either because they have an agreement (known as a small quantities protocol) with IAEA, and are not subject to most safeguards measures, or because they have not concluded a comprehensive safeguards agreement with IAEA. Countries with small quantities of nuclear material make up about 41 percent of the NPT signatories and about one-third of the countries that have the Additional Protocol in force. Since 1971, IAEA's Board of Governors has authorized the Director General to conclude an agreement, known as a small quantities protocol, with 90 countries and, as of August 2006, 78 of these agreements were in force. IAEA's Board of Governors has approved the protocols for these countries without having IAEA verify that they met the requirements for it. Even if these countries bring the Additional Protocol into force, IAEA does not have the right to conduct inspections or install surveillance equipment at certain nuclear facilities. According to IAEA and Department of State officials, this is a weakness in the agency's ability to detect clandestine nuclear activities or transshipments of nuclear material and equipment through the country. In September 2005, the

[8]IAEA defines a country with significant nuclear activities as one that has declared nuclear material in a facility or a location outside facilities.

Board of Governors directed IAEA to negotiate with countries to make changes to the protocols, including reinstating the agency's right to conduct inspections. As of August 2006, IAEA amended the protocols for 4 countries—Ecuador, Mali, Palau, and Tajikistan.

The application of safeguards is further limited because 31 countries that have signed the NPT have not brought into force a comprehensive safeguards agreement with IAEA. The NPT requires non-nuclear weapons states to conclude comprehensive safeguards agreements with IAEA within 18 months of becoming a party to the Treaty. However, IAEA's Director General has stated that these 31 countries have failed to fulfill their legal obligations. Moreover, 27 of the 31 have not yet brought comprehensive safeguards agreements into force more than 10 years after becoming party to the NPT, including Chad, Kenya, and Saudi Arabia.

Last, IAEA is facing a looming human capital crisis that may hamper the agency's ability to meet its safeguards mission. In 2005, we reported that about 51 percent, or 38 out of 75, of IAEA's senior safeguards inspectors and high-level management officials, such as the head of the Department of Safeguards and the directors responsible for overseeing all inspection activities of nuclear programs, are retiring in the next 5 years.[10] According to U.S. officials, this significant loss of knowledge and expertise could compromise the quality of analysis of countries' nuclear programs. For example, several inspectors with expertise in uranium enrichment techniques, which is a primary means to produce nuclear weapons material, are retiring at a time when demand for their skills in detecting clandestine nuclear activities is growing. While IAEA has taken a number of steps to address these human capital issues, officials from the Department of State and the U.S. Mission to the U.N. System Organizations in Vienna have expressed concern that IAEA is not adequately planning to replace staff with critical skills needed to fulfill its strengthened safeguards mission.

[10]In 2004, the Department of Safeguards had 552 staff members. Of these, 251 were safeguards inspectors.

The Nuclear Suppliers Group Has Helped Stem Nuclear Proliferation, but Lack of Information Sharing on Nuclear Exports Between Members Could Undermine Its Efforts

The Nuclear Suppliers Group, along with other multilateral export control groups, has helped stop, slow, or raise the costs of nuclear proliferation, according to nonproliferation experts. For example, as we reported in 2002, the Suppliers Group helped convince Argentina and Brazil to accept IAEA safeguards on their nuclear programs in exchange for expanded access to international cooperation for peaceful nuclear purposes.[11] The Suppliers Group, along with other multilateral export control groups, has significantly reduced the availability of technology and equipment available to countries of concern, according to a State Department official. Moreover, nuclear export controls have made it more difficult, more costly, and more time consuming for proliferators to obtain the expertise and material needed to advance their nuclear program.

The Nuclear Suppliers Group has also helped IAEA verify compliance with the NPT. In 1978, the Suppliers Group published the first guidelines governing exports of nuclear materials and equipment. These guidelines established several member requirements, including the requirement that members adhere to IAEA safeguards standards at facilities using controlled nuclear-related items. Subsequently, in 1992, the Nuclear Suppliers Group broadened its guidelines by requiring that members insist that non-member states have IAEA safeguards on all nuclear material and facilities as a condition of supply for their nuclear exports. With the revelation of Iraq's nuclear weapons program, the Suppliers Group also created an export control system for dual-use items that established new controls for items that did not automatically fall under IAEA safeguards requirements.[12]

Despite these benefits, there are a number of weaknesses that could limit the Nuclear Suppliers Group's ability to curb nuclear proliferation. Members of the Suppliers Group do not share complete export licensing information. Specifically, members do not always share information about licenses they have approved or denied for the sale of controversial items to nonmember states. Without this shared information, a member country could inadvertently license a controversial item to a country that has already been denied a license from another Suppliers Group member state.

[11]GAO, *Nonproliferation: Strategy Needed to Strengthen Multilateral Export Control Regimes*, GAO-03-43 (Washington, D.C.: Oct. 25, 2002).

[12]Previously, the Nuclear Suppliers Group control list included nuclear equipment and material, the export of which would trigger a requirement that IAEA safeguards apply to the recipient facility.

Furthermore, Suppliers Group members did not promptly review and agree upon common lists of items to control and approaches to controlling them. Each member must make changes to its national export control policies after members agree to change items on the control list. If agreed-upon changes to control lists are not adopted at the same time by all members, proliferators could exploit these time lags to obtain sensitive technologies by focusing on members that are slowest to incorporate the changes and sensitive items may still be traded to countries of concern.

In addition, there are a number of obstacles to efforts aimed at strengthening the Nuclear Suppliers Group and other multilateral export control regimes. First, efforts to strengthen export controls have been hampered by a requirement that all members reach consensus about every decision made. Under the current process, a single member can block new reforms. U.S. and foreign government officials and nonproliferation experts all stressed that the regimes are consensus-based organizations and depend on the like-mindedness or cohesion of their members to be effective. However, members have found it especially difficult to reach consensus on such issues as making changes to procedures and control lists. The Suppliers Group reliance on consensus decision making will be tested by the United States request to exempt India from the Suppliers Group requirements to accept IAEA safeguards at all nuclear facilities. Second, since membership with the Suppliers Group is voluntary and nonbinding, there are no means to enforce compliance with members' nonproliferation commitments. For example, the Suppliers Group has no direct means to impede Russia's export of nuclear fuel to India, an act that the U.S. government said violated Russia's commitment. Third, the rapid pace of nuclear technological change and the growing trade of sensitive items among proliferators complicate efforts to keep control lists current because these lists need to be updated more frequently.

To help strengthen these regimes, GAO recommended in October 2002, that the Secretary of State establish a strategy that includes ways for Nuclear Suppliers Group members to improve information sharing, implement changes to export controls more consistently, and identify organizational changes that could help reform its activities. As of June 2006, the Nuclear Suppliers Group announced that it has revised its guidelines to improve information sharing. However, despite our recommendation, it has not yet agreed to share greater and more detailed information on approved exports of sensitive transfers to nonmember countries.

Nevertheless, the Suppliers Group is examining changes to its procedures that assist IAEA's efforts to strengthen safeguards. For example, at the 2005 Nuclear Suppliers Group plenary meeting, members discussed changing the requirements for exporting nuclear material and equipment by requiring nonmember countries to adopt IAEA's Additional Protocol as a condition of supply. If approved by the Suppliers Group, the action would complement IAEA's efforts to verify compliance with the NPT.

U.S. Bilateral Assistance Programs Are Working to Secure Nuclear Materials and Warheads, Detect Nuclear Smuggling, Eliminate Excess Nuclear Material, and Halt Production of Plutonium, but Challenges Remain

Reducing the formidable proliferation risks posed by former Soviet weapons of mass destruction (WMD) assets is a U.S. national security interest. Since the fall of the Soviet Union, the United States, through a variety of programs, managed by the Departments of Energy, Defense (DOD), and State, has helped Russia and other former Soviet countries to secure nuclear material and warheads, detect illicitly trafficked nuclear material, eliminate excess stockpiles of weapons-usable nuclear material, and halt the continued production of weapons-grade plutonium. From fiscal year 1992 through fiscal year 2006, the Congress appropriated about $7 billion for nuclear nonproliferation efforts.[13] However, U.S. assistance programs have faced a number of challenges, such as a lack of access to key sites and corruption of foreign officials, which could compromise the effectiveness of U.S. assistance.

DOE's Material Protection, Control, and Accounting (MPC&A) program has worked with Russia and other former Soviet countries since 1994 to provide enhanced physical protection systems at sites with weapons-usable nuclear material and warheads, implement material control and accounting upgrades to help keep track of the quantities of nuclear materials at sites, and consolidate material into fewer, more secure buildings. GAO last reported on the MPC&A program in 2003.[14] At that time, a lack of access to many sites in Russia's nuclear weapons complex had significantly impeded DOE's progress in helping Russia to secure its nuclear material. We reported that DOE had completed work at only a limited number of buildings in Russia's nuclear weapons complex, a

[13]This includes funding for nuclear security programs, but does not include funding for parts of DOD's Cooperative Threat Reduction program that work on demilitarization, chemical or biological weapons issues, or the destruction and dismantlement of weapons delivery systems.

[14]GAO, *Weapons of Mass Destruction: Additional Russian Cooperation Needed to Facilitate U.S. Efforts to Improve Security at Russian Sites*, GAO-03-482 (Washington, D.C.: Mar. 24, 2003).

network of sites involved in the construction of nuclear weapons where most of the nuclear material in Russia is stored. According to DOE, by the end of September 2006, the agency will have helped to secure 175 buildings with weapons-usable nuclear material in Russia and the former Soviet Union and 39 Russian Navy nuclear warhead sites. GAO is currently re-examining DOE's efforts, including the progress DOE has made since 2003 in securing nuclear material and warheads in Russia and other countries and the challenges DOE faces in completing its work.

While securing nuclear materials and warheads where they are stored is considered to be the first layer of defense against nuclear theft, there is no guarantee that such items will not be stolen or lost. Recognizing this fact, DOE, DOD, and State, through seven different programs, have provided radiation detection equipment since 1994 to 36 countries, including many countries of the former Soviet Union. These programs seek to combat nuclear smuggling and are seen as a second line of defense against nuclear theft. The largest and most successful of these efforts is DOE's Second Line of Defense program (SLD). We reported in March 2006 that, through the SLD program, DOE had provided radiation detection equipment and training at 83 sites in Russia, Greece, and Lithuania since 1998. However, we also noted that U.S. radiation detection assistance efforts faced challenges, including corruption of some foreign border security officials, technical limitations of some radiation detection equipment, and inadequate maintenance of some equipment. To address these challenges, U.S. agencies plan to take a number of steps, including combating corruption by installing communications links between individual border sites and national command centers so that detection alarm data can be simultaneously evaluated by multiple officials.

The United States is also helping Russia to eliminate excess stockpiles of nuclear material (highly enriched uranium and plutonium). In February 1993, the United States agreed to purchase from Russia 500 metric tons of highly enriched uranium (HEU) extracted from dismantled Russian nuclear weapons over a 20-year period. Russia agreed to dilute, or blend-down, the material into low enriched uranium (LEU), which is of significantly less proliferation risk, so that it could be made into fuel for commercial nuclear power reactors before shipping it to the United States.[15] As of June 27, 2006, 276 metric tons of Russian HEU—derived

[15]Formally known as "The Agreement Between the Government of the United States of America and the Government of the Russian Federation Concerning the Disposition of Highly Enriched Uranium Extracted from Nuclear Weapons" (Feb. 18, 1993).

from more than 11,000 dismantled nuclear weapons—have been downblended into LEU for use in U.S. commercial nuclear reactors. Similarly, in 2000, the United States and Russia committed to the transparent disposition of 34 metric tons each of weapon-grade plutonium. The plutonium will be converted into a more proliferation-resistant form called mixed-oxide (MOX) fuel that will be used in commercial nuclear power plants. In addition to constructing a MOX fuel fabrication plant at its Savannah River Site, DOE is also assisting Russia in constructing a similar facility for the Russian plutonium.

Russia's continued operation of three plutonium production reactors poses a serious proliferation threat. These reactors produce about 1.2 metric tons of plutonium each year—enough for about 300 nuclear weapons. DOE's Elimination of Weapons-Grade Plutonium Production program seeks to facilitate the reactors' closure by building or refurbishing two fossil fuel plants that will replace the heat and electricity that will be lost with the shutdown of Russia's three plutonium production reactors. DOE plans to complete the first of the two replacement plants in 2008 and the second in 2011. When we reported on this program in June 2004,[16] we noted that DOE faced challenges in implementing its program, including ensuring Russia's commitment to shutting down the reactors, the rising cost of building the replacement fossil fuel plants, and concerns about the thousands of Russian nuclear workers who will lose their jobs when the reactors are shut down. We made a number of recommendations, which DOE has implemented, including reaching agreement with Russia on the specific steps to be taken to shut down the reactors and development of a plan to work with other U.S. government programs to assist Russia in finding alternate employment for the skilled nuclear workers who will lose their jobs when the reactors are shut down.

Mr. Chairman, this concludes my prepared statement. I would be pleased to respond to any questions you or other Members of the Subcommittee may have at this time.

[16]GAO, *Nuclear Nonproliferation: DOE's Effort to Close Russia's Plutonium Production Reactors Faces Challenges, and Final Shutdown Is Uncertain*, GAO-04-662 (Washington, D.C.: June 4, 2004).

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Appendix I: Countries' Safeguards Agreements with IAEA, as of August 2006

State	Comprehensive Safeguards Agreement	Additional Protocol	Small Quantities Prot c l
N n-nuclear weapons state			
Afghanistan	X	X	X
Albania	X		
Algeria	X		
Andorra			
Angola			
Antigua and Barbuda	X		X
Argentina	X		
Armenia	X	X	
Australia	X	X	
Austria	X	X	
Azerbaijan	X	X	X
Bahamas	X		X
Bahrain			
Bangladesh	X	X	
Barbados	X		X
Belarus	X		
Belgium	X	X	
Belize	X		X
Benin			
Bhutan	X		X
Bolivia	X		X
Bosnia and Herzegovina	X		
Botswana	X	X	
Brazil	X		
Brunei Darussalam	X		X
Bulgaria	X	X	
Burkina Faso	X	X	X
Burundi			
Cambodia	X		X
Cameroon	X		X
Canada	X	X	
Cape Verde			
Central African Republic			
Chad			

Stat	Comprehensive Safeguards Agreement	Additional Protocol	Small Quantities Protocol
Chile	X	X	
Colombia	X		
Comoros			
Costa Rica	X		X
Cote d'Ivoire	X		
Croatia	X	X	X
Cuba	X	X	
Cyprus	X	X	X
Czech Republic	X	X	
Democratic People's Republic of Korea[a]	X		
Democratic Republic of the Congo	X	X	
Denmark	X	X	
Djibouti			
Dominica	X		X
Dominican Republic	X		X
Ecuador	X	X	X
Egypt	X		
El Salvador	X	X	X
Equatorial Guinea			
Eritrea			
Estonia	X	X	
Ethiopia	X		X
Federated States of Micronesia			
Fiji	X	X	X
Finland	X	X	
The Former Yugoslav Republic of Macedonia	X		X
Gabon			
Gambia	X		X
Georgia	X	X	
Germany	X	X	
Ghana	X	X	
Greece	X	X	
Grenada	X		X
Guatemala	X		X
Guinea			
Guinea-Bissau			

State	Comprehensive Safeguards Agreement	Additional Protocol	Small Quantities Pr tocol
Guyana	X		X
Haiti	X	X	X
Holy See	X	X	X
Honduras	X		X
Hungary	X	X	
Iceland	X	X	X
Indonesia	X	X	
Iraq	X		
Ireland	X	X	
Islamic Republic of Iran	X		
Italy	X	X	
Jamaica	X	X	
Japan	X	X	
Jordan	X	X	X
Kazakhstan	X		
Kenya			
Kiribati	X		X
Kuwait	X	X	X
Kyrgyzstan	X		X
Latvia	X	X	
Lebanon	X		X
Lesotho	X		X
Liberia			
Libyan Arab Jamahiriya	X	X	
Liechtenstein	X		
Lithuania	X	X	
Luxembourg	X	X	
Madagascar	X	X	X
Malawi	X		X
Malaysia	X		
Maldives	X		X
Mali	X	X	X
Malta	X	X	X
Marshall Islands	X	X	
Mauritania			
Mauritius	X		X

State	Comprehensive Safeguards Agreement	Additional Protocol	Small Quantities Prot col
Mexico	X		
Monaco	X	X	X
Mongolia	X	X	X
Montenegro			
Morocco	X		
Mozambique			
Myanmar	X		X
Namibia	X		X
Nauru	X		X
Nepal	X		X
Netherlands	X	X	
New Zealand	X	X	X
Nicaragua	X	X	X
Niger	X		
Nigeria	X		
Norway	X	X	
Oman			
Palau	X	X	X
Panama	X	X	X
Papua New Guinea	X		X
Paraguay	X	X	X
People's Democratic Republic of Laos	X		X
Peru	X	X	
Philippines	X		
Poland	X	X	
Portugal	X	X	
Qatar			
Republic of the Congo			
Republic of Korea	X	X	
Republic of Moldova	X		X
Republic of Yemen	X		X
Romania	X	X	
Rwanda			
St. Kitts and Nevis	X		X
St. Lucia	X		X
St. Vincent and the Grenadines	X		X

Stat	Comprehensive Safeguards Agreement	Additional Protocol	Small Quantities Pr tocol
Samoa	X		X
San Marino	X		X
Sao Tome and Principe			
Saudi Arabia			
Senegal	X		X
Serbia	X		
Seychelles	X	X	X
Sierra Leone			
Singapore	X		X
Slovakia	X	X	
Slovenia	X	X	
Solomon Islands	X		X
Somalia			
South Africa	X	X	
Spain	X	X	
Sri Lanka	X		
Sudan	X		X
Suriname	X		X
Swaziland	X		X
Sweden	X	X	
Switzerland	X	X	
Syrian Arab Republic	X		
Tajikistan	X	X	X
Thailand	X		
Timor-Leste			
Togo			
Tonga	X		X
Trinidad and Tobago	X		X
Tunisia	X		
Turkey	X	X	
Turkmenistan	X	X	
Tuvalu	X		X
Uganda	X	X	X
Ukraine	X	X	
United Arab Emirates	X		X
United Republic of Tanzania	X	X	X

Stat	Comprehensive Safeguards Agreement	Additional Protocol	Small Quantities Protocol
Uruguay	X	X	
Uzbekistan	X	X	
Vanuatu			
Venezuela	X		
Vietnam	X		
Zambia	X		X
Zimbabwe	X		X
Nuclear w apons states with safeguards agreements in force			
China	X	X	
France	X	X	
Russian Federation	X		
United Kingdom	X	X	
United States of America	X		
States with special safeguards agreements			
India			
Israel			
Pakistan			

*Although North Korea concluded a comprehensive safeguards agreement with IAEA in 1992, it announced its withdrawal from the NPT in January 2003.

Appendix II: Members of the Nuclear Suppliers Group, as of June 2006

1	Argentina	24	Latvia
2	Australia	25	Lithuania
3	Austria	26	Luxembourg
4	Belarus	27	Malta
5	Belgium	28	Netherlands
6	Brazil	29	New Zealand
7	Bulgaria	30	Norway
8	Canada	31	Poland
9	China	32	Portugal
10	Croatia	33	Romania
11	Cyprus	34	Russia
12	Czech Republic	35	Slovakia
13	Denmark	36	Slovenia
14	Estonia	37	South Africa
15	Finland	38	South Korea
16	France	39	Spain
17	Germany	40	Sweden
18	Greece	41	Switzerland
19	Hungary	42	Turkey
20	Ireland	43	Ukraine
21	Italy	44	United Kingdom
22	Japan	45	United States
23	Kazakhstan		

Source: Nuclear Suppliers Group Statement, Nuclear Suppliers Group Strengthening the Nuclear Non-Proliferation Regime, Brasilia, June 2, 2006.

Appendix III: Additional Information on U.S. Nuclear Nonproliferation Programs

Project	Description
Department of Energy Projects	
Global Radiological Threat Reduction	Secures radiological sources no longer needed in the U.S. and locates, identifies, recovers, consolidates, and enhances the security of radioactive materials outside the U.S.
Global Nuclear Material Threat Reduction	Eliminates Russia's use of highly enriched uranium (HEU) in civilian nuclear facilities; returns U.S. and Russian-origin HEU and spent nuclear fuel from research reactors around the world; secures plutonium-bearing spent nuclear fuel from reactors in Kazakhstan; and addresses nuclear and radiological materials at vulnerable locations throughout the world.
Elimination of Weapons-Grade Plutonium Production project	Provides replacement fossil-fuel energy that will allow Russia to shutdown its three remaining weapons-grade plutonium production reactors.
International Safeguards project	Develops and delivers technology applications to strengthen capabilities to detect and verify undeclared nuclear programs; enhances the physical protection and proper accounting of nuclear material; and assists foreign national partners to meet safeguards commitments.
Russian Transition Initiatives project	Provides meaningful employment for former weapons of mass destruction weapons scientists.
Nuclear Warhead Protection project	Provides material protection, control, and accounting upgrades to enhance the security of Navy HEU fuel and nuclear material.
Weapons Material Protection project	Provides material protection, control, and accounting upgrades to nuclear weapons, uranium enrichment, and material processing and storage sites.
Material Consolidation & Civilian Sites project	Enhances the security of proliferation-attractive nuclear material in Russia by supporting material protection, control, and accounting upgrade projects at Russian civilian nuclear facilities.
National Infrastructure & Sustainability project	Develops national and regional resources in the Russian Federation to help establish and sustain effective operation of upgraded nuclear material protection, control and accounting systems.
Second Line of Defense & Megaports Initiative project	Negotiates cooperative efforts with the Russian Federation and other key countries to strengthen the capability of enforcement officials to detect and deter illicit trafficking of nuclear and radiological material across international borders. This is accomplished through the detection, location and identification of nuclear and nuclear related materials, the development of response procedures and capabilities, and the establishment of required infrastructure elements to support the control of these materials.
HEU Transparency Implementation project	Monitors Russia to ensure that low enriched uranium (LEU) sold to the U.S. for civilian nuclear power plants is derived from weapons-usable HEU removed from dismantled Russian nuclear weapons.
Surplus U.S. HEU Disposition project	Disposes of surplus domestic HEU by down-blending it.
Surplus U.S. Plutonium Disposition project	Disposes of surplus domestic plutonium by fabricating it into mixed oxide (MOX) fuel for irradiation in existing, commercial nuclear reactors.
Surplus Russian Plutonium Disposition project	Supports Russia's efforts to dispose of its weapons-grade plutonium by working with the international community to help pay for Russia's program.

Pr ject	Description
Department of Defense Projects	
Personnel Reliability and Safety	Provides training and equipment to assist Russia in determining the reliability of its guard forces.
Site Security Enhancements	Enhances the safety and security of Russian nuclear weapons storage sites through the use of vulnerability assessments to determine specific requirements for upgrades. DOD will develop security designs to address those vulnerabilities and install equipment necessary to bring security standards consistent with those at U.S. nuclear weapons storage facilities.
Nuclear Weapons Transportation	Assists Russia in shipping nuclear warheads to more secure sites or dismantlement locations.
Railcar Maintenance and Procurement	Assists Russia in maintaining nuclear weapons cargo railcars. Funds maintenance of railcars until no longer feasible, then purchases replacement railcars to maintain 100 cars in service. DOD will procure 15 guard railcars to replace those retired from service. Guard railcars will be capable of monitoring security systems in the cargo railcars and transporting security force personnel.
Weapons Transportation Safety Enhancements	Provides emergency response vehicles containing hydraulic cutting tools, pneumatic jacks, and safety gear to enhance Russia's ability to respond to possible accidents in transporting nuclear weapons. Meteorological, radiation detection and monitoring, and communications equipment is also included.

Source: GAO analysis.

Related GAO Products

Combating Nuclear Smuggling: Challenges Facing U.S. Efforts to Deploy Radiation Detection Equipment in Other Countries and in the United States. GAO-06-558T. Washington, D.C.: March 28, 2006.

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Mr. SHAYS. Thank you very, very much.

Let me start by asking you all how does the IAEA fit into our effort to deal with Islamist terrorism? Well, first let me do it this way. Is the concern with terrorism that they will get weapons grade material or they will actually get the weapon and the material? Is there a concern, is there an acknowledgement that they can make the weapon, particularly enriched uranium, but would have a hard time getting the weapons grade material? Do you get where I am coming from? In other words, I want to know how relevant the IAEA is to deal with the terrorist threat, and I want to know how relevant the Non-Proliferation Treaty is to dealing with the terrorist threat.

Who wants to start? Mr. Semmel, I will start with you.

Mr. SEMMEL. I think, Mr. Chairman, that in my opening remarks I said that we need to have a comprehensive approach to nuclear nonproliferation, and that would include a whole panoply of programs, such as export controls and protecting materials at their sources, and export controls and things like that are always essential.

At the end of the day what we were trying to do, as Jack David indicated in his remarks, we want to make sure that dangerous materials do not get into the hands of dangerous organizations or individuals.

Now, in order to do that you have to be able to protect or destroy some of the sources that the terrorist organizations might want to have access to, and, again, there is a variety of programs that are essential for doing that.

The IAEA does have, in addition to its important safeguards and inspection roles that it does, it also has a program called the nuclear security fund, which is a new program that was set up three or 4 years ago, I think, in which the United States is the principal contributor to this. Essentially what that program does is to ensure greater physical protection at facilities and also of materials, better protection of the materials at the various nuclear facilities. This is a program that the IAEA, in that sense, does have a very direct role in terms of making sure that dangerous materials—in this case nuclear materials—don't get into dangerous hands.

I might want to say in your second part of your question, one of the things I think that was discovered in the initial stages of ousting Al Qaeda from Afghanistan is that there was some discovery of documents and materials in which Al Qaeda did have some documentation on designs and nuclear weapons. The question is what could they do with that. It would be very difficult without an infrastructure to be able to take those designs and make something of them. So I think it is a long way between having——

Mr. SHAYS. Let me just ask, before the others respond, do you agree that it is relatively easy to build a crude nuclear weapon that could create an explosion with using enriched uranium? Do you agree that you could build a crude weapon, not one that would maximize yield, not one that would be particularly large in its impact, but it would still be a nuclear explosion? Do you agree with that?

Mr. SEMMEL. It could be done. The key is whether or not a group would have access to fissile material.

Mr. SHAYS. That is the issue.

Mr. SEMMEL. Yes. Right.

Mr. SHAYS. But we can get beyond this issue of whether they can build a specifically.

Mr. SEMMEL. Right.

Mr. SHAYS. You do agree that they could build a weapon?

Mr. SEMMEL. With the right infrastructure and technological know-how, yes, and to have access to that.

Mr. SHAYS. We are not talking about a small, well-crafted weapon with high yield. We are just talking about a weapon.

Mr. SEMMEL. Yes. Something beyond a dirty bomb is what you are referring to?

Mr. SHAYS. Yes. Exactly.

Mr. SEMMEL. Right. Yes.

Mr. SHAYS. Mr. David, what is your response to that question?

Mr. DAVID. Well, designs for nuclear weapons have been in the open ever since a college student wrote his thesis on it and published it a long, long time ago.

Mr. SHAYS. And ran against my predecessor. Actually, he was from Princeton.

Mr. DAVID. Yes.

Mr. SHAYS. So that is clear.

Mr. DAVID. So there are designs. There is public information out there. There are a number of people who know how to do the engineering tasks that would allow either a complicated or less-complicated weapon. The question is whether the ingredients for a terrorist group to create such a weapon are easy to come by, and the more ingredients there are and the more——

Mr. SHAYS. When you say ingredients, weapon grade material?

Mr. DAVID. I mean the fissile material, the other parts of the weapon that are necessary in order to initiate a chain reaction, a fusion explosion from the nuclear material, and putting them in the right juxtaposition and the like. All of those kinds of things are the kinds of things we need to keep away from terrorists, and by the means which we have, and we have been trying to do that through the IAEA through, resolution 1540, through intradiction activities, through the proliferation security initiative. All of those efforts are to keep away from terrorists the things they would need to make WMD.

Mr. SHAYS. I don't want to draw a wrong conclusion, but I have been spending time since 1998, in particular, in my subcommittee looking at this issue. If I am wrong I want to be corrected, but, you know, when you hold enriched uranium in your hand and you can put it in your pocket, when you hold plutonium in your hand wearing a glove, when you realize that it doesn't necessarily give out the kind of signal in transporting it that I thought it did, when you see a weapon at Los Alamos that basically was made with material that you could get from commercial sources, I come to the conclusion—and that is what I was trying to develop—was where is the effort they important.

Mr. Semmel agrees that you could build a weapon. He agrees you have the technology. I infer, Mr. Semmel, also that it would not be hard to get the material to build a raw, inefficient type of nuclear

weapon. That is what I have been told. I want to know if that is the case.

Mr. David, you are sending me mixed signals just a little bit because you are implying that the materials to make the weapon, we would be able to keep them out of the hands of terrorists. I don't think we can. I think the issue really relates to one issue on weapons grade material.

Mr. DAVID. What I had in mind is that the strictures of 1540 enjoining countries to pass laws that prohibit their citizens to aggregate these materials for the purpose of making WMD. That is the sort of thing I had in mind.

Mr. SHAYS. But tell me if I am wrong, and if you don't know tell me that, and if I am wrong tell me I am wrong.

Mr. DAVID. Say again?

Mr. SHAYS. If you don't know if I am wrong, tell me you don't know. If you think that I am wrong, tell me I am wrong. It is my understanding, based on the work that my subcommittee has done, that a terrorist could build a raw, inefficient nuclear weapon that would be actually a nuclear fissile, a chain reaction. The issue is it wouldn't be something you could put on the tip of a missile, but in those days we cared about what went on the tip of a missile, so if you couldn't put it on a missile we didn't care about it.

Now comes the wake-up call, September 11th, our fear of Islamist terrorists, our knowledge that they want nuclear weapons. It is fairly clear to me—if I am wrong, tell me—that terrorists could make a very crude nuclear weapon with material that mostly is available commercially. If you disagree with that, tell me you disagree with it. If you agree with it, tell me you agree with it. If you don't know, tell me you don't know.

Mr. Tobey, let's start with you.

Mr. TOBEY. I believe that the greatest barrier to a proliferant obtaining the capability to produce a nuclear weapon is acquisition of fissile material.

Mr. SHAYS. I don't want to go there. I don't want to talk about fissile material. I just want to talk about the weapon. Let's take the weapon first. All I am trying to do is build a case for the need to make sure fissile material doesn't get in the wrong hands. I have constituents who think the bomb is the problem, the weapon, itself, the building the weapon. I want this hearing to be able to illustrate if this is a problem or not.

Mr. TOBEY. I agree we should focus on fissile material.

Mr. SHAYS. And because?

Mr. TOBEY. Because that is the greatest barrier to a proliferant obtaining a weapon and it is the one which we can control most directly.

Mr. SHAYS. OK. So your definition of a weapon is the structure and the material together?

Mr. TOBEY. Yes.

Mr. SHAYS. But to build a bomb minus the fissile material is something they are capable of doing. Do you believe that is the case?

Mr. TOBEY. I believe so, yes.

Mr. SHAYS. Yes. Mr. Semmel, what is your view?

Mr. SEMMEL. I think I said yes. I think it is possible.

Mr. SHAYS. I just want to be clear.

Mr. David?

Mr. DAVID. Well, the answer is yes, but you have to know how to put together the neutron initiator. There is some knowledge. Somebody with a third grade education with no knowledge of what to do couldn't do it.

Mr. SHAYS. But a graduate student from——

Mr. DAVID. Yes. Correct.

Mr. SHAYS. And we do know that there are Islamists who have those degrees.

Mr. DAVID. Yes.

Mr. SHAYS. Yes. Mr. Aloise?

Mr. ALOISE. Based on the experts we have talked to, it is possible with a crude nuclear device.

Mr. SHAYS. OK. So let's get that off the table.

The real issue then is the weapons grade material. Only as it relates to terrorist, if you were to explode a nuclear weapon, the kind of weapon that terrorists would make would be one that would use what? Enriched uranium? I mean, in other words, when we talk about it—and if I am asking the wrong people, then just tell me. The capability to create a crude bomb basically is our biggest concern is with enriched uranium? Nodding of heads won't get in the recorder here. If anybody wants to answer it, I am happy to take this.

Mr. SEMMEL. Again, I take the same plea that Hans Blix did. I am not a technician on this or physicist.

Mr. SHAYS. Right.

Mr. SEMMEL. But I think what I have read, what I understand, that enriched uranium would be the preferred source, yes.

Mr. SHAYS. And, see, I am just focusing on terrorism right now because it seems to me we have been focused on what someone could put on the tip of a missile on a warhead. There you need the sophisticated weaponry, you need the plutonium and so on. But I have been just focused primarily on our work on what terrorists can do, and that is maybe why you hear me focused on this.

So let me ask you what is the challenge with each of you. Describe to me the difference between plutonium and enriched uranium in terms of its creation and in terms of our capability to secure it. Is there any difference?

Mr. TOBEY. In terms of creation, Mr. Chairman, as I am sure you know, there are two paths to a weapon. One is weapons grade plutonium, generally manufactured through running nuclear reactors and separating the plutonium from the spent fuel, and then the other one is to enrich uranium, very different paths. They have different signatures. They require different technologies. I think there are differences in our ability to monitor those activities.

Mr. SHAYS. Let me just ask if anybody agrees. What I will assume is if one person answers the question we don't need to go to the second person if there is agreement, unless you just jump in. And that applies to Mr. Aloise, as well. Feel free to jump in here.

So if enriched uranium becomes the bigger concern as the weapon grade material of choice for a terrorist, should there be different protocols to deal with that?

Mr. TOBEY. We are interested in securing both weapons grade plutonium and highly enriched uranium and disposing of each with the former Soviet states.

Mr. SHAYS. What I am struck with, though, is that for a terrorist to basically use plutonium, they would have to have the weapon come along with it. If they used enriched uranium, they might have the capability to create the weapon, themselves. That is where my mind is.

Is there any comment about that? Mr. Aloise, do you have any comment about that? If you disagree with my assumptions, let me know.

Mr. ALOISE. I am going to have to pass on that question, Mr. Chairman.

Mr. SHAYS. OK. Anyone care to answer that question?

[No response.]

Mr. SHAYS. Do you all know why I am asking these questions? In other words, I am looking at a little bit of confusion here and I have been known to confuse people, but do you understand why I am going down this road? If I am going down a road that makes no sense, I am happy to have you correct mitigation.

Mr. TOBEY. Well, we are certainly interested in minimization of use of HEU throughout the world.

Mr. SHAYS. Right.

Mr. TOBEY. We have worked hard to return it from HEU reactors and to convert them to LEU and to return the fresh and spent fuel to its sources, so we would certainly agree with that as a problem.

I guess I would just point out that we are also concerned with the weapons grade plutonium as well and believe it is important to secure and dispose of plutonium.

Mr. SHAYS. Yes?

Mr. DAVID. Mr. Chairman, I would agree with that, and I would also say that, as far as I am concerned, I don't know that I could draw the distinctions between the relative difficulty for very smart graduate students who are probably motivated making a crude weapon out of uranium or a crude weapon out of plutonium. I understand that the uranium route is an easier one technologically, engineering-wise, but I am not sure about the gradations of making a plutonium weapon, and I don't think I am qualified to comment on that.

Mr. SHAYS. Maybe our third panel will be able to express an opinion on it.

Let me go do this. Let me go to Mr. Van Hollen. I have been over my time limit.

Mr. VAN HOLLEN. Thank you very much, Mr. Chairman. Let me thank all of the witnesses for your testimony and for your public service. Let me just say a special word about Mr. Semmel, who I have worked with early on in the 1980's. I had an opportunity to work with Andy at the Defense Department when we were both at the Defense Security Systems Agency, I as a very new person, really, interning there. I want to thank him for his service. I learned a lot from him during my years there and I want to thank him and all of you for your service.

Let me just ask you all about A.Q. Kahn and the information and technologies that he essentially steered in the direction of Iran and

Libya and others. I assume you would all agree that it would be useful if we were to be able to sit down and talk to A.Q. Kahn and figure out exactly what technologies he provided, wouldn't you agree? And my understanding is that we have not had that opportunity. Have we had that opportunity, the U.S. Government, to sit down with A.Q. Kahn? The answer is no, right?

Mr. SHAYS. Let me just say this. It is important that we get a yes or no because the transcriber is still not good at getting shaking of heads one way or the other.

Mr. VAN HOLLEN. If I could just get an authoritative answer from someone on the panel.

Mr. SEMMEL. Short answer, we have learned a lot from A.Q. Kahn. We have not had extended sit-downs with him.

Mr. SHAYS. Let me just interrupt 1 second just to say if, in fact, one person answers, we are going to make an assumption either you have nothing that would contradict that answer or you agree with the answer. If someone disagrees with the answer, then we would expect that you would jump in. Thank you.

Mr. VAN HOLLEN. Has the U.S. Government or an official of the U.S. Government representing the U.S. Government had the opportunity to sit down with A.Q. Kahn to discuss the information and technologies that he provided to Iran or Libya?

Mr. SEMMEL. That is a very sensitive question. I think we would have to get into a closed session on that. I can just tell you, to repeat, that we have had lots of information that has come out in interviews that have taken place with him, but to the extent that we have had personal one-on-one type of interviews I think we would have to sit down and talk about that in closed session.

Mr. VAN HOLLEN. I understand that. Let me ask you this: are you satisfied that we, the U.S. Government, has the benefit of everything that you think would be useful to know from A.Q. Kahn?

Mr. SEMMEL. Well, to take lead on this one, we don't know what we don't know, to begin with, and I would suggest and assume that there is information that we would like to have that we don't have. We have to make that assumption at this stage of the game.

Mr. VAN HOLLEN. Well, let me just say we have had President Musharaff here and we want to thank him for his support and efforts with respect to going after Al Qaeda in Afghanistan, although I happen to think that the Pakistani government could be doing a whole lot more than they are now, but I also think that we should be using the opportunity to make sure that we get the maximum amount of information that we can from A.Q. Kahn. It was a gross diversion of important technology and information, and I think there are still many questions where his input and testimony could be helpful.

Let me just turn quickly to the question of Iran. Mr. Negroponte back in April said that his assessment and the assessment of the intelligence community with respect to when Iran might obtain a bomb was somewhere at the beginning of the next decade between 2010 and 2015. Is there any information any of you gentlemen have that would change that assessment?

Mr. DAVID. That gets into another area that would be with classified information, I think.

Mr. VAN HOLLEN. That was something that Mr. Negroponte said on the record with respect to that timeframe. Is there any information that would change that assessment?

Mr. DAVID. Whether there is information or not about the time lag for n to complete making its nuclear weapon is a subject that should be discussed in a classified round.

Mr. VAN HOLLEN. Let me ask you, Mr. Chairman, if there has been a change in this assessment I would encourage us to seek a session in the intelligence community room.

Mr. SHAYS. Would the gentlemen be clear as to what he is requesting?

Mr. VAN HOLLEN. My question is if the U.S. Government now has a different assessment with respect to the timeframe in which Iran might obtain a nuclear weapon. I would like to know that. If there has been a change in that assessment, whether or not there has been a change, we have to go into a secret session, I think we should do that.

Mr. SHAYS. I think you are right. Thank you.

Mr. VAN HOLLEN. Let me just ask the gentlemen, there was a staff report that was issued by the House Intelligence Committee. Are you familiar with that report?

Mr. SEMMEL. Yes.

Mr. VAN HOLLEN. OK. Have you had an opportunity, Mr. Semmel, to review that report?

Mr. SEMMEL. I know of the report. Yes.

Mr. SHAYS. OK. I mean, we have some of the people who are the top officials on nonproliferation here at the table for the administration, right? I am just trying to get information out here.

Mr. DAVID. May I interject that you are asking questions that we get information on from the intelligence community about, and perhaps the intelligence community would be a better source for asking information about the current intelligence.

Mr. VAN HOLLEN. All right. Well, Mr. Semmel, have you had an opportunity to look at the House Intelligence Committee report?

Mr. SEMMEL. I think to be very fair about this I have not read the report. I know of the report. There has been obviously extensive media coverage. In fact, as I like to say, column eight, I think the Washington Post front page at one point in time had coverage of the report. I have not read it. I have seen the response to the IAEA to the report, but I have not read it in depth, but I understand. I see the commentary on the report.

Mr. VAN HOLLEN. I mean, just for the record, as you have stated, Mr. Semmel, the IAEA actually took the sort of unusual step of writing to the chairman of the House Intelligence Committee specifically taking issue with the number of points raised in the report, stating that they were wrong based on the IAEA's information. I think, given our past mistakes of the U.S. Government with respect to intelligence gathering to lead up to the war in Iraq, and given the fact that the IAEA and Mr. Blix, within his domain, got it a lot more correct than the U.S. Government, it would behoove us, it seems to me, to listen. There were points raised by the IAEA.

I guess my question to you, if any of you gentlemen know, is: do you agree with the points that were raised? And let me just say this is a report that was released. I mean, I have the report right

here. This is not a classified report. I mean, we don't need the intelligence community here to testify with respect to particular points in that public report, at least as they relate to claims about Iran's advances on the nuclear program and the proliferation issue. So I guess my question to each of you is: do you have any reasons to doubt the IAEA's claims that portions of the report were wrong? Do you have any reason to dispute what the IAEA said about the House intelligence Committee's report?

Mr. DAVID. I haven't read the report and I am not going to quibble with one side or the other side about what they said about this detail or that detail, but there isn't the slightest doubt in my mind, from everything that I know, that Iran is seeking a nuclear weapon.

Mr. VAN HOLLEN. That wasn't my question, sir. I just want to make sure, because I think the intelligence assessments, as I think we have learned the hard way, are very important. My only question is—and I guess the answer is no, that you don't have any information that would dispute the claims raised by the IAEA in their letter; is that right?

Mr. SEMMEL. I would just say, Mr. Congressman, that first of all the report, as I understand the House Intelligence Committee report, was derived largely from public source information and it was not information that was derived that was sensitive, but it was from a variety of sources that are available out there that all of us can access to with diligent research, and so on.

I have seen the IAEA's response to the report and I think the IAEA, to the extent we can agree with the IAEA's assessment and the various reports that have been done over the years on Iran, the IAEA I think, if we give that some veracity, then I think the IAEA's letter is something that I personally could not disagree with.

Mr. VAN HOLLEN. Thank you. Now, Mr. David, you mentioned your assessment with respect to Iran's intentions, and I am not disputing your assessment of their intentions. At the United Nations recently President Bush did make a number of statements with respect to Iran, and one of the things he said was, "We have no objections to Iran's pursuit of a truly peaceful nuclear power program." My question to you gentlemen is: how would we go about designing a peaceful civilian nuclear power program in Iran that satisfied our nonproliferation concerns?

Mr. SEMMEL. Well, I think the first order of business is to get some confidence that, indeed, the program that Iran has been embarking on for the past nearly two decades is something that we can believe with a high degree of confidence is not aiming at some nuclear weapons capability. There have been at least seven resolutions and six or seven reports by the Secretariat of the IAEA that raises questions about that.

Before we can hope to even come to any inkling of an inference that Iran has embarked upon purely a nuclear energy program, devoid of any nuclear weapons intentions, it seems to me we have to clean up the record at this point in time as to where Iran has been, where they are right now. And, indeed, the Director General's report on August 31st, the most recent report, indicates that Iran has not taken the steps that are necessary to alleviate any concerns

that we have about their intentions beyond what they say they are with regard to a civil nuclear energy program.

I think before we even get into that degree of confidence we have to resolve the existing problems.

Mr. VAN HOLLEN. I understand that. I understand that, Mr. Semmel, but that was not the question. This is not my statement. This is the President's statement. The President went beyond saying what we all agree, that we don't want Iran to have a nuclear weapons program, he went on to say that he had no objection to Iran's pursuit of a truly peaceful nuclear power program. I am quoting from his statement before the United Nations.

I am not saying that is a good idea or a bad idea, but I assume before making that statement the administration had done some assessment about whether he could design a program that gave it confidence that Iran could have the benefits of civilian nuclear power, which the President states, and at the same time meet any concerns we have with respect to nonproliferation. I assume the President and the administration did some assessment of that before he made that statement. I am just curious as to exactly whether or not you are familiar with any work that has been done on that question and what the proposal is from the administration, some rough design or program that would address that point made by the President.

Mr. TOBEY. Congressman, I think that one could look at hallmarks of such a peaceful program, and in the U.N. Security Council resolution that was passed on Iran, which actually is derived from the IAEA Board resolutions, and in that resolution it talks about suspension of enrichment and reprocessing, halting construction of the heavy water reactor that was referred to by Dr. Blix, and full cooperation with the IAEA, including adoption or ratification of the additional protocol. I think these would be steps toward providing assurance to the international community that Iran's programs were, indeed, for peaceful purposes.

Mr. VAN HOLLEN. Thank you. I yield back.

Mr. SHAYS. I thank the gentleman very much.

Mr. Duncan, you have the floor.

Mr. DUNCAN. Well, thank you very much, Mr. Chairman. I had some previously scheduled appointments, and I am sorry I did not get to hear the testimony, and so I am sure you probably want to get on to the next panel, so——

Mr. SHAYS. We are fine, sir. Just do your thing.

Mr. DUNCAN. Thank you. Just a couple of brief questions.

First of all, to all of the gentlemen on the panel, I understand that you have very important positions in our Government, and from what I have read and heard and so forth I know there are other countries that cooperate and are involved in this process, but I have the impression that the U.S. really takes the lead and does far more than any other country in devoting money, resources, manpower, leadership, and employees, and everything else to the nuclear nonproliferation effort throughout the world. Would you say that is correct?

Mr. TOBEY. Yes, sir. I take some pride. I am new to the job, so I can take some pride but no credit for the fact that I think we

have one of the best or the best nonproliferation organization in the world.

Mr. DUNCAN. Well, I think that is something we should be proud of. I just wanted to put that on the record.

Mr. David, you said that you had no doubt that Iran is attempting to develop nuclear weapons. There is a report in the Washington Times today about some type of possible deal that would suspend their uranium enrichment program for 90 days while talks would continue. Do you feel that is just some sort of delaying tactic, or do you see any problems with talks of that nature, if they are going on?

Mr. DAVID. I think that it is very important that we exhaust every bit of diplomacy we could possibly exhaust to attempt to prove that Iran could be dissuaded from going forward on the path that I believe it is going forward on. I don't know whether or not this hint of a 90-day suspension is real. We have had hints of cooperation from Iran many times before, only to have them withdrawn for one reason or no reason. I hope it is a promise and I hope that there are negotiations and I hope that they are successful.

Mr. DUNCAN. All right. Thank you very much.

Thank you, Mr. Chairman.

Mr. SHAYS. Thank you.

Let me talk about the IAEA. First off, it was my understanding that for about 15 years it was a zero growth budget at the IAEA. Was that the fault of the United States or just a general decision of all the countries involved? If that has changed now, are we the major proponents of increasing their budget or are we tolerating the increase? Who could speak to that issue?

Mr. SEMMEL. I can start out on that. You are absolutely correct. I think for a period of perhaps 15 to 20 years—I don't know the exact amount—that IAEA was operating in its regular budget at zero growth, and it was not until about three or 4 years ago that, through a concerted effort in which the United States took a lead role, that we pushed against considerable opposition at the IAEA to increase the budget.

Mr. SHAYS. Even within the——

Mr. SEMMEL. That was in the Secretariat, but with opposition among other states' parties to the IAEA.

Mr. SHAYS. OK. And what do we think was the reason for their reluctance to see it have a budget that would grow with at least inflation?

Mr. SEMMEL. Well, other countries are mindful of their taxpayers and simply do not want to have the obligation to have to pay and come up with more annual payments, regular payments.

Mr. SHAYS. So we pay a disproportionate share, in one sense, but we were willing to say we need to do it. We weren't paying others' shares. We were saying we all need to step up to the plate and we all need to contribute?

Mr. SEMMEL. Right. The increase would, of course, be disproportionately falling on the United States, since we pay already 25 percent of the regular budget. Other countries are reluctant to pay additional assessments to a IAEA and they resisted that. It took sev-

eral years of effort, in fact, to get the increase approved at the IAEA.

Mr. SHAYS. Now, we have candid criticism of the United Nations, its failure to deal with a variety of issues. Our criticism is not shared by many of our very good friends around the world. But do we have that same criticism of the IAEA? Are we comfortable with its approach, its energy, its capabilities, its powers? Do we recommend that it have new people? Do we recommend that it have new powers, new capabilities? If all three of you, and Mr. Aloise, if you want to step in, as well, maybe you could give us your sense of what we think as we view it from the legislative side.

Mr. ALOISE. First of all, I think the general view, from the people we have talked to all over the world and our U.S. Government, is that IAEA is a very important agency which has a lot of respect. Despite some problems in the past, it is really the only agency out there that is in other people's countries verifying nuclear materials.

It is facing a lot of challenges, not only budgetary but, as I mentioned in my statement, its human capital challenge. It is going to lose a large number of its safeguards inspectors in the next 5 years.

Mr. SHAYS. That is a funding issue or retirement?

Mr. ALOISE. Retirement issue. And some of that relates to IAEA's personnel policies. They have a mandatory retirement age that is forcing a lot of people out. In fact, the State Department and the Department of Energy have come up with some very novel ideas to keep people working there at IAEA, even though they are beyond the retirement age.

We have made recommendations in our report that State Department needs to work with IAEA to help change the personnel policies because it is working against them in many cases. For example, they need people who have expertise in uranium enrichment processes, and are not even taking the actions they need—IAEA is-to get these people. Further, there are not that many students going through these nuclear studies any more and the pool is shrinking of experts to choose from.

Mr. SHAYS. Thank you. I would like to hear from Energy, State, and Defense on the questions that I ask, you know, how the IAEA is doing, our Government's sense of what it is doing. You heard me before, so I don't need to repeat.

Mr. TOBEY. I think the IAEA plays an important and constructive role. We do think that there are ways in which the IAEA's work can be improved, and we are trying to work with both the Secretariat and other member states, and, in particular, the Board of Governors. I would cite, particularly, improving IAEA authorities through universal adherence to the additional protocol, and we would also like to improve their capabilities through better technology. We are working to do that with safeguards technology agreements.

Mr. SHAYS. So while you have touched technology, let me just ask you to give me an example of different technologies and what we would like, what they like them to use.

Mr. TOBEY. I think we, frankly, would like to see better monitoring technologies. Some of that gets politically sensitive, but real-time monitoring of installations could be an improvement.

Mr. SHAYS. OK. Mr. Semmel.

Mr. SEMMEL. Yes, Mr. Chairman. When President Bush made the now-well-known speech at the National Defense University in February 2004, he laid out seven nonproliferation initiatives. Interestingly enough, three of them pertain directly or indirectly to the IAEA. One of them had to do with what we have already mentioned here, pushing for universalization of the additional protocol, which is a strengthening safeguards agreement on the part of countries.

The second one was something which we call now the Committee on Safeguards and Verification. This is a Committee on Safeguards and Verification that the IAEA actually approved unanimously last June, June a year ago, and is designed to be advisory to the Board of Governors at the IAEA and to identify ways in which we can strengthen safeguards and improve the IAEA's ability to be able to detect illegal use of materials, and so forth.

There is a third initiative, which the President also mentioned, which we are working on at this point in time.

So on a number of issues we obviously agree that the IAEA is an important part of the nonproliferation regime, if you want to call it that, but that it needs to be strengthened. We are the major contributor, as you pointed out. We also contribute on an annual basis voluntary contribution in the vicinity of around $50 million a year. Once again, we are the single largest contributor in the voluntary funds. Some of those resources go to improve safeguards.

To address what Mr. Aloise said, one small fraction of those voluntary funds also go to fund something called cost-free experts, in which we provide, on a non-reimbursable basis, to the IAEA individuals that have certain technical skills that the IAEA otherwise does not have, and we basically pay for that person. It could be a year, 2 years, twoand a half years. One of my colleagues was there for 2½ years.

Mr. DAVID. I would only add to what my colleague said, that the Committee on Safeguards and Additional Protocol, which President Bush suggested in 2004, and which has come into existence, is also discussing the issue of the loss of personnel and bolstering up the personnel who could do inspections and the like, and dealing with the problems that Mr. Aloise talked about.

Mr. SHAYS. Let me ask you, I have been to Mayak, the facility. It was an amazing experience, forty hectors of property and a huge building on that property. How much of the weapons grade material of the Soviet Union actually is captured in that facility?

Mr. DAVID. I can't tell you how much, but I know they started putting it in in July and we are really happy about that.

Mr. SHAYS. Yes. I mean, this is a facility, as I remember, football fields in size, very thick ceiling, I think ten feet or more, tubes that go down about 18 feet. Bottom line is, it is going to hold a lot of material, baskets all along the way. But we are starting to see that capture some of it?

Mr. DAVID. Finally in July. As you know, it was a point of contention between Russia and ourselves for a long time, but it wasn't being used. They actually finally started moving material into the facility in July of this year.

Mr. SHAYS. OK. And so the question I have, though, is that a significant amount of extra weapons grade material, or is it a small percent?

Mr. DAVID. As far as I know, it is an ongoing process at this point of moving material in there. I don't know how much has been put in so far, but our expectation and our requirement is that they use this facility that CTR funds, United States taxpayer funds, helped to build.

Mr. SHAYS. And the question is: have we been able to express an opinion about the safeguarding of the transporting of this material to Mayak?

Mr. TOBEY. We do, I believe, address transportation issues within Russia, yes, help to fund secure ways to do that.

Mr. SHAYS. OK. Mr. Duncan, do you have any questions you want to ask?

Mr. DUNCAN. Iran, Mr. Chairman.

Mr. SHAYS. OK. Let me just ask you about the Fissile Material Cutoff Treaty. The question I am going to ask is: how has U.S. opposition to international verification of the Fissile Material Cutoff Treaty undermined the Nuclear Non-Proliferation Treaty?

Mr. SEMMEL. Well, I am not sure that it is, first of all.

Mr. SHAYS. I am going to ask, since my knowledge in this area is a little weak, I am going to just ask that my professional staff, participate in this. But that is the question I asked you. Why don't you answer it and then I will have him followup.

Mr. SEMMEL. I would say, Mr. Chairman, that, in fact, if you were to ask other members of the Conference on Disarmament where the FMCT, Fissile Material Cutoff Treaty, has already been introduced, we have introduced the text in July, as well as a mandate for negotiations on the FMCT. If you were to ask everybody else, there are serious questions that some countries had, particularly on the verification issue, but there are some other issues about definitions of what is fissile material.

Mr. SHAYS. When you say some countries, can you define what——

Mr. SEMMEL. In order for the Fissile Material Cutoff Treaty to be a treaty and to be enforced, obviously we have to negotiate it with other countries. Other countries would have expressed some concerns, particularly about the fact that the text that we have introduced did not include a verification provision in it, so this is an issue which we will have to negotiate.

I can tell you this, though, to respond more directly to your question: virtually everybody is happy that we have gotten this text of the treaty introduced, for no other reason than that if you look at the track record of the Conference on Disarmament, it has done virtually nothing for the past 10 years. It has accomplished zero. And the reason it has accomplished zero is because every country or set of countries wants to tie their issues to other issues and they can't get a work plan developed.

One issue that there is general consensus on that we ought to move forward on, however we move, whether it is fast or slow or whatever the nature of the text might be, is the FMCT. So there is a general—I wouldn't call it elation, but a general happiness that the Conference on Disarmament in Geneva may actually get down,

if not this year certainly next year, to begin to iron out its agenda and begin to negotiate on that. So they are pleased. We are pleased that the FMCT finally has been introduced, and I think if we were to make progress, if we were to negotiate this over the next several years, this would be a strengthening of the NPT, not weakening it.

Mr. CHASE. Mr. Aloise, can you respond?

Mr. ALOISE. I really don't have a response.

Mr. CHASE. OK. Just a followup to that, then: has the U.S.'s civil nuclear cooperation with India changed the FM Cutoff Treaty?

Mr. SEMMEL. FMCT. Well, it hasn't changed it. No, not at all. In the July 18th statement between President Bush and President Singh, the Indians indicated that they support and they will work with us to support an FMCT treaty. Of course, they have expressed—to be candid here, they have expressed the position that it should have a verification provision in it. The point is that they have already committed to work with us in terms of moving that FMCT treaty.

Mr. SHAYS. Let me just interject myself, though, to ask how has the United States' efforts to reach out to India impacted our interaction with our allies? Have they been indifferent, critical, critical but positive? I mean, how would you define its impact?

Mr. SEMMEL. I think, again, to be candid, you have a scattergram of responses on that. A number of the countries, obviously, the French, the British, and others, are very pleased with this, Russians, as well, the FMCT. And there were others who were raising serious questions. Those same countries are very supportive right now of the proposed U.S.-India civil nuclear cooperation initiative, if you want to call it that. There are a number of countries that have raised serious questions and continue to raise serious questions. We will negotiate and try to respond to those in the various fora that are available to it, particularly in the Nuclear Suppliers Group and something called the Consultative Group of the Nuclear Suppliers Group, where a lot of these issues are being hammered out, putting aside those issues are being hammered out in the Congress, as well, but on a different level.

So it depends who you talk to on this. I think a number of countries have expressed skepticism. I think at the end of the day, when we get to the critical point in the Nuclear Suppliers Group, which requires a unanimous decision as to whether or not India will be treated as an exception that would allow it to receive nuclear fuel and certain technologies, I think we will eventually get consensus on this and countries will be satisfied with the dynamics that have taken place.

Mr. SHAYS. Let me just ask a quick question. It might take forever to answer, but I would like to know, was there a huge debate in our own administration as to reaching out to India? And then, in the end, what was the pivotal issue that said we need to do this?

Mr. SEMMEL. Well, yes, of course there was a debate. this is a fundamental decision.

Mr. SHAYS. Right.

Mr. SEMMEL. This is a significant decision in terms of our foreign policy.

Mr. SHAYS. Right.

Mr. SEMMEL. As well as our economic policy, and others. It depends who you talk to, what the critical turning points may have been, but at the end of the day our relationship with India—I think when President Bush came into office in 2001 he said he wanted to try to have an impact on our relationship with India. India has a booming economy. India is the world's most populous democracy, will some day in the next 15 or 20 years or so be the most populated country in the world. Our relationship with India over the past years has been correct but not necessarily warm. So in order to improve upon that relationship, as the relationship between countries in Asia and South Asia have begun to change, it is important for us to establish a better strategic relationship with a country that is emerging as a very significant player, not just in the region but in the world.

Mr. SHAYS. Thank you. Do you have any questions you would like to ask?

Mr. VAN HOLLEN. Thank you, Mr. Chairman. Again, let me thank all the witnesses for their testimony.

I have a question with respect to where we are and where we are going. As we know, the North Koreans have essentially, at least for now, walked away from the six-party talks. They just stated again today that they didn't have any intention of coming back in the near term. They say that they have nuclear weapons. They tested a missile not too long ago. It wasn't that successful, but they tested it. As you have all testified, or some of you testified, they decided to withdraw from the Non-Proliferation Treaty.

Where are we going? I mean, where are we going with respect to North Korea? I mean, they continue to crank out the materials necessary to make nuclear weapons. I mean, isn't this a huge failure in our nonproliferation policy? And what are we going to do to fix it?

Mr. SEMMEL. I need to say it is difficult. Those who have negotiated with the North Koreans tell me that they are among the most difficult negotiators that they have ever encountered. I think the important thing is we would like to sit down. We would like the resumption of the six-party talks as soon as possible. We made that point very clear to the North Koreans, as well as to the other members of the six-party talks. The North Koreans will sit down and talk and resume the six-party talks when they are ready. The question is how do you get them to be ready. It is hard to be able to discern what their real motivations are.

They say right now that they are not ready to resume those talks that were suspended in September a year ago, a year ago actually this month, because of certain hostile behavior, I think is the way they phrase it, by the United States, and this hostile behavior is, as they point out, involves the number of financial sanctions that we have placed upon them for their illicit behavior on counterfeiting and so forth. But to get the North Koreans to the table is difficult.

They say they want to have one-on-one talks. We are not ready for that at this point in time. They can talk to us any time they want, and, as you probably know, Chris Hill, when he was in the region not to long ago, sat down with his counterpart, the North

Koreans, on the margins of meetings. We said they can have one-on-one conversations in the context of the six-party talks.

But I think if the North Koreans were serious about wanting to sit down again and resume these talks, they would be doing it. But it is an intractable issue and where it will end I am not sure at this point.

Mr. DAVID. Just to add to that—and I agree with all that Andy said—we are working with the other five parties of the six parties to do what we can to get them to do what they can to pressure North Korea to make an irreversible decision to abandon their nuclear weapons ambitions and program and to irreversibly destroy it.

We are working beyond those six parties with other countries of the world. A couple of months ago we succeeded in getting a U.N. Security Council resolution that imposes requirements—the word require is in two paragraphs—requiring countries to do certain things and not to do certain things with North Korea. Just last week or last weekend, can't remember which, Australia and Japan announced that they were imposing sanctions on North Korea.

You know, we will keep the effort up. The diplomatic multinational approach that we are taking will take time.

Mr. VAN HOLLEN. Thanks. One last question on Iran, if I could.

Mr. SHAYS. You may.

Mr. VAN HOLLEN. Thank you, Mr. Chairman.

We mentioned the Strategic Cooperation Agreement with India, and, as you know, the House passed that agreement not too long ago, a number of weeks back. Shortly after that—and Mr. Semmel is probably familiar with this—as a result of being in charge of nonproliferation at the State Department—the State Department formally announced the imposition of sanctions under the Iran Nonproliferation Act of 2000 against two Indian entities for the transfer of WMD equipment and technology to Iran. If you could just provide us a little bit more information on that, what it means with respect to cooperation from the Indian government on transfers.

And finally my question is this: does Iran today continue to be dependent on getting foreign technologies to complete their nuclear program? Or, if you were to make sure that no new technologies could get into Iran that related to nuclear issues, would they have the indigenous capability now to complete a nuclear weapons program? I have heard conflicting testimony. I have heard some say that Iran continues to be dependent on some technologies that they don't have domestically in order to complete their work, and some say they have already got everything they need. So if you could just comment on both the questions, first with respect to the imposition of sanctions on the two Indian entities, and then with respect to Iran's capabilities.

Mr. SEMMEL. I think on the imposition of the two entities, I think part of your question may be motivated by the timing implicit in your question that the report came up, I think, some time after the House had voted on this. I can only tell you that, as you know, having worked on the Senate side for some time and having written many pieces of legislation for my boss then requiring reports, I can tell you that in this case putting this report together

was required reading voluminous documents, I think well in excess of 10,000, involving inter-agency cooperation between the intelligence community on this. The time that it took to put this together I think was extraordinary. It came in late. I honestly don't think it was intentional. I think it was an evolution of the way in which this report was put together.

Now, the two entities that were identified had to be identified because of existing law. I mean, the law simply said we had to take these steps. I believe one of the entities was identified not because of any kind of activity it had with Iran on the nuclear side but on the chemical side, if I recall. You may recall this better than I.

So this is something which we are obligated to do in terms of assessing through our various sources of information that these entities have been involved in activities that are subject to a determination that they have been in violation of our act.

On the other question on is Iran self-sufficient, my best guess on this is no, they are not self-sufficient at this point in time. I think if there were a complete wall around Iran they would not be able to import certain kinds of technologies or information or insights, for that matter. I think what you would have is, since I happen to feel that Iran is absolutely determined to have the nuclear weapons capability, I think they are on a glide path that we have been able to slow down and interrupt, sort of like a heat-seeking missile going off track but going in one direction, that direction being the ability to have the nuclear weapons capability.

I think if we were to put a wall around Iran that was effective—and that, by the way, is virtually impossible, given the long borders that it has—it would slow down a process. It would make the time tables that you alluded to in an earlier question protract out for a much, much longer period of time.

I don't think—my colleagues might want to comment on this—that Iran has the total indigenous capability at this point in time to be able to move from where they are now to having a nuclear weapons capability and nuclear weapons, as well.

Mr. VAN HOLLEN. Thank you, Mr. Chairman.

Mr. SHAYS. I thank the gentleman.

Is there anything that any of the four of you would like to put on the record, any question we should have asked you that we didn't think to ask you that would be important to put on the record? Frankly, sometimes that question solicits sometimes the most important part of our hearing. So is there anything we need to put on the record?

Mr. TOBEY. No, sir.

Mr. SHAYS. OK. Let me then thank you all, Mr. Tobey, Mr. Semmel, Mr. David, and Mr. Aloise. Again, Mr. David, our country is grateful for your service. The Congress respects your service, as well, and whatever you are going to be doing next week we wish you all the best.

Mr. DAVID. Thank you very much.

Mr. SHAYS. Thank you.

We are going to have a 1-minute break and we will go with our third panel.

[Recess.]

Mr. SHAYS. We will begin with the third panel: Ambassador Thomas Graham, Chairman of the Bipartisan Security Group, Global Security Institute; Mr. Baker Spring, F.M. Kirby Research Fellow for National Security Policy of The Heritage Foundation; Mr. Jonathan Granoff, president of Global Security Institute; Mr. Henry D. Sokolski, Nonproliferation Policy Education Center; and Professor Frank von Hippel, Co-Chairman, International Panel on Fissile Materials.

Gentlemen, I know it is late. I don't do the 5-minute rule as much with the third panel. If you waited the longest, I will stay here until you make your statement, but we will do the 5-minute and I will trip over another 5 minutes.

It is great to have you here. You know the questions we asked the other panels. If you care to answer that in your presentation, your full statement will be in the record as written so you have some choices here. And if there were some questions we didn't ask that you want to put on the record in your opening statement that we should have asked, we are happy to have you do that, as well.

Ambassador, thank you so very much. Thank you again for your patience, and you have the floor.

[Witnesses sworn.]

Mr. SHAYS. Note for the record that all five witnesses have responded in the affirmative.

Now, Ambassador, I can believe what you tell me.

STATEMENTS OF AMBASSADOR THOMAS GRAHAM, JR., CHAIRMAN, BIPARTISAN SECURITY GROUP, GLOBAL SECURITY INSTITUTE; BAKER SPRING, F.M. KIRBY RESEARCH FELLOW FOR NATIONAL SECURITY POLICY, THE HERITAGE FOUNDATION; JONATHAN GRANOFF, PRESIDENT, GLOBAL SECURITY INSTITUTE; HENRY D. SOKOLSKI, NONPROLIFERATION POLICY EDUCATION CENTER; AND FRANK VON HIPPEL, CO-CHAIRMAN, INTERNATIONAL PANEL ON FISSILE MATERIALS

STATEMENT OF AMBASSADOR THOMAS GRAHAM, JR.

Ambassador GRAHAM. Mr. Chairman, I have a short statement which I will read. If, in the course of the subsequent discussions, you want to revisit the issue of how easy it is to make a nuclear weapon, I had a very interesting experience in South Africa some years ago in which they explained to me what they did, and I would be happy to talk about that later if you wish.

Mr. SHAYS. I would love that. I won't count that as your time now, so we will make sure we ask.

Ambassador GRAHAM. All right.

Paul Nitze was the archetypical cold warrior and nuclear weapon strategist, yet in the last op ed that he wrote, at the age of 92, in 1999, entitled, A Danger Mostly to Ourselves, he said, "I know that the simplest and most direct answer to the problem of nuclear weapons has always been their complete elimination." Senator Sam Nunn, in an article in the Financial Times in late 2004 said our current nuclear weapon policies, which in effect continue to rely on the deteriorating Russian early warning system to continue to make correct judgments "risks an Armageddon of our own making." And former Defense Secretary William Perry said not long ago that

in his judgment there could be a greater than 50 percent chance of a nuclear detonation on U.S. soil in the next decade.

The Nuclear Non-Proliferation Treaty, the NPT, is the centerpiece of world security. President John F. Kennedy truly feared that nuclear weapons would sweep all over the world, ultimately leading to 40 or 50 nuclear weapons states in the world today. If this had happened we would live in an almost unimaginable security situation today. Every conflict would carry with it the risk of going nuclear, and it would be impossible to keep nuclear weapons out of the hands of terrorists, they would be so widespread. But this did not happen, and the principal reason that it did not was the entry into force of the NPT in 1970, combined with the extended deterrence policies of the two rival superpowers during the cold war, which now have passed into history.

However, the NPT nuclear weapon states, particularly the United States, have never really delivered on the disarmament part of the NPT's central treaty bargain, which would mean for the United States, at a minimum, ratification of the Nuclear Test Ban Treaty, revival of the nuclear weapon reduction process begun by President Reagan, and a drastic downgrading of the role of nuclear weapons in the security process.

Now, in the wake of nuclear programs in North Korea and Iran and A.Q. Kahn illegal nuclear transfers ring in Pakistan, the other side of the NPT's central bargain has begun to fall apart.

It is of paramount importance to attempt to revive the NPS as a treaty system based on law and to restore its credibility. In the context of a breakdown of world order and the war on terror, with the looming potential failure of the NPT and the ensuing likelihood of widespread nuclear proliferation that President Kennedy so rightly feared many years ago an increasing possibility, with nuclear tension a growing threat, with thousands of strategic nuclear weapons on high alert and a Russian early warning system continuing to decline in effectiveness, the urgency of such an effort simply cannot be under-stated. But if, in fact, it is indeed too late to change the course of nations with respect to the NPT in order to save the NPT, then, in the interest of the security and safety of us all, some way must be found to proceed directly to the worldwide elimination of nuclear weapons, as Paul Nitze urged over 6 years ago. Very difficult, but not impossible.

But in this the United States must lead. There is no alternative. In order to do this, the United States must return to its historic destiny of keeping the peace and prospering the development of the community of nations, democracies, free market economies, the international rule of law, international institutions, and the international security treaty system.

As the Secretary of State said last year in a speech to the American Society of International Law, when the United States respects its "international legal obligations" and supports an international system based on the rule of law, we do the work of making this world a better place, but also a safe and more secure place for America.

Thank you.

[The prepared statement of Ambassador Graham follows:]

Ambassador Thomas Graham, Jr.

Subcommittee on National Security, Emerging Threats and International Relations

Committee on Government Reform

United States House of Representatives

Washington, D.C.

September 26, 2006

Paul Nitze was the archetypical Cold Warrior and nuclear weapon strategist. As the author of NSC-68 commissioned by President Truman in 1950 he helped establish the ground rules for the Cold War and the thermonuclear confrontation. In this Report he wrote in 1950: "In the absence of effective arms control it would appear that we had no alternative but to increase our atomic armaments as rapidly as other considerations made appropriate." But in addition to being an outstanding national leader Paul Nitze was someone who could recognize change and respond to it. In the last op-ed that he wrote at the age of 92 in 1999 entitled "A Danger Mostly To Ourselves" he said.

"I know that the simplest and most direct answer to the problem of nuclear weapons has always been their complete elimination. My "walk in the woods" in 1982 with the Soviet arms negotiator Yuli Kvitsinsky at least addressed this problem on a bi-lateral basis. Destruction of the arms did not prove feasible then but there is no good reason why it should not be carried out now."

Senator Sam Nunn in an article in the Financial Times in December 2004 pointed to the immense danger that exists as a result of the fact that fifteen years after the end of the Cold War the United States and Russia still maintain, on fifteen minutes alert, long range strategic missiles equipped with immensely powerful nuclear warheads capable of

devastating each other's societies in thirty minutes. In 1995 Russia mistook the launch of a test rocket in Norway as a submarine launched nuclear missile aimed at Moscow and came within two minutes of ordering a retaliatory nuclear strike on the United States. Senator Nunn said in his article that our current nuclear weapon policies which in effect rely on the deteriorating Russian early warning system continuing to make correct judgments as it did during the Cold War "risks an Armageddon of our own making."

And former Defense Secretary William Perry, a scientist not given to exaggeration, said not long ago that in his judgment there could be a greater than 50 percent chance of a nuclear detonation on U.S. soil in the next decade.

The Nuclear Non Proliferation Treaty (NPT) is the centerpiece of world security. President John F. Kennedy truly feared that nuclear weapons might well sweep all over the world. In 1962 there were reports that by the late 1970s there would be 25-30 nuclear weapon states in the world with nuclear weapons integrated into their arsenals. If that had happened there would be many more such states today--in September of 2004, the Director General of the International Atomic Energy Agency (IAEA), Mohamed El Baradei, estimated that more than 40 countries now have the capability to build nuclear weapons. Under such conditions every conflict would carry with it the risk of going nuclear and it would be impossible to keep nuclear weapons out of the hands of international terrorist organizations they would be so widespread.

But such weapon proliferation did not happen and the principal reason that it did not was the negotiation of the NPT and its entry into force in 1970, buttressed by the policies of extended nuclear deterrence -- the nuclear umbrella -- followed by the United States and the Soviet Union with their Cold War Treaty Allies. Indeed since 1970, at

least until now, there has been very little nuclear weapon proliferation. In addition to the five nuclear weapon states recognized by the NPT -- the United States, Britain, France, Russia and China, three states, India, Pakistan, and Israel and perhaps North Korea have built nuclear weapon arsenals -- but India and Israel were already well along in 1970. This is far from what President Kennedy feared.

So to argue that the NPT has failed to prevent the spread of nuclear weapons is to simply deny reality. Yet, for example, the Washington Post said in an editorial several months ago, "the Nuclear Non-Proliferation Treaty is a limited asset. It has not stopped a string of countries from going nuclear and is not worth forgoing major prizes such as an Indian alliance in order to preserve it." To say that this is a misunderstanding of reality is an understatement. Until the entry into force of the NPT in 1970, the acquisition of nuclear weapons by a state was an act of national pride. Sweden had a program, Switzerland twice voted to have one, "Vive La France" read the headlines in Paris after the first French nuclear tests in 1960. If the NPT had not happened likely today we would live in a world where nuclear weapons exist in many national arsenals. States such as Syria, Iran, Cuba, Nigeria and many others would have nuclear weapons integrated into their national arsenals and Al Qaeda would probably have them too. The facts to date are far, far from that. That is why this Treaty, the NPT, truly has been the centerpiece of international security.

But the success of the NPT was no accident. It was rooted in a carefully crafted central bargain. In exchange for a commitment from the nonnuclear weapon states (today more than 180 nations, most of the world) not to acquire nuclear weapons and to submit to international safeguards to verify compliance with this commitment, the NPT nuclear

weapon states pledged unfettered access to peaceful nuclear technologies and undertook to engage in nuclear disarmament negotiations aimed at the ultimate elimination of their nuclear arsenals. It is this basic bargain that for the last three decades has formed the central underpinnings of the international nonproliferation regime.

However, one of the principal problems with all this has been that the NPT nuclear weapon states have never really delivered on the disarmament part of this bargain and the United States in recent years appears to have largely abandoned it. The essence of the disarmament commitment was that pending the eventual elimination of nuclear weapon arsenals called for in Article VI of the Treaty, the nuclear weapon states would agree to important interim steps including a treaty prohibiting all nuclear weapon tests, drastic reduction of their nuclear arsenals and a significant diminishment of the role of nuclear weapons in their security policies. None of this has been accomplished over 35 years later. As Mohammed El Baredi has said "we must abandon the unworkable notion that it is morally reprehensible for some countries to pursue weapons of mass destruction and acceptable for others to rely on them for security. . . if the world does not change course, we risk self destruction."

The United States, unlike the United Kingdom, France and Russia, has not delivered on its NPT obligation to support a comprehensive treaty banning all nuclear weapon tests -- as a result of the 1999 vote of the U.S. Senate rejecting the Comprehensive Test Ban Treaty (CTBT). In addition, the United States no longer pursues Treaty commitments to continue reductions in nuclear weapons as it is obligated to do under the NPT. As a result of the abandonment of the START process initiated by

President Reagan, there have been no negotiated reductions in nuclear weapon stockpiles since 1994 -- twelve years.

But what about the obligation to reduce the role of nuclear weapons in national security policies. In 1995, the United States, the United Kingdom, France and Russia made national statements in connection with a United Nations Security Council Resolution that, in effect, they would never use nuclear weapons against NPT non-nuclear weapon state parties, in other words a no-first-use, indeed a no use-commitment, for NPT non-nuclear weapon states. Such a commitment is also referred to as a negative security assurance, a long-sought goal of NPT non-nuclear weapon states. These commitments were made as part of the price to achieve the permanent extension of the NPT at the conference which followed soon thereafter. China, the other NPT nuclear weapon state, did not join in these statements as it has long had a general no-first-use-of-nuclear-weapons policy. The World Court, the next year found, in effect, these 1995 statements to be legally binding.

Throughout the Cold War, NATO doctrine held open the possibility of employing tactical nuclear weapons to hold off a massive Warsaw Pact conventional assault. Even with U.S. forces present in Europe in significant numbers, NATO forces were greatly inferior in size to the Warsaw Pact forces arrayed on the other side; the disparity in battle tanks, for example, was three to one. To redress this balance the United States deployed a large number of tactical nuclear weapons in Europe which undoubtedly helped to keep the peace and alleviate Soviet pressure on Western Europe. However, in the post-Cold War world, it is NATO that now has the conventional force preponderance in Europe -- by a two-to-one margin over the East. Thus, with the end of the Cold War the rationale

for the NATO doctrine of the possible first use of nuclear weapons has disappeared into history.

Likewise, since the beginning of the nuclear age it has been U.S. policy to reserve the right for the United States to use nuclear weapons in a conflict, against any adversary. This has been British and French policy as well and recently Russia changed its stated policy to preserve the first use of nuclear weapons as well. Even with the now-overwhelming world dominance of U.S. conventional forces, the United States continues to retain a first-use policy. Canada and Germany lobbied hard for a change in NATO doctrine to a no first-use policy on the occasion of the NATO Alliance 50th anniversary in 1999 to no avail against U.S. opposition.

Some have argued that if the U.S. were to change its policy to no-first-use (and NATO change its policy as well), then close U.S. allies, Germany and Japan, would lose confidence in U.S. extended deterrence (the nuclear umbrella) and seek nuclear weapons of their own. But here is Germany vigorously arguing for such a policy change in NATO and there is no indication that Japan's view is different, indeed the conclusion of the Tokyo Forum study mandated by the Japanese national legislature, the Diet, a few years ago was to the effect that Japan should support a no first use policy. The United States maintains this policy even though it has no military value and the United States has formally pledged under the NPT in 1995, as said above, in effect never to use nuclear weapons against NPT nonnuclear weapon states. No first-use is a particularly significant issue to focus on because it could be implemented immediately in that it is simply a declaratory policy. Yet an explicit, clearly enunciated policy of not introducing nuclear weapons into future conflicts would go a long way towards restoring the perceived good

faith of the United States concerning its NPT nuclear arms control and disarmament commitments as it would reinforce the defensive posture of U.S. nuclear forces and make clear that the sole purpose of the nuclear arsenal is to deter the use of nuclear weapons by others.

And now the other side of the NPT bargain has begun to fall apart. India and Pakistan eroded the NPT from the outside by each conducting a series of nuclear weapon tests in 1998 and declaring themselves to be nuclear weapon states. India, Pakistan and Israel maintain sizable unregulated nuclear weapon arsenals outside the NPT. The U.S. - India proposed nuclear cooperation Agreement, which among others things implicitly accepts India as a nuclear weapon state contrary to the NPT, will have a most negative effect. This proposed Agreement will break the fragile balance of the NPT central bargain by permitting nuclear cooperation with a NPT non--recognized nuclear weapon state without requiring the nonproliferation undertakings that apply to nearly all states. Part of the foundation of the central bargain is nuclear cooperation in exchange for non-proliferation which of course conflicts with the proposed Agreement with India.

North Korea withdrew from the NPT in 2003 and may have built up to eight or nine nuclear weapons. The DPRK has now agreed in principle to return to the NPT and to negotiate an end to its nuclear weapon program, but there has been no tangible progress in this direction other than rhetoric. And even if this should some day happen, under current international arrangements can we ever be certain that North Korea has in fact declared and eliminated whatever nuclear weapons it may have? The A. Q. Khan secret illegal nuclear weapon technology transferring ring based in Pakistan has been exposed but who can be sure that we have seen more than the tip of the iceberg? Iran is

suspected of having a nuclear weapon program and admitted in late 2003 that contrary to its IAEA safeguards agreement it failed to report its acquisition of uranium enrichment technology. Negotiations have not resolved this issue, although the resumption of negotiations between the European Union and Iran, with the United States participationg, is a hopeful sign. Nevertheless U.S. pursuit of UN sanctions against Iran remain a possibility.

But would it be wise to take Iran to the Security Council over this issue at this time? Last fall a newspaper close to Iran's Supreme Leader, Ayatollah Khamenei, in a front page editorial declared that if taken to the Security Council a first step for Iran would be to withdraw from the NPT. Not long ago the President of Iran implied that Iran might withdraw from the NPT, although the Foreign Ministry the next day stated that Iran remains committed to the Treaty. In general, intelligence estimates indicate that initial Iranian capability to build a bomb is at least five to ten years off. It appears that to date Iran has made little progress in this direction. Indeed some experts have said that in view of Iran's apparent determination to acquire a fully developed and complete nuclear fuel-cycle, as opposed to pursuing a crash course to build a bomb, initial nuclear weapon capability might not be achieved for as long as fifteen years.

The nuclear program is very popular in Iran. Some countries seem to believe that ultimately the only way that they can gain respect in this world, as President Lula of Brazil declared during his first election campaign a few years ago, is to acquire nuclear weapons — or at least being seen as able quickly to do so. During the Cold War, nuclear weapons distinguished Great Powers from others countries. The permanent members of the Security Council are the five NPT recognized nuclear weapon states. Forty years ago

Great Britain and France both asserted that status was the real reason that they were building nuclear weapons.

This high political value of nuclear weapons has not changed since the Cold War. India asserted in 1998 that it was now a big country, it had nuclear weapons. The world significantly lost interest in Ukraine once it gave up the nuclear weapons left on its territory after the collapse of the Soviet Union. The political value of nuclear weapons probably will remain high and in the end cause the NPT to fail, unless of course over time it can be significantly lessened. The only way that this can happen is for nuclear weapons to be delegitimized. This is what was supposed to happen pursuant to the central bargain of the NPT if it had been observed.

So how can NPT be saved? This issue should be addressed in two parts.

First, in order to restore the political legitimacy of the NPT central bargain, the NPT nuclear weapon states, principally the United States, must deliver on the disarmament part of the central bargain. Commitments were made on these disarmament issues in 1995 at the NPT Review and Extension Conference which were the political price for the permanent extension of the treaty and these commitments were reaffirmed by all the NPT nuclear weapon states, indeed all NPT parties, at the 2000 Review Conference. At a minimum for the United States this would mean, ratification of the CTBT, the Test Ban Treaty, accompanied by vigorous efforts with other holdouts such as China, India and Pakistan to bring the CTBT into force; the resumption of the nuclear weapon reduction process (the Strategic Arms Reduction Talks or START) between the United States and Russia begun by President Reagan which has been in abeyance for five years. And, consistent with 1995 NPT undertakings, a drastic reduction of the role that

nuclear weapons play in United States security policy by the adoption of a no-first-use policy. Without steps such as these the viability of the NPT cannot be restored and sustained.

A policy of selective application of NPT obligations is not sustainable. To say that the NPT nuclear weapon states do not have to fulfill their nuclear disarmament obligations which are the "quid" for the "quo" for most of the world agreeing never to acquire nuclear weapons; to say that India which has never been recognized by the NPT as a valid nuclear weapon state, which has never accepted the legitimacy of the NPT and has a large stockpile of nuclear weapons has a right to the nuclear fuel cycle and international nuclear trade while Iran which is a NPT party and does not at this time have nuclear weapons, does not have such a right, will not work over the long-term. A successful NPT system must be based on law, not whether we like or dislike a particular nation. In the 1970s arguments were made that the United States should engage in selective proliferation not non-proliferation. We should make sure our friends have them and that our adversaries do not. The first two "friends" that were generally designated as countries that should get the weapons were Yugoslavia and Iran.

Second, steps need to be taken to shore up the other side of the central bargain, the non-proliferation side as opposed to the disarmament side. The inexorable proliferation of the nuclear fuel cycle should be brought to an end in some politically acceptable way. Here again we have a selective approach; for example, Brazil can have it, Iran can not. Perhaps a way to successfully address this question would be to adopt the proposal of Director-General ElBaradei to establish a multilaterally owned nuclear fuel cycle entity on which all states that currently do not have the nuclear fuel cycle can

rely. The Nuclear Suppler Group process in controlling nuclear exports should be strengthened. The Indian Agreement will set a bad precedent in this regard. The Proliferation Security Initiative has an important role to play and the full implementation of Cooperative Threat Reduction programs in Russia is essential if we hope to keep nuclear weapons from international terrorist organizations. And vigorous efforts need to be pursued to bring Iran, and North Korea as well, back into full compliance with the NPT. This will require lengthy and serious negotiations.

In view of all this it may not now be possible to change the course of nations and pursue the policies that are necessary to strengthen and support the NPT and the international nonproliferation regime. But as Paul Nitze indicated seven years ago, in the world we live in today nuclear weapons are a threat even to their possessors. In order to avoid the nightmare world of President Kennedy, either the required steps to strengthen and restore the NPT must be adopted or a way must be found, admittedly difficult but not impossible, to proceed directly to the elimination of nuclear weapons. And for either course to be effectively pursued it must be done on a multilateral basis involving the entire international community. In the context of a breakdown of world order and the War on Terror, with the threat of widespread nuclear proliferation that President Kennedy so rightly feared many years ago an increasing possibility, with nuclear tension a growing threat with thousands of strategic nuclear weapons still on high alert and a Russian early warning system continuing to decline in effectiveness, the NPT system simply must be respected and restored in effectiveness or in the interest of the security and safety of us all, nuclear weapons must be eliminated throughout the world.

How could nuclear weapons actually be eliminated? A possible course of action could be for the President of the United States to call for an extraordinary session of the United Nations General Assembly and ask to address the Assembly. In his speech the President could call for the world-wide elimination of nuclear weapons (as well as all other weapons of mass destruction) and request that the Security Council be charged to carry out this task. The Security Council could then call for the negotiation of a treaty to eliminate nuclear weapons. This would require world-wide intrusive on-site inspection and probably security guarantees to a number of states such as Israel, Iran, Pakistan and North Korea on the edge of conflicts and where nuclear programs are or may be present. North Korea would return to the NPT as a nonnuclear weapon state. There would need to be an agreement by all states to apply economic and, if necessary, military pressure to any state that did not comply with this program or that subsequently violated the negotiated arrangements. In an interim stage the five NPT nuclear weapon states and the three other longtime holdouts from the NPT would be required to eliminate almost all of their arsenals down to very low levels. A second and later stage would require elimination of weapons but these eight states would be allowed to keep a relatively limited amount of nuclear explosive material (highly enriched uranium or plutonium) which could be converted into a small number of weapons as a hedge. This could amount to roughly enough material for five weapons each for India, Pakistan, and Israel, fifteen weapons each for Britain, France, and China and thirty weapons each for the United States and Russia. The material would be maintained under very high levels of national security protection at designated depositories and also be under international safeguards implemented by IAEA inspectors. Under various programs all other nuclear

explosive material would be eliminated throughout the world. Nuclear power production would be reconfigured so as to make no more plutonium by the use of non-proliferative fuels such as the thorium fuel design and eventually advanced reactors. The plutonium in existing spent nuclear fuel around the world would have to be eliminated as well. Such an arrangement would take a long time to negotiate and even longer to implement but we must try for the hour is late. A final stage, years in the future, could be the verifiable elimination of the retained fissile material, once the issue of "missing" fissile material, a feature of the nuclear weapon inventories in all of the nuclear weapon possessing states, has been effectively addressed.

Some might say that all this is unrealistic, how could we ever hope that the United States government would even contemplate the policies associated with either course? I would say in response that we must remember that it is only governments that can control and eliminate nuclear weapons, not civil society. So we must press for and hope for the best and remember that nothing good is ever impossible. Who would have thought that the zero missile option proposed by President Reagan in 1981 would ever happen? Who would have thought the Cold War would end in the foreseeable future? Who would have thought that the Soviet Union would cease to exist? But all of these things did happen.

But in order to achieve the effective control and eventual elimination of nuclear weapons and to establish a peaceful and secure world community in the 21st Century, the United States must lead; there is no alternative. But for this to happen the United States must be believed and trusted. On September 12, 2001, the United States had the trust and support of the entire world. Now, in the wake of the rejection of international treaty arrangements such as the Comprehensive Nuclear Test Ban Treaty, the Ottawa

Convention on land mines, the International Criminal Court, the Kyoto Protocol on global warming, and others; an invasion of Iraq opposed by the world community; and opposition by some to the rules of international humanitarian law and the Geneva Protocols on the treatment of prisoners of war; that support and trust is gone and the United States is reviled and feared in many quarters of the world. Senator John McCain said a few months ago that "America's position in the world is at an all-time low." How can we regain the trust of the world community? How can we return to our historic destiny of keeping the peace and fostering the development of the community of nations, democracies, free market economies, the international rule of law, international institutions, and treaty arrangements?

Among other things we should:

First, recognize that in the wake of the Cold War the world has fundamentally changed, the nation state system that has dominated international life for the last 350 years is rapidly deteriorating. Perhaps some 50 to 70 nations around the world are inexorably slipping into the category of failed states. We cannot go it alone. Since the end of the Cold War there has been roughly one major nation building intervention every two years. Poverty, disease, cultural misunderstandings and machine-gun societies around the world are central national security threats; these are the principal causes of international terrorism and the primary weapons in the battle against terror and declining world order are economic, political, social, cultural and diplomatic, and only rarely military. Reconstruction in failed states is one thing, it is relatively well understood but in many cases development, of necessity involving institution building, is essential to return failed states to a level where they can function. But to quote the well-known

historian Francis Fukayama "any honest appraisal of where the 'state of the art' lies in development today would have to conclude that although institutions may be important we know relatively little about how to create them." But one thing that we do know is that, as expressed by Dr. Fukayama, "Coalitions, in the form of support from a wide range of other countries and international organizations . . . are important for a number of reasons."

And second, for over fifty years the United States pursued a world order built on rules and international treaties that permitted the expansion of democracy and the enlargement of international security. Last year in a speech before the American Society of International Law, the Secretary of State said that when the United States respects its "international legal obligations and supports an international system based on the rule of law, we do the work of making this world a better place, but also a safe and more secure place for America." We should take such steps as ratifying the Comprehensive Nuclear Test Ban Treaty, joining the Ottawa Land Mine Convention, becoming a part of the International Criminal Court and establishing ourselves again as strong advocates of the international rule of law.

In this way we can regain our historic role and we can and we will effectively lead the world community to a safe, secure, stable and just Twenty-first Century.

Mr. SHAYS. Thank you, Ambassador, for your very thoughtful statement. We appreciate it.

Mr. Spring.

STATEMENT OF BAKER SPRING

Mr. SPRING. Thank you, Mr. Chairman. Obviously, this is a pressing topic, and I very much commend the subcommittee for holding such a timely hearing. Along with the related issue of terrorism, I don't think that there is any more important security problem facing the United States than this today.

I would like to focus my remarks on the recommendations of the U.N. Commission on Weapons of Mass Destruction. You have heard from Dr. Blix earlier, and I think that it is worth the time of the committee to at least assess some of the more important recommendations, at least that I found in the Commission's report.

Let me say that I think that it is essentially a mixed bag. There are some recommendations in the Commission report that I think are very positive and valuable with regard to what U.S. policy should be toward nuclear nonproliferation, as well as potentially other weapon of mass destruction, but I think that there are others that could muddy the waters and make it more difficult to move forward, so I just want to itemize those, both on the positive and negative side of the ledger.

First, I think that the Commission was absolutely correct in saying we need to focus on the underlying motivations that cause countries to try to pursue weapon of mass destruction and nuclear weapons, in particular. Getting at that dynamic to me I think is at the heart of the problem. That suggests a two-track approach to nonproliferation, one that is the NPT track that is global in nature, and the second track that looks at the regional issues that I think are coming to the fore, particularly in this era, in order to address those underlying security concerns that would drive nuclear proliferation.

The second is one that has been addressed by this hearing in detail, also addressed by the Commission report, which is the special threat posed by terrorists with weapon of mass destruction, and again particularly nuclear weapons. In that particular case I think the real risk is, if they get them, the propensity to use them is much higher than for states, for reasons that are unique to terrorist organizations.

Another positive recommendation of the Commission report is very much related to the first issue I raised, which is this regional dimension. The Commission report addresses that, particularly in the hard cases of Iran and India and Pakistan. In this section of the report I wish they had spent a little more time on North Korea. They did that in other sections, but I think that is to be commended.

Continuing the Russian-U.S. nuclear arms control process, the United States is continuing to do that, and I think supporting the administration in its engagements with Russia which occurred earlier this month, as I understand it, regarding the future of start, for example, is important.

Maintaining high standards on controlling fissile material and making sure that those control mechanisms are effective is very important, in my view.

Let me deal with what I think are some of the problematic elements of the Commission's report, which was also addressed by Ambassador Graham.

The temptation to move directly to comprehensive nuclear disarmament I think is wrong headed. What they are basically saying is that we are having trouble in the nonproliferation regime; let's move the goalpost farther down the field in the hope that we would somehow achieve those goals more quickly. I think that is sort of convoluted logic and I think it carries some very significant security risks for the United States.

The importance of the Nation state system—I think that the Commission pays too little credit to nations to make decisions regarding their own security, and in this case particularly the United States. The Commission makes recommendations that would concede to the United Nations Security Council greater powers than I think that they really should be exercising in terms of making decisions about when a threat is present and what we would do about that in the case of the United States as an individual nation.

Pursuing no first use policies, as well as granting broader negative security assurances—I believe that the idea of the United States providing security assurances on the positive side, as we have done with some problematic states in the past vis-a-vis proliferation, like South Korea and Taiwan, are very important. And modernizing our nuclear arsenal to make sure that those security assurances are effective is very important.

The same thing goes with regard to withdrawing U.S. nuclear weapons from foreign soil, in this case particularly NATO Europe. That is part of our essential security relationship with our NATO allies. I don't think that we should compromise on that in the context of hoped-for nonproliferation or, more particularly, arms control goals.

The Comprehensive Nuclear Test Ban Treaty—I believe very strongly that we have to modernize our nuclear force to make it effective in the current environment. We have a hold-over deterrent from the cold war. I think we need to look at making sure that force is safe, reliable, and effective, and I think the comprehensive test ban treaty is a problem with that.

De-alerting nuclear weapons has the same problem.

The one that I object to the most is the idea that defensive systems like missile defense systems are effectively in the same category as weapon of mass destruction, as they were treated in an intertwined fashion in the Commission's report. They are fundamentally different, and I think we should treat them that way.

So I think that the subcommittee should look at the recommendations of the Commission with a discriminating eye.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Spring follows:]

TESTIMONY OF BAKER SPRING

F.M. KIRBY RESEARCH FELLOW IN NATIONAL SECURITY POLICY

THE HERITAGE FOUNDATION

BEFORE

**THE SUBCOMMITTEE ON
NATIONAL SECURITY, EMERGING THREATS
AND INTERNATIONAL RELATIONS**

OF

THE UNITED STATES HOUSE OF REPRESENTATIVES

ON

**WEAPONS OF MASS DESTRUCTION:
CURRENT NUCLEAR PROLIFERATION CHALLENGES**

SEPTEMBER 26, 2006

Mr. Chairman, I am honored to have the opportunity to testify before your Subcommittee. The challenge to the national security of the United States posed by the proliferation of weapons of mass destruction, and nuclear weapons in particular, along with the related challenge presented by terrorism, should be of supreme concern to Congress. Thus, this is a timely and important hearing.

Earlier in this hearing, the Subcommittee heard from Dr. Hans Blix. Dr. Blix has served as the chairman of an international commission recommending approaches to countering the proliferation of weapons of mass destruction. The report of the Weapons of Mass Destruction Commission (hereafter referred to as the Commission), entitled *Weapons of Terror: Freeing the World of Nuclear, Biological, and Chemical Arms*, was released on June 1. Given the seriousness of this report and the attention it has drawn, I think it will be useful to focus my remarks on some of the more important recommendations of the Commission. In keeping with the topic of this hearing, I will limit my remarks to the issue of nuclear proliferation.

The recommendations of the Commission, specifically as they relate to the topic of nuclear proliferation, constitute a mixed bag of approaches. Some of the recommendations are valuable and will point the U.S. government in the right direction. Others, while well-intended, will not serve the cause of nuclear nonproliferation well. It is therefore important that Congress view the Commission's recommendations with a discriminating eye.

VALUABLE RECOMMENDATIONS

There are five recommendations in the Commission report that make a solid contribution to the shared cause of nuclear nonproliferation. These are recommendations Congress would be wise to incorporate into U.S. nuclear nonproliferation policy.

Focus on the underlying motivations that drive nuclear proliferation. Among the Commission's recommendations regarding proliferation generally is one that states should pursue policies "designed to ensure that no state feels a need to acquire weapons of mass destruction." In the area of nuclear weapons in particular, this recommendation is pertinent. It recognizes that broader requirements for security cannot be separated from matters related to nuclear proliferation. Nuclear nonproliferation policy must take account of the circumstances that lead states to pursue nuclear weapons in the first place.

This recognition has driven The Heritage Foundation to undertake a series of studies, related to stability in regional settings that are presumed to be proliferated with nuclear weapons, by using the game tool. These studies do not necessarily assume that nuclear proliferation is inevitable. Rather, they are an attempt to provide a means to understand the value or lack of value of nuclear weapons in addressing broader security concerns by proliferating states in these regional settings. The focus is more on matters of use and nonuse rather than possession.

By implication, the Commission's recommendation regarding the underlying desire for nuclear weapons suggests a two-track policy for addressing nuclear proliferation. The first track is represented by the global nuclear nonproliferation regime derived from the Nonproliferation Treaty (NPT). The second track is represented by efforts at regional security arrangements that will dampen the appetite for nuclear weapons and pave the way for realization of the goal of the NPT, which is just five states possessing nuclear arms.

Address the special threat posed by terrorist organizations attempting to acquire nuclear arms. The Commission report pays special attention to the threat posed by terrorist organizations that are seeking nuclear weapons. Since there is compelling evidence that terrorist organizations are working to obtain nuclear weapons and other weapons of mass destruction, this emphasis is warranted. Given the experience with September 11, it is also clear that terrorist organizations, compared to states, are more likely to use any such weapons that they obtain.

The Commission specifically recommends working on measures for preventing terrorists from obtaining the fissile material necessary to build a weapon and assembled weapons. At the heart of these measures is strengthened procedures for insuring the physical protection of fissile material and weapons by the states that possess them. To its credit, the Bush Administration is already promoting these measures, both multilaterally and with individual states. It provided leadership at the United Nations Security Council to obtain approval of United Nations Security Council Resolution 1540. Further, it is working with the states of the former Soviet Union under the Cooperative Threat Reduction Program. As you know, Congress has provided essential support to the Bush Administration in this effort.

Address the regional dimension of the nuclear proliferation problem. The Commission also paid special attention to the regional dimension of the nuclear proliferation problem. Appropriately, it has focused on the Middle East and South Asia regions. Clearly, the U.S. and other states need to pay attention to the special proliferation problems presented by India, Iran, and Pakistan. On the other hand, the Commission, in my view, should have considered the special problem presented by North Korea more thoroughly in this section of its report. The Bush Administration and Congress are already focused on the problem cases of India, Iran, Pakistan, and North Korea. In fact, efforts by the U.S. and Great Britain on this front have led to a breakthrough with the government of Libya in acknowledging its possession of production components for building nuclear weapons and agreeing to divest itself of these components.

The Commission's primary recommendation is to strengthen the process for adopting and implementing nuclear weapons–free zones in relevant regions. While this recommendation is appropriate in certain instances, it must be supplemented by an effort that focuses on the issues surrounding the use of nuclear weapons as much as it focuses on their mere possession. This means stepping up the effort in the second track of the

two-track policy I described earlier by engaging in broader discussions of regional security.

Continue the U.S.–Russian nuclear arms control process. The Commission's report places strong emphasis on the relevance of the U.S.–Russian arms control process to nonproliferation. There is no doubt that the U.S.–Russian process is relevant. The fact that U.S. and Russian negotiators met here earlier this month to discuss the future of the Strategic Arms Reduction Treaty (START) indicates that both the Bush Administration and the Russian government understand this linkage. Congress would be well-advised to support the efforts of the Bush Administration in these talks.

The Commission, however, is rather stingy in its acknowledgment of the considerable progress that the U.S. and Russian governments are making toward reducing their nuclear forces. The Commission uses the phrase "disarmament in disarray" too easily. It also takes an explicitly anti-American stance in this regard, charging that the U.S. is "less interested in…treaty making that it was during the Cold War."

In fact, strategic arms control is *not* in disarray. During the Cold War, despite what the Commission sees as a greater willingness by the U.S. to engage in arms control, strategic nuclear forces in both the U.S. and the Soviet Union were growing rapidly. Today, the U.S. and Russia are on a path to reducing their strategic nuclear forces to between 1,700 and 2,200 warheads each under the Strategic Offensive Reductions Treaty (SORT) or Moscow Treaty. It is unequivocally the case that the U.S. and Russia are meeting their obligations under Article VI of the NPT.

Maintain high standards for the handling of fissile material and nuclear weapons. Physical protection measures for fissile material and nuclear weapons are a matter of great concern to the Commission. This is appropriate. Nobody wants to see the chain of custody over fissile material or nuclear weapons break down, other than the terrorist organizations that will use criminal means to obtain nuclear weapons.

The Commission rightly points to the need to insure that the people who are responsible for managing and executing these physical protection measures are both reliable and technically competent. Congress would be well-advised to use its oversight responsibilities to ensure that the system for investigating the backgrounds of individuals who are recruited for these sensitive jobs in the U.S. nuclear sector is strong and that they are given continuous training in their careers. Assuring the physical security of the nuclear materials and weapons in the U.S. should be among Congress's highest priorities.

MISGUIDED RECOMMENDATIONS

Unfortunately, the Commission report also makes a number of recommendations that will not serve the nonproliferation cause. In these cases, Congress would be wise to set the recommendations aside and not incorporate them into U.S. nuclear nonproliferation policy. On this basis, the specific stances that both the Bush

Administration and Congress should take regarding U.S. nonproliferation policy that step away from the Commission's recommendations are as follows.

Do not attempt to proceed directly to comprehensive nuclear disarmament. As the title of the Commission's report makes clear, its recommendations are focused more on outlawing weapons of mass destruction, and most specifically nuclear weapons, than on nonproliferation. While the issues of nonproliferation and abolition are related, they should proceed sequentially. The framers of the NPT did not intend for the treaty to be an abolition treaty. If that had been their intention, they would have drafted a treaty that outlaws nuclear weapons. They did not do so because they recognized that a treaty outlawing nuclear weapon was too ambitious an undertaking at that time.

Given that the treaty's goal of nonproliferation has still not been realized over 35 years later, their caution was well-founded. It is clear that the relationship between nuclear nonproliferation and nuclear abolition is one of sequential timing. The NPT's more immediate goal of limiting the world to five designated states possessing nuclear weapons should be the focus of attention. The Commission, however, applies the convoluted logic that the goals for nuclear arms control will be more attainable if the goal posts are moved farther away.

The Commission's emphasis on disarmament over nonproliferation would also put nuclear arms control on a dangerous path. The Commission draws explicit ties between its stated goal of outlawing nuclear weapons and existing treaties outlawing the other two categories of weapons of mass destruction: biological and chemical weapons. Therefore, it is critical that this Subcommittee recognizes the implications of the approach recommended by the Commission.

The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, for example, entered into force in 1975. The U.S. is a party to the treaty and long ago dismantled its arsenal of biological weapons. Nevertheless, biological weapons still exist in the world today, and the U.S. was subject to limited attacks with biological agents in 1984, 2001, 2003, and 2004. If the U.S. goes down the path of nuclear disarmament recommended by the Commission, it is all but certain that the U.S. will wind up possessing no nuclear weapons while other states and non-state actors will continue to possess them. This outcome is completely at odds with the requirements for U.S. security now and in the future. The U.S. should not pursue nuclear disarmament until nuclear weapons are no longer necessary to protect its national security.

Do not apply nonproliferation policy in a way that attempts to override the nation-state system and state sovereignty. The Commission denigrates the right of states to take steps, including the use of force, to defend themselves. It would leave it to the United Nations Security Council to determine when a state is sufficiently threatened to take steps in its own defense. It misinterprets Article 51 of the United Nations Charter as defining the right of self-defense as a qualified right. Article 51, in fact, recognizes the

right to self-defense as an inherent right. Self-defense is both a necessary attribute of state sovereignty and a state's obligation to its citizens.

Neither the U.S. nor any other sovereign state should cede to the United Nations Security Council the authority to determine when it is threatened and what measures it may take to meet any recognized threat. This is because the Security Council and other institutions of the United Nations have no responsibility for or interest in defending the security of any particular state and no obligation to the citizens of that state. Just because some United Nations bureaucrats want the power to override state sovereignty is no guarantee that they would assume any commensurate responsibility. In short, they seek power without responsibility or accountability.

This pertains to issues of nonproliferation and arms control as much as it does to the use of force. Former Secretary of State George Shultz put it best in a speech he gave before the Library of Congress in February 2004, when he stated:

> First and foremost, we must shore up the state system. The world has worked for three centuries with the sovereign state as the basic operating entity, presumably accountable to its citizens and responsible for their well-being. In this system, states also interact with each other to accomplish ends that transcend their borders. They create international organizations to serve their ends, not govern them.

Do not pursue a "no first use" policy or expand the granting of "negative security assurances." The Commission also recommends that the U.S. and other nuclear weapons states adopt a no first use policy regarding nuclear weapons and expand the granting of "negative security assurances" to non-weapons states. The first proposal would have the U.S. and other nuclear weapons states pledge that they will never be the first to use nuclear weapons. Theoretically, this would prohibit the use of nuclear weapons because if all nuclear weapons states pledged not to use nuclear weapons first, then no such state would be in a position to use this type of weapon. The second proposal would have the U.S. and other nuclear weapons states enter into a treaty that would prohibit these states from using or threatening to use nuclear weapons against a non-weapons state.

Both recommendations are at odds with the requirement for deterrence. The U.S. has been careful not to state categorically under what circumstances it might resort to the use of nuclear weapons. This policy of constructive ambiguity is designed to enhance deterrence and limit the opportunities for aggression. Further, the policies recommended by the Commission assume that matters related to the use of nuclear weapons exist in a vacuum. History teaches that the opposite is true. Issues related to the use of nuclear weapons are necessarily linked to issues related to the use of conventional weapons and other types of weapons of mass destruction. For these reasons, the U.S. should continue its policy of constructive ambiguity regarding the potential for the use of nuclear weapons.

Do not withdraw U.S. nuclear weapons from foreign locations where they are currently present. It is assumed that the U.S. has a small number of tactical nuclear weapons, in the form of gravity bombs, in Europe to support its NATO commitments. The Commission recommends that the U.S. withdraw these weapons from Europe and make a commitment not to deploy any type of nuclear weapon on foreign soil.

This recommendation is counterproductive. A major factor in limiting the proliferation of nuclear weapons has been the alliance commitments the U.S. has made to other states around the world. It is axiomatic that the pressure on Europeans, for example, to obtain nuclear weapons will grow if the U.S. moves to withdraw the weapons that are the means to counter nuclear blackmail or aggression. It is curious that the Commission would focus such attention on the value of negative security assurances by the U.S. to non-nuclear states, described above, while all but dismissing the value of the positive security assurances the U.S. provides to its allies. The U.S. should not take steps in either nonproliferation or arms control that are inconsistent with or call into question the security commitments it has extended to its allies.

Do not ratify the Comprehensive Test Ban Treaty (CTBT) or curtail U.S. nuclear weapons modernization efforts. The CTBT is a treaty of unlimited duration that prohibits explosive tests of nuclear weapons. The Treaty will enter into force 180 days after its ratification by 44 specifically named states. Of those named states, 34 have ratified it. Seven of the remaining ten have signed but not ratified it. Three have neither signed nor ratified it. It is unlikely that the CTBT will ever enter into force.

The Commission recommends that the ten remaining states required for entry into force, including the U.S., move quickly to ratify the CTBT. Further, it recommends that states refrain from nuclear testing. Finally, it recommends that CTBT signatories seek provisional entry into force of the Treaty.

President Clinton signed the CTBT on behalf of the U.S. in 1996. The Senate, however, voted to reject ratification of the Treaty in 1999. The Senate took this action because it recognized that a permanent prohibition on the testing of nuclear weapons would jeopardize the safety, reliability, and effectiveness of America's nuclear arsenal.

What was true in 1999 is true today. The fact is that the U.S. has a nuclear arsenal that is left over from the Cold War. This is the case despite the fact that the requirements for deterrence and the operational requirements for nuclear weapons are different from the Cold War era. As modernization efforts are curtailed, the risk grows that the U.S. nuclear arsenal will become ineffective in meeting projected needs. This makes it imperative that the U.S. modernize its nuclear arsenal to adapt it to the requirements of the post–Cold War world. While there is no certainty that such modernization efforts will require the resumption of explosive testing, it is very possible.

The evidence clearly leads to only one conclusion: U.S. ratification of the CTBT would run counter to U.S. interests and could also jeopardize the security of U.S. allies that depend on a modern and capable U.S. nuclear deterrent in the post–Cold War world.

The continued safety and reliability of the U.S. nuclear arsenal might also require the resumption of nuclear testing. First, nuclear testing has been used to discover whether there is a fundamental problem with a particular weapon in the arsenal. The U.S. has not conducted a test explosion since 1992. The longer this remains the case, the higher the risk that the U.S. military will continue to field a nuclear weapon with an undiscovered problem. Second, an explosive test might be required to certify that a fix to a problem with a type of weapon that is discovered by means other than explosive testing is in fact effective.

The Commission's recommendation regarding provisional entry into force of the CTBT is the most pernicious in this area. What it seeks to do is to marginalize the Senate's role in the treaty-making process. If the executive branch is able to select treaties that the U.S. will consider as having entered into force without formal Senate consideration and ratification, then the U.S. Constitution's requirement for direct Senate involvement in the treaty-making process will be rendered obsolete.

President Bush, for these and other reasons, has stated that the U.S. will not ratify the CTBT. Both security and constitutional reasons make it clear that President Bush's position on this issue is the correct one. There is no compelling reason why the U.S. should reverse its current position and ratify the CTBT and press for its entry into force. Indeed, the focus should be on modernizing the U.S. nuclear arsenal to give it new capabilities and make it more effective in meeting the security needs of the post–Cold War world.

Do not "de-alert" U.S. nuclear weapons. The Commission asserts that deployed U.S. strategic nuclear weapons are on "hair-trigger" alert. They are not. The U.S. military has effective and redundant command and control systems to reduce to an absolute minimum the likelihood that a weapon in the arsenal will be fired by accident or without proper authorization. What the Commission recommendation would do is to lengthen the time required to execute an authorized nuclear operation and thereby reduce the operational effectiveness of the U.S. nuclear arsenal.

Thus, the Commission, at one level, proposes a solution that is in search of a problem. Second, it would reduce the operational effectiveness of the U.S. nuclear deterrent and simply assume that the reduction in effectiveness will have no adverse impact on nonproliferation as would-be enemies seek to build capabilities to exploit the weakness and U.S. friends look to build the means to fill the gap in overall nuclear stability. Congress has a solemn responsibility to insure that the U.S. nuclear arsenal is operationally effective. The Commission is all but demanding that Congress step away from that responsibility.

Do not equate non-nuclear defensive systems, such as missile defense and space systems, with nuclear weapons. Perhaps the most outrageous of the Commission's recommendations would have the U.S. curtail its non-nuclear missile defense and space programs. First, it recommends that the U.S. "not consider the

deployment of any kind of missile defense system without first attempting to negotiate the removal of missile threats." Second, it recommends that the U.S., along with other states, "renounce the deployment of weapons in outer space." By including these recommendations in a report on "weapons of terror," the Commission, perhaps inadvertently, is equating these non-nuclear and defensive systems with weapons of mass destruction. There is no justifiable reason to lump these two categories of weapons together.

The Bush Administration and Congress are pursuing missile defense capabilities in order to meet the most elemental defense needs of the American people and U.S. friends and allies against attack. It is pursuing military capabilities in space because space is already heavily militarized and weaponized and because the possession of these capabilities dramatically increases the effectiveness of the U.S. military. Both defensive and space systems will serve to lessen the appeal of weapons of mass destruction to states and even non-state actors that might otherwise seek them by raising questions about their potential effectiveness.

The Bush Administration and Congress are right to work to provide the U.S. military with robust missile defense and space capabilities. Doing so will not only improve the overall capability of the military to provide for national security in the post-Cold War world, but also serve to reinforce long-standing U.S. goals for stopping the spread of weapons of mass destruction generally and nuclear weapons in particular.

CONCLUSION

Mr. Chairman, the U.S. has had a long-standing interest in realizing the promise of the NPT to limit the number of nuclear weapon states in the world to the five recognized by the Treaty itself. Many recommendations have been put forward in the past to realize this goal, and no doubt there will be additional recommendations in the future. These recommendations must stand or fall on their individual merits. Just because an idea is put forward for the stated purpose of limiting nuclear proliferation does not mean that it necessarily serves that goal. In fact, many such proposals will appear on the surface to further the goal of nuclear nonproliferation while in reality serving to undermine progress in nonproliferation.

Dr. Blix's Commission makes a number of recommendations that will make valuable contributions to the attempts to realize the goal of nuclear nonproliferation, but others have considerable surface appeal and only limited substantive merit. Congress therefore should not treat the Commission's report as a "take it or leave it" proposition. It needs to discriminate between the various recommendations on the basis of their individual contributions to the cause of nuclear nonproliferation.

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Mr. Chairman, consistent with House rules, I would like to describe The Heritage Foundation for you and the Committee. The Heritage Foundation is a public policy, research, and educational organization operating under Section 501(C)(3). It is privately supported and receives no funds from any government at any level, nor does it perform any government or other contract work.

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Mr. SHAYS. Thank you very much.

Mr. Granoff.

STATEMENT OF JONATHAN GRANOFF

Mr. GRANOFF. Thank you, Mr. Chairman.

First I want to extol not only your virtue of courage but your extraordinary endurance, and I would like to offer for the record two articles, one from the Chicago Sun Times and the other from the San Francisco Chronicle extolling the virtues of the WMD Commission, the Blix Commission, if I am permitting.

Mr. SHAYS. We will put that in the record. Thank you.

Mr. GRANOFF. Thank you.

Mr. SHAYS. And, just for the record, this is a very interesting hearing, so I could just tell you we are very grateful that you all had the patience. We get to participate and stay awake.

Mr. GRANOFF. Well, I was told in 1965, when I met Robert Kennedy here while I was working on the Hill, the reality of the Cuban missile crisis, and that on several moments civilization hung in the balance, and he told the group of interns, in rapt attention, as we were, that addressing this issue would determine not only the moral standard of our time but whether, in fact, humanity would survive. So since that time the issue has been in my gut, in my heart, and in my soul, and so I consider it an enormous honor to be able to address it here in these hallowed halls.

Mr. SHAYS. Thank you.

Mr. GRANOFF. The shock of coming to the brink stimulated negotiations which culminated in the entry into force in 1970 of the Nuclear Non-Proliferation Treaty, which contains the structure to prevent proliferation in the present based on a pledge of nuclear disarmament in the future, but the pledge must have credibility and the nuclear weapon states, particularly the U.S. and Russia, with over 96 percent of these devices, have not fully come to grips with their fundamental dilemma. They want to keep their nuclear weapons indefinitely, and at the same time condemn others who would attempt to acquire them. This contradiction undercuts the treaty and enables our adversaries to challenge U.S. sincerity and ignore our recommendations.

Moreover, incoherence in policies leads to instability in cooperation, and nothing could be more hazardous today.

In order to prevent proliferation to more states and to dangerous sub-state actors, far greater cooperation is required. This will not be obtained if some states flaunt their disarmament obligations yet display a singular passion for nonproliferation.

The path to stability is an unambiguous reaffirmation of collective security through the rule of law, which in this instance requires a clear commitment to rendering the weapons, themselves, as unacceptable. This is both the correct and practical compass point.

Are we urging disarmament this year? Hardly. The U.S. sets the example. Lowering the political currency of nuclear weapons can make us all safer. We are urging steps that will enhance security, strengthen fulfillment of existing legal obligations, provide confidence through verification to the international community, and each recommendation must stand on its own merits. Each must de-

crease the risk of use, diminish access of terrorists to catastrophic weapons and materials to build them, and strengthen nonproliferation.

Here are five:

A Fissile Material Cutoff Treaty, and we commend the administration for putting it forward, but for it to be effective there must be verification. Verification, as President Reagan said correctly, trust but verify. And the Strategic Offensive Reduction Treaty, the SORT Treaty, which requires Russia and the United States each to deploy no more than 2,200 strategic warheads by 2012, includes no provision for verification. Start inspections end in 2009. It is imperative to establish a verification for the SORT Treaty to have international political meaning. Goodwill is not politically nor practically sufficient. We need laws with verification.

Reduction of the operational status of nuclear weapons—the United States and Russia still have thousands of warheads on a use them or lose them posture. It should be an absolute scandal that every moment of every day the two countries remain locked in a Cold-War-style nuclear standoff. It is time to end launch on warning. The U.S. and Russia should follow the admonition of Candidate George W. Bush, who clearly said, "We should remove as many weapons as possible from high alert hair trigger status, another unnecessary vestige of cold war confrontation. Preparation for quick launch within minutes after warning of an attack was the rule during the era of superpower rivalry, but today, for two nations at peace to keep so many weapons on high alert may create unacceptable risks of accidental or unauthorized launch."

Comprehensive Test Ban Treaty would prevent the miniaturization of immature arsenals, it would restrain confinement of advanced arsenals, it would protect the environment, and it would create the infrastructure, the legal and practical infrastructure of cooperation around the world with U.S. leadership, if we would but support it. It was promised in the preamble of the NPT, it was pledged in order to gain the extension of 1995, and it was reaffirmed at the review of 2000. Moreover—and this might be the most important aspect of a Comprehensive Test Ban Treaty—it would send a clear message of the diminishing currency of the weapons. The United States has tested more than anyone else our arsenal is secure, safe, and reliable. So said the Joint Chiefs of Staff, and they were correct.

A diminishing role of nuclear weapons in security policies, as a minimum step, we must unambiguously establish negative security assurances. In order to gain extension of the treaty in 1995, countries without nuclear weapons were promised that if they would accede to the extension, that they would not be threatened with nuclear strikes. To ask a country to foreswear these devices and still suffer under the threat of nuclear attack is so patently inequitable as to lend credence to critiques of the regime, itself. The U.S. should support rather than oppose giving these assurances of nonuse to nuclear weapon states parties to the NPT.

Moreover, during the cold war we justified the first use policy based on the superiority of the USSR's conventional force threat to western Europe. The threat is gone. It is time to adopt a no first use policy.

These are modest proposals that demonstrate a beginning to authentically reduce the political posture of the weapons. These actions are achievable, inexpensive, and they are available now. Reliance on ultimate weapon of mass destruction leads the world in exactly the wrong direction. Its logical outcome is an increasing militarization of the world rather than the needed movement toward law and cooperation, and its logical expression reaches burlesque proportions in the aspiration to unilaterally weaponize the firmaments rather than pursue a cooperative non-weaponized regime for outer space.

Is it a wonder that, while the rational leaders of the world's most powerful nations daily place on alert thousands of devices delivering immeasurable destructive capacity, cynicism prevails? Is such a hopeless future the best we can provide our children? Do we really believe that counter-proliferation exercised through ad hoc coalitions can be an adequate substitute for effective diplomacy? Why are we pursuing a regime based on principles of seasonal friendship rather than the uniformity and reliability of law? Have we forgotten that the weapons of today have triggering devices with the destructive capacity of Hiroshima? We need no longer live with this sword over our heads.

In India today there are Hindu fundamentalists speculating seriously whether these are the end days, and, like them, there are in the United States fundamentalist Christians who believe very much like their Islamicist brethren or Messianic Jews that we await the final battles which will bring an end to history, and all of them believe that this disaster is coming about from unseen hands. But, Mr. Chairman, Members of Congress, you and I know they are wrong. It is not unseen hands that is bringing about this destruction; it is hands of rational men in these very halls. I ask you to look at these hands, and I ask you to have the courage to prove these speculations wrong.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Granoff follows:]

Weapons of Mass Destruction: Current Nuclear Proliferation Challenges

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In 1965, I met Robert Kennedy while working in Washington. A small group of interns listened in rapt attention as he explained how close we were to the end of civilization during the Cuban Missile Crisis. I will never forget how he emphasized that the challenge of eliminating nuclear weapons before they eliminate us is the litmus test for humanity. Success or failure will determine our moral standard and our capacity to be led by reason and law to security, or to oblivion through fear, the quest for power, and apathy.

Nearly every country in the world has accepted the Nuclear Nonproliferation Treaty (NPT) as a necessary legal instrument to address this threat. While simultaneously condemning the spread of nuclear weapons, this treaty sets forth a related obligation to obtain their universal elimination. In 1995, in order to obtain the indefinite extension of the NPT, now with 188 states parties, commitments to nuclear elimination were confirmed and strengthened by the five declared nuclear weapon states – China, United States, France, Russia, and Britain. However, the nuclear weapon states with over 96% of the weapons, the United States and Russia, have not fully addressed their fundamental dilemma: they want to keep their nuclear weapons indefinitely and at the same time condemn others who would attempt to acquire them. It is as if parents were telling their children not to smoke while puffing on cigars themselves. It is simply not effective.

This incoherence in policies leads to instability in cooperation. Nothing could be more hazardous in today's world. In order to ensure that nuclear weapons do not proliferate to more states and to dangerous sub-state actors, confidence in the restraint of the exercise of power by the most powerful is needed. The trust and cooperation needed for a global assault against such threats will not be effective if some states flaunt their disarmament obligations yet display a passion for nonproliferation.

I will highlight some of the incoherences that are creating instability in the nonproliferation regime, and a path to coherence that simultaneously reduces threat and strengthens nonproliferation efforts. These steps will also reveal as irrational the baiting of the US in international forums by countries hostile to US interests. The path to stability and security is a return to promoting the pursuit of collective security through the rule of law. In the field of nuclear weapons, this translates – among other things - into fulfilling the existing legally mandated disarmament responsibilities that remain unaddressed by the nuclear weapon states. It is simply impractical and hypocritical for some to say that nuclear weapons are morally acceptable for them to possess and even threaten to use, and evil for others to attempt to acquire.

With this in mind, allow me to address the perception, common in Washington and reflected in the Subcommittee's questions, that the NPT is failing. Looking at the NPT's good record over the past three and one-half decades, it is hard to understand the basis for the perception. It is true that three states that stayed outside the treaty from its inception in 1970 have acquired arsenals, Israel, India, and Pakistan. This is unfortunate, but it is also a problem that predated the NPT.[1]

[1] In the case of India, facing a Chinese arsenal, it made clear during NPT negotiations that a process of global elimination of nuclear weapons would be required for it to forgo the option of acquiring its own. Given that India's traditional commitment to nuclear disarmament dates back to the days of Gandhi and Nehru, I am convinced that India, as it repeatedly says in international forums, would participate in a disarmament process. The United States and India are now seeking to create an arrangement under which India would accept safeguards on civilian but not military nuclear facilities in return for access to civilian nuclear fuel and technology. While the proposed deal would partially engage India in the nonproliferation system, it undermines a core bargain of the NPT: that countries renouncing nuclear weapons are promised access to peaceful uses of nuclear technology, and would indirectly augment India's capability to

In contrast to these three, other states have changed their policies over time, renounced nuclear weapons and joined the treaty. For example, South Africa relinquished its small arsenal and Brazil and Argentina gave up weapons-relevant programs. China and France accepted the NPT disarmament obligation in joining the treaty as declared nuclear weapon states in 1992. The vast majority of states have complied with the obligation of non-acquisition. Serious efforts to acquire nuclear weapons in violation of the treaty are known to have occurred only in a handful of cases, Iraq and Libya, where programs have been reversed, and North Korea.

Thus the immediate concern over the spread of nuclear weapons comes down to two countries, admittedly problematic cases, North Korea and Iran. The North Korean problem in a way is a Cold War legacy. North Korea, as well as Iran, has also recently been the target of a U.S. policy of regime change, a policy at odds with the overriding objective of preventing nuclear weapon acquisition. It should be a matter of the highest priority to bring this chapter of history to a close and to achieve a denuclearized Korean peninsula. Whether a country is rational or irrational, direct threats to its security ensure failure in disarmament negotiations. (Please note the Gwangju Declaration issued under the leadership of former South Korean President Kim Dae-jung at a recent Nobel Peace Laureates summit, included in Appendix B.)

It is also urgent to reach a negotiated end to the ongoing confrontation with Iran over its uranium enrichment program. Should Iran achieve a weapons capability over the next five to ten years, or go further and acquire weapons at some point in the future, other states in the region will face enormous pressure to follow suit. The Weapons of Mass Destruction Commission has identified elements of a solution including a freeze on enrichment and reprocessing in the region as a step towards a WMD-free zone.[2] Other negotiated measures should be examined. Given Iran's attachment to its enrichment program for reasons for national pride if no other, a deal may regrettably need to include tightly supervised research activities located in that country. Appendix A identifies regime management reforms whose need is demonstrated by the experience with Iran.

The NPT Bargain: Recent Developments

To summarize: the NPT has a remarkable record of preventing the spread of nuclear weapons, but is now facing multiple challenges: regional crises in the Middle East and Northeast Asia; the spread of nuclear fuel cycle technology; and the imperative of progress on fulfilling disarmament commitments to create the reciprocity that will make the entire regime viable. In the remainder of my testimony, I want to concentrate on the last point. A good understanding requires a brief review of the history of the NPT.

The basic bargain underlying the text completed in 1968 was this: In exchange for a commitment from the non-nuclear weapons states not to acquire nuclear weapons and to submit

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produce fissile materials for weapons. It is therefore unacceptable as currently framed. Minimal criteria for approval of the deal by the U.S. Congress should be entry into force of a verified Fissile Materials Cut-off Treaty and the Comprehensive Nuclear-Test-Ban Treaty as well as India's formal acceptance of the NPT obligation of good-faith negotiation of cessation of arms racing and nuclear disarmament. The need to prevent arms racing in South Asia is highlighted by recent reports that Pakistan is constructing a new plutonium production reactor and the announcement that the United States is going ahead with the long-blocked sale of F-16 fighter aircraft to Pakistan.

[2] Weapons of Mass Destruction Commission, Final Report, *Weapons of Terror: Freeing the World of Nuclear, Biological, and Chemical Arms* (Stockholm, June 1, 2006) ("*Weapons of Terror*") 71-72.

their peaceful nuclear activities to monitoring to verify compliance with the non-acquisition commitment (Article II), the NPT nuclear weapon states pledged to engage in disarmament negotiations aimed at the elimination of their nuclear arsenals (Article VI) and promised the non-nuclear-weapon parties unfettered access to peaceful nuclear technologies (e.g. nuclear power reactors and nuclear medicine; Article IV).[3] During the negotiations at its creation, several prominent non-nuclear weapons states – Germany, Italy and Sweden, for example – would not permit the treaty to be permanent and ensured that it would be reviewed after 25 years and either be extended for a fixed period, be indefinitely extended (Article X), or lapse. At the 1995 Review and Extension Conference, many states were extremely dissatisfied with the progress on disarmament of the nuclear weapons states – U.S., Russia, U.K., France, and China – and argued that they would not accept the inequity of a dual global system of nuclear haves and have-nots. They demanded and obtained a bargain. It contained a Statement of Principles and Objectives for Nuclear Nonproliferation and Disarmament,[4] which politically, if not legally, conditioned the indefinite extension of the treaty, pledging to:

- complete a Comprehensive Nuclear-Test Ban Treaty by the end of 1996
- reaffirm the commitment to pursue nuclear disarmament
- commence negotiations on a treaty to stop production of nuclear bomb materials
- encourage the creation of nuclear weapons free zones
- vigorously work to make the treaty universal by bringing in Israel, Pakistan and India
- enhance IAEA safeguards and verification capacity
- reinforce negative security assurances already given to non-weapons states against the use or threat of use of nuclear weapons against them

The bargain to extend the treaty centered on a strengthened review process with near yearly preparatory conferences and a rigorous review every five years to ensure the promise as set forth in the Principle and Objectives:

> **"The determined pursuit by the nuclear-weapon states of systematic and progressive efforts to reduce nuclear weapons globally, with the ultimate goal of eliminating those weapons."**

The 1995 re-commitment to and elaboration of the NPT nuclear disarmament obligation was reinforced by the 1996 advisory opinion of the International Court of Justice. Interpreting Article VI of the NPT and other international law, the Court unanimously held: "There exists an obligation to pursue in good faith and bring to a conclusion negotiations on nuclear disarmament in all its aspects under strict and effective international control."[5]

The 2000 Review Conference successfully reached a consensus on 13 Practical Steps to advance the commitments to lower the salience of nuclear weapons in policies, reinforce

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[3] See Thomas Graham, Jr., *Commonsense on Weapons of Mass Destruction* (2004) 10.

[4] 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Decision 2, "Principles and Objectives for Nuclear Non-Proliferation and Disarmament," *Final Document*, Part I, NPT/CONF.1995/32, Annex: Access at http://disarmament2.un.org/wmd/npt/1995nptrevconfdocs.html.

[5] International Court of Justice, "Legality of the Threat or Use of Nuclear Weapons," Advisory Opinion of 8 July 1996, *ICJ Reports* (1996): 226, para. 105(2)F. Online at http://www.icj-cij.org/icjwww/icases/iunan/iunanframe.htm.

nonproliferation measures, and move toward the elimination of nuclear weapons. All 187 States Parties agreed on the following measures:[6]

1. Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty (CTBT): The importance and urgency of signatures and ratifications, without delay and without conditions and in accordance with constitutional processes, to achieve the early entry into force of the CTBT.
2. Holding the Line Against Testing: A moratorium on nuclear-weapon-test explosions or any other nuclear explosions pending entry into force of the CTBT.
3. Fissile Material Cut-off Treaty (FMCT): The necessity of negotiations in the Conference on Disarmament on a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices. The Conference on Disarmament is urged to agree on a program of work which includes the immediate commencement of negotiations on such a treaty with a view to their conclusion within five years.
4. Negotiations on Nuclear Disarmament: The necessity of establishing in the Conference on Disarmament an appropriate subsidiary body with a mandate to deal with nuclear disarmament. The Conference on Disarmament is urged to agree on a program of work which includes the immediate establishment of such a body.
5. Irreversibility: The principle of irreversibility to apply to nuclear disarmament, nuclear and other related arms control and reduction measures.
6. Commitment to Elimination: An unequivocal undertaking by the nuclear-weapon States to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States parties are committed under Article VI.
7. Verified Reductions: The early entry into force and full implementation of Strategic Arms Reduction Treaty (START) II and the conclusion of START III as soon as possible while preserving and strengthening the Anti-Ballistic Missile (ABM) Treaty as a cornerstone of strategic stability and as a basis for further reductions of strategic offensive weapons, in accordance with its provisions.
8. Control of U.S./Russian Excess Fissile Materials: The completion and implementation of the Trilateral Initiative between the United States of America, the Russian Federation and the International Atomic Energy Agency.
9. Progress by Nuclear Weapons States: Steps by all the nuclear-weapon States leading to nuclear disarmament in a way that promotes international stability, and based on the principle of undiminished security for all:
• Further efforts by the nuclear-weapon States to reduce their nuclear arsenals unilaterally.
• Increased transparency by the nuclear-weapon States with regard to the nuclear weapons capabilities and the implementation of agreements pursuant to Article VI and as a voluntary confidence-building measure to support further progress on nuclear disarmament.
• The further reduction of non-strategic nuclear weapons, based on unilateral initiatives and as an integral part of the nuclear arms reduction and disarmament process.
• Concrete agreed measures to further reduce the operational status of nuclear weapon systems. The
• A diminishing role for nuclear weapons in security policies to minimize the risk that these weapons ever be used and to facilitate the process of their total elimination.

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[6] 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, *Final Document*, Vol. I, NPT/CONF.2000/28, Part I: 14-15. Access at http://disarmament.un.org/wmd/npt/finaldoc.html. The headings in bold in the text are provided for convenience and are not part of the Final Document.

• The engagement as soon as appropriate of all the nuclear-weapon States in the process leading to the total elimination of their nuclear weapons.
10. Excess fissile materials under IAEA control: Arrangements by all nuclear weapon States to place, as soon as practicable, fissile material designated by each of them as no longer required for military purposes under International Atomic Energy Agency (IAEA) or other relevant international verification and arrangements for the disposition of such material for peaceful purposes, to ensure that such material remains permanently outside of military programs.
11. General and Complete Disarmament: Reaffirmation that the ultimate objective of the efforts of States in the disarmament process is general and complete disarmament under effective international control.
12. Reporting: Regular reports, within the framework of the NPT strengthened review process, by all States parties on the implementation of Article VI and paragraph 4 (c) of the 1995 Decision on "Principles and Objectives for Nuclear Non-Proliferation and Disarmament", and recalling the Advisory Opinion of the International Court of Justice of 8 July 1996.
13. Verifying: The further development of the verification capabilities that will be required to provide assurance of compliance with nuclear disarmament agreements for the achievement and maintenance of a nuclear-weapon-free world.

This is a comprehensive and sophisticated agenda that provides guidelines for implementation in good faith of the Article VI disarmament obligation. Not every measure is specifically required for good-faith fulfillment of Article VI, but some elements are essential. Most of the world's governments – including U.S. allies – agree that the key commitments include application of the principles of transparency, irreversibility, and verification of reduction and elimination of nuclear weapons; the necessity of a diminishing role for nuclear weapons in security policies; the reduction of the operational status of nuclear weapons systems; the entry into force of the CTBT; and negotiations on a Fissile Materials Cut-off Treaty.[7]

However, since 2000, the United States has backtracked on key commitments made in the Practical Steps, notably the CTBT; negotiation of a *verified* FMCT; the START process and the ABM Treaty. The 2002 bilateral Strategic Offensive Reductions Treaty (SORT) with Russia fails to apply the principles of transparency, verification, and irreversibility. Furthermore, it could be argued that SORT fails to diminish the role of nuclear weapons in security policies, a duty consistent with NPT pledges. The Administration's position is that the 2000 commitments are only "political," that circumstances have changed, and that compliance with Article VI is demonstrated by a four-fold reduction in the size of its arsenal since the Cold War. What is at stake here is not just a U.S.-Russian issue. The Practical Steps, adopted at the 2000 NPT Review Conference, represent an international consensus on the means for compliance with Article VI. Good faith requires at a minimum that the United States put forward alternative means for compliance. This the United States has not done. It is simply not enough to say that the U.S. and Russian arsenals have been reduced when their potential to destroy the world remains the same.

Without active U.S. leadership, hopes for progress on nuclear nonproliferation and disarmament were dashed from the outset of the 2005 Review Conference, held at the UN in May

[7] Evidence of the near-consensus is provided by UN General Assembly resolutions, notably the 2005 "Renewed Determination" resolution sponsored by Japan and nine other countries from both the North and South. It received the support of the vast majority of states, with 162 countries voting for it and only two against, the United States and India, with seven abstentions. A/RES/60/65; access at http://www.un.org/Depts/dhl/resguide/r60.htm.

2005. The states parties were unable to even generate a timely working agenda and 15 out of 20 days were squandered on procedural battles. The procedural squabbles masked real debate on substantive political differences. The capacity to make substantive progress on disarmament or nonproliferation was thwarted despite efforts of the world's best diplomats. The 2005 agenda was stalled along several fault lines. The United States would not permit the commitments already made under the treaty review process to be the basis for a working agenda and focused on the proliferation threats posed by Iran and North Korea; Egypt demanded recognition of previous commitments, in particular regarding making the treaty universal; Iran baited the nuclear weapon states on their failure to make progress on disarmament, specifically the United States for its research on modified or new-design warheads with new military capabilities. In the end, no consensus document was generated.

The U.S. unwillingness to specifically respond to demands to have its previous commitments reviewed placed the very integrity of the institution of the NPT at risk. For if commitments made yesterday need not be held to account today, why should any commitments made to the body of the NPT ever be taken seriously? Grave harm was done to international law at the 2005 Review Conference. Universally respected nonproliferation goals were not seriously negotiated, not because of a poverty of valid proposals, but because of a failure of political will. Effective means of addressing threats posed by States leaving the treaty, or, like Iran, using the treaty to develop nuclear energy with the potential for using technical advances and fissile materials to develop weapons, as well as the failure of NWS to fulfill their pledges to take practical steps toward elimination were not achieved.

All too many diplomats expressed concern that the U.S. was not taking international cooperative security under the rule of law seriously enough. In that regard one cannot overlook a statement made in the National Defense Strategy of the United States released in March 2005 by the Defense Department. In the section addressing the Changing Security Environment, there is a new definition of vulnerability, very much at odds with U.S. traditional advocacy of promoting law and diplomacy as a means of achieving security:

> ***"Our strength as a nation state will continue to be challenged by those who employ a strategy of the weak using international fora, judicial processes, and terrorism."***

Without U.S. leadership toward international fora and judicial process embodied in arms control agreements and other instruments of cooperative security, even the Heads of State of the world will remain stymied to such an extent that they will simply be unable to address proliferation issues through diplomacy. On September 13, 2005, in addressing the press regarding the September 2005 Summit at the UN of Heads of State in reference to their Final Statement, Secretary-General Kofi Annan said:

> ***"The big item missing is non-proliferation and disarmament. This is a real disgrace. We have failed twice this year: we failed at the NPT [Review Conference], and we failed now."***

This institutional deadlock has arisen from a profound failure of political will to work cooperatively. This diminution of utilization of diplomacy and law renders the reliance on force and war more likely. Proliferation is unacceptable, indeed. But is counter-proliferation, such as the war in Iraq, the first counter-proliferation war, so effective?

Looking Forward

Our task now is to look forward; while we need to understand how we got to the present juncture, the issues are simply too serious to spend too much time regretting missed opportunities. Let me now, drawing on the rich history of agenda-setting in the NPT context, identify key steps that reinforce non-proliferation and disarmament.[8]

Fissile Materials Cut-off Treaty

An FMCT would permanently end production of fissile materials, primarily separated plutonium and highly enriched uranium (HEU), for use in weapons. It would affect most directly the countries possessing nuclear weapons; NPT non-weapon states already are subject to a verified ban on diverting materials to weapons. Achievement of an FMCT would restrain arms racing involving India, China, and Pakistan, cap Israel's arsenal, and establish ceilings on other arsenals as well. A verified FMCT also would help build a stable framework for reduction and elimination of warheads and fissile material stocks; help prevent acquisition of fissile materials by terrorists; meet a key NPT commitment; and institutionalize one of the basic pillars of a nuclear weapons-free world. When negotiations on the FMCT begin, the United States should return to its long-established position that verification is imperative and feasible.[9]

Verification of reduction and elimination of nuclear arsenals

President Reagan repeatedly invoked the Russian dictum, "trust but verify." It is essential to bring the principle of verification symbolized by that dictum back to center stage. The Strategic Offensive Reductions Treaty (SORT) requires Russia and the United States each to deploy no more than 2200 strategic warheads by 2012, but includes no provisions for verification of reductions or dismantling of warheads or delivery systems, leaving each country free to retain thousands of warheads in addition to those deployed. The two countries declared that they would make use of monitoring mechanisms under START to track reductions. But START expires in 2009, and SORT does not provide any schedule for reductions prior to 2012. A high priority therefore is for the United States and Russia to agree on means to verify and make irreversible the reductions. The WMD Commission recommends negotiation of a new treaty that would further cut strategic forces and also provide for verified dismantlement of warheads withdrawn under SORT.[10] In negotiating SORT, the Bush administration rejected a detailed agreement spelling out transparency and verification measures on the grounds that Cold War-style arms control is no longer necessary and that the United States has no interest in determining together with Russia the size and composition of the two countries' arsenals. This approach overlooks that Cold War or no, the two countries need to regulate their nuclear relationship; "partnership" is not necessarily forever. Further, accounting

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[8] See Middle Powers Initiative, "Fulfilling the NPT Bargain for Disarmament and Non-Proliferation: *Next Steps*," Briefing Paper for the Third Meeting of the Article VI Forum, Ottawa, September 28-29, 2006.

[9] The current U.S. position is that extensive verification mechanisms could compromise the core national security interests of key parties, would be so costly that many countries would be hesitant to implement them, and still would not provide high confidence in the ability to monitor compliance. However, the International Panel on Fissile Materials and the Weapons of Mass Destruction Commission have persuasively refuted the argument against verifying the FMCT. See International Panel on Fissile Materials, *Global Fissile Materials Report 2006*, pp. 43-49, online at http://www.fissilematerials.org/ipfm/site_down/ipfmreport06.pdf; *Weapons of Terror* at 104.

[10] *Weapons of Terror* at 93.

for warheads and verifying reductions is essential to achieving marginalization and elimination of nuclear weapons globally.

Verification is necessary not only for U.S. security interests. Verification also follows from the truth that the United States cannot be secure in an insecure world. Verification is needed to bring greater security to the rest of the world because the rest of the world is properly concerned with the efficacy of the disarmament and arms reduction efforts of the United States and Russia.

In working towards a nuclear weapons-free world, many tools exist for effective verification and monitoring, especially with respect to declared facilities, warheads, and fissile materials, as shown by studies this decade undertaken by the United Kingdom[11] and the U.S. National Academy of Sciences.[12] However, achieving confidence that reduction and elimination of arsenals has been implemented remains challenging, principally due to the possibility of hidden warheads, stocks of fissile materials, or capabilities. The National Academy of Sciences found that confidence would increase based on monitoring programs undertaken on a ongoing, long-term basis in an atmosphere of transparency and cooperation.[13] An implication is that verification and transparency measures need to be implemented beginning *now*, above all regarding U.S.-Russian stocks and reductions. More broadly, all nuclear-armed states must initiate processes to apply the principles of verification, transparency, and irreversibility to reduction and elimination of their arsenals. Declarations of fissile materials contained in military stocks and warheads, as recommended by the International Panel on Fissile Materials, is one of the first steps that could be taken. Countries with nuclear weapons owe the rest of the world greater proof of compliance with the disarmament obligation. To that end, verification processes should involve international monitoring.

Reduction of the operational status of nuclear forces

The United States is now estimated to have more than 1600 warheads ready for delivery within minutes of an order to do so, and Russia more than 1000 warheads similarly ready for launch.[14] It should be an absolute scandal that, every moment of every day, the two countries remain locked in a Cold War-style nuclear standoff. Non-governmental experts have explained that the standoff can be defused through separation of warheads from delivery systems and other measures that lengthen the time required for a nuclear launch, from days to weeks to months.[15] An accompanying step is the elimination of the launch-on-warning option that requires nuclear forces to be on hair-trigger alert. The U.S. and Russia should follow the admonition of George W. Bush who said when he was a candidate for president in 2000: "The United States should remove as many weapons as possible from high-alert, hair-trigger status – another unnecessary vestige of the

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[11] "Verification of nuclear disarmament: final report on studies into the verification of nuclear warheads and their components," working paper submitted by the United Kingdom of Great Britain and Northern Ireland to the 2005 NPT Review Conference, NPT/CONF.2005/WP.1, and previous working papers cited therein. Online at http://www.reachingcriticalwill.org/legal/npt/RevCon05/wp/verification_UK.pdf.

[12] Committee on International Security and Arms Control, National Academy of Sciences, *Monitoring Nuclear Weapons and Nuclear-Explosive Materials: An Assessment of Methods and Capabilities* (2005). Online at http://www.nap.edu/catalog/11265.html.

[13] *Id.* at 219-220.

[14] See estimates by Bruce Blair, president of the Center for Defense Information, cited in John Burroughs, "The Man Who Averted Nuclear War," DisarmamentActivist.org, January 19, 2006.

[15] *E.g.*, David E. Mosher, Lowell H. Schwartz, David R. Howell, and Lynn E. David, *Beyond the Nuclear Shadow: A Phased Approach for Improving Nuclear Safety and U.S.-Russian Relations* (RAND, 2003). Online at http://www.rand.org/publications/MR/MR1666.

Cold War confrontation. Preparation for quick launch – within minutes after warning of an attack – was the rule during the era of superpower rivalry. But today, for two nations at peace, to keep so many weapons on high alert may create unacceptable risks of accidental or unauthorized launch."

While most urgent with respect to Russia and the United States, it is also vital that other weapon states, which to various degrees already maintain their forces in a de facto de-alerted condition, adopt and affirm de-alerting as an entrenched, declared policy and practice. De-alerting would help alleviate risks associated with mistakes, coups, attacks on nuclear weapons facilities, false warnings, unauthorized launches, hacking into command and control systems, and developments that cannot now be anticipated. Depending on the extent of its execution and verification, it would also lessen the moral corruption inherent in reliance on nuclear weapons for security and defense.

Comprehensive Nuclear-Test-Ban Treaty

After four decades of discussions and partial test ban agreements, negotiations on the CTBT were completed in 1996. Although 135 states have ratified the treaty, ten of the 44 states whose ratification is required for entry into force have yet to do so. Of the ten, three weapon-possessing states, the United States, China, and Israel, have signed but not ratified the treaty; two other weapon-possessing states, India and Pakistan, have not taken the first step of signing it; and North Korea, which may have weapons, has also not signed. The Preparatory Commission for the CTBT Organization has made great strides in developing the International Monitoring System, which will likely be completed in 2007. In a 2002 study, the U.S. National Academy of Sciences concluded that with a fully functioning monitoring system, clandestine nuclear explosions with a yield of more than one to two kilotons are detectable by technical means alone, and further found that any undetected low-yield explosions are not likely to significantly advance weapon development.[16] The CTBT would help to check the spread of nuclear arms and to constrain refinement of advanced arsenals; protect the environment; and have a substantial organizational and technical infrastructure. It would be an indispensable part of the architecture of a nuclear weapons-free world. Its entry into force must remain a high priority. Also crucial is maintenance of the moratorium on nuclear test explosions that has held since the 1998 tests by India and Pakistan and continued support for the Preparatory Commission.

The United States and other states possessing nuclear arsenals should also refrain from warhead research and development. It is contrary to a central purpose of the NPT and the commitment in the Practical Steps to a diminishing role for nuclear weapons in security policies, and could lead to a resumption of testing to gain confidence in the performance of new or modified warheads. The WMD Commission stated: "If research on nuclear weapons is continued, modifications should only be for purposes of safety and security -- and demonstrably so."[17] But research and development is taking place for purposes of replacing existing systems, increasing reliability over the long term, and enhancing military capabilities. France reportedly is planning the deployment of new warheads whose concept was tested in 1995-1996 on new versions of its cruise

[16] Committee on Technical Issues Related to Ratification of the Comprehensive Nuclear Test Ban Treaty, National Academy of Sciences, *Technical Issues Related to the Comprehensive Nuclear Test Ban Treaty* (Washington: National Academy Press, 2002). Access online at http://newton.nap.edu/catalog/10471.html.
[17] *Weapons of Terror* at 99.

and submarine-launched missiles.[18] Russia is developing new warheads for its most recent silo-based and mobile missiles, including one involving a maneuverable reentry vehicle.[19] The U.S. "reliable replacement warhead" program aims to yield modified or new-design warheads;[20] Britain reportedly has a similar program.[21]

Despite current Congressional intentions, the U.S. program will enable research on improvement of military capabilities. It has been described by a top official as incubating future "revitalized" scientists able to design, develop and produce a new-design warhead with "different or modified military capabilities" within three to four years of a decision to do so.[22] The Department of Defense projects that four to six replacement or refurbished warheads will be deployed in about two decades, and also envisions warhead development for next-generation delivery systems.[23] Exotic changes are not necessary to achieve significant advances in capability. Under the U.S. "lifetime extension program," the main warhead for submarine-launched missiles is being given a capacity to destroy "hard targets" with a "ground burst" by modifying a sub-system in its reentry vehicle.[24] To the extent that weapon states' modernization programs are intended to and will result only in perpetuating existing military capabilities, planning and preparing for maintenance of nuclear forces for decades to come is contrary to the obligation to work in good faith for their elimination.

A diminishing role of nuclear weapons in security policies and strengthened assurances of non-use of nuclear weapons against non-weapon states

The 2000 NPT Review Conference rightly and wisely recognized that reducing the role of nuclear weapons in security postures makes the world safer now and facilitates progress in reduction and elimination of nuclear arsenals. With the exception of China, which has maintained its existing policy of no first use, none of the weapon states has complied with this commitment. France earlier this year signaled that nuclear weapons could be used against a state responsible for a large-scale terrorist attack on France.[25] The United States claims to be in compliance with the commitment due to development of non-nuclear means for striking enemy targets and defending against attacks (e.g., anti-missile systems). However, the increased emphasis in recent years on options for use of nuclear weapons in a widening range of circumstances makes nonsense of this claim.

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[18] Bruno Tertrais, "Nuclear policy: France stands alone," Bulletin of the Atomic Scientists (July/August 2004) 48-55.
[19] Robert S. Norris and Hans M. Kristensen, NRDC Nuclear Notebook, "Russian Nuclear Forces, 2006," Bulletin of the Atomic Scientists (March/April 2006) 64-67.
[20] Jonathan Medalia, Congressional Research Service, *Nuclear Weapons: The Reliable Replacement Warhead Program* (updated March 9, 2006); Amb. Linton Brooks, Administrator, National Nuclear Security Administration, "The Future of the U.S. Nuclear Weapons Stockpile," 2006 Arms Control Association Panel Discussion, January 25, 2006. Online at http://www.armscontrol.org/pdf/20060125_brooks.pdf.
[21] Michael Smith, "Focus: Britain's secret nuclear blueprint," The Sunday Times, March 12, 2006.
[22] Brooks, *supra*.
[23] Office of the Deputy Assistant to the Secretary of Defense for Nuclear Matters, "Stockpile Transformation," http://www.acq.osd.mil/ncbdp/nm/stockpiletransformation.html (accessed September 16, 2006).
[24] Robert S. Norris and Hans M. Kristensen, NRDC Nuclear Notebook, "U.S. Nuclear Forces, 2006," Bulletin of the Atomic Scientists (January/February 2006) 68-71; Greg Mello, "That Old Designing Fever, Bulletin of the Atomic Scientists (January/February 2000) 51-57.
[25] In a January 19, 2006 speech, President Jacques Chirac said: "[N]uclear deterrence is not intended to deter fanatical terrorists. Yet, the leaders of States who would use terrorist means against us, as well as those who would consider using, in one way or another, weapons of mass destruction, must understand that they would lay themselves open to a firm and adapted response on our part. And this response could be a conventional one. It could also be of a different kind." Online at http://www.acronym.org.uk/docs/0601/doc06.htm.

The classified but leaked 2001 Department of Defense Nuclear Posture Review (NPR) states that nuclear weapons will be "integrated with new nonnuclear strategic capabilities" including advanced conventional precision-guided munitions,[26] suggesting a view of nuclear weapons as "simply another weapon."[27] It plans for an enlarged range of circumstances under which nuclear weapons could be used, notably against non-nuclear attacks or threats. It refers to contingency planning for use of nuclear weapons against Russia, China, North Korea, Iraq, Iran, Syria, and Libya, and identifies possible "immediate contingencies" requiring U.S. nuclear use including "a North Korean attack on South Korea, or a military confrontation over the status of Taiwan." The NPR also states that nuclear weapons "could be employed against targets able to withstand nonnuclear attack, (for example, deep underground bunkers or bio-weapon facilities)," and contemplates their use in response to a biological or chemical attack.[28] Finally, the NPR refers to nuclear use in response to "surprising military developments" and "unexpected contingencies."[29] Those new catch-all categories are virtually without limit.

The NPR was reinforced in December 2002 by a presidentially approved document, the National Strategy to Combat Weapons of Mass Destruction. It states that the United States "reserves the right to respond with overwhelming force - including through resort to all of our options - to the use of WMD [weapons of mass destruction] against the United States" and its "friends and allies."[30] The reference to "all of our options" is an invocation of the nuclear option. The document also identifies preemptive military action as one means of responding to states' acquisition of NBC weapons or capabilities, and does not exclude U.S. use of nuclear weapons in a preemptive attack. Subsequent military planning documents repeat and elaborate the formulations found in the NPR, with allusions to the option of nuclear preemptive use, and state plainly, as the National Strategy had implicitly, that nuclear weapons may be used in response to a chemical or biological attack.[31]

Recent doctrinal statements are not unprecedented. In the 1990s, as the U.S. nuclear establishment sought to establish new missions in the aftermath of the Cold War, references to options for use of nuclear weapons in "counterproliferation" missions in response to biological, chemical, and nuclear weapons use and capabilities surfaced in a variety of governmental settings.[32]

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[26] "Nuclear Posture Review [Excerpts] Submitted to Congress on 31 December 2001" ("NPR Excerpts"). Online at http://www.globalsecurity.org/wmd/library/policy/dod/npr.htm.

[27] Joseph Cirincione, Director, Non-Proliferation Project, Carnegie Endowment for International Peace, Testimony to the Senate Committee on Foreign Relations, May 16, 2002.

[28] NPR Excerpts; William M. Arkin, Commentary, "Secret Plan Outlines the Unthinkable," *Los Angeles Times*, March 10, 2002; Walter Pincus, "U.S. Nuclear Arms Stance Modified by Policy Study," *Washington Post*, March 23, 2002. Pincus wrote that the NPR "would give U.S. presidents the option of conducting a preemptive strike with precision-guided conventional bombs or nuclear weapons" against "hostile countries that threaten to use weapons of mass destruction."

[29] NPR Excerpts.

[30] *National Strategy to Combat Weapons of Mass Destruction* (December 2002) 3.

[31] *E.g.*, U.S. Department of Defense, *Strategic Deterrence Joint Operating Concept* (February 2004) 32-33. Online at http://www.dtic.mil/jointvision/sd_joc_v1.doc. "Joint Operating Concepts" are part of a set of planning documents intended "to assist in the development of enhanced joint military capabilities needed to protect and advance U.S. interests." The goal is "to realize the Chairman's vision of achieving Full Spectrum Dominance by the Joint Force." *Id.* at 1.

[32] "The Role of Nuclear Weapons in the New World Order," Briefing by Thomas C. Reed, Chairman of the Joint Strategic Target Planning Staff Strategic Advisory Group Deterrence Study Group, October 10, 1991, p.8; Department of the Navy, Office of the Deputy Chief of Naval Operations for Plans, Policy and Operations, *Stratplan 2010 Phase II, Final Report* (June 1992), V.I, pp.92-93, obtained through the Freedom of Information Act by the Greenpeace Nuclear

However, the recent statements are different in three important respects. First, the authoritativeness is heightened, by a presidential signature on a public document in the case of the National Strategy, and by a defense secretary's signature in the case of the Nuclear Posture Review. Second, ambiguity has been lessened and effectively removed about whether the United States maintains the option of a nuclear response to use of chemical and biological weapons as well as nuclear weapons, and the possibility of nuclear preemptive use has been given a higher profile. Third, the NPR's reference to "surprising military developments" significantly widened, at least theoretically, the circumstances for U.S. nuclear use.

Thus far from diminishing the role of nuclear weapons in security policies, as called for by the NPT 13 steps, the United States is expanding options for nuclear use. This point was illustrated chillingly this year by credible media reports that, until the Joint Chiefs of Staff insisted on their removal, U.S. civilian officials at the highest level wanted to keep nuclear use options in plans for counter-proliferation strikes on Iran.[33] During the Cold War, nuclear weapons were rationalized by the policy of mutually assured destruction, a policy paradoxically designed to ensure non-use. Now, there is a new emphasis on their war-fighting role. It is morally comprehensible, though not morally acceptable, certainly as a long-term policy, that nuclear weapons would be retained to prevent their use by another country. It is not morally intelligible to project the use of nuclear weapons in a wide range of circumstances, not limited to possible response to another country's nuclear use. Nor is it wise, because it may one day lead to the actual use of nuclear weapons, and because it enhances their political value, and therefore encourages their spread.

The United States should therefore reaffirm the assurances of non-use of nuclear weapons previously given to NPT states parties which have renounced the possession of nuclear arms, and support rather than oppose codification of the assurances in a treaty. The logic is unassailable; countries that have foresworn nuclear weapons are entitled to guarantees of non-use of the weapons against them. Furthermore, the United States should adopt a declared policy of no first use of nuclear weapons.

Free Seas program, 1994; United States Joint Chiefs of Staff, *Doctrine for Joint Theater Nuclear Operations*, Joint Pub 3-12.1 (February 1996), pp. viii, I-3; White House, Press Briefing by Robert Bell, April 11, 1996, cited in George Bunn, "The Legal Status of U.S. Negative Security Assurances to Non-Nuclear Weapon States," The Nonproliferation Review (Spring-Summer 1997) 1, at 11, fn. 116; Robert Bell, "Strategic Agreements and the CTB Treaty: Striking the Right Balance", 28 Arms Control Today (No. 1, January/February 1998) 3, at 6, 9; R. Jeffrey Smith, "Clinton Directive Changes Strategy On Nuclear Arms," Washington Post, December 7, 1997; Edward Warner III, Assistant Secretary of Defense (Strategy and Threat Reduction), prepared statement before the Strategic Forces Subcommittee, Senate Armed Services Committee, Hearing on Nuclear Deterrence, March 31, 1998, at 9, quoted in J. Medalia, "Nuclear Weapons Production Capability Issues," Congressional Research Service Report to Congress (June 1998), at CRS-14; Stephen I. Schwartz, "Miscalculated Ambiguity: US Policy on the Use and Threat of Use of Nuclear Weapons," Disarmament Diplomacy (February 1998, No. 23) 10, at 11, available at www.acronym.org.uk; "Nuclear Operations," Air Force Doctrine Document 2-1.5 (15 July 1998), at 8-9. The first three items are cited and discussed in Andrew Lichterman, Western States Information Bulletin, *Sliding Towards The Brink: More Useable Nuclear Weapons and the Dangerous Illusions of High-Tech War* (March 2003) 8-9, online at http://wslfweb.org/docs/nucpreppdf.pdf.

[33] Seymour Hersh, "The Iran Plans: Would President Bush go to war to stop Tehran from getting the bomb?" The New Yorker, April 17, 2006; Peter Baker, Dafna Linzer and Thomas E. Ricks, "U.S. Is Studying Military Strike Options on Iran: Any Mix of Tact, Threats Alarms Critics," Washington Post, April 9, 2006; Seymour Hersh, "Last Stand: The military's problem with the president's Iran policy," The New Yorker, July 10, 2006.

Conclusion: Disarmament as the compass point

Implementation of the above-outlined priority measures and the regime-management reforms outlined in the Appendix I should take place in the context of a visible intent to achieve a nuclear weapons-free world. The priority measures are valuable in and of themselves. They decrease risks of use, diminish the access of terrorists to catastrophic weapons and materials to build them, raise barriers to acquisition by additional states, and generate support for strengthening the nonproliferation side of the regime and resolving regional crises. Moreover, the measures pass key tests: they enhance security generally; they do not diminish the security of any state; they reinforce the NPT and enhance the rule of law; they make the world safer now; they move the world towards elimination of nuclear weapons.

To conclude: Building an effective nonproliferation/disarmament regime is complex and challenging. The underlying principle, however, is simple, and serves as a guide to the work. Nuclear weapons are morally, legally, and practically unacceptable. As my mentor, the late Senator Alan Cranston, used to say, "Nuclear weapons are unworthy of civilization." Perpetual nuclear apartheid – some countries have the weapons, others are forbidden to have them – is unsustainable. Both practical and moral coherence requires application of a universal standard, a golden rule: no country may possess weapons capable of inflicting catastrophic, city-destroying or even civilization-ending, damage. If we meet the challenge of implementing this rule, we will pass down to our children and grandchildren and all succeeding generations a world preserving the advances made by hundreds of previous generations, including our own.

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Appendix A: Needed Nonproliferation Reforms

Experience since the Cold War with preventing proliferation, in particular with regard to North Korea and Iran, teaches three lessons about strengthening the regime for the future.

First, material and ongoing violations of safeguards reporting requirements should result in forfeiture of the right to acquire nuclear fuel production technology under Article IV of the NPT. The United States made this point in NPT meetings with respect to Iran, but it has never been squarely addressed by the IAEA Board of Governors, NPT states parties, or the Security Council.

Second, institutional reform is needed to create effective compliance assessment mechanisms. There is no body empowered to assess whether a state is breaching its NPT obligation by seeking to acquire nuclear weapons nor by failing to comply with the commitment to good faith negotiations on disarmament. Under its Statute, the IAEA has the important but limited task of ascertaining whether nuclear materials have been diverted to a weapons program, which it has *not* found to be the case in Iran. But there are other aspects to a weapons program, for example warhead design and missile development. What is needed is an NPT governing body which together with the IAEA, perhaps also drawing on UNMOVIC-type resources, has this responsibility, as well as the responsibility of monitoring reduction and elimination of existing arsenals. There have been multiple proposals to strengthen NPT institutional capability, by adding a secretariat, a governing council, and/or empowered annual meetings of states parties. The proposals have come from responsible states like Ireland and Canada and from the Weapons of Mass Destruction Commission,[34] and have been advanced as well by Jayantha Dhanapala, chair of the 1995 Review and Extension Conference and former UN Under Secretary-General for Disarmament Affairs.[35] So far the United States has shown no interest.

Third, policy tools work best when integrated into the global system. Effective nonproliferation and disarmament requires a robust multilateralism based upon global norms. This is not to say that policy tools involving international cooperation short of a global regime have no place. The tools include export control arrangements; the network of states (the Proliferation Security Initiative) prepared to interdict illicit shipments of nuclear, biological and chemical (NBC) weapon-related equipment, materials, and delivery systems; and the G-8 program building on the Cooperative Threat Reduction program aimed at securing NBC weapons and materials in Russia and other countries. But their effectiveness can be optimized by finding ways to link them to the global regime. An example of movement towards such integration is Security Council resolution 1540, which requires all states to take steps to prevent acquisition of and trafficking in NBC weapon-related items by states, terrorists and other non-state actors. Among other things, the resolution requires all states to appropriately regulate exports. It is a step toward universalizing nuclear weapons control by means of law established by the Security Council. The Bush administration is to be commended for its leadership in the solidification of global law through resolution 1540. But I must register two cautions. The first is that, as with other nonproliferation measures, the extent of compliance will depend crucially on how well the states possessing nuclear arsenals do in fulfilling their side of the bargain. The second is that given the limited membership of the Security Council and its control by the United States and other permanent members, all

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[34] *Weapons of Terror* at 63-66.

[35] See Jayantha Dhanapala with Randy Rydell, *Multilateral Diplomacy and the NPT: An Insider's Account* (UNIDIR, 2005) 129-132.

possessing nuclear weapons, legitimacy and in-depth commitment will best be achieved by subsequent codification of 1540 and similar requirements in multilateral treaties.

Appendix B: Underlying Practical and Moral Concerns

"The unleashing of power of the atom bomb has changed everything except our mode of thinking, and thus we head toward unparalleled catastrophes." ***Albert Einstein***

"If men can develop weapons that are so terrifying as to make the thought of global war include almost a sentence of suicide, you would think that man's intelligence and his comprehension ... would include also his ability to find a peaceful solution." ***President Dwight D. Eisenhower***

We must and we can change our course for life is precious.

General George Lee Butler, former Commander-in-Chief of U.S. Strategic Air Command (1991-92) and U.S. Strategic Command (1992-94), was responsible for all nuclear forces of the American Air Force and Navy. His insights should be of paramount concern to all Members of Congress:

'Despite all the evidence, we have yet to fully grasp the monstrous effect of these weapons, that the consequences of their use defy reason, transcending time and space, poisoning the Earth and deforming its inhabitants.' Nuclear weapons are 'inherently dangerous, hugely expensive and militarily inefficient.'

General Butler stated that "accepting nuclear weapons as the ultimate arbiter of conflict condemns the world to live under a dark cloud of perpetual anxiety. Worse, it codifies mankind's most murderous instincts as an acceptable resort when other options for resolving conflict fail." He added, 'I have spent years studying nuclear weapons effects...have investigated a distressing array of accidents and incidents involving strategic weapons and forces... I came away from that experience deeply troubled by what I see as the burden of building and maintaining nuclear arsenals ... the grotesquely destructive war plans, the daily operational risks, and the constant prospect of a crisis that would hold the fate of entire societies at risk"[36]

He stated his profound concern regarding how little high-level scrutiny (the U.S. nuclear war plan) had received over the years, and by how readily his military colleagues threw up

[36] CHARLES J. MOXLEY JR., NUCLEAR WEAPONS AND INTERNATIONAL LAW IN THE POST COLD WAR WORLD, 535 (footnote omitted) (reprinted from Otto Kreisher, *Retired Generals Urge End to Nuclear Arsenal*, THE SAN DIEGO UNION-TRIB., Dec.5, 1996, at A-1.); See, Jonathan Granoff, *Nuclear Weapons, Ethics, Morals, and Law*, Volume 2000 Number 4, Bringham Young University Law Review, 1417 (2000)

their hands and rolled their eyes at the grim challenge of converting mathematical estimates of the destructiveness of nuclear arms and the resilience of Soviet structures into dry statistical formulas for nuclear war. (reprinted from R. Jeffrey Smith, *Ex-Commander of Nukes Wants to Scrap Them, A Believer No More*, THE SACRAMENTO BEE, Mar. 29, 1998. See also R. Jeffrey Smith, *The Dissenter*, THE WASHINGTON POST, Dec. 7, 1997, at Magazine, W18.)

General Butler had a unique comprehension of how little the matter has been understood in the chambers of decision making:

> "'It was all Alice-in-Wonderland stuff,' General Butler says. The targeting data and other details of the war plan, which are written in an almost unfathomable million lines of computer software code, were typically reduced by military briefers to between 60 and 100 slides that could be presented in an hour or so to the handful of senior U.S. officials who were cleared to hear it: 'Generally, no one at the briefing wanted to ask questions because they didn't want to embarrass themselves. It was about as unsatisfactory as could be imagined for that subject matter. The truth is that the President only had a superficial understanding' of what would happen in a nuclear war, Butler says. Congress knew even less because no lawmaker has ever had access to the war plan, and most academics could only make ill-informed guesses."[37]

We remain in a state of incomplete comprehension largely because the magnitude of the destructive capacity of a nuclear bomb is simply too great to imagine. Moreover, the illogic of this improved means to an unimproved end challenges our fundamental concepts of what we are willing to do to millions of innocent people to protect our own creation, the State.

> The UN in its 1991 report found the '(n)uclear weapons represent a historically new form of weaponry with unparalleled destructive potential. A single large nuclear weapon could release explosive power comparable to all the energy released from the conventional weapons used in all past wars.'[38]
>
> Experts have estimated that the total conventional bombs dropped by United States Air Force amounted to only two megatons for the entirety of WWII, the yield of one or two ordinary nuclear bombs today. [39]

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[37] See id. at n 27 (quoting R. Jeffery Smith. *Ex-Commander of Nukes Wants to Scrap Them, A Believer No More*, SACRAMENTO BEE, Mar. 9, 1998; *see also* R. Jeffrey Smith, *The Dissenter*, WASH. POST MAG.. Dec. 7, 1997, at W18).

[38] MOXLEY, *supra* note 1, at 398 (quoting WOLRD HEALTH ORGANIZATION, UNITED NATIONS, EFFECTS OF NUCLEAR WAR ON HEALTH AND HEALTH SERVICES 7 (2d ed. 1987); *see also*, UN DEPARTMENT FOR DISARMAMENT AFFAIRS, NUCLEAR WEAPONS: A COMPREHENSIVE STUDY 6, at 7, (1991).

[39] See Center for Defense Information, Nuclear War Quotations 39, (hereinafter NUCLEAR WAR QUOTATIONS) (quoting Ray S. Cline *in* WORLD POWER ASSESSMENT 58 (1975).

What exactly does one nuclear bomb do? Former Director of Central Intelligence Stansfield Turner offers his brief description:

> The fireball created by a nuclear explosion will be much hotter than the surface of the sun for fractions of a second and will radiate light and heat, as do all objects of very high temperature. Because the fireball is so hot and close to the earth, it will deliver enormous amounts of heat and light to the terrain surrounding the detonation point, and it will be hundreds or thousands of times brighter than the sun at noon. If the fireball is created by the detonation of a 1-MT (megaton) nuclear weapon, for example, within roughly eight- to nine-tenths of a second each section of its surface will be radiating about three times as much heat and light as a comparable area of the sun itself. The intense flash of light and heat from the explosion of a 550-KT weapon can carbonize exposed skin and cause clothing to ignite. At a range of three miles surfaces would fulminate and recoil as they emanate flames. Particles of sand would explode like pieces of popcorn from the rapid heating of the fireball. At 3.5 miles, where the blast pressure would be 5psi, the fireball could ignite clothing on people, curtains and upholstery in homes and offices, and rubber tires on cars. At four miles, it could blister aluminum surfaces, and at six to seven miles it could still set fire to dry leaves and grass. This flash of incredibly intense, nuclear-driven sunlight could simultaneously set an uncountable number of fires over an area of close to 100 square miles.[40]

What is the destructive effect of this blast? In his landmark opinion for the International Court of Justice, Judge Christopher Weeramantry made a short list:

> Nuclear weapons
> 1. cause death and destruction; induced cancers, leukemia, keloids and related afflictions;
> 2. cause gastrointestinal, cardiovascular and related afflictions; continued for decades after their use to induce the health related problems mentioned above;
> 3. damage the environmental rights of future generations;
> 4. cause congenital deformities, mental retardation and genetic damage;
> 5. carry the potential to cause a nuclear winter;
> 6. contaminate and destroy the food chain;
> 7. imperil the eco-system;
> 8. produce lethal levels of heat and blast;
> 9. produce radiation and radioactive fallout;
> 10. produce a disruptive electromagnetic pulse;
> 11. produce social disintegration;
> 12. imperil all civilizations;
> 13. threaten human survival;
> 14. wreak cultural devastation;
> 15. span a time range of thousands of years;
> 16. threaten all life on the planet;
> 17. irreversibly damage the rights of future generations;

[40] STANSFIELD TURNER, CAGING THE NUCLEAR GENIE , app. A 127-128 (1997).

18. exterminate civilian population;
19. damage neighboring states;
20. produce psychological stress and fear syndromes--as no other weapons do.[41]

What does this mean in terms of human experience? Please read this bearing in mind that the current arsenals represent nearly one million times the horror that overtook Hiroshima. Takashi Hiroaka, Mayor of Hiroshima testified before the International Court of Justice:

> 'The atomic bombs dropped on Hiroshima and Nagasaki shattered all war precedent. The mind-numbing damage these nuclear weapons wrought shook the foundations of human existence...
> The dropping of the nuclear weapons is a problem that must be addressed globally. History is written by the victors. Thus, the heinous massacre that was Hiroshima has been handed down to us as a perfectly justified act of war. As a result, for over 50 years we have never directly confronted the full implications of this horrifying act for the future of the human race. Hence, we are still forced to live under the enormous threat of nuclear weapons...
> Beneath the atomic bomb's monstrous mushroom cloud, human skin was burned raw. Crying for water, human beings died in desperate agony. With thoughts of these victims as the starting point, it is incumbent upon us to think about the nuclear age and the relationship between human beings and nuclear weapons...
> The unique characteristic of the atomic bombing was that the enormous destruction as instantaneous and universal. Old, young, male, female, soldier, civilian – the killing was utterly indiscriminate. The entire city was exposed to the compound and devastating effects of thermal rays, shock wave blast, and radiation...
> Above all, we must focus on the fact that the human misery caused by the atomic bomb is different from that caused by conventional weapons. (H)uman bodies were burned by the thermal rays and high-temperature fires, broken and lacerated by the blast, and insidiously attacked by radiation. These forms of damage compounded and amplified each other, and the name given to the combination was "A-bomb disease..."
> (T)he bomb reduced Hiroshima to an inhuman state utterly beyond human ability to express or imagine. I feel frustrated at not being able to express this completely in my testimony about the tragedy of the atomic bombing...'
> It is clear that the use of nuclear weapons, which cause indiscriminate mass murder that leaves survivors to suffer for decades, is a violation of international law." [42]

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[41] Threat or Use of Nuclear Weapons, 1996 I.C.J. at 454 (separate opinion of Judge Weeramantry)

[42] JOHN BURROUGHS, THE (IL)LEGALITY OF THE THREAT OR USE OF NUCLEAR WEAPONS, 90-91(1997); see also, DOUGLAS ROCHE, BEYOND HIROSHIMA (2005), THE ULTIMATE EVIL (1997), and AN UNACCEPTABLE RISK (1995) for thorough expositions of the relationship between the threat of nuclear weapons and international legal and diplomatic affairs.

During the Cold War the deployment of the arsenals of the Soviet Union and the US were designed to ensure nonuse. Not only does it seem that nuclear weapons challenge our capacity of using law and morality to guide our conduct but also reason as well. We have built a device which renders us less secure the more we perfect its effectiveness. Thus, George Kennan, a key figure in developing the architecture of the Cold War said about nuclear weapons:

:

> "The readiness to use nuclear weapons against other human beings – against people we do not know, whom we have never seen, and whose guilt or innocence is not for us to establish – and, in doing so, to place in jeopardy the natural structure upon which all civilization rests, as though the safety and perceived interests of our own generation were more important than everything that has taken place or could take place in civilization: this is nothing less than a presumption, a blasphemy, an indignity – an indignity of monstrous dimensions – offered to God!"[43]
>
> The perverse logic of the Cold War based on having enough destructive capacity at the ready to make a use unthinkable makes no sense at all today. The hair trigger deployments of thousands of warheads between Russia and US renders logic impotent since we are not even enemies. Yet, as if we were acting rationally, we keep these arsenals precisely calibrated and well organized thus efficiently risking the destruction of all human life on the planet.
>
> I would now like to offer a simple legal test that the National Academy has given to these devices followed by the relevant excerpts from statements of recent years of the Nobel Peace Laureates who have gathered at a Summit in Rome, Italy and then close with the entire most recent Nobel Peace Laureates Statement from Gwangju, Korea of June 2006.[44]

My hope is to instill a greater sense of the moral aspect of this issue into our public discourse. At root we are addressing whether this use of the gift of science and technology solves any problem as great as the problem this use has created. I would contend that practically, legally, morally, and militarily it has not. Thus the argument to set the compass point toward abolition is well founded.

The Committee on International Security and Arms Control of the U.S. National Academy of Sciences succinctly summed up the legal analysis of the current posture of international law:

> "(T)he International Court of Justice agreed that the threat or use of nuclear weapons is strictly limited by generally accepted laws and humanitarian principles that restrict the use of force. Accordingly, any threat or use of nuclear weapons must be limited to , and necessary for, self-defense; it must not be targeted at civilians, and be capable of distinguishing between civilian and military targets; and it must not cause unnecessary suffering to combatants, or harm greater than

[43] GEORGE F. KENNAN, THE NUCLEAR DELUSION 206-207 (1982).

[44] Report on Nobel Laureate organization the International Peace Bureau delegations to the Nobel Peace Laureate Summits lists the Laureate participants and the statements in full, < http://www.gsinstitute.org/docs/IPB_NobelSummitReports.pdf>; see also the official web site of the Summits at <http://www.nobelforpeace-summit.org >

> that unavoidable to achieve military objectives. In the Committee's view, the inherent destructiveness of nuclear weapons, combined with the unavoidable risk that even the most restricted use of such weapons would escalate to broader attacks, makes it extremely unlikely that any contemplated threat or use of nuclear weapons would meet such criteria." [45]

Judge Ranjeva, of the ICJ, stated what should be axiomatic in addressing world threats, and by that I mean, threats that impact on not just United States' interests but the entire planet and generations yet unborn:

> "On the great issues of mankind the requirements of positive law and ethics make common cause, and nuclear weapons, because of their destructive effects, are one such issue." [46]

In a world with many different religions and cultures there are few places where we can look for an expression of global ethical principles and norms. Many would agree that the Nobel Peace Laureates are a sufficiently distinguished group whose opinions should not be lightly ignored. Below are several quotes from Summits of this distinguished group on the subject of nuclear weapons.

From the 2005 Rome Final Statement:

While expressing regret that some African nations spend too much on conventional weapons, we commend the entire African continent for becoming a nuclear weapons free zone. It is absurd that the nations with nuclear weapons refuse even to pledge not to use nuclear weapons against all nuclear weapons free nations.

As in past years, we reiterate our insistence that the existence of nuclear weapons is morally unacceptable and condemn military doctrines allowing their use. We demand progress by the nuclear weapons states in fulfilling their disarmament obligations under the Nuclear Non-Proliferation Treaty. The corrosion of the non-proliferation regime is a danger to world peace.

From the 2004 Rome Final Statement:

Preserving and strengthening the Nuclear Non-Proliferation Treaty. We reject double standards and emphasize the legal responsibility of nuclear weapons states to work to eliminate nuclear weapons. We call for continuation of the moratorium on nuclear testing pending entry into force of the Comprehensive Test Ban Treaty, and for accelerating the process of verifiable and irreversible nuclear arms reduction. We are gravely alarmed by the creation of new, usable nuclear weapons and call for rejection of doctrines that view nuclear weapons as legitimate means of war-fighting and threat pre-emption.

From 2003 Rome Final Statement:

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[45] JOHN BURROUGHS, THE LEGAL FRAMEWORK FOR NON-USE AND ELIMINATION OF NUCLEAR WEAPONS, quoted at p. 6 (2006), <http://www.lcnp.org/disarmament/Gpeacebrfpaper.pdf>

[46] Threat or Use of Nuclear Weapons 1996 ICJ 296 (separate opinion of Judge Ranjeva).

The threat of weapons of mass destruction remains with us. We call for an immediate end to the newly resurgent arms race, which is being fueled by a failure to universally ratify a treaty banning nuclear testing, and by doctrines that lower the threshold of use and promote the creation of new nuclear weapons. This is particularly dangerous when coupled with the doctrine of pre-emption.

For some to say that nuclear weapons are good for them but not for others is simply not sustainable. The failure
of the nuclear weapons states to abide by their legal pledge to negotiate the elimination of nuclear weapon, contained in the Nuclear Non-Proliferation Treaty, is the greatest stimulus to their proliferation.

Nuclear weapons are immoral and we call for their universal legal prohibition. They must be eliminated before they eliminate humanity.

For a list of the Nobel Peace Laureates who have endorsed these strong statements, please go to http://www.nobelforpeace-summit.org/index-en.asp

And most recently the following was issued at the Summit in Gwangju, Korea, which is quoted here in its entirety because of its relevance to the Korean issue:

Gwangju Final Declaration 2006

In Gwangju, the birthplace of modern Korean democracy, we, the Nobel Peace laureates, have reaffirmed our historical responsibility and the hope of human kind to achieve democracy and peace on the Korean Peninsula and the whole world. "The 2006 Gwangju Summit of Nobel Peace Laureates" was held to remember the May 18 Democratic Movement that spurred the democratization of Korea in 1980, and to uphold the spirit of the June 15 South–North Joint Declaration that opened up the way for peace on the Korean Peninsula in 2000. We have gathered in the spirit of the two global events that have occurred on the Korean Peninsula. We will search for, and promote, stable ways to bring lasting peace on the Peninsula and to spread democracy in East Asia. The Summit started from the universal insight discovered over the course of human history that democracy and human rights bring peace; and peace in turn strengthens democracy and human rights. This is not only the spirit of the Nobel Peace Prize but also the purpose of life and the course of action for the Nobel Peace laureates.

The shadows of the Cold War still linger on the Korean Peninsula and the tension and confrontation have become a huge threat to the peace and democracy of not only the Peninsula and East Asia but also the world as a whole. Meanwhile, there are still many places in Asia where democracy has not yet developed and human rights are being jeopardized. This shows us that trees of democracy and peace do not grow easily and that without endless efforts these trees will not grow and sometimes even wither. In this respect, the historical responsibility and common action of the Nobel Peace laureates are all the more crucial. Based upon our strong friendship and common philosophy, we will go to areas where democracy and peace are under threat, wherever that may be, and do our best to fulfill our role and responsibility.

Our practical actions aspire to affirm universal shared values such as compassion, love, justice,

forgiveness and generosity.

Based on such goal and philosophy, we, the Nobel Peace laureates, pledge and propose the following:

Global Issues

1. *All countries around the world must endlessly strive to further develop democracy and peace, and this must be pursued not by use of force or violence but through peaceful means such as non-violence, forgiveness and reconciliation.*
2. *There are still many areas not only in Asia but in all parts of the world where democracy and human rights are under oppression. International cooperation, and multilateralism based on the rule of law must be strengthened. Not only political human rights, but also the more basic social human rights such as the right to eat, to receive medical treatment, to be educated and to live in peace must be achieved.*
3. *Without rooting out poverty we cannot expect development in democracy and human rights, nor can we end terrorism and war. Along with humanitarian emergency aid, the international community needs long–term efforts to reduce poverty and bring sustainable economic development. We urge the G8 leaders meeting in St Petersburg on July 15th to fulfill the Millennium Development Goals for Africa and its peoples, especially through debt cancellation.*
4. *To ensure a sustainable future we call for: a. Recognition and full implementation of women's rights and the full implementation of Security Council Resolution 1325 on women's role in the peace process; b. Promotion of a culture of peace where security is defined to always focus on meeting human needs with substantial reductions in military spending thus freeing up enormous resources; c. Recognition in action not just rhetoric that without a healthy environment the human community cannot survive; d. Enhancing cooperation amongst people in addressing our collective needs through rendering the institution of war as obsolete as apartheid, slavery and colonization.*
5. *For the resolution to international disputes and for world peace, the active role of the United Nations must be respected. All countries should do their utmost to closely cooperate with the UN to resolve current global disputes and promote democracy through peaceful diplomatic measures.*

Korean Issues

1. *The May 18 Democratic Movement and the signing of the June 15 South-North Joint Declaration were historic events contributing to democracy and peace not only on the Korean Peninsula but in Asia and the whole world. We, the Nobel Peace laureates, will do our best to uphold the vision and philosophy of both events.*
2. *The Korean Peninsula remains the only place on earth where the darkest shadows of the Cold War still linger. We call for more active cooperation and efforts of the two Koreas, and also the concerned nations such as the United States, Japan, China and Russia, and international organizations such as the United Nations to pursue inter-Korean reconciliation and cooperation and end the state of war on the Peninsula to bring lasting peace in the region. As a modest step to enhance such cooperation, we advocate conversion*

of the DMZ into a de-mined Peace Park, an environmental reserve for the benefit of all people.

3. *The tension and confrontation surrounding the North Korean nuclear issue must be resolved. We urge all parties to resume the Six Party Talks in the spirit of mutual respect and equality. In order to advance this important process, we expect that the DPRK will completely abandon its nuclear weapons policy and accept international inspections. We also call for the US to end financial and economic sanctions on the DPRK and offer security guarantees. All parties should avoid any further obstacles to progress. All parties should fully implement the "Beijing Joint Statement" of September 19, 2005. The Six Parties should cooperate to ensure safe, peaceful energy security for the DPRK and implement economic cooperation in the fields of energy, trade and investment, bilaterally and multilaterally. We urge the United Nations and all nations involved to pursue inter-Korean reconciliation and cooperation and end the state of war on the Peninsula to bring lasting peace in the region.*
4. *We propose that the six-party talks should not be a temporary meeting to resolve the North Korean nuclear issue and bring lasting peace on the Peninsula but be developed into a permanent multilateral organization to promote peace and democracy on the Korean Peninsula.*

Nuclear weapons

1. ***If we are to have stability we must have justice. This means the same rules apply to all. Where this principle is violated disaster is risked. In this regard we point to the failure of the nuclear weapons states to fulfill their bargain contained in the Nuclear Nonproliferation Treaty to negotiate the universal elimination of nuclear weapons. To pursue a nuclear-weapons-free Korean Peninsula or Middle East or South Asia, without credible commitment to universal nuclear disarmament is akin to a parent trying to persuade his teenagers not to smoke while puffing on a cigar. There are steps available to make progress in this area and they include:***

a. Completing a treaty with full verification mechanisms cutting off further production of highly enriched uranium or plutonium for weapons purposes;
b. Universal ratification of the Comprehensive Test Ban Treaty, now ratified by 176 nations;
c. Taking the arsenals of Russia and the US off of hair trigger, launch on warning high alert;
d. Legally confirmed pledges by all states with nuclear weapons never to use them first;
e. Making cuts in the US and Russia's arsenal irreversible and verifiable.
(Italics added)

* * *

We, the Nobel Peace laureates, pledge to pursue joint efforts and strengthen cooperation for the development of democracy, peace and human rights on the Korean Peninsula and the world as a whole.—June 17, 2006, At the closing of the "2006 Gwangju Summit of Nobel Peace Laureates"

- *Mikhail Gorbachev, Nobel Peace Laureate 1990*

- *Kim Dae-jung, Nobel Peace Laureate 2000*
- *Mairead Corrigan Maguire, Nobel Peace Laureate 1976*
- *Shirin Ebadi, Nobel Peace Laureate 2003*
- *Wangari Muta Maathai, Nobel Peace Laureate 2004*
- *International Peace Bureau (IPB), Organization awarded Nobel Peace Prize 1910*
- *American Friends Service Committee (AFSC), Organization awarded Nobel Peace Prize 1947*
- *Amnesty International (AI), Organization awarded Nobel Peace Prize 1977*
- *International Physicians for the Prevention of Nuclear War (IPPNW), Organization awarded Nobel Peace Prize 1985*
- *Pugwash Conferences on Science and World Affairs, Organization awarded Nobel Peace Prize 1995*

Mr. SHAYS. Thank you, Mr. Granoff.
Mr. Sokolski. Thank you.

STATEMENT OF HENRY D. SOKOLSKI

Mr. SOKOLSKI. Thank you, Mr. Chairman.

I am a little humbled. This is quite an assembly that you have put together of experts. It is an honor to be here, and I thank you for holding the hearing.

Mr. SHAYS. It is an honor to have you here. And it is an assembly of some very fine experts, so thank you for being part of it.

Mr. SOKOLSKI. I want to talk about the topic that you assigned us, and I guess my message today is that your hearing is perhaps too timely. I say that because the nonproliferation provisions in the NPT have pretty much been watered down for a long time, and they have been overshadowed, I think, too much by many countries' backing of the most dangerous and uneconomical forms of nuclear energy. I think you heard some expressions of that enthusiasm, though muted, even today.

What is worse, since the early 1990's we and our allies have shied away from enforcing the NPT against the world's worst proliferators. Now, sadly, I don't think there is any technical or really any simple diplomatic substitute for these treaty-based systems, particularly the NPT. I think that is why I have spent so much time, both in my service on the Hill at the Defense Department and advising the CIA, and in running my own center, on commissioning research and looking into how to make the nonproliferation provisions of these rather weak institutional barriers, the NPT and the IAEA, much more effective.

We have commissioned at the center that I run, the Nonproliferation Policy Education Center, a good number of analyses over the last, I'd say, four or 5 years. Today what I would like to do is just give you four of the key findings of this research.

First, I think if we are to do better we really need to clarify what the NPT protects as being peaceful. A key reason why the nonproliferation provisions of the NPT have become more difficult to enforce is that most nations, including Iran, North Korea, and, I hate to say it, the U.S. Government, have adopted too generous a view of what the inalienable right to develop research and produce peaceful nuclear energy is under the NPT's article four. Simply because a nuclear activity or material might have some conceivable civilian application and a country is willing to let international inspectors come and monitor them occasionally I would submit is not enough to meet the criteria of what is peaceful under the NPT.

In addition, the nuclear activity or material must also be capable of being monitored in a manner that will prevent it from being used for bombs. This is laid out in article three. And their applications must be economical enough clearly to be beneficial. I think if you note when you read the treaty it says the purpose is to share the benefits of peaceful nuclear energy. I don't think it was meant to promote uneconomical activities that bring countries within days or weeks of having bombs. That is not the purpose of the treaty. It has become that, and that is a big problem.

Certainly building commercial nuclear fuel making plants which could bring nations to the brink of having bombs is hardly a per

se right under the NPT. Actually, if it is possible I would like to submit some testimony that I gave on this very issue which basically relies on the research of other experts and legal authorities and historians going into what the per se rights are under the NPT, with your permission. Indeed, such a reading of the NPT would make the treaty one that promotes the spread of nuclear weapons making capabilities, which is the exact opposite of its intent.

Second, the IAEA should concede what it can't safeguard and seek more funds to safeguard what it can. The ability of the IAEA to account for nuclear materials that are needed to make nuclear weapons is hampered not only by a lack of candor regarding what the Agency's inability to safeguard nuclear fuel-making activities is, but also its persistent tendency to rationalize away new safeguards and physical security challenges and to shy from raising the funds needed to meet these new challenges.

You had a series of questions during the hearing that were quite interesting about whether or not the IAEA budget was growing or not. It is growing, but it is puny. To give you some idea, we spent about $6 billion on the Transportation Security Agency to check your luggage and to make sure that you don't bring liquids on of a certain type. We have 100 percent false alarm rate for that particular activity. We take old women and children and we put them through the wringer. The IAEA is not permitted, by its own charter, to have a false alarm rate higher than 5 percent. Its budget right now—and this is in the notes. We standardized it to 2004 dollars—is roughly about $100-some-odd million.

Now, I heard testimony that said that while $30 million, or even more, had been added, but that there was a lot of resistance because the tax burden on us or on other countries. I don't know. That doesn't sound right to me. The $30 million just isn't that much.

For the last 20 years the Agency safeguards budget has been little more than doubled in constant dollars. During that same period, however, civilian stockpiles of separated plutonium and highly enriched uranium, which the Agency is obligated to safeguard because they are directly usable for nuclear weapons, have increased six times over. This does not include the material that is not safeguarded, which is not six times over but twenty times over. The actual amount of civilian nuclear weapons usable material that goes unaccounted for each year, meanwhile, has been increasing steadily as the number and output of nuclear fuel-making facilities grows internationally.

If we are serious about safeguarding against the spread of nuclear weapons and preventing nuclear theft or terrorism, these trends have to change. The IAEA may be able to monitor as they look at fuel-making activities, but it cannot inspect these facilities to provide timely warning of diversions or thefts, which are equivalent to many, many nuclear weapons worth each year. It should admit this publicly. I think Mr. Elbarday is to be commended for coming as close as he has to admitting it.

Mr. SHAYS. I want you to be very specific. They should admit what publicly?

Mr. SOKOLSKI. That they cannot inspect nuclear fuel-making facilities to provide sufficient warning of a possible diversion to intervene and prevent it. In other words, by the time they find out that several bombs worth has gone missing, it can sometimes be years after the diversion could have occurred where the material was missing.

By the way, this gets to one of the problems the administration and Congress should have about a fissile material cutoff. Those nuclear fuel-making facilities that would be examined by a Fissile Material Cutoff Treaty, it would be wonderful if you could verify them, yet right now you can't. The administration isn't entirely candid about this because it only says you could hide the whole facility.

The truth is, if you knew where the facilities were, you would not be able to know in any given year how much it produced, and the difference of what you knew and what the truth was could be equal, depending on the facilities, literally to scores of weapons worth in the case of one of the large facilities just brought online in Japan. So it is kind of like keeping track of the funds in Enron. If you don't know what they are making, you don't know what they are stealing. And that is where we are. People need to come out and admit that, and they are not.

Third, governments must put security first. By the way, I do make recommendations for increasing the IAEA's budget, and they should get more money based on user fees, to be blunt. Right now Italy has no reactors. It pays more into safeguards than South Korea, who has 18 reactors. There is something perverse about that. You have to change that. And there are a number of things where the IAEA has identified where they can do better. They know how to do it; they just lack money. So you have to make the distinctions. You have to give them the money where they need it and encourage them to be candid where no amount of money is going to make much difference for the time being.

Third, governments must put security first instead of subsidizing uneconomical, dangerous nuclear energy projects. Concern for nuclear security has increasingly taken a back seat to states' encouragement of uneconomical nuclear energy projects that can bring countries right to the brink. Japan, which has already been rocked by revelations that its pilot plutonium-making plants had lost track of roughly 40 bombs worth of material over the years, just began operation of one of the world's largest reprocessing plants. This plant is certain to lose money, and experts project the IAEA will lose track of nearly 50 bombs worth of crude nuclear weapons worth of plutonium there annually.

Other equally problematic nuclear fuel-making operations are underway in Brazil, South Africa, India, Ukraine, and Argentina. One has to wonder why the IAEA has correctly established that there is no economic or technical requirement for additional fuel-making capacity over the next ten to twenty years, yet the U.S. is doing little to object to these efforts and arguably is encouraging them in order to get them to pursue becoming a nuclear fuel supplying state under its new initiative, the Global Nuclear Energy Partnership, which Mr. von Hippel has done a great deal of work on.

Here it would help to pace nuclear power's expansion and that of commercial nuclear fuel——

Mr. SHAYS. Let me do this. I think I need to interrupt you to make sure we get to the Professor.

Mr. SOKOLSKI. Let me stop right here then.

Mr. SHAYS. OK. Thank you.

Mr. SOKOLSKI. Sorry.

[The prepared statement of Mr. Sokolski follows:]

Clarifying and Enforcing the Nuclear Rules

Testimony by

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Presented Before a Hearing of
The U.S. House of Representatives, Committee on Government Reform
Subcommittee on National Security, Emerging Threats, and International Relations
"Weapons of Mass Destruction: Current Nuclear Proliferation Challenges"

2154 RHOB
2:00 P.M.
September 26, 2006

Mr. Chairman, ranking member, members of the committee, I want to thank you for inviting me here to testify on the Nuclear Nonproliferation Treaty (NPT), and on how to improve implementation of the NPT and the International Atomic Energy Agency's (IAEA's) nuclear safeguards system. I previously worked on these matters in the U.S. Senate as a legislative aide, in the Pentagon as the Deputy for Nonproliferation Policy under Secretary Cheney, and as an analyst in the Secretary of Defense's Office of Net Assessment. I currently run a nonprofit educational organization, the Nonproliferation Policy Education Center, which is completing two independent studies on how implementation of the IAEA's safeguards system and the NPT can be improved.

Your hearing today is, unfortunately, all too timely. The nonproliferation provisions of the NPT and the IAEA have long been watered down and overshadowed by too many countries' backing of the most dangerous and uneconomical forms of nuclear energy. What's worse, since the early 1990s, we and our allies have shied away from enforcing the NPT or the IAEA against the world's worst proliferators. In Iran's case, we have decided to focus instead on enforcing a voluntary, confidence-building political understanding Iran made with France, the U.K. and Germany. With North Korea, we deferred enforcing the NPT for nearly a decade and then in 2003 actually ignored the IAEA's formal referral of Pyongyang's NPT violations to the UN Security Council. Finally, in the case of India, we and our allies are making an enormous exception, which failing an unprecedented expression of nuclear self-restrain by India, risks all but vitiating the nonproliferation utility of the NPT and IAEA.

Sadly, there is no technical or diplomatic substitute for these treaty-based systems. That's why my center has been commissioning research on how to make the nonproliferation provisions of the NPT and the IAEA more effective. Today, I would like briefly to discuss four of the key findings of the research that's been done.

(1) ***We need to clarify what the NPT protects as being "peaceful."*** A key reason why the nonproliferation provisions of the NPT have become more difficult to enforce is that most nations – including Iran, North Korea, *and* the United States – have adopted too generous a view of the "inalienable right" to develop, research and produce "peaceful nuclear energy" that the NPT is meant to protect. Simply because a nuclear activity or material might have some conceivable civilian application and a country is willing to let international inspectors to monitor them occasionally is not enough. The nuclear activity or material must also be capable of being monitored in a manner that will prevent it from being used for bombs, and their applications must be economical enough to be clearly "beneficial." Certainly, building commercial nuclear fuel making plants, which can bring nations to the brink of having bombs, is hardly a *per se* right under the NPT. Indeed, such a reading of the NPT would make it a treaty that promotes the spread of nuclear weapons-making capabilities--the precise opposite of the treaty's intention.[1]

(2) ***The IAEA should concede what it can't safeguard and seek more funds to safeguard what it can.*** The ability of the IAEA to account for nuclear materials that are needed to make nuclear weapons is hampered not only by a lack of candor regarding the agency's inability to safeguard nuclear fuel-making activities, but also by a general tendency to rationalize away new safeguards and physical security challenges, and an unwillingness to raise the funds needed to meet these new challenges. For the last 20 years the agency's safeguards budget has little more than doubled in constant dollars (to about $105 million in 2004). During the same period, however, civilian stockpiles of separated plutonium and highly enriched uranium—which the agency is obligated to

safeguard because they are the most usable nuclear materials for making nuclear weapons, and can be fashioned into bombs in a matter of days—have increased six times over.[2] The actual amount of civilian nuclear weapons-usable material that goes unaccounted for each year, meanwhile, has been increasing steadily as the number and output of nuclear fuel-making facilities grows. If we are serious about safeguarding against the spread of nuclear weapons and preventing nuclear theft or terrorism, these trends must change. The IAEA may be able to monitor nuclear fuel-making in rough terms, but it cannot inspect these facilities to provide timely warning of diversions or thefts equivalent to many nuclear weapons. It should admit this publicly. This would help put a spotlight on the dangers associated with additional governments trying to create even more nuclear fuel-making plants than already exist.[3] At the same time, technical opportunities to improve material accountancy coverage for reactors and inspection coverage exist, and deserve to be funded beyond the current levels.[4] The agency also could do more to encourage tighter physical security and better controls on uranium source materials. For all of these needed upgrades, the existing system of country assessments to fund the IAEA's budget, a system based on the UN formula and each country's GDP, is simply inadequate.[5] It needs to be complemented with a user-fee based on the size of each country's nuclear program and inspection requirements.

(3) ***Governments must put security ahead of subsidizing uneconomical, dangerous nuclear energy projects.*** Concern for nuclear security has increasingly taken a backseat to states' encouragement of uneconomical nuclear energy projects that can bring countries within weeks or days of acquiring nuclear weapons. For example, Japan, which was already rocked by revelations that its commercial plutonium fuel-making authorities had lost track of roughly 40 bombs worth of nuclear weapons usable material, began operations of one of the world's largest reprocessing plants at Rokkasho-mura this year. This plant is certain to lose money and experts project that the IAEA will lose track of nearly 50 crude bombs' worth of weapons usable plutonium there annually.[6] Other equally problematic nuclear fuel-making operations are underway or planned in Brazil, South Africa, India, Ukraine, and Argentina. One has to wonder why: The IAEA has correctly established that there is no economic requirement for additional nuclear fuel-making capacity for next 10 to 20 years.[7] Yet, the US is doing little to object to these efforts, and arguably is encouraging countries to pursue them in order to become "nuclear fuel supplying states" under the U.S. Department of Energy's Global Nuclear Energy Partnership.[8] Here, it would help to pace nuclear power's expansion and that of commercial nuclear fuel-making more with what private financial institutions are willing to fund than with what governments are willing to subsidize.

(4) ***We need to do more to enforce the rules and do so in a country-neutral fashion.*** Finally, no nuclear nonproliferation rules can long survive if violators go unidentified and unpunished, and if states that never signed up or never followed the rules are treated as though they had. At the very least, North Korea should be held responsible for its violation of the NPT and its IAEA safeguards agreement, even though it withdrew from the NPT. In addition, Iran should be sanctioned not just for its failure to adhere to the one-off, voluntary, confidence-building political understanding it reached with the U.K., France, and Germany in November of 2004, but also for its clear violations of its IAEA safeguards obligations that it assumed by joining the NPT. Also, it is critical that the U.S. and other states not grant India the benefits of being an NPT member in good standing (India never signed the treaty) unless New Delhi is at least willing to restrict its military nuclear efforts. India could do this by restricting its weapons production efforts, as all NPT nuclear weapons states already have, or at least by not expanding its nuclear weapons material production efforts beyond its current level. This is not only needed to prevent an arms rivalry in the region (and beyond), but to

keep the U.S. and other civilian nuclear suppliers of India compliant with their NPT obligation not to help any nation that did not have nuclear weapons before 1967 get nuclear arms "directly or indirectly". Finally, the U.S. and other countries should back adoption of new country-neutral rules similar to those being promoted by the French Government. These new rules would prescribe minimum sanctions for violations in advance (without ever naming specific states). They also would shift much of the current burden of proof in determining NPT and IAEA violations (and for taking appropriate enforcement actions) from the IAEA's Board of Governors, where it now lies entirely, to the suspect nations themselves. Instead of requiring the IAEA board to prove a violation before taking action, these new rules would suspend nuclear cooperation if the board were unable to find a nation clearly to be in compliance. Similarly, minimum sanctions would be imposed automatically against states that the IAEA board found to be in violation.[9]

Endnotes

1. On these points, see Albert Wohlstetter, "Spreading the Bomb without Quite Breaking the Rules," *Foreign Policy,* No. 25 (Winter 1976-77); Arthur Steiner, "Article IV and the 'Straightforward Bargain'," PAN Heuristics Paper 78-832-08, in Wohlstetter, et al., *Towards a New Consensus on Nuclear Technology*, Vol. II (Supporting Papers), ACDA Report no. PH-78-04-832-33 (Marina del Rey, CA: Pan Heuristics, 1978), pp. 1-8; Eldon V.C. Greenberg, *The NPT and Plutonium: Application of NPT Prohibitions to 'Civilian' Nuclear Equipment, Technology and Materials Associated with Reprocessing and Plutonium Use* (Washington, DC: The Nuclear Control Institute, 1993) <available at http://www.npec-web.org/Frameset.asp?PageType=Writings>; and Henry Sokolski, "The Nuclear Nonproliferation Treaty and Peaceful Nuclear Energy," Testimony before *Assessing "Rights" under the Nuclear Nonproliferation Treaty*, a hearing of the U.S. House of Representatives, Committee on International Relations, Subcommittee on International Terrorism and Nonproliferation, March 2, 2006 <available at http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=060301Testimony%20House%20IRC%20-%20NPT%20Rights&PDFFolder=Testimonies>.

2. See Table 1 below, which reflects the growth of safeguarded nuclear material in NPT non-nuclear-weapons states that is of direct use for making nuclear weapons.

The IAEA Safeguards Budget, and Safeguarded Weapons-Usable Nuclear Materials

	As of 1984	As of 2004
IAEA Safeguards Budget Obligation (In Constant Fiscal Year 2004 U.S. Dollars)	$45.7 million	$104.9 million
Separated Plutonium (Pu) Outside Reactor Cores	7.7 tonnes	89.0 tonnes
Highly Enriched Uranium (HEU)	11.8 tonnes	32.0 tonnes
Total IAEA Safeguarded Weapons-Usable Nuclear Materials	19.5 tonnes	121.0 tonnes

Data Sources: For data on the IAEA's safeguards budget obligation in current—not constant—U.S. dollars, *see The Agency's Accounts for 1984*, GC(XXIX)/749, p. 26; and *The Agency's Accounts for 2004*, GC(49)/7, p. 47. For data on the amount of nuclear material safeguarded by the IAEA, *see Annual Report for 1984*, GC(XXIX)/748 (Vienna, Austria: IAEA, July 1985), p. 63; and *Annual Report for 2004*, GC(49)/5, Annex, Table A19.

Prepared by R.B. Zarate, Research Fellow, Nonproliferation Policy Education Center, September 2006.

3. On these points, see Dr. Edwin S. Lyman, "Can Nuclear Fuel Production in Iran and Elsewhere Be Safeguarded Against Diversion?," a paper presented at the NPEC/King's College London conference, *After Iran: Safeguarding Peaceful Nuclear Energy*, October 2-3, 2005, London, UK <available at http://www.npec-web.org/Frameset.asp?PageType=Writings>.

[4] The IAEA, for example, still does not know whether most of its monitoring cameras are even on. This is a serious shortcoming. Over the last six years, the agency has learned of camera "blackouts" that lasted for "more than 30 hours" on 12 separate occasions. What's worse, it only learned of these blackouts after inspectors went to the sites and downloaded the camera recordings, as they are required to do every 90 days. Under new proposed "integrated safeguards" procedures, such downloading would occur only every 13 months—a period within which a state could conceivably make a nuclear weapon unbeknownst to the IAEA. The IAEA staff recently proposed to correct this inspections gap by accelerating implementation of near real-time monitoring using satellite communication connections. This effort, though, is being implemented at an excruciatingly slow pace due to a lack of funds. *See* J. Whichello, J. Regula, K. Tolk, and M. Hug, "A Secure Global Communications Network for IAEA Safeguards and IEC Applications," IAEA User Requirements Document, May 6, 2005. In addition, the IAEA still lacks a contingency fund (of $10 million to $30 million) needed to exercise its right under the Additional Protocol to conduct wide-area surveillance of countries, such as Iran, using remote sampling technologies that are currently available. See Garry Dillon, "Wide Area Environmental Sampling in Iran" a paper presented at the NPEC/King's College London conference, *After Iran: Safeguarding Peaceful Nuclear Energy*, October 2-3, 2005, London, UK <available at http://www.npec-web.org/Frameset.asp?PageType=Writings>. On other gaps that additional funding to the IAEA's safeguards system could fix, see the United States Government Accountability Office, "Nuclear Nonproliferation: IAEA Has Strengthened Its Safeguards and Nuclear Security Programs, but Weaknesses Need to be Addressed," October 2005, GAO-06-93.

5. There are two good reasons to reform how IAEA safeguards funds are raised. First, the current system is unfair: Italy, a nation that has no power reactors, pays more into the system than South Korea, which has 18 power plants. Second, the size of the IAEA budget bares no relation to other post-9/11 security efforts. For example, the U.S. Transportation Security Agency has a budget in excess of $6 billion dollars annually to screen U.S. air passengers; it tolerates a false-alarm rate in its screening of nearly 100 percent. In contrast, the IAEA, which is responsible for preventing relatively small diversions to make nuclear bombs from hundreds of thousands tons of civilian nuclear material which it safeguards, has an annual safeguards budget of only $130 million and is legally constrained against doing any inspection if it might produce a false-alarm rate more than 5 percent of the time.

6. On these points, *see* Bayan Rahman, "Japan 'Loses' 206 kg of Plutonium," *Financial Times*, January 28, 2003 <available at http://news.ft.com;servlet/ContentServer?pagename=FT.com/StoryFT/FullStory&c=StoryFT&cid=1042491288304&p=1011257172709 5>; and Nuclear Control Institute, "Enormous 'Plutonium Gap' at Japan's Tokai Plant Highlights Proliferation Risks of Reprocessing," January 28, 2003 <available at http://www.nci.org/03NCI/01/pr12803.htm>.

7. For projections, *see* International Atomic Energy Commission, *Multilateral Approaches to the Nuclear Fuel Cycle*, INFCIR/640, February 22, 2005, p. 51.

8. On these points, *see* Matthew Bunn, "Assessing the Benefits, Costs, and Risks of Near-Term Reprocessing and Alternatives," testimony presented before the U.S. Senate, Committee on Appropriations, Subcommittee on Energy and Water, September 18, 2006 <available at http://appropriations.senate.gov/hearmarkups/bunn-gnep-testimony.mht>; Edwin Lyman, "The Global Nuclear Energy Partnership: Will It Advance Nonproliferation or Undermine It?" presented at the annual meeting of the Institute of Nuclear Materials Management, July 19, 2006 <available at http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=20060700-Lyman-GNEP&PDFFolder=Essays>; and

Steve Fetter and Frank N. von Hippel, "Is U.S. Reprocessing Worth the Risk?", *Arms Control Today*, September 2005 <available at http://www.armscontrol.org/act/2005_09/Fetter-VonHippel.asp>.

9. On these points, *see* Government of France, "Strengthening the Nuclear Non-Proliferation Regime," a working paper submitted by France to the Preparatory Committee for the 2005 Review Conference to the Parties to the Treaty on the Non-proliferation of Nuclear Weapons, NPT/CONF.2005/PC.III/WP.22, May 4, 2004 <available at http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=NonPaper040504%20UN-%20France%20-%20NPT-%20English%20Version&PDFFolder=Presentations>; Henry Sokolski, "When Clever Gets Dumb: Washington's Iran Deal Is An Exercise in Futility," *National Review Online*, July 20, 2006 <available at http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=20060817-Sokolski-NRO-WhenCleverGets&PDFFolder=OpEds>; Pierre Goldschmidt, "The Nuclear Non-proliferation Regime: Avoiding the Void," a paper presented at an NPEC seminar, February 28, 2006 <available at http://www.npec-web.org/Frameset.asp?PageType=Projects>; and *Letter to Congress on the Dangers that the U.S. Might Violate the NPT in Aiding India's Civilian Program*, June 20, 2006 <available at http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=20060620-LetterOnArticleOne&PDFFolder=Essays>.

Mr. SHAYS. Mr. von Hippel. Let me just tell you I am going to give you a choice here. I am coming back after my votes. I have kept you here all day, so I am not expecting that you would have to stay, but whoever stays, even if it is one of you, I will be back to have a dialog, because, frankly, I think you can help put these pieces together that the other two panels have introduced and so on.

What the bell meant was four votes, but, Professor von Hippel, we have time to have you make your statement.

Mr. VON HIPPEL. OK. I will make it in 5 minutes.

Mr. SHAYS. You can go over a little bit. We will be fine.

STATEMENT OF FRANK VON HIPPEL

Mr. VON HIPPEL. Thank you. Thank you for holding this hearing. I have organized my statement into why the NPT is important, why it is in trouble, and what the United States can do about it.

Mr. SHAYS. Great.

Mr. VON HIPPEL. Why it is important, the NPT embodies an almost universally shared recognize that nuclear weapons are a threat to all mankind. It recognizes that the weapons, themselves, are the threat, no matter which country possesses them. It also represents a commitment to do something about this to prevent the spread of nuclear weapons to more countries and to reduce their numbers in the countries that have them ultimately to zero.

Under the NPT, the Atomic Energy Agency checks whether non-weapon states are complying with their commitments. We know as much as we do about Iran's nuclear activities, for example, only because Iran is a party to the NPT, which gives the IAEA the right to go and look.

Now, why is it in trouble? One reason is that the non-weapon states are increasingly reluctant to accept additional restrictions when the United States has dropped any pretense of making irreversible nuclear arms reductions. The non-weapon states won't pay attention to our priorities if we don't pay attention to theirs.

In June I saw how angry this dialog has become when I attended a conference in Oslo on minimization of highly enriched uranium in civilian nuclear applications, one of your concerns. The concern was that, as you have indicated, that highly enriched uranium can be used by terrorists to make improvised nuclear explosions, but South Africa's Ambassador to the IAEA at that conference declared that the NPT is not an a la carte menu from which states' parties may choose their preferences while ignoring other aspects, and he referred in particular to the lack of progress on the Fissile Material Cutoff Treaty, which is one of the 13 steps that the U.S. committed to at the NPT Review Conference in 2000.

The treaty, which is, in the words of the U.N. resolution, the agreement in 2000 called for immediate commencement of negotiations under an effectively verifiable treaty banning the production of fissile materials for nuclear weapons or other nuclear explosive devices.

It is 6 years later, and negotiations at the Conference of Disarmament have not begun because of what I consider a petty disagreement by the U.S. and China over the proposed agenda.

Now, with regard to what the United States can do, I would like to offer a list of four things that we could do to help restore legitimacy to the NPT and thereby to its usefulness as a tool against the dangers of nuclear proliferation and nuclear terrorism.

First, a Fissile Material Cutoff Treaty will only happen if the United States gives this priority. U.S. also has to support an internationally verified fissile cutoff, not oppose it, as we do today. We can't require that non-weapon states be open to IAEA inspection but refuse such inspections for ourselves. I agree with Mr. Sokolski that there is an uncertainty of a percent or so or up to a few percent in the measurements at facilities which handle highly enriched uranium and plutonium, but that is much better than nothing.

I recall the first President Bush's insistence that under the Chemical Weapons Convention international inspections should be possible any time, anywhere, without right of refusal. He did not say except for in the United States.

Now, the second thing is the Comprehensive Test Ban Treaty. It is almost always at the top of the list for non-weapon states. The U.S. Senate refused to ratify the CTBT in 1999. The global test moratorium has continued, however, and the directors of the U.S. nuclear weapons labs have continued to certify each year that the U.S. nuclear stockpile is safe and reliable and doesn't require testing. The National Academy of Sciences and the Department of Energy agree that this situation can be maintained indefinitely, although they may not agree on how best to do it.

Under these circumstances, it would be in the U.S. interest to ratify the CTBT and lock in other countries, as well. There will always be the escape clause that gives each state party to the treaty the right to withdraw from it if it decides that its supreme national interests are jeopardized.

Third, we should take the objective of nuclear disarmament seriously. Why does the U.S. keep thousands of nuclear warheads? Because Russia has thousands of nuclear warheads. And if it came to nuclear war, we would want to be able to destroy as many as possible of theirs before they could be used. Why not then agree to destroy as many as possible of these warheads now by agreement and eliminate the hair trigger situation which has been discussed?

Russia and the U.S. could get down to a thousand warheads each—that is a thousand total warheads, not just deployed warheads—before we would need to ask other countries to reduce. Today we each have enough material to make more than 10,000.

Fourth—and this brings me back to my colleagues' statement—continue the moratorium on spent fuel reprocessing. This is an issue that is being driven by Congress that has major implications for the future of nuclear proliferation. For 30 years the U.S. has been able to say to other countries we don't reprocess and you don't need to, either. In combination with the invisible hand of economics, that posture has been very effective.

The number of states having their reactor fuel reprocessed has declined dramatically in those 30 years. Congress now proposes to have federally financed reprocessing of spent power reactor fuel. The reason is the delay in the availability of Yucca Mountain. A reprocessing plant would be an alternative destination for spent

fuel, but it would be a very expensive one. And such damage to U.S. nonproliferation policy is completely unnecessary. Storing older spent fuel in dry casks at reactor sites or at centralized storage sites would cost one-tenth as much as reprocessing and would be much less hazardous than reprocessing.

Mr. SHAYS. Professor, I have about 4 minutes, which is still enough time, but if you could kind of close up.

Mr. VON HIPPEL. I am down to my last half page.

Mr. SHAYS. Great.

Mr. VON HIPPEL. Just on that point, though, the hazard from spent fuel in dry cask storage at reactor sites is a minuscule portion of the total hazard of that site. The major hazard is from the reactor core, the next down is the recently discharged spent fuel in the pools. The dry cask storage is negligible hazard.

So, in summary, the non-weapon states will not support the U.S. effort to further limit their rights under the NPT if the U.S. doesn't begin to live up to our own central NPT commitment to irreversibly end the arms race with the FMCT and the CTBT and get on with the task of nuclear disarmament.

I would also like to make one specific suggestion: that Congress require of the executive branch an annual report from the President summarizing relevant initiatives, progress, and obstacles to implementation of U.S. commitments under the NPT.

Finally, on how easy it is——

Mr. SHAYS. I have now two and a half minutes.

Mr. VON HIPPEL. OK, but you really wanted to know the answer to this.

Mr. SHAYS. OK. Go for it.

Mr. VON HIPPEL. How hard is it to make a nuclear weapon? John Phillips——

Mr. SHAYS. Are you going to stay or do you need to leave, because I am coming back?

Mr. VON HIPPEL. I have a 9 o'clock flight from Dulles.

Mr. SHAYS. Then you are fine. You can stay.

[The prepared statement of Mr. von Hippel follows:]

Steps to Strengthen Compliance with the Nuclear Nonproliferation Treaty

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Prepared statement for the House Government Reform Committee
Subcommittee on National Security, Emerging Threats, and International Relations

Hearing on

Weapons of Mass Destruction: Current Nuclear Proliferation Challenges

2154 Rayburn Building
September 26, 2006

Thank you for holding this timely hearing on a critical issue. In my prepared statement, I summarize briefly my views on:

1. Why the NPT is important,
2. Why it is in trouble, and
3. What the United States can do about it

Why the NPT is important

The NPT embodies an almost universally shared recognition that nuclear weapons are a threat to all mankind. It recognizes that *the weapons themselves* are a threat – no matter which country possesses them. Our species and our institutions are too fallible to possess thousands of nuclear weapons indefinitely without some – and possibly virtually all – of them being used as a result of a terrible mistake.

Nuclear weapons are the original weapons of mass destruction. They can destroy masses of people indiscriminately. We learned that from Hiroshima and Nagasaki. The nuclear explosions over those cities destroyed the Army headquarters in Hiroshima and the ordinance factory in Nagasaki. They also destroyed the schools, the hospitals, the temples and everything else within a radius of more than a mile.

Today, the average nuclear weapon has ten times the explosive power of the Hiroshima and Nagasaki weapons and some are a hundred times as powerful and indiscriminate.

Other countries' nuclear weapons represent a danger to us. They could be used without authorization or by an irresponsible or incompetent leadership. And highly enriched uranium in the nuclear complexes that support those nuclear weapons could be stolen and used to by terrorists to make improvised nuclear explosives.

Our own nuclear weapons are a threat to ourselves as well as to others for the same reasons.

The Nonproliferation Treaty represents a common understanding by virtually all of the nations of the world of this danger and a commitment to do something about it: to prevent the spread of nuclear weapons to more countries and to reduce their numbers and supporting infrastructure in the countries that possess them – ultimately to zero.

Under the NPT, the International Atomic Energy Agency checks whether non-weapon states are complying with their NPT commitments and reports if that compliance is in question. The IAEA may have its limitations but it is a marvel in the anarchic international world that we live in. We know as much as we do about Iran's nuclear activities, for example, only because Iran is a Party to the NPT has given the IAEA the authority to go and look.

Why is the NPT in trouble?

There are many ways in which we could strengthen the barriers between nuclear power and nuclear-weapons technologies. For example, we could agree to eliminate stocks of HEU and plutonium wherever possible and to limit the proliferation of national enrichment and reprocessing plants.[1] But the non-weapon states are increasingly reluctant to accept additional restrictions when the nuclear-weapon states appear to have abandoned making purposeful progress on irreversible nuclear arms reductions. The non-weapons states won't pay attention to our priorities if we don't pay attention to theirs.

In June, I saw at first hand how angry this dialogue of the deaf has become when I attended a conference in Oslo on "Minimization of HEU in Civilian Nuclear Applications."[2]

Eliminating civilian uses of highly enriched uranium wherever possible is an objective on which I thought there was consensus. There is no question that, if about 100 pounds of highly enriched uranium were stolen, a terrorist group could figure out how to use it to make a Hiroshima type nuclear explosion. The Department of Energy is so convinced of this danger that it believes that a prepared group might be able to improvise a nuclear explosion on the spot within minutes of penetrating a storage facility containing HEU.[3]

So you would think that it would be easy to achieve an international agreement that highly enriched uranium should be replaced in reactor fuel by low enriched uranium wherever possible. It turns out that it is not easy! There is just about universal agreement that it is a desirable goal. But some leading non-weapon states such as South Africa,

whose government inherited a large stock of highly enriched uranium, are not ready to support the elimination of civilian uses of HEU as a new objective of the nonproliferation regime.

At the Oslo conference, South Africa's ambassador to the IAEA declared, "The NPT is not an a la carte menu from which States Parties may choose their preferences, while ignoring other aspects." He then reminded us that "South Africa has continued to call for the soonest commencement of negotiations in the Conference on Disarmament, without preconditions, on a treaty banning the production of fissile materials for nuclear weapons or other explosive devices."[4]

What he was referring to was one of the 13 steps committed to by the U.S, Russia, U.K., France and China at the NPT Review Conference of 2000. These were steps toward implementing their commitment under Article VI to "cessation of the nuclear arms race at an early date and to nuclear disarmament." The third of these steps was "the immediate commencement of negotiations on [an] effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices...with a view to their conclusion within five years."[5]

Yet, six years later, negotiations still have not begun, principally because of a disagreement between the U.S. and China over the agenda of the Conference on Disarmament. Since the CD sets its agenda by consensus, if the U.S. or China does not agree with a proposed agenda, nothing happens.

Supporters of a global HEU cleanout argued in Oslo that we should make progress where we can, and a global cleanout of civilian HEU is one place where a great deal of progress can be made today. Furthermore, we pointed out, that most of the HEU that needs to be cleaned out is in the weapons states.[6]

But our arguments did not prevail. The South Africans and others simply responded: "Your priority is a global cleanout of HEU? Ours is a Fissile Material Cutoff Treaty!"

What the United States can do

In the remainder of my testimony, I would like to discuss the FMCT and some other things that the weapon states could do to restore legitimacy to the NPT and thereby its usefulness as a tool against the dangers of nuclear proliferation and nuclear terrorism.

A Fissile Material Cutoff Treaty. An FMCT would put a ceiling on weapon stockpiles. In the case of the U.S., given the plutonium and HEU that we have declared excess, it would limit us to around 15,000 warheads. That is not much of a constraint, given that *the U.S. is currently on track to reduce to a total of 2200 operational strategic and about* 6000 total warheads.

The good news is, that as far as we know, the five NPT weapon states have stopped producing fissile materials for weapons. India, Israel, North Korea and Pakistan have not, however, and India, in particular, is vastly expanding its capabilities to produce plutonium for weapons. Some of this expansion will be facilitated by the U.S.-India deal. It is regrettable that the Bush Administration and Congress have not seen fit to condition India's access to the global uranium market on it joining the fissile-material production moratorium.

The Bush Administration has damaged the prospects for a meaningful FMCT further by opposing international verification.[7] This position is profoundly undermining of the NPT because an FMCT would, in effect, extend to the nuclear-weapon states one of the obligations that the non-weapon states have accepted: not to make HEU or plutonium for nuclear weapons and to accept IAEA verification of their compliance. The non-weapons states have every reason to ask why the U.S. thinks that this obligation should be verified in the non-weapon states but not in the weapon states?

An FMCT will only happen if the U.S. gives it priority – the first President Bush gave the Chemical Weapons Convention priority. Recall, by the way, his insistence that challenge inspections by the Organization for the Prevention of Chemical Weapons should be possible "any time, anywhere, without right of refusal."[8]

Unfortunately, neither the Clinton nor the Bush Administrations have given the FMCT that kind of priority.

A Comprehensive Test Ban Treaty always comes at the top of the list for the non-weapons states.[9] The U.S. Senate refused to ratify the CTBT in 1999. The global testing moratorium has continued, however, and the directors of the U.S. weapons labs have continued to certify each year that the U.S. nuclear stockpile is safe and reliable and doesn't require testing. The Department of Energy and independent experts both agree, that given the proper programs, this situation can be maintained (although they don't necessarily agree on the required programs).

Under these circumstances, it would appear to be in the U.S. interest to ratify the CTBT and lock in other countries as well. If necessary, there is always the escape clause, Article IX, "Each State Party shall, in exercising its national sovereignty, have the right to withdraw from this Treaty if it decides that extraordinary events related to the subject matter of this Treaty have jeopardized its supreme interests."

Take the objective of nuclear disarmament seriously. No one has a fail-safe formula for how to achieve a zero nuclear-weapon world. Although we are a lot closer to the preconditions for such a world today than we were during the Cold War, in at least three regions of the world: the Middle East, South Asia, and on the Korean Penninsula, countries still feel that their ultimate survival may depend upon their nuclear deterrents.

We can get to much lower levels of nuclear weaponry than Russia and the U.S. have today, however. President Kennedy's former national security advisor stated an obvious

truth in 1969 when he said that "a decision that would bring even one hydrogen bomb on one city of one's own country would be recognized in advance as a catastrophic blunder; ten bombs on ten cities would be a disaster beyond history; and a hundred bombs on a hundred cities are unthinkable."[10]

So why do we keep thousands of nuclear warheads? Because Russia has thousands of nuclear warheads and, if it came to nuclear war, we would want to be able to destroy as many as possible of those Russian warheads before they could be used against us.

Why not then destroy as many as possible *now* by agreement? All the rest of the world combined has only about 1000 warheads. Russia and the U.S. certainly could get down to that level before we started to ask other countries to reduce.

At the 2000 NPT Review Conference, the weapon and non-weapon states agreed on "The necessity of establishing in the Conference on Disarmament an appropriate subsidiary body to deal with nuclear disarmament."[11] The U.S. refuses, however, to allow a discussion of this subject at the CD.[12] What are we afraid of?

Continue the moratorium on spent-fuel reprocessing. My final suggestion is not on the list of thirteen steps agreed to in 2000 by the NPT weapon states. But it is an issue that is being driven by Congress at the moment and which I believe has major implications for the future of nuclear proliferation.

In the 1960s and early 1970s, the U.S. promoted spent fuel reprocessing and plutonium recycle worldwide. In 1974, however, India used the first plutonium that we had helped it produce and separate for what it called a "peaceful nuclear explosion."

The response of the Ford Administration, under the leadership of Secretary of State Henry Kissinger, was to block the export of reprocessing technology to more states. The Carter Administration, which came next, reviewed the rationale for the domestic reprocessing and plutonium recycle program that was being proposed in the U.S. at that time and concluded that it did not make any economic sense. A few years later, the U.S. nuclear utilities came to the same conclusion and have been unwilling to invest in reprocessing ever since.

The U.S. has therefore been able to say to other countries: "We don't reprocess and you don't need to either." In combination with the invisible hand of economics, that posture has been very effective. The number of states that are having their reactor fuel reprocessed has declined dramatically in the past thirty years.

Congress now proposes to reverse this successful policy and have federally financed reprocessing of spent power reactor fuel.[13] The reason is that the Nuclear Waste Policy Act of 1982 [Section 302(a)5(B)] committed the Department of Energy to start moving spent fuel off power-reactor sites by 1998. It expected to be able to ship the spent fuel to Yucca Mt but licensing delays have resulted in that destination being unavailable till at least 2017. A reprocessing plant would be an alternative destination.

Does this mean that we are willing to see other countries go down the same route? No, the Bush Administration has announced that it opposes new reprocessing or enrichment plants in "any state that does not already possess full-scale, functioning enrichment and reprocessing plants."[14]

The damage to the NPT and U.S. nonproliferation policy from this proposal for yet another discriminatory proposal is completely unnecessary. Storing older spent fuel in dry casks at reactor sites or at a centralized storage site would cost one tenth as much as reprocessing and is less hazardous with regard to both accidents and the potential for nuclear and radiological terrorism.[15]

Summary and recommendation

In summary, the NPT is in trouble. Some of this trouble stems from its inherent weaknesses. It was negotiated in the late 1960s, at a time when nuclear energy was expected to quickly become the dominant energy source worldwide. The U.S., for example, expected to have a nuclear capacity equivalent to about 1800 large power plants by today and to be building more than one hundred a year.[16] We actually have about 100 today and haven't ordered a new one in 30 years.

So the NPT protects the "inalienable right" of countries to acquire their own nuclear facilities, as long as they are subject to IAEA inspection and are not provably parts of a nuclear-weapon program. It is that right that we are trying to limit today in our struggle with Iran.

But we will not get support for further limiting the rights of the non-weapon states under the NPT if we don't begin to do a more credible job of living up to our own central commitment under Article VI of the NPT to irreversibly end the nuclear arms race (i.e. with the FMCT and CTBT) and get on with the task of nuclear disarmament.

In this connection, I would like to make one specific suggestion for a modest step Congress could take. It could require an annual report to Congress from the President summarizing initiatives, progress and obstacles to implementation of U.S. commitments under NPT Article VI.

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[1] See, for example, *Global Fissile Material Report 2006*, www.fissilematerials.org.

[2] See the excellent summary by Cristina Chuen and William C. Potter, "The Oslo Symposium: On The Road To HEU Minimization," http://www.cns.miis.edu/pubs/week/060822.htm, which also has links to the papers and statements presented there.

[3] U.S. Department of Energy, Office of Security Affairs, Office of Safeguards and Security, *Manual for Protection and Control of Safeguards and Security Interests, Chapter I, Protection and Control Planning* FF, (Washington, D.C.: DOE, 15 July 1994).

[4] "South African Perspectives on Highly Enriched Uranium," Statement by Mr. A. S. Minty, South Africa's representative on the IAEA Board of Governors, at the International Symposium on Highly Enriched Uranium, Oslo, Norway, 19-20 June 2006.

[5] *Final Document of the Nonproliferation Treaty Review Conference of 2000*, paragraph 15.3.

[6] See e.g. "Global cleanout: Reducing the threat of HEU-fueled nuclear terrorism" by Alexander Glaser and Frank N. von Hippel, *Arms Control Today*, January/February 2006.

[7] See, for example, the U.S. White Paper released to the Conference on Disarmament, May 18, 2006, http://geneva.usmission.gov/Press2006/0518WhitePaper.html.

[8] The result was the concept of "managed access" inspections by which international inspectors could check for the presence of prohibited chemical weapons activities while unrelated proprietary and national security information was kept shielded from their view. This should be possible for the FMCT as well.

[9] Bringing the CTBT into force and continuing the testing moratorium were the first and second of the 13 steps toward nuclear disarmament demanded of and agreed to by the nuclear weapon states in the *Final Document of the Nonproliferation Treaty Review Conference of 2000*, paragraph 15.

[10] McGeorge Bundy, "To Cap a Volcano," *Foreign Affairs*, October 1969, p. 1.

[11] *Final Document of the Nonproliferation Treaty Review Conference of 2000*, paragraph 15.4.

[12] See e.g. the statement to the CD by Acting U.S. Assistant Secretary of State Rademaker, May 18, 2006, http://geneva.usmission.gov/Press2006/0518RademakerCDstatement.html

[13] Conference Report on the Energy and Water Appropriations Act for Fiscal Year 2006, Report 109-275, "Nuclear Energy Programs," pp. 141-142 and "Nuclear Waste Disposal," pp. 156-157.

[14] The White House, "Fact Sheet: Strengthening International Efforts Against WMD Proliferation," February 11, 2004, at www.whitehouse.gov/news/releases/2004/02/20040211-5.html. This position is paraphrased in the Department of Energy's *Report to Congress: Spent nuclear fuel recycling program plan*, May 2006, p. 10.

[15] See e.g. American Physical Society Panel on Public Affairs, *Nuclear Power and Proliferation Resistance: Securing the Benefits, Limiting Risk*, 2005"

[16] U.S. Atomic Energy Commission, *Proposed Environmental Statement on the Liquid Metal Fast Breeder Reactor Program*, WASH-1535, 1974

Mr. SHAYS. Let me do this. My staff can tell you where you can get a sandwich.

You have to stay, because I want to know how you do it.

Ambassador GRAHAM. Yes.

Mr. SHAYS. I just want to say that I would welcome all of you staying, but to force you to stay would be house arrest and I am not going to do that, but I think I have another 25 minutes before I am back here, and I will be back here. I think Mr. Granoff will be back here, so I am definitely back here.

Thank you.

We are recessed.

[Recess.]

Mr. SHAYS. I call this hearing to order.

What I would like, I will let you, Professor, tell me, and, Ambassador, I would like to have you tell me what I would like to hear from there, but in regards to the issue. This is the point I am trying to make: we have always known people could learn how to make a weapon, so to me the issue is not is there all the documentation if you are a bright student can you do it. The question is what I learned that I need to be disavowed of if it is not true is that basically to make a low-yield weapon using enriched uranium you don't need a lot of specialized parts, and you could, if you could get the weapons grade material, create a nuclear explosion.

Professor, I will have you start out on it.

Mr. VON HIPPEL. You are absolutely right. In fact, it is so easy to make a nuclear explosion—and it is not necessarily low yield. We are talking about Hiroshima scale—with highly enriched uranium metal, that the Department of Energy worries about improvised nuclear devices. That is, they worry about terrorists getting into a bunker which has highly enriched uranium metal in it and actually improvising an explosion on the spot before they can be stopped by the guard force. That is pretty easy.

Now, when you were talking about the Princeton undergraduate, John Aristotle Phillips, he wasn't a student of mine, but he did this as a project for a course of a colleague of mine, and it is considered so easy even by undergraduates to do a highly enriched uranium bomb that they always go for plutonium. They want to show that they are smart enough to do a plutonium bomb, which is an implosion bomb. In fact, the Hiroshima bomb was not designed at Los Alamos, it was designed by an assistant professor and a couple of graduate students in Berkeley the summer before. The whole Los Alamos head scratching and hair tearing was devoted to the plutonium bomb. But a plutonium bomb is not necessarily out of reach of terrorists, either. It is more difficult.

Mr. SHAYS. Let me ask you, with that, though, do you need material that would be harder to get a hold of? Is the material an issue there?

Mr. VON HIPPEL. No. Well, the plutonium is.

Mr. SHAYS. I don't mean the plutonium.

Mr. VON HIPPEL. No. In fact, Phillips went to call up DuPont, what kind of explosives to I use, and they were happy to tell him what kind of explosive to use. He went to the National Technology Information Service and asked for the Los Alamos Primer, which was the lectures that were given at Los Alamos to the incoming

people by this Berkeley assistant professor, and when they came out with the primer, which has now since then been published by the University of Chicago—no, by Berkeley University Press, California University Press. They said usually when people ask for this they ask for these, too, with a stack of documents. So, in fact, it was referred to in the testimony before that this was given as a project. By the way, Phillips didn't do it right, despite his claims. He actually made a mistake in the design. This is beyond the ordinary undergraduate, but it has been done by graduate students correctly.

Mr. SHAYS. OK. Gotcha.

Mr. VON HIPPEL. For the plutonium weapon.

Mr. SHAYS. Super.

Mr. VON HIPPEL. I had a colleague, Ted Taylor, at Princeton for a number of years who was an ace Los Alamos weapons designer in his previous incarnation, and he was the one who actually first raised the issue of nuclear terrorism in the 1970's, and he was concerned about the U.S. going to—at that time the U.S. was pushing toward a plutonium economy, and he was very concerned about having plutonium used as a commercial fuel by the millions of bombs worth, is what people were envisioning at that time. He was making the argument—and it was an argument. I mean, the community was not unanimous about this—that, in fact, terrorists could do it. It is more difficult, but you shouldn't ignore it.

Mr. SHAYS. Gotcha. Let me just go to you, Ambassador. You were going to tell me up front, and then I will get off of this issue, but I would like to just get it off the table here.

Ambassador GRAHAM. Well, I just wanted to, Mr. Chairman, tell you about my experience in South Africa with the South African government.

Mr. SHAYS. Can you give us a timeframe of when you were there?

Ambassador GRAHAM. Yes, I will. I headed the U.S. Government efforts to permanently extend the Nuclear Non-Proliferation Treaty in the 1993–1995 timeframe, and so I traveled all over the world looking for votes. It was a little bit like a political convention. And one of the places I went to was South Africa, because they were a very key vote. They were a swing vote. They had the possibility of bringing in a lot of non-aligned countries who were opposed to us to support our view that the NPT should be permanent.

So I went to South Africa and I was there for 2 days with a colleague and the first day I spent with the government in their offices, and then the second day they gave us a tour of their former nuclear weapon establishment, and they took us to a shut-down nuclear enrichment plant that they used to make the HEU, and then they took us over about ten miles away to Wallendaba, where they actually assembled the weapons, and they took us to the building where they assembled the weapons, and they showed us a large room. They said this is where we assembled the weapons. Look around you. Nothing has changed.

There was nothing in that room you couldn't find in a high school machine shop. They showed us the cases they had used to move the weapons around in. It was clear they would fit in the back of a panel truck. And then they gave us a short lecture on why they

built the weapons, which I won't go into unless you insist. And then they explained how. And they said that we spent on this program $150 million. I got that wrong. We spent on this program $25 million and had 150 people working on it, including the janitor. Nobody knew what we were doing. That doesn't count, of course, the money we spent enriching the uranium to weapons grade, just the bomb assembly part—$25 million, 150 people. We built six bombs of 20 kilotons. We didn't need to test them because we used the gun barrel design. You are the first Americans to see this other than those two on the International Atomic Energy inspection team. We are telling you this for a reason, and the reason is that once the fissile material is acquired—we made our own over in Wallendaba 20 miles away, but if the fissile material can be acquired, the rest is really easy, really easy. Any government can do it.

Mr. SHAYS. The rest is really easy?

Ambassador GRAHAM. Really, the rest is really easy. Virtually any government could do it and many sub-national groups like terrorist organizations could do it, in their view. You don't need an infrastructure. You just need a few skilled scientists and engineers and the fissile material.

So that goes just to reinforce what everyone else has said, but here is a country that had direct experience doing it.

Mr. SHAYS. Mr. Sokolski, comment?

Mr. SOKOLSKI. I think that is the reason why the IAEA could be a heck of a lot more important than it is, because it has the job of keeping a count of the weapons usable materials that are produced literally in the open. I think it is important to keep in mind that in the case of highly enriched uranium some scientists like to joke and say, well, you need a tall ladder and a tube to assemble. I mean, I don't think it is that easy, but you are not talking about very much.

In the case of plutonium, I don't think we should look at this as one is more difficult so they will do the easier, No. 1. No. 2, so we would be OK if a terrorist got some plutonium? I don't think so. In other words, what that allows a group to do, once it has possession, is raise literally kilotons of uncertainty as to what they will be able to do, just like Iraq. You will not know. So once they give plausible reason for you to believe they stole it, you are in a world of worry.

I think, in addition, you need to understand again something which there has been not very much candor about in the official world. When I worked in the Government I had the same problem. I worked in the Defense Department. People do not want to admit that they cannot keep track of this material, even in civilian facilities that are declared and monitored by the IAEA, never mind the ones that might be hidden away. They can do only such a rough job that, in the case of a commercial-sized facility that enriches and reprocesses, you will literally they say lost in the pipes or in solution many bombs worth per year.

Now, if you focus on that point it changes the way you look at the whole problem of what to do. If you believe you can monitor and safeguard—and safeguard means not just look at, but get warning of a diversion early enough to prevent it ft being com-

pleted by getting folks to land with Black Hawk helicopters or whatever they do. Depending on how you see that, it changes everything as to what you do.

Mr. SHAYS. First I am going to just say I tend to learn the most about the terrorist threat from folks who used to work in the Government who now have a little more freedom to talk about issues when they work for a non-government organization, have their own institutions, and so on, so I really appreciate the fact that you all stayed and I thank you very much.

Mr. Spring, were you going to make a comment?

Mr. SPRING. I was going to make exactly the same point that Mr. Sokolski just made; that is, that I would be a little bit reluctant to try, on the basis of probability, and say OK, we are going to focus on the terrorist threat in highly enriched uranium at the margin compared to what might be the risk associated with plutonium because of the relative ease of assembly. I think that these guys are too unpredictable to say, OK, we can sort of net down and focus more on the HEU source than on the plutonium source. I think you could arrive at some poor policy decisions if you take that too far.

Mr. SHAYS. Let me do this. Professor, is there anything you want to say before we get you on your plane?

Mr. VON HIPPEL. No. I thank you.

Mr. SHAYS. I think we will get you on your plane, and I thank you so much for coming. I very much appreciate it. Nick is a very good man at getting taxis. Follow that man. And let's have this on the record: my staff director is helping him get the taxi.

Do you need to leave, Ambassador? Thank you very much. Any last comment that you would like to make for the record?

Ambassador GRAHAM. I can't think of anything additional that I would want to submit for the record at this point. I enjoyed the hearing very much. I thought the questions were really excellent. The answers were good, too, but the questions set the tone of the hearing. I think a lot of issues that are not discussed nearly as much as they should be got discussed today. I hope that the transcript can be drawn together in some way that can be made available to students and scholars and Government people.

Mr. SHAYS. Let me just say this to you. If I am back in this place—and I hope to be—whether I am in the majority or Mr. Kucinich, we both agree that we need to be bringing this up to a different level, and you are going to see next year, whomever, but we are going to pursue this big time, because it is a huge issue and it is not getting the attention it deserves.

Ambassador GRAHAM. These are very big issues and Congress rarely has the opportunity to address them in a detailed way as has happened today.

Mr. SHAYS. Thank you very much, and travel safely.

Ambassador GRAHAM. My pleasure. Thank you.

Mr. SHAYS. Thank you.

With the three of you that are still here, let me ask you is there anything that was brought up in the first panel, Mr. Blix, or the second panel with our Government officials that you would want to emphasize or critique in a way that says you disagreed with the

things that were said? Are there agency points that you want to make? Mr. Spring?

Mr. SPRING. I think that Deputy Assistant Secretary Semmel addressed this in his opening statement a little bit, but I would like to reinforce it, and that is that the impression can be left that the United States and, by extension, the other four declared nuclear weapons states under the NPT, are somehow at odds with or not complying with or in violation of article six. I just don't believe that. And the Blix Commission talked about the disarmament process being in disarray. I don't believe that it is in disarray.

The Blix Commission talked about an insufficient commitment to arms control on the part of the United States and talked about there being this commitment during the cold war, but the numbers of nuclear weapons were going up during the cold war and they are coming down now, and they are on their way to between 1,700 and 2,200 at the strategic level. The U.S. has gone even greater strides below that in the tactical area.

I find it hard to equate the idea that we were somehow OK during the cold war when the arsenals were going up but now we are somehow sort of ignoring these obligations under article six when they are coming down.

So I think the United States has quite a bit to be proud of in what it has done in the arms control field. There is a tangential relationship between strategic arms control between the United States and Russia today and nonproliferation policy, but I think that generally that is a positive relationship, in my view, so that I think that I would be a little bit reluctant to denigrate too much the position the United States has taken in that field.

Mr. SHAYS. Thank you.

Mr. Granoff, do you disagree or agree but you want to make another point?

Mr. GRANOFF. I disagree very vigorously that it is a little more sophisticated than that. Article six is part of the law of the land, as you know. Article six, clause two of the Constitution makes treaties the supreme law of the land, and article six of the NPT requires good faith efforts to obtain nuclear disarmament.

All of the parties to the treaty agreed, in order to gain the indefinite extension of the treaty, to principles and objectives in 1995, and included in those principles and objectives was an unequivocal commitment to the ultimate elimination of nuclear weapons, and the parties to the treaty and the negotiations forced the United States and the other nuclear weapons states to agree to 5-year review conferences at which the commitment to nuclear disarmament and the steps in that direction would be reviewed.

In 2000 there was a very productive conference and 13 practical steps were agreed upon by all parties to the treaty as a way of fulfilling the article six commitment. Now, those commitments in the year 2000 were political commitments, no doubt, and it would be bootstrapping a political commitment improperly into a legal commitment under our Constitution to say that because we made political commitments as part of a treaty they are the law of the land.

But in 2005 at the next review conference the position of our Government was that our commitments made in 2000 to fulfill article six would not be reviewed.

Now, that alone does not constitute bad faith or noncompliance, but the failure to put forward another route of fulfilling article six I believe puts us in a legally precarious position.

Mr. SHAYS. Us or everyone? The question was put to us or the other four, as well?

Mr. GRANOFF. I would say the other four would be part of it, but the other four were not as irresponsible in overtly creating unnecessary roadblocks to creating an agenda in 2005. What happened was the conference never got a working agenda. The other countries that I would say are worth pointing out would be Egypt and Iran, who also I would say were not operating to create an operating agenda. So at the 2005 review no statement could be made, nor could there be an adequate review of the kind of threat-reducing steps that were needed, steps like making it difficult for a country to use their article four privileges and drop out of the treaty. There were proposals, for example, of friends of the United States that said if a country drops out of the treaty they lose the facilities that they developed under article four. That to me would be clearly an effective and useful nonproliferation aspect. Never got discussed. Creating a secretariat for the NPT so they could have a corporate memory never got discussed. Creating some way of having some body at which complaints of noncompliance could formally be brought and evaluated, never discussed.

Essentially, the review conference was unable to review past conduct, and the U.S. kept focusing on only the nonproliferation side of the equation without putting forward an alternative route. I think it is our obligation to do that.

I feel more comfortable criticizing my own country where dissent is part of our system than criticizing others.

Mr. SHAYS. I hear you, but the bottom line is all five need to be taking action. The burden is on all five, correct?

Mr. GRANOFF. The burden is on all parties to the treaty, but the biggest burden I would say is on the P–5.

Mr. SHAYS. I would like you, Mr. Sokolski, to respond, but then I would like to ask all of you, I am not hearing clearly the comment, I am not interpreting clearly the comment that parties that aren't part of the nuclear family have a right to expect to do more, and because they are not seeing us do more they are going in the opposite direction. I don't know what the opposite direction means. In other words, that they are doing something. I am not quite sure what we are seeing them doing.

Mr. Sokolski, you were going to make a point earlier?

Mr. SOKOLSKI. Yes. I want to make sure I understand the point you just made.

Mr. SHAYS. Why don't you answer your question first.

Mr. SOKOLSKI. OK. My reading of the history—and I have written a history that has been published of the proliferation treaty effort—doesn't quite correspond to this. It is different.

Mr. SHAYS. To what? Mr. Granoff's comments?

Mr. SOKOLSKI. Yes, and even a little bit to my colleague at The Heritage. I think there is actually a very fundamental problem in reading this document, the NPT. You can read it through the lens of article six, which says we would like good faith efforts for those that declare they have nuclear weapons to disarm, or you can look

at this understanding through the lens of article four, which says—actually, there are three lenses, article four, which says everyone has a right to develop nuclear energy in a peaceful fashion, and then there is the first two articles, which says them that's got don't give and them that's not got don't try to get. Depending on which lens you pick, you end up emphasizing very different things. What we have heard is, well, you shouldn't emphasize the article six. You should.

I think you are going to have to think about three things at the same time, unfortunately. I think the emphasis needs to be placed on making sense of article four. The reason why, it is the least discussed. Everyone has talked to death about how America needs to give up more nuclear weapons, and then occasionally they say China, which is actually making more. Then you hear some discussion that really you shouldn't try to get. But you don't have a discussion of what peaceful nuclear energy is.

A reason I think that is important is the United States, this Congress, is funding something called the Global Nuclear Energy Partnership, which threatens to be roughly a bad version of Atoms for Peace, which Eisenhower promoted, on steroids, where you are really going to encourage people to get into fuel making.

Well, none of the people on the administration witness lineup focused on the problems that the IAEA has and what it can and can't do. Regrettable, Mr. Aloise didn't speak enough to that except for the staffing point because it is hard. You only have so much time. I don't know how much this committee should get into it, but somebody in this Government better, on a routine basis, build on what GAO has done—maybe it is the CIA—and do annual reports on what it is that the IAEA can keep track of and what it can't, because that goes to the heart not only of article four but indirectly, I would argue, article six.

There is no way the United States and the nuclear weapons powers are going to disarm if other people are hedging their bets and getting right up to the edge of getting bombs.

Mr. SHAYS. It is pretty alarming, though, to think that we can't keep track.

Mr. SOKOLSKI. I keep emphasizing because you are right, it is pretty alarming.

Mr. SHAYS. Yes.

Mr. SOKOLSKI. There ought to be a law. You ought to be concerned. You ought to be having hearings. I am telling you it is like talking about something that is politically incorrect.

Mr. SHAYS. If the United States had signed the Kyoto Treaty, would it be possible for us to move forward without extensive nuclear power?

Mr. SOKOLSKI. I think the short answer is you would have to because——

Mr. SHAYS. You'd have to have——

Mr. SOKOLSKI. You would have to move forward substantially without much nuclear power because most of the pollution is going to continue to be made by things that are non-nuclear. You are not going to be able to substitute everything with nuclear.

Mr. SHAYS. Well, I am not sure I understood your answer.

Mr. SOKOLSKI. The point is that the nuclear industry would like you to believe that the answer to all problems in transport, relying on oil, coal pollution caused by making aluminum and fertilizer and everything else can all be taken care of by putting nuclear reactors everywhere. That is a great thought, it is just practically impossible to do.

Mr. SHAYS. OK. But for a variety of reasons we can't deal with the waste and, and, and.

Mr. SOKOLSKI. They can't build them quick enough.

Mr. SHAYS. OK.

Mr. SOKOLSKI. And they can't be applied to everything that way because just the economics aren't there.

Mr. SHAYS. But still there is no avoiding the fact that Europe is attempting to deal with this issue through nuclear power, correct?

Mr. SOKOLSKI. No. That is incorrect. What they are doing mostly is trying to give incentives for people to figure out how to reduce emissions, and there are many ways to reduce emissions, as the British government has laid out, besides nuclear. All of the British government, for example, is suggesting it should do is maintain the nuclear power plants it has. It is not suggesting a big ramp-up.

Mr. SHAYS. OK. Let me ask you, Mr. Spring, do you have a position on the issue of nuclear electric generating power? I mean, do you believe it has——

Mr. SPRING. Let me qualify my remarks in that I am not an energy specialist.

Mr. SHAYS. OK.

Mr. SPRING. We have a separate analyst at Heritage that looks at that. I would say this: I certainly share Mr. Sokolski's concerns about article four and what we do in that and the proliferation risk associated with the generation of nuclear power, which is expressed as a right in article four.

Mr. SHAYS. Right.

Mr. SPRING. And as a free market economist——

Mr. SHAYS. Right.

Mr. SPRING [continuing]. Which Heritage Foundation generally is——

Mr. SHAYS. Generally? It is synonymous with.

Mr. SPRING. If you are subsidizing this stuff, then maybe you are not making rational economic choices, and the nuclear industry is pretty heavily subsidized in a lot of ways, including for export. And so if you were to ask me can we cut that stuff out, I would say yes.

And so let's say, for example, with the state du jour on nuclear cooperation, which is India, sure, you can have this agreement that we would cooperate on nuclear stuff, but let's look at it. Has India made a rational economic case that nuclear energy is the best option for them? Have we made a rational economic case that subsidizing nuclear exports to Iran, presumably under this agreement, makes sense for either energy production regions or for not incurring nonproliferation problems? I think that my answer is we can have the agreement but I am not sure that it would make sense to exercise it in the full panoply of what it would allow.

Mr. SHAYS. Well, let me use this to segue, since you mentioned Iran. You heard the responses in the other two panels about Iran. I would like each of you to give me your take on what Iran is doing,

No. 1, and, No. 2, what we should be doing based on what they are attempting to do.

I will start with you, Mr. Granoff.

Mr. GRANOFF. I think Iran is hedging. I think Iran is untrustworthy. I think we can learn some lessons from Iran. Iran's spoofing and noncompliance with the inspection regime should teach us that there should be a line drawn in the sand prospectively that says if a country doesn't fully cooperate with inspections it from then on loses its article four privileges. You can't apply that retroactively. We haven't shown that their program was designed for weapons purposes, but there should be a rule that this sort of conduct is simply intolerable going into the future.

Where are we now? It would seem to me that you cannot negotiate a solution if on Monday you threaten with regime change and then on Tuesday you ask somebody to cooperate and foreclose a potential military option in the future, and then on Wednesday say we are going to have regime change again. It is simply incoherent. So I think we need to have a coherence that states very clearly: do we recognize the sovereignty of this country? Have they so violated the fundamental human rights of their citizens that they have violated their right to function as a sovereign? I don't think that they have. I don't like the system of government there. I find it abhorrent. I find their human rights standards to be unacceptable. I think they have misinterpreted the message of compassion and unity that the holy prophet preached. I don't think they understand the value of pluralism. I don't think they understand the values of the modern age. I think that they are a very hazardous country. But I also look at the demographics, which are that there are a lot of young people there. So I think the extent to which we can dialog and engage, time is on our side.

In terms of nuclear, Iran shows us that to prevent the next Iran—I view it as sort of a sparks out a volcano or a canary in a mine shaft. As long as nuclear weapons are a currency of power, countries are going to want to get them. So what do we need to do? We need to have a sufficiently intrusive inspection and verification regime that will give us sufficient confidence that countries cannot use article four to break out.

The atomic audit of the Brookings Institute said that we have spent approximately $5.7 trillion on this venture without real public debate.

Mr. SHAYS. What venture?

Mr. GRANOFF. The venture of building nuclear arsenals in our country, alone. That doesn't even go to the whole world. That is $5.7 trillion. Steven Schwartz, who led that, informs me that we are spending in excess of $105 million a day now on the venture of keeping the arsenal ready and the entire enterprise.

The IAEA has never spent in excess of $105 million in a year for inspections. change the equation: robust inspections, but do not try and shame Iran. It is a country that has a martyrdom mythos and they will die before their honor will be compromised.

Mr. SHAYS. It is amazing for me to be in the Middle East and hear people talk about honor, even in the Sudan. I mean, when we were in North Darfur to hear a Governor talk about the pride of the Sudanese not tolerating any foreign troops, and there was no

discussion or concern about the loss of literally hundreds of thousands of lives. It was pride. And he said it in such a way that he expected me to be totally in sympathy with him because I would connect. So it is just very interesting.

Mr. Spring, what is your answer to this question about Iran?

Mr. SPRING. My answer to this is that I think the Iranians are, in fact, seeking a weapons capability, and I think they are playing the politics of energy at the Security Council to try and frustrate any efforts at enforcement that the nonproliferation regime lodges in the Security Council. In my judgment, that leads me back to the regional track. I think that the United States should be working very strongly with the other states in the region to make sure that Iran is politically isolated in that region to the greatest extent possible—countries like Pakistan and Turkey and Saudi Arabia and the other Gulf Cooperation Council states—and really work on that diplomacy to leave Iran as completely isolated as possible as the future that they face, and that their ambitions to lead some sort of great broader Islamic coalition in that region will come to naught if they continue down this path. I think that the regional element is a very important role to play.

Mr. SHAYS. The regional element is, but in my reading—and that is one area where I spend most of my time. I mean, when you talk to various country leaders, or in many cases I learn more by talking to their advisors, you know, some are already hedging their bets——

Mr. SPRING. I know.

Mr. SHAYS [continuing]. That Iran is going to have it. Others don't have confidence that we have the staying power. They look at the debate here at home about Iraq and believe we will leave prematurely. I have no faith that our western allies will back us up, and so an embargo done just by the United States—so I know what you are trying to accomplish; I just don't see how we could get it done. I really don't see how we would get it done.

Mr. SPRING. It is going to be very difficult, and that is why The Heritage Foundation has put so much effort into this nuclear gains exercise that my full testimony refers to that presumes a nuclear setting, presumes a proliferated setting with seven players to look at the dynamic of how these states would interact, not with the idea that nuclear proliferation is inevitable—I hope it is not—but actually to try and look at what happens in that kind of future to explain the implications for all the regional players involved as to what is at stake for them, because my judgment is that, in playing this game with real human beings assuming the roles of state leadership, is that one of the cardinal sins that they commit across the board is to assume, not understand but just assume that nuclear weapons have massive political and military benefits. They over-estimate their value initially without question. It is just unbelievable.

Mr. SHAYS. Yes. And under-estimate cost.

Mr. SPRING. And they under-estimate cost, indeed. And, of course, the United States and the Soviet Union went through that process in the early stages of the cold war, but I think we learned the lessons, fortunately, before there was a catastrophe.

Mr. SHAYS. Right.

Mr. SPRING. But in a seven-player environment I would say that it is even worse.

Mr. SHAYS. And the seven-player environment, you are not including India or Pakistan? what is the seven-player environment?

Mr. SPRING. Well, the seven players can be applied to any region. The first study that is on our website looked at it in a model, not exact duplicate, but a model of the East Asian with North Korea, China, Japan, Taiwan, the U.S., and Russia essentially being the players of unequal strength.

We have grafted the game in a Middle East version where the players are roughly equivalent to Israel, Iran, Turkey, Pakistan, Saudi Arabia, Russia, and the United States.

Mr. SHAYS. Mr. Sokolski, did you want to weigh in on this issue with Iran, and then I am going to ask the question. Maybe I can ask you to elaborate and just quickly come back to Mr. Granoff and Mr. Spring. What happens to Egypt and Saudi Arabia if Iran gets a nuclear weapon? So why don't you tell me how you think we should be dealing with Iran.

Mr. SOKOLSKI. First, seven sounds pretty good to me. You are looking at a world that is going to have seven, seven, seven, and seven. Your model is 1914, trying to keep track of a lot of folks gaming the system, thinking that a quick war or whatever they have in the way of military capability will win if they get in trouble and that they can diplomatically figure things out. The problem with the spread of nuclear weapons capabilities is the stakes for failure exceed what we experienced in the First and Second World Wars, what we have to worry about.

I think that is the reason why he is doing the study and probably even telling his own people I love missile defense, but that isn't the entire answer. And for someone at Heritage to say that means you had better be listening, because that comes hard. Am I right?

Mr. SPRING. You are right.

Mr. SOKOLSKI. OK. I mean, here we are. You are on a panel with somebody I am thinking probably doesn't vote Republican all the time, right? I am talking about you. But they are agreeing on something. I think that should be noted.

Mr. SHAYS. Well, they are disagreeing in terms of how to deal with Iran, though.

Mr. SOKOLSKI. Well, let's get on with that.

Mr. SHAYS. They want to deal with Iran, but they are going in two different directions.

Mr. SOKOLSKI. Well, but let's get on with that.

Mr. SHAYS. Yes.

Mr. SOKOLSKI. I think first I would endorse adopting the French suggestions, and the reason I do is those suggestions about how to tighten up the enforcement of the NPT came as a result of meetings that actually my center was involved in 4 years ago, and these people are listening and innovating, and when they are right we should back the French. I can get you more information on that. It is even cited in the testimony. But that is what you are referring to, the non-paper that was given at the NPT Review Conference. I see nods, so that is one.

Mr. SHAYS. OK. Speak to about what Egypt and Saudi Arabia does.

Mr. SOKOLSKI. Trouble. Saudi Arabia has publicly said that it is studying whether or not to lease or buy nuclear weapons from China and Pakistan. Now, what billboard do you need to get the story that gee, that could be a problem.

Turkey has made it very clear that, well, you know, we have pipeline problems. And, by the way, they do. But oh, by the way, since they were involved in all those Pakistani Kahn problems, they are also folks who, when they look at the European Union, which they probably are never going to get into—I mean, think about that—may want to hedge their bets to get a little leverage.

Egypt, if you think that the Israeli Prime Minister is speaking straight when he says not a problem——

Mr. SHAYS. What's not a problem?

Mr. SOKOLSKI. Egypt. Egypt has already announced that they want to get more nuclear energy. That is code for the bomb. It is clear as day.

Now, the people at this table and the panel one or panel two probably wouldn't say that, but if you talk to Egyptians about that speech—and I can get you people who read Arabic—they will tell you that speech a few days ago by the heir apparent, Mubarak's son, is a signal. We are not going to let Iran have the bomb option, alone. And the reason why is Iran clearly wants to do this much. Look at their missile program. Forget the nuclear weapons for a moment. Look at the range arks. Those are diplomatic shadows over the region, and they intend to keep you guessing as to what they can load up on those things. That is the reason why Europe is getting a little nervous, because pretty soon, believe it or not, they are going to be in range with the latest follow-on missile, the Shahab–4.

Mr. SHAYS. Well, you can fool me that they are getting concerned.

Mr. SOKOLSKI. Oh, no. The French government paid to have me come out and talk with people in Defense Ministry about an entire——

Mr. SHAYS. That shows they are desperate, right?

Mr. SOKOLSKI. No, no. Well, it does that, too. I will agree. But I had a sort of plan, if you will, for—you know, the Iranians play chess. I understand they invented it. I don't know much about it because I don't speak Farsi. We play checkers probably compared to them. What you have to figure in chess is you have to be able to think three moves minimum. If you don't think three moves, I understand you can't play the game. You are just a victim. We are thinking one move, practically. The moves you have to think about—and here are some things you could do. You asked what we should do.

Mr. SHAYS. Right.

Mr. SOKOLSKI. First of all, in the international basket the IAEA has a right under the additional protocol to what is called wide-area surveillance. That means they can go lots of places, put up sensors, send in inspectors. Guess what they haven't budgeted for? Standing up a force that could go into places like Iran with maybe 200 sensors. They will be crappy sensors. Don't get me wrong. This will not be a silver bullet. But there is nothing. They have not even done a bad job of standing up a wide-area surveillance capability.

They need about $10 to $20 to $30 million. Guess what? They can't raise it because, well, everyone would be upset if we raised the fees. A spotlight needs to be put on that. That is outrageous.

Mr. SHAYS. Is the implication—and I want to get to the other members—is the implication, in terms of raising dollars, that, while we are willing to put some more money in, there is very little concern on the part of the other member nations to contribute?

Mr. SOKOLSKI. I don't think there is enough. I think the French government, I think the German government, for a lot of complicated reasons, and the British government are interested, and I would not under-rate what certain elements in those governments are willing to do, because when I talked with them they were interested about the very thing that I think someone here took offense to. Maybe we need to buildup our forces in the region to enforce the law of the sea, which even Iran subscribes to, so that, instead of them threatening to close the straits, which is the strategic center of gravity—it is that oil that we have to worry about—maybe we could ruin their surviving such an embargo and imposing it.

Now, that leads to a whole lot of other things you have to do. You have to make sure you can get the oil out of that region without going through the strait. The French and the GCC nations are focused on that like a laser beam. It means connecting certain pipes. It is not heroic.

Mr. SHAYS. Let me just get to North Korea. Did you want to say something briefly?

Mr. GRANOFF. Briefly. Resolution 687, which was the enabling resolution of the Security Council for the first Gulf War——

Mr. SHAYS. Right.

Mr. GRANOFF [continuing]. In section 14 called for creating a weapon of mass destruction free zone in the Middle East. Iran has been calling for that. Egypt has been calling for that. We have just simply been ignoring it.

Mr. SHAYS. What does that mean? That Israel has to basically——

Mr. GRANOFF. Well, obviously Israel is not going to join the party right away, but it would seem to me that it would be in our benefit to start a confidence-building series of conferences in the region amongst the parties because regional parties like Egypt don't want to see a total breakdown.

Mr. SHAYS. Does it impact the United States? In other words, I make assumptions that we don't have a nuclear weapon on our carriers or—well, maybe I shouldn't on our submarines.

Mr. GRANOFF. The effect on the United States to me would be to lower the saliency of nuclear weapons in the region would be very much in our interest, but Israel is a strategic partner and I don't think we want to really open up the can of worms of having a full-scale discussion about it. I think it is time. [Latin phrase.] I think it is time to put the truth out: Israel is not going to join——

Mr. SHAYS. So it is primarily an issue of dealing with Israel is what I was trying to——

Mr. GRANOFF. Exactly, and, of course, that is Egypt's sub-text when they are saying they want to have a weapon of mass destruction free zone in the region, and Iran's. But the fact is that they also have interest, as you point out. Egypt is a Sunni country. Iran

is a Shi'a country. They still live with the shadow of karbala over their heads. They haven't given that up. It is like Sherman's march. It happened yesterday for some people. I think we have to be sensitive to those dynamics. And so there are parties in the region, for their own interests within the Islamic world, who have an interest in making sure weapon of mass destruction don't proliferate, and I think we should take advantage of that because I think it is a good thing to stop it.

Mr. SOKOLSKI. Don't they have an interest in making sure that they identify Israel as having nuclear weapons? You want to be careful to promote confidence-building measures. I mean, Blix had a better idea, which is no reprocessing, no enrichment. Once Israel admits it has nuclear weapons, all hell will break loose there. Particularly the Egyptians will feel like they have to get them if they even admit it.

Mr. SHAYS. OK. Let me just ask you about North Korea. Our panelists I think said North Korea is a bigger problem. What it raises for me, the concept that you can practically snap a finger and Japan could have a nuclear program. So what that has gotten me to think about is just the fact that Japan, what, has so much material close to being weapons grade, and that is because, what, their nuclear generation, or are there other——

Mr. SOKOLSKI. We gave them a green light back in the 1980's. When I first came here and worked for Senator Gordon Humphrey—that is a long time ago—there was an agreement that we reached with Japan that let them strip out weapons-useful plutonium from spent fuel as a fuel spent fuel management technique. It wasn't economic. Still isn't. They have gone ahead and, as a result, they are piling up tons of weapons-usable plutonium, and they can't figure out what to do with all of it.

The Chinese looked at that, and the Chinese have a big stockpile of weapons-usable material, as well, and they are looking at one another, and that North Korean drama is a staged rehearsal for that bigger competition.

Mr. SHAYS. But that is why the United States gets criticized for acting unilaterally, and we want with North Korea to act multilaterally because we believe that Japan and China and Russia and South Korea have something at stake here. The irony is that we are getting criticized for it, which is amazing to me.

Mr. SOKOLSKI. I think it is because people look at those six-party talks and they look at North Korea and they say this dog isn't going to hunt very much. I think there needs to be a flash of candor that everyone is sort of saying sub-text, which is ultimately you are going to have to wait North Korea out, much as you did with the Soviet Union. I mean, it is not going to be——

Mr. SHAYS. No, no. We are not going to wait them out if they are going to develop a weapons program and then Japan decides they have to.

Mr. SOKOLSKI. That is where what you need to do is some of the things that the French are suggesting and isolate North Korea so it doesn't become an example for the others where it is either rewarded or we do nothing when it violates, No. 1.

No. 2, yes, hold Japan close. I am sure, you know, our friend from The Heritage has lots of suggestions on how to enforce the alliance with Japan.

Second of all, take a page out of the suggestion made right here. I think you mentioned China. Perhaps it is time to lean on China to stop being so unclear about the size and growth of its nuclear arsenal. I mean, everyone else is much more transparent, even the Russians. Even the Russians are more transparent, which is saying a lot. We are not focusing on that topic.

Mr. SHAYS. Mr. Spring, what about North Korea?

Mr. SPRING. I think that Mr. Sokolski set the table for me very nicely. I think that what is really key here on the part of the United States is those positive security assurances that we provide our friends and allies in the region. That is one of the things I think that will really convince the Japanese to continue with their current policy with regard to not obtaining nuclear weapons, because they have the capability to do it very, very quickly, but they don't have, at least in the body politic as I look at Japan, the appetite to do that. But they will seek and they are seeking reassurance.

I think, as a result of the situation with both China and North Korea, Japan has as close a security relationship with the United States as I can remember right now. So reinforcing the positive security relationship between the United States and Japan to foreclose a weapons incentive for them I think is a key element to addressing the problem.

We played this same nuclear game I am talking about with Japanese nationals just in August, and the Japanese national player who was playing the Japanese equivalent player opted immediately to dispense with the nuclear weapons that the game assumed that he had at the outset. In other words, he went back to being a nonnuclear state, and at the same time he moved very strongly in the relationship with the United States, and it worked.

He was able to avoid a direct nuclear conflict with either China or North Korea with the over-arching security relationship with the U.S., and it was based in part on the U.S. nuclear umbrella, it was based in part with regard to nuclear nonproliferation and arms control efforts that the U.S. was pursuing diplomatically—and we kept diplomatic records of what was going on—so that dynamic did play it out and Japan did not suffer for its decision that would presumably be irrational at one level, at least, that you look at it to say OK, even though all these other countries have nuclear weapons it is presumed in this game I am going to get rid of mine. I am just going to get rid of them.

Mr. SHAYS. Mr. Granoff?

Mr. GRANOFF. I had the privilege of being a guest of Kim Dae Jung and Mikhail Gorbachev in June, this past June, in Quan Ju, Korea, which was the birthplace of the democracy movement. They were celebrating the 20th anniversary of the democracy movement there, and they had a summit of Nobel Peace laureates. At those gatherings there were over 100 leaders from the industrial community of North Korea, the Minister of Unification of North Korea, and the Minister of Unification of South Korea, President of South

Korea, and there was 2 weeks of deliberations specifically on these subjects.

I learned much more than I had expected. As you might know, Kim Dae Jung was the author of the Sunshine Policy reaching out to North Korea and pushing for unification. The South Koreans know that if there is going to be unification they have to ensure that there won't be the economic shock that took place in East and West Germany. It would be even far greater. So there was a large number of businessmen there who were looking to invest in factories and trade with North Korea to try and normalize the economic disparity between the north and the south.

It was also clear to me that there would be no unification if there are nuclear weapons in the peninsula, because South Korea has a very high interest in maintaining the nonproliferation aspects of the NPT. They know that if they were to have unification with nuclear weapons that Japan would be forced to follow suit, etc.

So the kind of proposals that these learned people in the region informed me of—and I have shared this with the committee in my submission—talked about increasing trade. There is a railroad line that has already been laid.

Now, while this was going on, if you look at the chronology, while these talks were going on North Korea did those missile tests. So what I concluded from that is there is a divided house in North Korea. There are clearly elements there that want to maintain the status quo, a status quo in which the North Korean people suffer tremendously, and there are also people who realize that the conditions of their people are a remnant of the cold war that they need to overcome. I think we should help those people reach out and increase trade, increase normalization, and isolate their military neanderthals.

Mr. SHAYS. I would like to bring this to a close, but let me just ask you, so when I look at Iran, they could have a nuclear program, but when I look at Japan, they could have a nuclear program. It is quite different. You know, it is quite a different motivation and direction. Is there any other country in the world like Japan that is accumulating massive amounts of potential weapons grade material?

Mr. SOKOLSKI. Sure. You have reprocessing going on in weapons states, so that is good news.

Mr. SHAYS. OK.

Mr. SOKOLSKI. You have the Netherlands, Germany doing enrichment, which means if they leave the switch on on the machine it could go up to weapons level. There are a number of countries that are making enrichment facilities—Argentina, Brazil, South Africa, Ukraine—who want to be considered nuclear fuel supplying nations under our program, the Global Nuclear Energy Partnership. Canada, Australia have voiced interest in making sure they get on the right side. So I think you have 15 years. If you——

Mr. SHAYS. In a sense, isn't that just as concerning in a sense, if not——

Mr. SOKOLSKI. I have been trying to say all throughout my testimony nuclear fuel making is nuclear ready. Nuclear ready is as much of an uncertainty generator as the bomb itself. If you wink or encourage this or don't think through the security risks, you buy

the farm. You are absolutely culpable if you let this continue. We did it for the last 40 years. We winked at Japan. We winked at the Netherlands. We winked at Germany, Brazil, South Africa. Now the bill is starting to come due because people are saying, well, why not us.

Mr. SHAYS. OK. I think you may have started to answer the question I asked in a very confused way when we were talking about other countries looking at the United States and not taking the NPT seriously. They are seeing a number of particularly western European countries, some of the more developed South American countries—I was thinking at least South America is a nuclear free zone, but what you are telling me is——

Mr. SOKOLSKI. No, sir. I know too much. I worked in the Pentagon dismantling program secretly with the Argentinian government because they did not know what was going on with the rocket program, and with Brazil it was basically having their military dig a hole for a test. So it is all good and well to hope that no one that renounces will ever change their mind again, but we are all human.

Mr. SHAYS. Let me do this. This has been a great hearing. It sure makes me want to be back here. Why don't I just ask is there anything we should have put on the record we didn't, and is there anything that you want to emphasize to make sure we get it? I will start with you, Mr. Sokolski.

Mr. SOKOLSKI. I guess since I talked so much and I went over I am only going to make one request.

Mr. SHAYS. What is that?

Mr. SOKOLSKI. We are having a meeting co-sponsored by the French government. One of your staff wants to come. I hope he can come.

Mr. SHAYS. And where is that meeting?

Mr. SOKOLSKI. In Paris. And we are actually getting a Congressman to come.

Mr. SHAYS. When is that going to be?

Mr. SOKOLSKI. The 13th. That is the problem.

Mr. SHAYS. The 13th of?

Mr. SOKOLSKI. November.

Mr. SHAYS. Well, we will see you get a staff there.

Mr. SOKOLSKI. All right. Now, I get a percentage of his pay don't I? [Laughter.]

Mr. SHAYS. No. Well, you know what, I am sure it will be an excellent conference.

Mr. Granoff.

Mr. GRANOFF. I will be leaving here and going to Ottawa tomorrow for a gathering of 25 middle-power countries.

Mr. SHAYS. I thought you were going to ask me if you could be one of my staff so you could go to Paris.

Mr. GRANOFF. I would be honored.

Mr. SHAYS. You are not thinking.

Mr. GRANOFF. I would be honored. There will be 25 middle-powered countries, countries with good human rights records, countries friendly to the United States, countries that have renounced nuclear weapons, and countries that want to see progress on article six. In fact, it is called The Article Six Forum. It is convened by

the middle powers initiative. That is where Dr. von Hippel was flying off and Dr. Blix, as well.

Mr. SHAYS. Where is that going to be?

Mr. GRANOFF. Ottawa. Foreign Minister MacKay will be giving an address on Thursday morning. The focus will be exactly what we are talking about. So this is a matter in which our friends are calling for progress.

My deepest concern is that during the cold war there was some kind of qualified morality to the posture to the weapons. The logic was we have the weapons to ensure they won't be used. But there have been statements that have come out in recent years from our administration that indicates a backing away from that moral condemnation of the weapons and seems to indicate that it is not so much the weapons that are at issue but making sure the weapons are only in the hands of our friends.

Now, this moves from the standard of the unacceptability of these horrific devices and from the power of law to the raw law of power, and countries that are friendly with us 1 day may not be friendly the next day. This is not the way to set a global norm, sort of taking the National Rifle Association philosophy at large: it is not the weapons, it is the people.

But with nuclear weapons I think it is the weapons. I think that they are intrinsically incapable of distinguishing between civilians and combatants. I think that they are of a different caliber because of their effect on future generations. I think that we need to start thinking of nuclear weapons as something like the way we look at biological weapons, like the plague. It is not a benefit in anybody's hands.

But by no means can we just get rid of them overnight. We have to build an edifice of peace and cooperation and security in the same way as we have built this edifice of destruction.

I think that if we would say what are the criteria for building that edifice, do the steps enhance security, do they enhance law, do they stand on their own merits, and if they do and they follow on that compass point of disarmament—it is a compass point, not something we can reach overnight, but if it follows on that compass point I think we have to say that is in our interest. If we don't, we are going to be breeding incoherence.

The Middle East, now that we have legitimized Pakistan's weapons, why would there not be a Middle East Treaty Organization like NATO with nuclear sharing? What is our argument against that? It is dangerous? It is de-stabilizing? Well, I mean, we have it in NATO.

So I say let's get back to the principles of law that our country stands for and the principles of morality that our country stands for. That is in our security interest and that is the right thing to do.

Mr. SHAYS. Thank you very much.

Mr. Spring?

Mr. SPRING. Just two quick sort of practical things that I think that everybody in Congress has reached. One is that during the cold war there was a rather sharp divide between people who were regional specialists on the one hand, for example, in the State Department's Regional Bureau, to just take one department at a time

here, versus the functional people that worked on arms control and nonproliferation matters.

I think that there is a natural coming together with that, but I think it is something that Congress could probably help accelerate, and that is putting together real teams of functional and regional specialists to hash these issues out, because they have to be done in tandem, I think, now that the division that we had during the cold war between regional and functional isn't going to be as workable. It is not a huge step. It is a matter of really encouraging, you know, different ways of looking at how to handle issues within the bureaucratic wire diagrams, if you will, and I think that would be useful.

The other is that what I see is going to be the next sort of ideological battle on this entire arms control nonproliferation front, which is one that Representative Kucinich raised, which I think is really a ruse, which is the weaponization of space issue. I think it is really artificial. I don't think it really comes to the heart of the concerns the United States should have for security. I think that the nuclear proliferation issue is much more important. I think almost as important are the other issues related to the proliferation of weapon of mass destruction.

Mr. SHAYS. Let me be clear though. Are you advocating that there be nuclear weapons in space?

Mr. SPRING. No, not nuclear weapons. The weaponization of space thing is going to be really driven about missile defenses.

Mr. SHAYS. OK.

Mr. SPRING. And also the survivability of U.S. military systems to support tactical operations from space.

Mr. SHAYS. Is this in the end just to make sure—I wanted to make you smile, not look so serious. So you are just putting in a word that, while you think it is far more serious to deal with nonproliferation issues, you are saying that a defensive system is not something we should just dismiss.

Mr. SPRING. Exactly. That is exactly right. And it has to be really in space, in my judgment, because that is where the missiles fly.

Mr. SHAYS. OK.

Mr. SPRING. The missiles fly in space.

Mr. SHAYS. OK.

Mr. SPRING. And so we are talking about non-nuclear defensive systems that we would have in space, and also the same technologies go into making survivable our overall satellite networks that support very important tactical military operations all over the world.

Mr. SHAYS. OK. Let me just say that Mr. Granoff disagrees, but I am not going to give him the opportunity to speak because I want to close this hearing up, but you do have the last word.

Gentlemen, all three of you have been delightful, tremendously informative. I think my job is to listen, to learn, to help, and to lead, and I think you are helping me be a better leader and ultimately the Congress by your contribution to this afternoon and tonight, and I thank you all very, very much.

With that I also thank the transcriber for stepping in and reminding me once again not to forget to swear in our witnesses.

With that, we will adjourn this hearing. Thank you all very much.

[Whereupon, at 7:37 p.m., the subcommittee was adjourned.]

[Additional information submitted for the hearing record follows:]

The Nuclear Nonproliferation Treaty

And

Peaceful Nuclear Energy

By

Henry Sokolski
Executive Director
The Nonproliferation Policy Center

Just because a nuclear activity or material can be used for peaceful purposes does not mean that any member of the NPT has an unconditional right to pursue or acquire it especially when the activity or material in question might bring it within days of having a bomb.

In making this argument, I side with President Bush who, in his February 11, 2004 speech on nuclear nonproliferation, complained that states like Iran have "cynically manipulated" the Nuclear Nonproliferation Treaty to acquire all they need to acquire nuclear weapons under the guise of developing peaceful nuclear energy. UN Secretary-General Kofi Annan made the same point at the NPT Review Conference last May, when he warned against subverting the NPT's purpose by reading into it an unqualified guarantee for all to acquire the most dangerous forms of nuclear energy.

Their view, as well as that of legal authorities, diplomatic historians, and officials closely involved in the negotiation and ratification of the NPT, is that the treaty neither recognizes nor protects such a *per se* right, but rather affirms a right to peaceful nuclear energy that is logically and legally qualified in at least three respects.[1]

Noncompliance

First, by definition and by the explicit proscription of Article IV of the NPT, no nonweapons state that is a member of the NPT can enjoy the right to develop, produce or research peaceful nuclear energy if they use it "to manufacture or otherwise acquire nuclear weapons." Instead, states that exercise their right to peaceful nuclear energy must do so "in conformity" with the NPT's prohibitions in Articles I and II against acquiring or sharing nuclear weapons and related technology or materials.

Our government has emphasized this point in making its case for reporting Iran's nuclear misbehavior to the UN. Iran, U.S. officials insist, is making a bomb with technology and materials that Tehran claims it is developing for the purpose of generating civilian nuclear energy. Iran's covert bomb making activities are a clear violation of Article II of the NPT, and, therefore, Iran is in noncompliance with its NPT obligations and should be reported to the UN. Some are persuaded by this argument. Others, including Russia and China, are not.

Fortunately, U.S. officials have made another argument that enjoys much broader support. Iran, they point out, has violated its International Atomic Energy Agency (IAEA) nuclear safeguards obligations. These violations serve as grounds for action under Article 12 c. of the IAEA's Charter Statute. Article 12 c. provides that in cases in

1. The thoughts expressed here rely heavily on the substantive historical and legal analyses of Albert Wohlstetter, Arthur Steiner, Eldon V.C.Greenberg, and Paul Lettow.

which the IAEA Board of Governors finds a member to be in noncompliance, the Board shall report the noncompliance to the United Nations Security Council (UNSC). [2]

It is this argument that the U.S. and its friends are relying on to move the IAEA Board of Governors in its upcoming meeting March 6 formally to report Iran's noncompliance to the UNSC.[3] As you noted in your invitation to testify before this committee, some have questioned if failing such a finding of noncompliance, any NPT member's right to develop, research or produce peaceful nuclear energy can or should be restricted. If Iran declared its enrichment and reprocessing activities as it should have, would we have any grounds to find Tehran in noncompliance failing some "proof" that it was developing or acquired nuclear weapons? The position of the U.S. State Department's Legal Division—along with the Foreign Ministry of Iran—is that the answer is no.

Why Merely Declaring Nuclear Activities Is Not Enough

Although this State Department legal interpretation may be soothing to nuclear fuel making states like Japan, Germany, the Netherlands, Brazil, and South Africa, it ultimately turns the NPT on its head. Certainly, if we are serious about using the treaty to prevent states from getting within days of acquiring an arsenal, it is too narrow a reading.[4] One begins to appreciate how untenable this constricted interpretation of the NPT is when one examines the much sounder position the U.S. State Department simultaneously maintains regarding the limits on what nuclear technology NPT member states should supply to others. Speaking from a cleared text before the NPT Review Conference last May, the U.S. representative to these talks explained:

> Parties are not compelled by Article IV to engage in nuclear cooperation with any given state -- or to provide any particular form of nuclear assistance to any other state. The NPT does not require any specific sharing of nuclear technology between particular States Party, nor does it oblige technology-possessors to share any specific materials or

2. Article 12 c. of the IAEA Statute also provides that "In the event of failure of the recipient State or States to remedy forthwith any non-compliance," the Board may further "direct curtailment or suspension of assistance being provided by the Agency or by a member, and call for the return of materials and equipment made available to the recipient member or group of members" The Statute also authorizes the Board to suspend any non-complying member from enjoying the rights and privileges of IAEA membership.

3 . Some contend that because the NPT's Article III stipulates that IAEA safeguards "shall be followed," a determination by any NPT member of noncompliance of IAEA safeguards by any other state should serve as sufficient grounds for finding that state in noncompliance with the NPT, without a finding of a majority of the IAEA Board of Governors. This position, though, has not yet been tested.

4. See, Albert Wohlstetter, "Spreading the Bomb without Quite Breaking the Rules," *Foreign Policy* , (25, Winter 1976-77).

> technology with non-possessors. Indeed, to conform both to the overall objective of the NPT -- strengthening security by halting nuclear proliferation -- and to any Article I and III obligations, supplier states must consider whether certain types of assistance, or assistance to certain countries, are consistent with the nonproliferation purposes and obligations of the NPT, other international obligations, and their own national requirements. They should withhold assistance if they believe that a specific form of cooperation would encourage or facilitate proliferation, or if they believe that a state is pursuing a nuclear weapons program in violation of Article II, is not in full compliance with its safeguards obligations, or is in violation of Article I. [5]

Here, the State Department correctly argues that the NPT's call on parties "to facilitate ... the fullest possible exchange" of technology for the peaceful uses of nuclear energy should in no way be viewed a being a requirement to supply any specific nuclear technology to any specific member and that, instead, just the opposite applies . History clearly backs this position. In fact, two separate proposals during the NPT's final negotiation, one by Spain and another by Mexico, to amend the treaty's text to *require* the nuclear weapons states to provide non-weapons state members with "the entire technology of reactors and fuels" were rejected. The UK representative noted that these were "too sweeping".[6]

The question is why. A technical as well an historical answer is available in the record of the Eighteen Nations Disarmament Committee (ENDC) talks in Geneva in which key negotiations relating to the NPT were conducted. Here in 1966, the Swedish representative, Mrs. Myrdal, warned:

> To prohibit just the final act of 'manufacture' would seem to come late in these long chains of decisions. On the other hand, already to probe the preliminary thinking of politicians and the laboratory research of scientists obviously is as difficult, as it would be considered an undesirable intervention. Could a middle link be found on which the prohibitory regulation should most definitely be focused? . . . [M]ust not regulations about effective controls be linked with certain definitive and uncontestable steps, such as actual purchases of nuclear reactors, fuel elements and so on

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5. USUN Press Release #101 (05) May 19, 2005, Statement by Christopher Ford, Principal Deputy Assistant Secretary of State, Bureau of Verification and Compliance, on Article IV, in the Third Committee of the 2005 Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons, May 19, 2005.

6. See Arthur Steiner, "Article IV and the 'Straightforward Bargain'," PAN Heuristics Paper 78-832-08, in Wohlstetter, et al., *Towards a New Consensus on Nuclear Technology*, Vol. II (Supporting Papers), ACDA Report no. PH-78-04-832-33 (Marina del Rey, Calif.: Pan Heuristics, 1978). pp. 1-8.

> from abroad, and/or the establishment within a country of such installations as plutonium separation [reprocessing] plants and the like? These problems are so important that no effort should be spared in order to establish our positions as exactly as possible. I trust that we all agree that no 'loopholes' should be left for misunderstandings or contradictory interpretations.[7]

Although, Mrs. Mydral's questions were never fully answered by the Committee, they clearly were raised and were among the key reasons why the Spanish and Mexican proposed amendments were subsequently rejected. More important, these observations suggest why the NPT can hardly recognize a per se right among any non-weapons state member to develop "the entire technology of reactors and fuels" without running afoul of the treaty's clear Article II stricture against manufacturing or otherwise acquiring nuclear weapons.

Most diplomats have tried to extricate themselves from the dilemma that many civilian nuclear activities can bring nations to the very edge of bomb making by simply contending that all declared civilian nuclear facilities or materials – whether they be reactors, enrichment or reprocessing plants or weapons usable nuclear fuels – are "peaceful" and protected by the NPT once they are placed under IAEA inspections. This view, which is quite popular today, however, is, as will be explained below, an incomplete understanding of NPT's actual provisions and intent.

Safeguards

This brings us to the second qualification on a nonweapons state's "inalienable" right to peaceful nuclear energy, which is that it must involve nuclear materials or activities that can be safeguarded. As Article IV stipulates, the right to peaceful nuclear energy will be exercised "in conformity" with Articles I and II. Article II's prohibition against nonweapons states acquiring or manufacturing nuclear weapons, though, is to be verified by adherence to Article III, which requires nonweapons states to "accept" and "follow" IAEA safeguards on all their key nuclear activities and materials. It is for this reason that the NPT Review Conference in 1995 determined that the right to peaceful nuclear energy is qualified not only by Articles I and II, but by Article III as well.

It would be comforting to think that whatever nuclear programs the IAEA inspects are actually safeguarded against being used to make bombs. Recent experience with Iran, however, suggests that this view is unwarranted. First, the IAEA's cannot always find covert nuclear activities. In Iran's case, the IAEA missed an entire "peaceful" uranium enrichment program for nearly 20 years. Second, certain nuclear activities, such as

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7. Speech by Mrs. Myrdal (Sweden) in Plenary Session 243 on 24 Feb. 1966 in *Further Documents on Disarmament: Ninth Session of the Eighteen-Nation Committee on Disarmament,* 27 January to 10 May 1966, Cmnd. 3120 (1966) (U.K.) at 81-82 cited in the May 2005 unpublished history of the NPT and Article IV by Paul Lettow.

nuclear fuel making, can bring states, such as Iran, so close to acquiring nuclear weapons, inspections could hardly provide sufficient warning to other states to prevent Iran from completing a military diversion to make bombs.

In fact, both of these caveats are addressed in the NPT. Under Article III, the purpose of safeguards is explicitly specified as being to verify "fulfillment of ... obligations assumed under this Treaty with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons." Monitoring procedures authorized by the IAEA that fail to meet these objectives, then, may be inspections but they are not safeguards and, as such, the activities and materials subject to such monitoring ought not to be presumed to be peaceful and, therefore, protected under the NPT.

What sorts of nuclear activities and materials are likely to fail to admit to being monitored in a manner that would meet the NPT defined purpose of safeguards, i.e., of preventing diversions and verifying states' pledges not to make bombs? Two sorts at least: Nuclear activities of a clearly uncooperative nonweapons state, such as Iran or North Korea; and nuclear processes and materials that can be converted to make bombs so quickly that reliably preventing their diversion with inspections is improbable in the extreme. Here, any nuclear fuel making activity involving direct nuclear use materials, such as highly enriched uranium, separated plutonium, or mixed oxide fuels, would have to be included. Also, the enrichment of uranium, especially enrichment involving the use of centrifuge systems, a process that can turn from the production of lightly enriched uranium to making bomb-grade fuel overnight, would have to be included as well. Finally, any large reactor that requires either significant quantities of fresh lightly enriched fuel or generates plutonium-laden spent fuel would also be too risky in any nonweapons state in which one was uncertain if it had a covert enrichment or reprocessing program — programs which could be ramped up with the quick seizure of these materials.[8]

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8. On these points, see Thomas B. Cochran, "Adequacy of IAEA's Safeguards for Achieving Timely Detection," presented at a conference "After Iran: Safeguarding Peaceful Nuclear Energy," sponsored by the Nonproliferation Policy Education Center and King's College London October 2-3, 2005, available at http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=Paper050930CochranAdequacyofTime&PDFFolder=Essays; Edwin S. Lyman, "Can Nuclear Fuel Production in Iran and Elsewhere Be Safeguarded Against Diversion?" paper presented at a conference "After Iran: Safeguarding Peaceful Nuclear Energy," sponsored by the Nonproliferation Policy Education Center and King's College London October 2-3, 2005, available at http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=Paper050928LymanFuelSafeguardDiv&PDFFolder=Essays; and Victor Gilinsky, *A Fresh Assessment of the Proliferation Dangers of Light Water Reactors,* October 22, 2004, available at http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=Report041022%20LWR&PDFFolder=Reports.

Benefits

A third condition on one's exercise of the right to peaceful nuclear energy is implicit in the NPT's preamble language extolling the "benefits" of peaceful nuclear energy. That condition is that the nuclear activity in question actually be one that can produce some economically measurable advantage.[9] This is a much softer point than the two previously discussed conditions, but it too is significant. Certainly, one of the persistent and reasonable complaints that U.S. officials have made about Iran's construction of its large power reactor at Bushehr and of its nuclear fuel making facilities is that neither make any economic sense. Certainly, no private bank would finance such programs on their own merits. This one of the key reasons why Iran's claims that its nuclear activities are "peaceful" have rightly raised so many doubts. Any nation's development of civilian nuclear energy, then, comes under suspicion the more uneconomical it is or becomes.[10]

Implications

The first and most obvious implication of backing this set of tougher, sounder views of the NPT and peaceful nuclear energy is that promoting them will upset nonweapons states, such as Japan, the Netherlands, Germany, South Africa, and Brazil, whose nuclear fuel making activities the U.S. has already blessed. For them, such a reading of the nuclear rules will be seen as a step backwards. Joining in their likely protest against such a reading will be those states, such as Australia and Canada, which are now contemplating nuclear fuel making, as well as a large number of developing nations which will object to any further restrictions on potential nuclear activities.

One partial response to their objections would be to argue that with time, we have come to learn more about the limits of IAEA inspections and the increased ease that countries now have in making nuclear arms. Certainly, there is no good reason to make our past

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9. See Eldon V.C. Greenberg, *The NPT and Plutonium: Application of NPT Prohibitions to 'Civilian' Nuclear Equipment, Technology and Materials Associated with Reprocessing and Plutonium Use* (Washington, DC: The Nuclear Control Institute, 1993), available at http://www.npec-web.org/Essays/Article930507%20Greenberg%20-%20The%20NPT%20and%20Plutonium%20-%20May%207%20%201993.pdf. [DELETED DEAD HYPERLINK.]

10. As the French government explained in the lead up to the NPT Review Conference of 2005, the economic rationality of a nuclear activity is directly relevant to the achievement of the NPT's nonproliferation objectives. See *Strengthening the Nuclear Non-Proliferation Regime*, Working paper submitted by the French Republic to the Preparatory Committee for the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, NPT/CONF.2005/PC.III/WP.22, May 4, 2004, available at http://www.iaea.org/NewsCenter/Focus/FuelCycle/france_npt2004.pdf.

mistakes hereditary by grandfathering dangerous nuclear activities in such nonweapons states.

Persuading these countries that their right to develop peaceful nuclear energy does not necessarily entitle them to pursue any specific nuclear activity, though, will not be easy. As with encouraging other states to open their nuclear facilities to routine IAEA safeguards and to adopt the Additional Protocol, the example that the nuclear weapons state members of the NPT set will be important. Certainly, if the U.S and other nuclear weapons states are unwilling to subject their own civilian nuclear activities to some of the same conditions that a sound reading of the NPT requires, the chances that these conditions will be sustained by others will be much lower.

In this regard, the U.S. and other nuclear weapons states under the NPT would do well to avoid expanding their net nuclear fuel making capacity unless there is a clear market economic imperative to do so. Here, the recently proposed Global Nuclear Energy Partnership needs to be approached with caution. Funding research and development of potentially useful nuclear technologies is difficult in principle to argue against. However, using taxpayer or ratepayer monies to fund the construction of "engineering demonstration" plants that lead to the production of electricity that is placed on the commercial grid is something that ought to be resisted at all costs lest our example become a world-wide model. Finally, any thought that the U.S. and others, such as Russia, can bribe or induce other states not to make their own nuclear fuel, while publicly insisting that these states still have the right to make such fuel, ultimately is both inconsistent and untenable.

This time, let's listen to Blix on WMD

John Burroughs, Chicago Sun-Times, June 17, 2006

Hans Blix is back, this time with a report on how to reduce dangers posed by nuclear and other weapons of mass destruction worldwide. This time we should listen to him. His call as chief U.N. weapons inspector prior to the invasion of Iraq for continued inspections instead of military action was vindicated by the later failure to find WMD. After the catastrophe of the Iraq war, Americans have much reason to reconsider the policy of preventive war to counter WMD proliferation. A reasonable alternative is articulated by the report: Win the cooperation of other nations in preventing further spread of nuclear weapons by working hard to reduce the role and number of existing weapons.

The Blix-led Weapons of Mass Destruction Commission released its report, Weapons of Terror: Freeing the World of Nuclear, Biological and Chemical Arms, earlier this month at the United Nations. It includes distinguished experts from around the world, among them former U.S. Secretary of Defense William Perry.

The report's timing is excellent. Nuclear weapons have once again taken center stage in world politics. In January, French President Jacques Chirac signaled that nuclear weapons could be used against a state responsible for a large-scale terrorist attack on France. In April, there were credible reports that the Bush administration is giving serious attention to options for use of nuclear weapons to attack buried uranium enrichment facilities in Iran. Recent years have also seen North Korea's claim to have a nuclear deterrent and heightened concern about possible terrorist acquisition of a nuclear bomb.

Taking issue with the message familiar to Americans, that nuclear weapons are unacceptable in the hands of rogue states and terrorists, the Blix report rightly says that these catastrophic devices are dangerous in anyone's hands. It explains that the problems of existing arsenals, potential spread, and potential terrorist use are all linked; and that they can be solved only by a comprehensive approach leading to elimination of all nuclear weapons.

Regarding Iran and North Korea, the Commission makes the common sense observation that they must be given a sense of security by renouncing regime change as a policy, providing guarantees against attack, and moving toward WMD-free zones in the Middle East and on the Korean peninsula. It is also important to pay attention to the findings of international inspectors, who were, after all, proved right in the case of Iraq. The United States should take this lesson to heart with respect to Iran, where the International Atomic Energy Agency has extensive on-the-ground experience and so far has not concluded that there is a nuclear weapons program.

In the longer term, stopping the spread of nuclear weapons requires reversing proliferation where it began, in the United States. We led the world into the nuclear age during World War II; now we must lead it out. Unfortunately, since the treaty banning all nuclear test explosions was negotiated in 1996, the United States has abandoned the multilateralism necessary to the exercise of leadership. The Senate rejected ratification of the treaty in 1999. In the 2000s, the Bush administration has repudiated commitments the United States made under the Nuclear Non-Proliferation Treaty to work with other nations to reduce the role of nuclear weapons in security postures and to pursue verified, irreversible reduction and elimination of nuclear arsenals.

The United States needs to take leadership again, by ratifying the test ban treaty and with other countries implementing measures like making deep cuts in U.S. and Russian arsenals and dismantling the reduced warheads; de-alerting nuclear forces by removing warheads from missiles; securing nuclear materials and warheads around the world to prevent terrorist acquisition, and establishing a verified ban on production of plutonium and highly enriched uranium for nuclear weapons. Ultimately, what is needed is what the Blix report calls "planning for security without nuclear weapons."

Admittedly, the sort of international policy-speak found in the report has had little influence in American debate. But the Blix Commission nonetheless should be heeded. It is infinitely preferable to get our wake-up call from a Swedish international civil servant than from a nuclear bomb going off in a major city somewhere in the world.

John Burroughs is executive director of the New York-based Lawyers' Committee on Nuclear Policy, one of several NGOs offering commentary on the Blix report at www.wmdreport.org.

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Nuclear arms in the hands of any pose a global threat

By Jacqueline Cabasso

Even as Secretary of State Condoleezza Rice condemns North Korea for threatening to test a new missile that could theoretically deliver a nuclear weapon to the Western Aleutians, the Pentagon is poised to develop its own new generation of nuclear-capable long-range delivery systems. And while President Bush declares a nuclear-armed Iran would pose "a grave threat to the security of the world," the United States is modernizing every weapon type in its vast nuclear arsenal, as Lawrence Livermore and Los Alamos national laboratories pursue America's own arms race.

Lawrence Livermore National Laboratory was founded in 1952 to compete with Los Alamos to develop a hydrogen bomb, a bomb far more powerful than the atomic bombs that destroyed Hiroshima and Nagasaki. Now, under the "Reliable Replacement Warhead" (RRW) program, the labs are competing to design an entirely new warhead. Linton Brooks, head of the U.S. nuclear-weapons complex, has said that in 25 years our arsenal would largely consist of these replacement warheads, and "the weapons design community. . . revitalized by the RRW program" will be able to produce weapons with new military capabilities, "within three to four years of a decision."

If you think this new arms race is endangering, not enhancing our security, you're in good company.

This month, an independent international commission, the Weapons of Mass Destruction Commission, headed by former chief Iraq weapons inspector Hans Blix, released its report, "Freeing the World of Nuclear, Biological and Chemical Arms." The commission, whose members include former U.S. Defense Secretary William Perry, reminds us that the 27,000 existing nuclear weapons are "not an abstract theory," and rejects the hypocritical view that nuclear weapons in the hands of some pose no threat, while in other hands they place the world in "mortal jeopardy." The commission holds the United States largely responsible for the current nuclear crisis, in which threats of further proliferation to additional countries and possible terrorist acquisition are inextricably linked to threats from existing nuclear arsenals.

"Explanations by the nuclear-haves that the weapons are indispensable to defend their sovereignty are not the best way to convince other sovereign states to renounce the option," states the commission's June report. Reducing the threat and number of existing nuclear weapons — including the United States' arsenal, "must be addressed with no less vigor than the question of the threat from additional weapons, whether in the hands of existing nuclear-weapon states, proliferating states or terrorists."

Historically, the United States agreed to nuclear disarmament as matter of law, signing the 1968 Non-Proliferation Treaty. The treaty obligates the United States to end the arms race "at an early date" and negotiate, "in good faith," the elimination of its nuclear arsenal. But although the treaty was extended indefinitely in 1995, President Bill Clinton reaffirmed threatened first-use of nuclear weapons as the "cornerstone" of U.S. national security in a 1997 directive.

> The obligation to move away from nuclear weapons "should start with . . . the United States and Russia."
>
> — Hans Blix, chairman, Weapons of Mass Destruction Commission

At the 2000 Non Proliferation Treaty Review Conference, the nuclear weapon states, including the United States, committed to (under growing pressure from non-nuclear weapon states) an "unequivocal undertaking . . . to accomplish the total elimination of their nuclear arsenals," and "a diminishing role for nuclear weapons in security policies to minimize the risk of their use and to facilitate the process of their total elimination."

Then came Sept. 11, 2001.

The 2002 Nuclear Posture Review exposed U.S. plans for first-use of nuclear weapons in response to non-nuclear attacks or "surprising military developments," and targeted Iraq, Iran, North Korea, China, Russia, Syria and Libya. The 2002 U.S. National Strategy to Combat Weapons of Mass Destruction proclaimed "the right to respond with overwhelming force," including "conventional and nuclear," employed, "in appropriate cases through pre-emptive measures." By lowering the policy threshold for using nuclear weapons, walking away from tried-and-true arms control treaties, launching an illegal preventive attack on Iraq in the name of "disarmament," and racing to build new nuclear warheads, we are seriously undermining international law and U.S. and global security.

Blix's commission says any new research on nuclear weapons must be solely for "safety and security — and demonstrably so," not for new military capabilities, as Linton Brooks envisions. I asked Blix recently whether the International Atomic Energy Agency should inspect the Livermore and Los Alamos labs to verify that the RRW program is "demonstrably" just for safety and security. He chuckled.

"We would be delighted if the IAEA would inspect Los Alamos," adding that, at a minimum, nuclear states must not give nuclear weapons new missions, and underscoring that the obligation to move away from nuclear weapons "should start with . . . the United States and Russia," the biggest nuclear weapon states.

In other words, not only should we not pursue new nuclear weapons, but as the commission spells out in 60 recommendations, nuclear weapons must be outlawed and systematically eliminated, not just in "rogue" states, but everywhere, starting here.

Jacqueline Cabasso is executive director of the Oakland-based Western States Legal Foundation, one of several nongovernmental organizations offering commentary on the Blix report at http://www.wmdreport.org.