New Contexts • New Dangers

Preventing Nuclear War in the Post-Cold War Age

Transcripts from the October 29-31, 1993 Conference initiated by the American Friends Service Committee Cambridge, Massachusetts

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Acknowledgements

At first glance, the success of the New Contexts, New Dangers conference was the result of the commitments and contributions of the excellent speakers and resource people and the conference participants—the vast majority of whom are leading activists and organizers of this and other nations' disarmament, peace and social justice movements. While this is true, in addition to the work and many contributions of the co-sponsor organizations, the loving and unstinting labor and contributions of several people must also be recognized. It is difficult to imagine the conference ever being held without the attention to detail and day to day organizing of Andrew Junker, who served as associate conference organizer. Andrew also served a principal editor of the following transcripts.

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In July, 1993 President Bill Clinton strode resolutely to the 38th Parallel in Korea. Perhaps perversely intending to assuage the US electorate and the government in Seoul, he threatened the nuclear annihilation of North Korea.

This was not the first post-Cold War exercise of nuclear blackmail. In 1991, President Bush, Vice-President Quayle and Secretary of Defense Dick Cheney threatened the people of Iraq with nuclear annihilation during Desert Shield, Desert Storm War. This threat came after they had encircled the country with an estimated 1,000 nuclear weapons. Earlier still, in 1990, Pakistan threatened India with nuclear attack during a confrontation over Kashmir, demonstrating the emergence of new practitioners of nuclear extortion.

The Soviet Union has collapsed, and the Cold War has ended, but international competition for power, resources and domination continues. Daily alarms of the dangers of nuclear weapons and nuclear war continue to scream silently from the headlines: North Korea may have nuclear weapons. A Korean atomic bomb may "force" Japan to recant its peace constitution and become a nuclear weapons power. Ukraine is now third largest nuclear power in the world. Ukraine and Kazakhstan each have more nuclear weapons than France, Britain, China, Pakistan, India and Israel combined. Ukraine's nuclear arsenal may "force" Germany to "go nuclear." Secretary of Defense Perry is advocating continued modernization of US nuclear weapons as insurance against militarized nationalism in Russia.

Despite its initial promises, the Clinton Administration proposed resuming nuclear weapons testing within months of coming to power. Only grassroots and Congressional pressure stopped the Administration. If the US follows China and Russia, it may find itself surrounded by an atomic ring of fire.

In addition to the emerging importance of nuclear weapons in the post-Cold War era, the deadly legacy of nuclear weapons infrastructures remains a hidden national health crisis. The dangers of nuclear explosions and deepening environmental damage are increasing at Hanford and other US nuclear waste storage sites. As a result of nearly five decades of nuclear weapons testing by the US, Russia, France, Britain, and China, deformed babies continue to be born in the republics of the former Soviet Union and in the test areas of Tahiti, and people continue to die from testing-related cancers. They, too, are called hibakusha, like the survivor witnesses of the atomic bombings of Hiroshima and Nagasaki. The now-confirmed reports of US nuclear weapons experimentation on innocent and unsuspecting civilians in the United States are perhaps the most appalling. They evoke memories of Joseph Mengele and the secret Japanese biological warfare Unit 731. And, in the spirit of Catch 22, it turns out that in the last days of the Soviet Union the Soviet military placed a warhead at the bottom of an underground shaft in Semipalatinsk to increase the possibility of conducting just one more test. Now no one knows how to extricate it!

As Daniel Ellsberg explains, the danger of repeating Hiroshima and Nagasaki-like atomic bombings has increased, not decreased, with the end of the Cold War. Many other issues rightly demand our attention today. It remains essential to confront the diseases and crimes of racism and inequality in our society, to find ways to stop the continued atrocities of national, ethnic, and tribal warfare in Bosnia, Angola, Algeria, and too many other nations, and to create industrial and social policies that provide security here in the US and elsewhere. Yet we betray the commitment to "No More Hiroshimas!" if we do not build on our victories of the 1980s and address the present dangers of our new context. This betrayal may have incomprehensible consequences in the future to people we love—or even to people we can only imagine.

Enough of being lulled by the end of the Cold War! It is time to rekindle the nuclear disarmament movement. Winning a comprehensive test ban, a restructuring of the Non-Proliferation Regime, and much deeper cuts in US and global nuclear arsenals require that we understand the nuclear weapons threats of the 1990s. We need to learn from our past successes and mistakes and to integrate the struggle for abolition of atomic weapons with the struggle for survival in our cities and nation.

With these thoughts in mind, the American Friends Service Committee in New England, in conjunction with AFSC's national disarmament program and twelve national and local cosponsoring organizations, organized a national conference in late October, 1993. The conference, "New Contexts, New Dangers: Preventing Nuclear War in the Post-Cold War Age," brought together 40 speakers and resource people and more than 200 leading activists and seasoned organizers from eight countries, 18 states, and 60 organizations. We gathered, as we approach the 50th anniversary of the bombings of Hiroshima and Nagasaki, with the goal of revitalizing the disarmament movement by developing a common understanding of the dangers now posed by nuclear weapons. In ways that we could not anticipate, this gathering created a critical mass, building and releasing new vital energy.

This publication of the edited transcripts of the conference is a step in sharing its lessons. The views expressed in these presentations are, of course, those of their authors and not necessarily those of the AFSC. For readers who seek to go from understanding to action, we have also included an overview of the major disarmament campaigns being organized for the 1995 agenda and a partial listing of resources for education and organizing.

Joseph Gerson
March 15, 1994
It is moving for me to look out on this audience not only because of my knowledge of your understanding and commitment on the subjects we are going to talk about, but for very personal reasons. I see people here with whom my life has been entwined for several decades. The kinds of actions and the kind of work I most respect. You are my extended family, and I really feel that it is a family reunion for many of us. I am very touched to see us all at it. One of the people here was with me at my first arrest after the Pentagon Papers at the Pentagon, and Dave McReynolds, who was with me at my first vigil in 1969, is also here. But we are not here to go over past efforts and past glories. It is not just an alumni reunion. We are still at it because we are still needed at it. They are still at it in the government, so we still have to be at it.

I have encountered a lot of complacency within the disarmament movement. As many of you know in your grassroots constituencies, people have moved to other problems, in part because there are other extremely pressing problems that compete for attention. That is not to be criticized at all. The nuclear problem cannot be described as the one overwhelming problem in the short run that should preoccupy us all. Randy Forsberg is going to talk about related problems, and there are others that go beyond the national security field. Obviously, they are deserving of funding, of organizational efforts, etc. Randy and I both disagree with those who have moved away from this problem with the belief that the problem has gone away.

I read a recent paper by a leading figure of the last decade's anti-nuclear movement saying the problem of nuclear war has virtually disappeared. That is quite wrong. You can see, though, why someone would move towards such complacency. Before the Chinese tested nuclear weapons last summer, we could say that for the first time in over thirty years no nuclear power in the world had tested nuclear weapons for virtually a year.

To define this audience as this conference starts, take a look around — this is a blue ribbon group. Is your job done? Have we won? Let's start with that question.

Granted, on the menu of things that are needed to reduce the risk of nuclear war, a comprehensive test ban would seem the closest to fruition as a means of eliminating proliferation, and ultimately, nuclear weapons. A comprehensive test ban is generally seen as the easiest problem to solve. It is the problem on which the most work has been done. Has it actually been achieved, now that we have an administration that is taking the preliminary steps towards serious negotiations on it and has extended a moratorium? I think not. I am sorry to say that I think a comprehensive test ban is not at all assured— even at this point. Still less is it assured that we will refrain from testing nuclear weapons in the next year or two.

"No more H- bom b s." Many of us have lived by this slogan most of our adult lives. Has that been achieved? I am sorry to say that I think the probability of another Hiroshima has increased rather than gone away in the last couple of years.

That slogan came to mean something else a decade or so into the nuclear era. "Hiroshima" really came to stand for the kind of all-out nuclear war which was being prepared by the two richest and most powerful nations in the world. They were spending enormous resources, ingenuity, and effort in preparing the extermination of life on earth, and not because they wanted to happen. Nevertheless, they were preparing the physical capability to launch such a war in a matter of minutes and to bring it about within a matter of hours or a day. They achieved that capability long ago. So, as the handful of atom bombs that we had in the late '40s gave way to thousands of H-bombs in late '50s, the problem of nuclear war became the problem of destruction of the northern hemisphere, and as the nuclear winter theories showed, the possibility of the extermination of life on earth.

For the last year I had been saying and believing that the problem had nearly disappeared. I would always say with caution, "Of course, the weapons still exist and in many cases they are still in place. One cannot say that that problem has gone to zero, but it has gone to near zero." I had been setting my own concerns within that framework. I don't, however, think that way anymore after reading an op-ed piece by Bruce Blair [in the New York Times]. There were accompanying news stories with it about the construction of a Soviet Doomsday machine, an automated launch—not launch on warning but launch under attack—system that the Soviets had not only constructed in the late 1970s and early 1980s, but still have in operation. There were accompanying news stories, and research still continues on it.

I am afraid the implication of this story is that the problem of all out war has surely been reduced with the great reduction of Cold War tensions and the reduced probability of the nuclear crisis between the US and Russia, but it has not gone to zero. It has gone near zero, but I think it remains substantial. The increased problem of proliferation has been more obvious for the last year or two. Proliferation is a problem because these weapons will crop up in many new countries under the control of many more people. There is a growing probability that these weapons will actually be used.

As I have said over the years, the weapons have been used, a dozen times and more, since Nagasaki. They have been used in the way that a gun is used when it is pointed at someone in a confrontation, whether or not the trigger is pulled. You are using the gun when you point it that way, and you get your way— even if you don't pull the trigger. That is the best use, the reason for which you basically bought the gun. To say then that the trigger has not been pulled and the weapons have not been launched is true, but can be quite misleading. One might think we have been far from a nuclear war over these years. I do not think that we have been far, and on a number of occasions we have been close to it. The significance of the many times we have threatened to use nuclear weapons over the decades is that we have set an example to be followed by other countries that can imagine themselves in circumstances similar to those
that led us to point that gun in the past.

India and Pakistan, according to Seymour Hersh, pointed that nuclear gun. Pakistan pointed it at India in May of 1990. In this confrontation, Pakistan was facing an adversary with much greater non-nuclear capabilities and a threat that had the capability, at that moment, to cut Pakistan in two. To prevent that from happening, Pakistan, according to Hersh, placed actual operational nuclear weapons on alert, slung them underneath planes, and let the Indians know it. It could have, in fact, led to nuclear war in May of 1990.

Others have contradicted that, saying that there isn’t sufficient evidence for that account. But Hersh quoted Robert Gates, later head of the CIA, as one who believed—with the intelligence at his disposal—that Hersh’s account was accurate. So it is nothing to be dismissed by any means.

We were not in a position in May of 1990 to tell either the Indians or the Pakistanis that this is an illegitimate use of their undeclared nuclear weapons. We had used the weapons ourselves in similar ways many times over the years, and we maintain that such threats are legitimate. If you have the weapons, threatening to attack with them is a legitimate use of those weapons. This use, by the way, is not ruled out by the Non-Proliferation Treaty (NPT), which places no restraints on the use of nuclear weapons by the so-called nuclear states.

Later that same year, in 1990, the United States confronted Iraq. We then regarded Iraq as a non-nuclear state, which it was (although it was violating the NPT and was in the process of trying to acquire nuclear weapons). But we understood Iraq to be a non-nuclear state that was party to the Non-Proliferation Treaty. Thus, Iraq was in a class of states which we had assured since 1978 that we would under no circumstances threaten or use nuclear weapons against. Despite this policy, which was reiterated as a general policy at the onset of the crisis, when several US officials were asked during the crisis, “Does the US rule out the use of nuclear weapons against Iraq?”, each of those officials did not say, “Yes, that is our policy. We rule out that. We do not threaten and will not use nuclear weapons against Iraq.” Instead they said the contrary, “No, we do not rule out any weapon.” They were using the weapon. They used the weapon just as Pakistan had used the weapon only months earlier.

And both states used it quite effectively. Pakistan used what Seymour Hersh had earlier called the Samson Option, pioneered by Israel. This tactic was to get the US, a quasi-ally, so concerned about the possibility of nuclear weapons use, that the US dashed over to mediate the crisis. Essentially the US sided with the Pakistanis and got India off their back. That, said Hersh, is the basic reason that the Israelis acquired the weapon. The Israelis wanted the US to be so concerned about the nuclear threat that they would ensure that the Israelis were never so threatened that they would use the bomb.

Before South Africa gave up their nuclear weapons, they revealed that their intent was to do the same. They had seen the incentives of threatening the world that they would use nuclear weapons if they had to. Under those circumstances, the US, not an ally, would have to shift from regarding them as a pariah state and say, “O.K. Here’s the help you need. Just don’t use your nuclear weapons.”

Could Ukraine learn from that example? Would Warren Christopher, in fact, have been in the Ukraine just recently, and after the last couple of years, if the Ukrainians had hastened to get rid of their nuclear weapons? The Ukrainians don’t believe that, and they are almost surely right. A very shrewd Russian said a couple of years ago that Russia is reallyUpper Volta with ICBMs. And I have to tell you that Russia is not in a rush to be Upper Volta without ICBMs. That is the same lesson that is being drawn by a lot of people. If these weapons worked for the US—if they are legitimate for the US—then they are legitimate for other countries.

Another element in the situation is the possible transmission throughout the world of nuclear weapons, nuclear materials, and nuclear experts from the former Soviet Union—what I’ve called a metastasis of such materials throughout the world.

We’ve been told that the former Soviet Union, as in the past, maintains very close controls over these materials. That was certainly true in the past. They assigned controls to the KGB, not to regular army units. They handled the weapons quite separately, took great steps to assure they wouldn’t get into the hands of possibly mutinous or nationalistic groups in the Soviet Armed Forces. They were under good control at the time, we were told. As a long-run assurance that did not impress me very much. It sounded to me like saying, “Don’t worry about the hundred tons of cocaine that the local police confiscated last week in a raid. It is safely under lock and key in the local precinct house. No problem.”

We are talking now about a substance that will be explosive, toxic, and extremely valuable, potentially for scores of thousands of years, or even much longer—the most valuable substance in the world, ounce for ounce. It is in a country where authority is breaking down, and where the potential for civil conflict is great.

The question is, can countries be persuaded to forego—as the NPT obliges them to forego if they would follow it and for NPT members—a chance to acquire plutonium, uranium, finished weapons or experts to make nuclear weapons cheaply, if they should become available from Russia this month, next year, or five years from now? Can countries be induced to do this?

The Bush administration certainly showed that they shared, at least formally, a concern for non-proliferation. I feel really quite warmly when I think of how far Bush, to my astonishment, did go; for example, on September 27, 1991 he took SAC (Strategic Air Command) off alert, and he took weapons off of naval ships and off of ground-based weapons in Europe. He took this as a unilateral action with the hope that the Soviets would reciprocate. They did of course reciprocate, and further moves were taken as well. Another reason for our movement’s complacency is that these events created a sense that things are going in the right direction.

I don’t believe that President Bush intended that momentum to lead to de-nuclearization beyond a certain point. Let’s define what he had in mind: an end point where the US and the Soviet Union retain thousands of ICBMs and at least some 5 to 8 thousand, including reserve weapons, which is what is currently scheduled if START II is implemented on both sides. An end point of thousands of weapons, no comprehensive test ban, a first use threat policy, and no IAEA or other inspections of US nuclear facilities, especially military facilities. Bush’s ideal end point was a continued stockpile of tactical nuclear weapons—indeﬁnitely. This is what Bush had in mind for the US, understanding that the Russians would have essentially the same posture. In other
words, Bush favored an indefinitely prolonged period in which there are nuclear states, which have all of the freedoms I have just described, and non-nuclear states, which have none of them and which are subject to inspection and so forth.

It was Bush's ambition, as it is Clinton's ambition, to get an indefinite extension of the Non-Proliferation Treaty when that comes up in 1995. But it was clearly Bush's intention to do his best to achieve that indefinite extension—and hopefully, a universalizing of the treaty—while maintaining all of these privileges for the nuclear states, specifically for the US. For example, it was his intention to go into 1995 testing nuclear weapons, and to get people to sign on to an indefinite extension of this treaty, when most of the signatory countries have understood for almost thirty years that a comprehensive test ban was the single test—the most prominent test—of good faith by the nuclear states in reducing those privileges and in creating a single regime in which nuclear weapons would eventually be eliminated.

To try to get an extension while saying that you want to continue testing nuclear weapons is, in effect, telling everybody else in the world, "You can't test, we can." This is proceeding under a considerable burden. Anyone who accepts that burden either doesn't take that goal very seriously or is naive. Likewise, it is naive to believe that the restraints of the NPT, as limited as they are, will remain while the US continues to test nuclear weapons. Countries would be foregoing, indefinitely, their right to acquire nuclear weapons for their own purposes, while the US is testing nuclear weapons, threatening to use nuclear weapons, maintaining itself free from inspection, and maintaining tactical nuclear weapons in order to carry out first use threats. Can the administration really believe that they can stop proliferation while they do all of that?

Dismaying, there is very little difference between Clinton's program so far and the projection that Bush had in mind. It does seem, however, that the administration is far from committed on a number of these issues. They are just undertaking a review right now. They don't have a set policy yet, or at least they haven't made any real moves in the last nine months. But there is reason to be pessimistic about what will come out of that review in the absence of pressure from us.

The reason is that the single issue on which Clinton distinguished himself from Bush in the campaign on an issue of nuclear weapons and conventional weapons was that he professed to be in favor of a comprehensive test ban. Moreover, he endorsed the legislation that had been passed by our pressure on Congress in October, 1992 which called for a moratorium on nuclear weapons and negotiation of the comprehensive test ban. Clinton announced that he supported the legislation. Bush, although he signed it, said very openly that he opposed it, that he was signing it under protest, and that he would work to reverse it in his next term.

A change has taken place. If Bush were in office I have no doubt that we would be testing nuclear weapons. But let's see the limits of that change. Early in the administration, the key person on the National Security Council (NSC) staff who was in charge of this issue for Clinton assurred us, "You are going to be very happy with our policy. We are not only going to get a CTB as fast as possible, we're going to get it by 1995 instead of 1996 as the legislation calls for." That seemed appropriate. It was essential to get it by 1995 rather than '96 to have it before the non-proliferation conference.

It is essential if we are going to get the NPT regime that we need. It is not enough to get just an extension—that non-proliferation regime did not keep many nations who didn't sign it from getting weapons. It didn't even keep Iraq, which had signed it, from getting close to developing nuclear weapons. It must be strengthened in terms of verification, membership, inspection, and sanctions. The regime must be strengthened.

To get this strengthening, you have to get that action before 1995, and it has to be led by the comprehensive test ban. So we thought, "OK, fine. That's plausible. Clinton has promised it. They say they're doing it. They have no reason that we can see not to do it."

It turned out, in the spring, that this same man from the NSC had meant by "a comprehensive test ban" a one kiloton threshold. He thought that we would indefinitely test up to the level equivalent to 1,000 tons of TNT. Keep in mind that the World Trade Center was demolished by about 500 pounds of high explosives. We are talking about a explosion which is the equivalent of a 1000 tons as being supposedly acceptable.

This was just clearly a lie. It was a total negation of Clinton's promise to go for a CTB and to uphold the law. This NSC man looked me in the face at one point and said, "Frankly Dan, it just never occurred to me, or us, that a CTB would not allow the kinds of permissible experiments that were contemplated under the Carter negotiations." I said, "Weren't those experiments contemplating an explosive yield of a few pounds of high explosive?" And he said, "Yes, that's right." And I said, "A thousand tons?" He said, "Well, it's a spectrum."

It is necessary to realize that we are not facing an administration committed to a comprehensive test ban—despite the campaign promise, and despite what would seem the objective incentives in the world today.

The good news is that we are not testing. Is it because Clinton is terribly committed to extending a moratorium or to achieving a fast CTB? Not yet. As they say in Washington, he may or may not have seen the light, but he felt the heat. Grassroots pressure worked. It was essential. Without that pressure on Congress, and without the resultant Congressional pressure, the administration would have given us testing. It has used mass media to get you to the issue that I spoke of earlier, the Soviet doomsday machine. It is possibly not true that the prudence of our leaders—either in Russia or in the US—is a guardian of our interests and our children's interests. It may not be any more true than it was true that Nobel's invention of dynamite, as he hoped, would end war or, as Oppenheimer hoped, the A-bomb would end war, or, as Teller hoped, the H-bomb would end war. All these notions that destruction of that magnitude must surely, reliably, deter people from undertaking violence have been shown to be mistaken and naive. It is up to us—the realists, and the people who want human life to continue to keep at it.

Q: "Will countries extend the Non-Proliferation Treaty for some period of time in 1995?"

I am told by people who have been involved at the UN with many of the signers that despite their extreme irritation, protest, and resentment against the total failure of the superpowers to carry out their obligations to end the arms race and nuclear testing, that it is expected that most countries will sign the Non-Proliferation Treaty for renewal for some period of time. Renewing indefinitely is another matter. That they will renew it indefinitely is much less
likely if we are still testing, and if we don’t have a comprehensive test ban treaty.

But that is not enough. Iraq signed the treaty. North Korea signed the treaty. Other states like Israel, India, and Pakistan felt quite easy about not signing the treaty and going ahead. It would not be enough for India and Pakistan, or for other states—for Iran for instance—to sign the treaty and observe it as Iraq was observing it or as North Korea may have been observing it. That would not be very helpful. It wouldn’t be non-proliferation.

It is essential that we get a new regime in the world that goes well beyond the Non-Proliferation Treaty as it is written and as it has been implemented—or not implemented. In other words, the IAEA, or some equivalent to it, would have to carry out far more intrusive inspections than it has ever done prior to its current demands on North Korea.

We want to achieve a world in which all countries are subject to the kind of intrusive inspection that Iraq is now subject to as a result of losing a war and which is being demanded of North Korea now for the first time. It has never been demanded before and is in that sense discriminatory. The major reason for pressing North Korea at this point was the case of Iraq. Having just shown the inadequacy of the previous inspection procedures, the previous intelligence, it was not plausible, and really not right, to forego a demand for inspection in the face of pretty strong information that North Korea may have violated its obligations under the NPT.

So we have to have everybody subject to this. It can’t mean that everybody gets inspected except us, the French, the British, the Russians and the Chinese, which is the way we are operating right now.

Additionally, there is a clear problem right now with one of those nuclear states—Russia. There is a problem of a breakdown of authority and a possibility of materials actually moving out of Russia against the NPT. That could easily come to be the case in China before another decade has passed. But the Bush administration and the Clinton administration have made no effort to get any verification from Ukraine or Russia or dismantlement of warheads— or disposal of the nuclear material from those warheads. Why not? Because the US doesn’t want a counter demand which it knows it will get. The US doesn’t want to be subject to inspections. Superpowers don’t have to do that.

I have come to believe that it is unrealistic to suppose that countries will sign the NPT and subject themselves to the inspection, accept sanctions, and participate in sanctions on others (as in the case of Iraq), if it is understood that there is a two-tier world indefinitely. This two-tier world has not been the letter of the NPT, but has been the practical understanding of the NPT for the last 20 years by the nuclear states. For the NPT to work, it has to be understood that the world is moving towards a nuclear free world in a practical way.

I have increasingly felt, for some time, that war as an organized activity has to go. There has to be a transformation of the practices and institutions of the last several thousand years away from the investment of resources and the preparation for war, and away from the legitimating of war and the accepting of war. I don’t think you’re going to rid of nuclear weapons ultimately until you have delegitimized and effectively abolished war as an activity. We have to take that as a practical goal. We should regard as utopians the people who think we can continue to accept war—civil wars on the scales we are seeing now and international wars of the kind we are accepting and preparing for—and not see nuclear weapons enter those conflicts. I think that is utopian, naive, technological romanticism.

People who want to protect a future for children and for life on earth have to take on the task of eliminating war and the nuclear weapons that go with war.

Randall Forsberg, Executive Director of the Institute for Defense and Disarmament Studies, is a recipient of the MacArthur Fellowship and helped to found and lead the Nuclear Weapons Freeze Campaign.

I am and honored to see so many friends and colleagues and co-workers for peace here. I think it is terrific that we have been called together by the American Friends Service Committee. That reminds me of the times in 1978 and 1979, after the collapse of the anti-Vietnam War movement, when there was really a nadir of the peace movement in the US. It was a time when meetings were tiny, when you would have fabulous speakers, and 12 people would come. At this similar time, when there have been such profound changes in the world, the sort of broader mass movement that has been working for peace either has decided there isn’t a problem, or they’ve got too many problems right now, and this doesn’t seem as pressing. I think it is a good time to remember that post-Vietnam War precedent. Those were the days when the nuclear freeze movement was born.

That happened very much at this kind of meeting, with the people who are here, with the people who organized this conference, and the people who have been struggling through thick and thin and have not given up when the broad movement wasn’t there. These are the crystals around which movements have come back again and again with—we have to say—successes every time. The campaign against nuclear weapons in the late 1950s didn’t lead to the abolition of nuclear weapons, which was its goal, or even the ending of nuclear testing, which was its more limited goal, but it did succeed in getting nuclear tests moved underground where they did less damage. The anti-Vietnam War movement had a profound effect in ending the war (not as soon as it should have), but it also had a profound effect in changing the values of the culture. The people who were considered the hippy radical fringe ultimately became recognized as the center of liberal values of the society.

The same thing happened with the anti-nuclear movement of the 1980’s. It started with people who were activists standing up and saying things that they knew were totally true and totally obvious about the incredible dangers and irrationality of this situation. They knew they were living and working within a society which thought they were either lying or crazy. Yet they continued with those statements until they too became the accepted wisdom and had, I think, a profound effect, not only in changing the nuclear policy of the US, but also in contributing to the revolution in the East, the end of the Cold War, and in

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setting up entirely new conditions for political work to move forward.

So this is a hard time but an important time, and I'm pleased to be sharing it with you. Dan Ellsberg and I are probably the two people in the peace and anti-nuclear movement who have most keenly and repeatedly emphasized that nuclear weapons are deeply linked to all of the other issues of war and peace. While they are extremely important and must be dealt with urgently and separately, and with great priority and clarity, their linkages to those other issues also have to be remembered. That is my theme tonight.

I thought it would be helpful to start

The US is competing to not only be, but remain and excel as, the world's leading exporter of conventional weapons systems, exporting more aircraft, missiles, tanks and ships than all other countries combined.

by reading out the six points that are listed in Dan Ellsberg's Manhattan Project II reprint with which I agree completely and which I think form the anti-nuclear agenda of today:

1) seek a comprehensive test ban by 1995;
2) seek a verified ban on production of weapons usable fissile materials;
3) continue deep cuts and accelerate deactivation of nuclear weapons;
4) commit to a policy of no first use of nuclear weapons;
5) pursue a bilateral zero option for tactical nuclear weapons; and
6) offer reciprocity to achieve bilateral or international safeguards.

There is so much work to be done on these nuclear issues, which themselves are only steps to a world without nuclear weapons, that it may seem that I am moving unnecessarily far afield in putting these in a broader context. I don't think this is true.

We have tremendous reason to be disappointed in other aspects of the Clinton administration's military, foreign policy and arms control agenda.

Let me just name a few: the level of military spending, which would have gone down to 270 billion dollars a year under Bush and will go down to something like 250 or 240 under Clinton. This is above the 30 year average of the Cold War which preceded Reagan. That is the low point that the Clinton administration is going to go to. This spending level will maintain military forces that are on the order of eight to ten times larger that those of Germany, Britain and France, and Japan. They will be larger than those of Russia in terms of active forces. They are forces which have no opponent, no use.

It is quite remarkable to see Republican leaders on television and in Congress talk about how it is not in the interest of the US, not the duty and not appropriate for the US to send its troops here, there, and other places around the world. Since there is no Russia to beat, there is no Soviet bear anymore, I am wondering what Mr. Dole thinks is the appropriate use of these 270 billion dollars of military forces—a question which hasn't been asked yet.

The US is competing to not only be, but remain and excel, the world's leading exporter of conventional weapons systems, exporting more aircraft, missiles, tanks and ships than all other countries combined. We are continuing to compete with Russia in arming adversaries in regional conflicts as though the Cold War hadn't ended, as though they were still our surrogates in ideological warfare. The US is standing passively by and watching the birth of a new arms race in conventional weaponry in the far East as China, Japan, South Korea and Taiwan, plus the smaller countries, increase their military spending and acquire new and more modern and larger military forces with no particular or specific future threat in mind. We are doing nothing to head off this new arms race, this new militarization.

On matters of both nuclear and conventional arms then, the [US] policy is “Do as I say, not as I do.” This is the problem.
guarantees." Security guarantees mean guarantees against the risk of conventional warfare. It doesn't mean health security. It doesn't mean economic security. It doesn't mean guarantees that they will not be subject to conventional war aggression. The proliferation of nuclear weapons, the build up of conventional arsenals, and the posing of threats of conventional war are all directly related.

It may be appropriate and useful to say that this is dangerous, that this is taking war to levels of madness, that these links should be weakened. The peace movement has been making such statements for many years as part of campaigns to stop the proliferation, escalation, and to cut back on nuclear weapons. My point here is that leaders and countries which acquire nuclear weapons see them as being related to threats of conventional war. Therefore, part of the process of stopping the proliferation of nuclear weapons, must be doing something to stop the increase in, to reverse, and to decrease threats of conventional war.

This is part of the nuclear non-proliferation agenda, as well as the human agenda.

The way that countries have gone about this since 1945 has been through partisan military alliances. These alliances provide security guarantees for some but not others. If you are lucky, you have less of a risk that conventional attacks will be made on you and if you are unlucky, you won't.

Basically, the choices before us in looking at the conventional warfare side of the future of war and peace, and of the possibility of non-proliferation, is either to continue partisan military alliances and deterrence or to develop a non-partisan, genuinely multilateral, cooperative security system in which the same goals, the same rules, the same guidelines and the same protection is offered to all nations.

Developing a cooperative security system is an integral part of eliminating the threat of nuclear war, and it probably has to be an integral part of stopping the further proliferation of nuclear weapons.

Included in your packets are several articles that I have written and round-tables where other people have either supported, or taken issue with, or given different views about the idea of non-partisan, genuinely cooperative or collective security systems. Since I am not going to say too much about it, I want to refer you to these reprints.

I think that what we need to be pursuing for individuals, for countries, for leaders, and for diplomats is to come together to prevent and to protect people against threats of violence. In the first instance, this means international threats, but ultimately also in threats of civil war. We need to oppose international military aggression, to oppose violent civil wars as a means of bringing about political change, to oppose self-interested uses of force as means of achieving political and economic goals. We need to be supporting democracy, self-determination, de-militarization, and the development of an effective and widely used nonviolent means of conflict resolution.

The way that I imagine this happening, as unlikely as it may seem today, is for countries to come together either under the auspices of the UN, or regional organizations, or even in ad-hoc groups with no particular regional boundaries or formal structures. They would make a decision to do some things together jointly, in support of one another, to renounce the use of force for any purpose except defense, to renounce permanently and totally acts of unilateral military intervention, to make a commitment to limit the use of force to defense, to think about the concept of armed force being used for no purpose other than defense when others have initiated the use of force.

This is not an unfamiliar standard. This is the standard that we practice internally in our societies in democratic countries. There are no circumstances under which we condone, or under which it is legitimate for people to resort to violence or the use of armed force with one exception: if you absolutely have to and only to the minimum extent required, which in many cases does not involve the use of deadly force, to stop or prevent violence on the part of other people. That standard has not been accepted by the international community, by the government, or by the foreign policy elite in this country. The belief that it has been adopted is taken for granted. I think we have had in the peace movement since World War II, since the beginning of this century, an assumption that these are our standards in interpersonal relations and, in this society, this is our law, these are our moral values and these values should be, must be, our values as a nation in the conduct of international affairs.

Well, that simply isn't true. The Cold War presented an illusion of competing ideologies that rationalized the use of force on the grounds that ultimately it was a sort of "ends justify the means." Our logic said, "Since the ultimate end is democracy, any use we might make of force in the meantime is a defensive use of force." This destroyed and corrupted the meaning of the word defense. By definition, anything we did was defensive.

That was a distortion and corruption of our language. But that doesn't mean that that value of nonviolence isn't one of our values as a society, or that it could not be practiced in international relations.

I stress this because I think that in many ways it is the key change. If there were only one thing I could do to end the spread of nuclear weapons, to reverse the remaining nuclear arms racing, to support peace, to develop strong, non-

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violent means of conflict resolution, it would be to develop a consensus, a clear articulated consensus in this country, that there is no legitimate use of force ever—except if you are attacked and you are defending yourself. Nothing else. No national interests. No strategic interests. No "interest" justifies the use of force.

If a group of countries made a commitment to this standard, they could then as a group, among themselves, commit to support this standard and to oppose the use of force when members, or leaders, or contentious groups violated it. They would use force if needed, but to the minimum extent needed to stop and reverse aggression—and to consider possibly the use of force to end civil wars.

The matter of civil wars in the former Yugoslavia, in Somalia, and to a modest extent in Haiti—which is not quite a war yet but is basically the same issue—has made it almost impossible to have a public discussion about the issues I have been trying to raise tonight. Because these situations are so contentious, so problematic, so intractable, they have left most people moving back towards an isolationist position in international affairs. I don’t believe that I have an answer for these situations, but I do think that there is something that we can do that we haven’t tried when which might help us in the future when we are confronted with other similar situations. That is to think about the standards of the international community.

We are faced with the choice between the value of self-determination and the value of nonviolence, when we are watching in the former Yugoslavia people who are bombing children and women standing in bread lines and water lines, and we feel that this is wrong and we have to do something to stop it on the one hand, and on the other hand we have the value of nonviolence and the value of self-determination, which is the only value that we have that has been developed since 1945 in the international community.

We have no precedents, no standards, no limits, no concepts, no goals for how the international community can intervene in civil wars. Some guidelines that we might be thinking about are:

- there should never be a unilateral intervention—or an intervention which is given a veil of a multilateral character but is essentially unilateral;
- no country should arrogate to itself the right or the responsibility of intervening in civil wars in other countries;
- any use of force by the international community should have no goal but to stop violence—it should not be to install a government, to protect a government, to bring about a political situation;
- any use of force should be the minimum use of force that could conceivably achieve these goals.

These are a start in thinking about how the international community could provide security guarantees in relation to conventional war. They go beyond saying that we will not tolerate international aggression. They respond to our profound desire to support human rights and the development of democratic institutions and to prevent wanton violence from continuing for months and years while we stand by.

We don’t have answers, but we could be talking about these choices seriously among ourselves in this group, in our news media, in our public debates regionally and nationally. We haven’t begun to have those discussions even though we have seen the future and see that it doesn’t work.

I would just like to add one other thought. The book Winning Peace* by Dietrich Fischer, who will be speaking with you tomorrow, and Wilhelm Nolte and Jan Oberg has a proposal for an alternative security system resembling the one I have described. It includes a component developed by Wilhelm Nolte, a German peace researcher, which suggests that people in a country as national service should be allowed to work for peace in a way that they think will be most constructive, choosing among three alternatives. One of them is civilian resistance, which is organized but unarmed opposition to aggression. It could also be intervention in civil wars. The second is civil defense, providing succor and aid to people who have been injured and displaced. The third is non-offensive military defense. This has always seemed to me to be the most democratic proposal, perhaps the one most likely to succeed in making a transition from the world that we’re in to a world in which most people and most governments consider the use of force wrong and unnecessary. In this transition some people would work for that future only by nonviolent means and others would work through non-offensive defense, through police type actions to stop, prevent and end violence. As one of the advocates of non-offensive defense, I would welcome participation in such a system. I am not sure that the people who are exclusively committed to nonviolent means feel the same way. I think that as a practical transition, this is the kind of system we need to be working within.

How does this relate to the nuclear agenda I outlined, the agenda of the Manhattan II Project, the new coalition that is being established in Washington for the campaign to extend the NFIs? It puts a positive goal as the umbrella over all of those goals.

In working to reverse nuclear arming, and to stop nuclear proliferation, we need to hammer away at the idea of a test ban before 1995, at the idea of stopping the production of fissile material, and going further than the START Treaty to make genuinely deep cuts in nuclear weapons. In all these ways, we should apply the same standard we would like to see other countries adopt when they don’t acquire nuclear weapons to ourselves. It is important to hammer away at the link between nuclear weapons and conventional war, to weaken that link, to talk about nuclear weapons on their own and to do everything possible to cut them back, and to undercut the concepts of great power politics that support competitive uses of force backed by threats of nuclear deterrence for those who are able to acquire them. It is important to oppose that system on its own because it is evil, destructive, and dangerous, and because, just as the nuclear movement of the 1980’s contributed to democratic change in the East, the anti-nuclear movement of the 1990’s can contribute to bringing about a change in those broader values in which nucleararming has been embedded—values that support the use of armed force as a tool of policy.

But I hope that in trying hard to achieve these goals, and to keep up the kind of pressure that Dan Ellsberg talked about for a nuclear test ban and a cut off on fissile material production in the future, you will think that it is worthwhile to do so in the context of the larger framework. That framework is working for a cooperative international security system, a system which can take the lead in moving the world in a different direction around the democratic value that it is wrong to use violence or armed force in international affairs.

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Beyond the Mythology: The Threats and Dangers of Nuclear Weapons in the Post-Cold War Age

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Introduction

As soon as the East-West conflict ended, the Gulf War began. By the end of this war, the international community harbored strong suspicions—later confirmed—that Iraq was on the verge of becoming a nuclear weapons state. Since then, policy analysts have become increasingly interested in theories of North-South future conflict. The precedent of Iraq, coupled with the fears of illegal export of weapons, technology and expertise from the North to the South as a result of the collapse of the Soviet Union, are a fundamental part of this North-South future conflict analysis. It is thus that speculation on the South's proliferation capabilities and intentions is rife. But North-South trends in relation to the dangers of nuclear proliferation must be explored pragmatically to separate myth from reality. In order to achieve this, attention must be drawn, necessarily, to discussion concerning the future of the Non-Proliferation Treaty; differing North-South aspirations and objectives; rationale for the acquisition of nuclear weapons; and future incentives for disarmament.

Significance of the Non-Proliferation Treaty Review Conference of 1995

The Non-Proliferation Treaty Review conference of 1995 has become a focal point of interest in the arms control and disarmament community worldwide. As this Review conference is the first to take place in the post Cold War era, it has naturally raised greater expectations than previous review conferences. Renewed interest in the NPT review conference is due to a change in the political climate, shifts in the axis of arms control and disarmament dis-
It is in this way that the NPT process itself has become the experimental platform with which to test the new world order. The issue here is that the international community regards the NPT process as a solution to a massive problem, and yet the problem itself remains elusive for it means different things to different peoples. For some, the lead towards the 1995 NPT review conference is an extraordinary opportunity to push for total nuclear disarmament; for others, it is an excuse to generate a new world order of haves and have-nots; finally, for a few, it is seen as the ideal context in which to bring to bear a new nondiscriminatory international pact that will trade-off weapons for development and equal distribution of technological resources. It is in making sense of these differences that an account of North-South aspirations and objectives becomes particularly useful.

**Differing aspirations and objectives:**

Since the end of the cold war there have been no direct threats of a South-North nature aside from international terrorist attacks. The kind of conflict that has emerged since the fall of the Berlin Wall has been overwhelmingly sub-regional and/or internal. The Gulf War in the Middle East; the bloody birth of the independent states of the former Yugoslavia and the former Soviet Union; and the civil strife in Southern Africa all correspond to this description. But, although the industrialized countries are not directly threatened by these events, the old world order is.

One of the characteristics of the old world order was its almost overwhelming need to contain conflict. Conflicts in different geopolitical regions more often than not were perceived as linked to superpower competition. But now, as a result of the end of the cold war, erstwhile powers have emerged weakened. Their military power cannot deter small actors in faraway regions from engaging in violence, their economic power cannot provide order and prosperity for friends or allies, and they certainly cannot prevent internal conflict and anarchy from erupting.

The abandonment of a known world order with set rules and familiar patterns has produced a fear of the unknown perhaps only matched by that felt in the West at the unfolding technological might of the Soviet Union between 1957 and 1962. Fear of the unknown leads to insecurity which often results in rearmament and over-insurance. This happens when a given situation becomes "unmanagable". The 1990s are turning to be an equally confusing time. As the world contracts, as in the case of Western Europe, or expands, as in the case of Eastern Europe, the fear of losing control takes gigantic proportions when put in a nuclear-weapons context. Since emerging conflicts cannot be prevented, let alone foretold, the accounting, control, dismantlement and containment of nuclear weapons is a problem that cannot be overestimated. The emphasis here is placed on denying access to technologies that might be used for military purposes. This is particularly important when countries have doubts relating to the intentions and procedures of other countries.

Industrialized countries found that the Gulf War shed light on a disturbing issue: can countries import nuclear weapons know-how despite safeguards, export controls, and national decisions to subscribe to the Non-Proliferation Treaty, as was the case with Iraq? Similarly, the recent disclosure of the Pretoria government that South Africa had built a nuclear weapons stockpile without any international censorship raises the question of the reliability of international verification mechanisms. In 1993 other disturbing issues include the case of North Korea where a country threatens to repudiate its obligations to the Non-Proliferation Treaty it signed and thus refuse entry to international inspectors.

The insecurity that pervades the proliferation discourse in the North is also present in the South, albeit with some important variations. In the dynamic context of the post Cold War age, countries in the South are reaching out to discover the limits of the new international situation. In so doing they are acting under two different impulses: their real survival needs, and their aspirations to carve for themselves a different niche in the world order of the future.

Most countries in the world today are laboring under extreme conditions: lack of capital, resources, finance, global trade mechanisms, steady development patterns, adequate energy provision, and adequate technological means. At the same time, the context in which they move has ingrained problems such as the global threats on environmental degradation and overpopulation, and the more localized ones of democratization processes, building up institutions, redefining civil-military relations, and dealing with corruption and international crime.

The second impulse in the South is provided by the aspiration to carve a different niche for itself in the future world order. During the cold war, by and large, the South dealt with changing needs by engaging in ideological alliances and manipulating the existing international systems and mechanisms to survive. With economic and military assistance from the world's powers the South could attempt to control a problem if not solve it. This was a mechanism which the South, particularly its elites, learnt to exploit to its advantage. This system no longer exists. The South, like the North, must renegotiate its interactions.

How do these two impulses translate in terms of nuclear proliferation? Taken together, these two impulses go a long way to explain recent nuclear proliferation trends in the South. Some countries are exercising their right to change the system by openly defying the most sensitive issue which pervaded the cold war years: nuclear weapons proliferation. Others are denouncing the nuclear myth, abandoning the weapons road, and proposing new terms for their interaction with the rest. Since most of the nuclear weapons states in the South are not new, special attention must be given to the rationale which they applied in deciding to go nuclear. This accomplished, any changes in their posture must be carefully analyzed to determine future proliferation trends.

**Rationale for going nuclear**

It is interesting to note that in the case of South Africa, much speculation exists regarding the rationale for acquiring nuclear capabilities in 1975. By and large, the supposition is that the main reason for this proliferation was a political one: to give a white South Africa a bargaining chip with the North. This follows traditional Cold War patterns for countries in the South to seek nuclear capabilities. It was seen as the accepted but risky road to great power status. Israel has a similar "catalytic deterrence" posture, equally designed to influence potential allies as to deter potential adversaries.

South Africa's decision to announce its nuclear weapons stockpile, dismantle it, and publicly declare its status as a non-nuclear weapons state is a welcome precedent for nuclear threshold states. And yet many analysts wonder whether this would have been the case if no general elections where planned in the country for the near future: elec-
tions where there is a reasonable expectation that South Africa will no longer follow the policies of a white elite government. The case of China is somewhat different in that although the threat from a nuclear attack from either the US or the former Soviet Union has receded, the existence of nuclear capabilities in India on the one hand, and the fear of the technological and economic might of Japan, on the other, keep the Chinese nuclear program vigorously alive. Cases not related to the former Soviet Union in the technological and economic might of Japan, on the other, keep the Chinese nuclear program vigorously alive. Cases not related to the former Soviet Union also point towards a mix of old cold war standards and genuine security fears. Ukraine comes particularly to mind in this context.

Pakistan, India, and North Korea seem to still maintain traditional nuclear deterrence doctrines with an emphasis on denying their age-old adversaries a nuclear advantage that might unbalance military might across unstable borders. And yet in all of these cases the central tenets for going nuclear are also related to the two principal reasons for countries in the South to go nuclear: 1) the attainment of great power status as measured by cold war standards (i.e. by possession of nuclear weapons); and 2) a profound mistrust of the Non-Proliferation Treaty and all that it is intended to represent.

But cold war standards which allowed for the supposition that access to nuclear weapons would invariably bring more respect in the North, and so help countries in the South to achieve greater power status in international politics, no longer apply. The post cold war age has brought about a deterioration of the political power that possession of nuclear weapons once commanded. Power today seems to come from economic and technological might rather than sheer nuclear weapons strength. Thus, nations in the South now do not necessarily feel that possession of nuclear technologies is the only way in which they will be "taken seriously" by the North. This shift alone will deter countries from the enormous expense of going nuclear except in a very few cases such as the Middle East, where security concerns and the fragile balance between war and peace are all pervasive. As proof of this trend, one can cite the renewed vigor with which countries and entire sub-regions are pursuing nuclear-weapons free zones.

Nuclear-Weapons Free Zones

The last three years have seen a resurgence of the notion of nuclear-weapons free zones in different regions of the globe. Latin America leads the way with its recent advances in the ratification of the Tlatelolco Treaty by the two nuclear countries of South America: Brazil and Argentina. The only caveat for full implementation now involves in British acceptance of verification inspections in the territory of the Falklands. In Africa, a similar process is underway. With South Africa's renunciation of its nuclear-weapons program, dismantlement of stockpiles, and the declaration of the government and the opposition that South Africa will be a nuclear-weapons free country, the African aspiration of a nuclear-weapons free zone for the entire continent is much more possible. Even in the Middle East, with the evolution of the peace process, a renewed debate for a nuclear-weapons free zone is underway, although this is the only case of the mentioned ones where success is far away, since it is tied to political and internal issues based on potential conflict and security preconceptions of the second rationale: profound mistrust of the NPT is so as it is seen as discriminatory. Perhaps no actor has made more of this issue than the Indian government. Here the NPT is seen as a microcosm of the imbalance and ethnocentrism which pervades Western thinking about international relations. This is a rationale shared by Brazil, Argentina, Pakistan, China and North Korea as well as others. To them, while the five nuclear states had previously considered the nuclear option tempting and useful, during the post-cold war period, the fear of superpowers and Britain then proceeded to demand that the rest of the world eschew an option which still contained the same economic, military and political advantages. Furthermore, these countries believe that the contractual obligation compelling the nuclear powers to seek nuclear disarmament at an early date (Article VI of the NPT) has never been taken seriously; in fact during the 1980s it was blatantly ignored by all. In this context it is interesting to note that the Latin American weapons free zone or Tlatelolco Treaty, precedes the NPT and is far more demanding on the issue of verification and mutual inspections than its later more global NPT version. For example, the British reservations in accepting Argentine inspections in the Falklands are based on the fact that the NPT is not so generous in the provisions it carries. Some analysts have even argued that a regional nuclear-weapons free zone should be modeled after the NPT type of inspections; whereas many analysts in the South are willing for the opposite, that is, making the NPT regime more accessible to rigorous and international controls and inspections than those in place now. The problem is that if all countries who form part of the NPT agreement insist on exercising their rights to inspection, then for the first time superpowers would have to be open to inspections from the South. This seems to be unacceptable. The end of the cold war has brought about new pressures on the North to show results in their own disarmament processes. It has also brought about profound distrust of the South's evolution which in turn brings a need to deny access to potentially dangerous dual-use technologies which the South says it needs for sustainable development. In the South, the perception that nuclear weapons can bring great power status has been eroded but the demands for equality in a comprehensive nuclear Non-Proliferation Treaty have increased together with demands for economic and technological access to the North's resources. At the heart of both debates are questions of verifica-
tion, international control, the sanctity and commitment to non-proliferation agreements, and technology transfer problems.

These differing viewpoints indicate that the countries in the South have a greater incentive to challenge the control of the North and that the countries of the North have lost their right to proliferate while preventing others from doing so. This brings us back to the discussion surrounding the Non-Proliferation Treaty Review Conference of 1995. Whether the conference is extended or not is not the main issue; the main point is to determine which incentives to disarm are needed over and above the NPT itself.

### Disarmament: needs and incentives for non-proliferation

As important as the Non-Proliferation Treaty is, it is not an end in itself. The NPT has always been one of a number of mechanisms used in the pursuit of a broader objective: the achievement of comprehensive global nuclear disarmament. There is a strong linkage between the Non-Proliferation Treaty and the process of global disarmament. Thus, the seriousness with which countries uphold their commitments under the NPT impinges on the disarmament process, much like an arms race between two or more international parties jeopardizes the effectiveness of the NPT.

An extension of the Non-Proliferation Treaty will not in itself end the arms race. Nevertheless, such an extension is an opportunity for countries to review their disarmament goals and aspirations as well as to discuss ways in which to reduce tension and increase trust between themselves. It follows that there are many issues that can reinforce the ability of countries to renew and reinforce their obligations under the NPT. Some of these issues are directly related to the Treaty itself; others have more to do with general disarmament issues rather than the NPT mechanism. But, in the final analysis, whether an issue is disarmament-related or NPT-related is not as important as understanding that both issues reinforce one another.

The Non-Proliferation Treaty Review Conference will demand rethinking and renegotiating a complex set of issues. Specific issues which are more...
politically oriented include the probable use of so-called peaceful nuclear explosions and the need for a comprehensive test ban treaty, the need to ensure collective action to enforce the treaty agreements in case of noncompliance, and renegotiation of the discriminatory aspects of the existing treaty. The discrimination issue consists of the fact that nuclear-weapons states are not prepared to disarm nor completely abandon nuclear testing while expecting non-nuclear weapons states to renounce access to this technology. Unless all parties to a nuclear Non-Proliferation Treaty agree to abide by the same rules and obligations (as indicated in Article VI of the existing treaty) there is little chance of renegotiating the agreement in any meaningful way. Other related issues are more technically specific, such as issues of dual-use military technologies and ambivalent R&D projects in the weapons labs, the need to strengthen safeguards at the national and international levels, and the need to construct effective international as well as independent verification mechanisms to reinforce monitoring of the agreements.

Both the political and technical issues needed to address the NPT Review Conference itself depend on improving a number of general non-proliferation and disarmament areas. These include, for example, those relating to fissile material handling, nuclear weapons R&D, and missile technologies. These areas would then include research into the direction of nuclear weapons national laboratories; ballistic missile proliferation; the linkages between missile control, international space cooperation and space arms control; and other non-ballistic delivery systems. Related topics dealing with the actual use of these capabilities also affect the NPT exchange. Here, issues range from changing military doctrines, on the one hand, to developing a critical mass of non-governmental expertise on non-proliferation issues, on the other.

As often happens, these issues spawn a second sub-set of issues ranging from the need to train civil servants to understand the non-proliferation language and its stakes; building international networks of scientists and researchers to generate independent monitoring of the whole non-proliferation process before and after treaty agreements are signed; working on improving international organizations and their mechanisms for consensus discussion and action; and educating the public so as to generate accountability in governments.

Another important element in the discussion of mechanisms for non-proliferation is that of imagining alternatives. This means that, despite the fact that the general desire is to achieve a renewal of the NPT, provision must be made for creative discussion of revisions and new protocols to the NPT to make it more effective. This creative discussion might even include research into totally new mechanisms by means of which nations can agree to end proliferation. The latter issue is very important since, if no agreement is reached in 1995, alternatives must at least be on the table for tension reduction purposes.

**Conclusion**

The mixed evidence in the preceding pages seems to point out that in the post-cold war age some localized proliferation in specific cases such as the Middle East, Eastern Europe, and North-East Asia has occurred. And yet, overwhelmingly, the South seems less desirous of acquiring nuclear weapons as a vehicle for policy than ever before. Acquisition and control of nuclear weapons arsenals are a much more sensitive issue among the five nuclear weapons powers of the world: the United Kingdom, France, China, Russia (and the other republics of the former Soviet Union) and the United States. These divergences must be discussed without forgetting that the real bone of contention lies not to so much in nuclear proliferation issues but in the renegotiation of a new partnership between North and South: a partnership that is not based on terror or prohibition but on cooperation and development.

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Friends and colleagues, it is a great pleasure and an honor for me to be here.

I am going to speak today about the main subject of this extremely timely conference: how to deal with the threat of nuclear war and nuclear weapons in the post-Cold War situation. I am going to provide a different perspective than Virginia Gamba. My main argument is that the major threat today still exists not in the South, and here I agree with everything else which Virginia said, but that the major threat exists in the North. This conclusion is based on my analysis of the international system which is evolving as a result of the end of the Cold War.

It would be very nice if the bipolar international system based on the superpower competition was replaced by a new international order based on international law, justice, and recognition of the greatest human aspirations, but this is not happening today. When I look at the map of the world and the situations which are developing in the different regions, I can’t avoid the conclusion that we’re going back to the familiar pattern of the multipolar international competition. This multipolar competition existed before the bipolar Soviet-American domination of the international system was created 50 years ago, coinciding with the development and deployment of nuclear weapons.

The multipolar world, we have to remember, was never a very safe place to live in. In Europe, every 20 or 30 years, the efforts to balance the multipolarity by peaceful means failed and a war was fought. In this century, we have had two world wars which were produced by the multipolar system.

I don’t accept those people who claim that we now have a single superpower. The United States will not be able to play the role of the single superpower, the role of the world policeman. Any illusions about that may have only tragic consequences.

If the world we are living in today is a multipolar world, what are the major challenges related to the use of force and weapons of mass destruction?

Today, force seems to be more widely used, especially in the North, than during the Cold War period. There are already five shooting wars going on in Europe alone. This reflects that we live in a completely different system and totally lack the adequate security mechanisms to deal with the challenges of the new international systems.

Both on the national and international level, the security mechanisms which we inherited from the Cold War period were designed for a superpower war, and that was their only purpose. Our military machines still face each other, and we still think in terms of military alliances, although one of them, the Warsaw Pact, is defunct and buried. Another, NATO, is alive and well, but what is its function? It is an alliance in search of a role and a function.

On the global level, the United Nations, which was envisaged as a mechanism for running the multipolar world, was not needed in the bipolar system. When superpowers dominated the international relationships, the United Nations was paralyzed by the Soviet-American competition. It is coming alive now, but it is still not very effective. That may result in very negative consequences within the next several years. Such familiar names like Sarajevo, and other names which may be less familiar to you, create the impression that it is not the end of history, but the return of history. The end of the ideological conflict is releasing dormant ethnic, religious, national and territorial conflicts in which military force—violence—is being widely applied for political purposes.

That of course leads us to the problem of what to do with the nuclear weapons. These weapons did not just coincide with the ideological confrontation between the Soviet Union and the United States, but they were actually a product of this ideological confrontation. If you confront the absolute devil, it is only absolute brutal force which the devil will understand. So the ideological confrontation of the Cold War was doomed to invent something like nuclear weapons—for the absolute enemy you needed an absolute weapon. The Cold War is over, but its material base is still with us.

What are the major challenges? In my view the first challenge is related to the existing model of the nuclear relationship between Russia and the United States which we inherited from the Cold-War, and, thus, the built-in failacies of the whole concept of the mutual nuclear deterrence. We have to recognize that no matter what President Yeltsin or Bush or Clinton say about the strategic partnership between the United States and Russia, Russian missiles are still targeted against the United States, and American missiles are still targeted against Russia. Still, both sides remain on "launch on warning." Although that I don’t quite agree with Dan Elsberg, who takes Bruce Blair’s claim about the Doomsday Machine too literally—the level of automation in Russia is not higher than the level of automation in the United States—"launch on warning" posture has created a situation where both sides are, at every given moment, able to fight and wage a nuclear war within a few minutes. This leads to very little time for human involvement and to tremendous reliance on technology. It creates a situation in which we are ready to annihilate each other, even before the end of this panel, because of some wrong signal picked up by our early warning systems for no reason at all. This system of mutual nuclear deterrence, based on "launch on warning," is practically impossible to distinguish from the system based on preemptive capabilities. If you are able to launch within a few minutes, while under attack, then of course you are able to conduct a first strike. You don’t need much to do it. You only have to start five minutes before the other side. That makes a joke of the whole notion of strategic stability. What kind of strategic stability is that?

Russia and the United States still remind me of two cowboys standing in front of the saloon, waiting to see who is going to blink first and start shooting. Of course the best solution would be to take all the guns from the cowboys.
provided within the mutual nuclear deterrence said last night about using force. The declaratory solutions whereby nuclear weapons could be used without ensuring their own annihilation. This explains the policies of surgical strikes and controlled escalations, and why the weapons create delusions of a controlled vertical escalation. This is why we have the declaratory solution, "We are friends. We are allies," when we still actually possess those weapons which are shaped for this war fighting function alone.

The declaratory solutions are not going to let us out of this dead-end. That is why the first stage should be getting rid of those weapons which were created for "escalation control." That was actually the purpose of the START II Treaty which concentrated not so much on numerical reduction, but elimination of those weapons which can be used for counter-force preemptive strikes and which themselves are volatile, thus creating the situation of "use them or loose them" and which provided incentives for both sides to strike first. If this is done, then by the time START II is implemented, we will be within the mutual nuclear deterrence system, but a more stable form of mutual nuclear deterrence system which doesn't provide any premium for attacking first. It would be a more basic mutual nuclear deterrence, based on retaliation and not on preemption. In a way, it will be a more brutal form of nuclear deterrence because counter-force scenarios would be impossible. That is why it is a "counter value" scenario—you recognize that nuclear weapons are the weapons of mass murder, and you threaten mass murder and conceive of this to be the foundation for peace.

I think we have to talk about this option because there is nothing moral about nuclear weapons. A peace built on nuclear weapons is an immoral peace. But I don't think within the next several years we can get out of this formula which we became locked in during the Cold War.

And then comes the next question. When we reach this stage, what can we do next? Additional numerical reductions are quite possibly necessary, because what is happening today is movement in the opposite direction. Arms control agreements which were reached last year and two years ago, both in the conventional and nuclear fields, may be not implemented at all. The political chaos which has happened in the former Soviet Union has created a situation in which international agreements—or any political agreements—are simply not implemented.

To some extent that is nature of the new political class which replaced the old political class, and if you look at them you will find the very same faces. Thirteen out of fifteen "great democratic" presidents of the new independent states in the former Soviet Union are former members of the political organizations of the Communist Party. Their regimes are very far from being democratic regimes. Tremendous economic problems, political turmoil, and ethnic conflicts create quite serious instability. Political leaders are opportunists par excellence. Today, they make the commitment that they support the Soviet Union, tomorrow they support Ukrainian independence. Today they demand checks and balances between branches of government, and tomorrow they say, "We don't need checks and balances—it's bad for Russia. We need good authority in the country."

That is why their attitudes toward the international commitments which they inherited, like the START Treaties or the Lisbon Protocol, are rather opportunistic. In practical military policy, Russia is not implementing the CFE (Conventional Forces in Europe Treaty) and as far as START I is concerned, it has been ratified but probability will not come into force because the Russian parliament condition its implementation on Ukraine joining the NPT as a non-nuclear state. The same kind of conditions were also written by the United States Senate. START I technically is never going to come into force unless Ukraine is going to become a non-nuclear state. And, of course, START II is going to remain a piece of paper because without START I implemented, START II will never be ratified.

That means we are going into this multipolar world without even the lowest possible arms control stabilizing base, a base which only two years ago seemed to be insufficient. And I agree, it is insufficient. But we have nothing at all if these agreements are lost.

Here I come to the second challenge. There is nothing moral about the whole notion of non-proliferation—that there are five big guys who can have these cannibalistic weapons while the rest of the world should be denied access to these weapons. There is no morality about it, but there is some
realpolitik. If we think in terms of management and creation of the new security system for this multipolar world, then we have to recognize that if the NPT collapses, if nuclear weapons are possessed by many more countries, it would be practically impossible to balance this new multipolar system.

Let's take the case of Ukraine. This is a country which suffered tremendously from the Chernobyl disaster. My wife is Ukrainian, and two of her relatives, for instance, died after Chernobyl because of radiation. That was a tremendous shock for many people in the former Soviet Union. It drastically changed public opinion in the former Soviet Union and made everybody in the Ukraine anti-nuclear. That is why all Ukrainian politicians in the pre-independence period were anti-nuclear. Their making commitments to become non-nuclear was not a problem, especially when Ukraine had no control over Soviet foreign or military policy. However, the situation drastically changed when Ukraine became independent. Because the major legal base for the dissolution for the Soviet Union was that each new independent state became the owner of everything in its territory, all Soviet property was nationalized by the new independent states—including all sorts of military forces except the nuclear weapons. (Apparently Mr. Yeltsin did not quite understand or care about them, because the agreements on the Commonwealth contain such empty phrases as “unified control over common military strategic space” and “unified control over nuclear weapons,” avoiding the question of ownership.)

Russia mishandled affairs with Ukraine by putting economic pressure and territorial demands on Ukraine, which made Ukrainians feel even more defensive. Being frightened that Russia could deprive Ukraine of national independence and interfere in Ukrainian domestic affairs, Ukrainians very quickly came to the notion of nuclear deterrence. The United States also contributed to this, because originally the US administration did not treat the new independent states seriously. The moment of diplomatic recognition was the key moment when the US should have said, “Welcome to the international community, but there are rules of the game. We want ironclad commitments on human rights, minority rights, and we want ironclad commitment on arms control agreements, especially the NPT.” NPT first, recognition later—not vice-versa.

The result of this mistaken policy was the Lisbon Protocol which made Ukraine, Kazakhstan and Belarus party to the START Treaty. In Article 5 of that Protocol, Ukraine, Kazakhstan and Belarus commit themselves to an early signing of the NPT as non-nuclear states. But what is early signing? “As soon as possible.” It has been 16 months since the Lisbon Protocol and still Ukraine is not willing to sign the NPT. It is coming closer and closer to defacto nuclear status.

Three months ago the Ukrainian parliament proclaimed all nuclear weapons on Ukrainian territory Ukrainian property. Three days after that the United States provided Ukrainians with 100 million dollars of aid. Meanwhile Belarus, which gave up their claim on nuclear weapons and agreed to transfer them all to Russia, was given 16 million dollars. So who is being rewarded, and who is being punished?

I am not blaming Ukrainians. They are probably doing what many other nations would do. Let’s say Australia finds itself left with 2,000 strategic nuclear weapons. Would they be so nice after that, or would they have second thoughts about nuclear weapons? States make such stupid mistakes looking for power.

The Ukrainian game is to gain time while building a legal case, establishing defacto control, and closing the gaps in the nuclear infrastructure. They are about 85% self-sufficient and they can close the gaps while getting rid of about 1,000 of the warheads which have been deployed on SS19s. Those missiles and warheads are obsolete. That would leave Ukrainians with 1,000 operational strategic warheads ten years from now. Kazakhstan didn’t sign the NPT either, and there are 1,000 strategic warheads there. Both Ukraine and Kazakhstan have more nuclear weapons than Great Britain, France, China, Israel, India, and Pakistan combined. They would not just be new nuclear powers, they would be new nuclear superpowers. And that will produce a chain reaction. I wonder how the NPT can survive in this situation. What kind of impulse will it give to India and Pakistan?

It is a worst case scenario but it seems to me that we are moving there. Something has to be done in the immediate future and that is why I am a little bit appalled when my friends already list Ukraine and Kazakhstan as nuclear states. They are not yet nuclear states! The Ukrainian public is not quite ready to accept such a turn-about on the anti-nuclear position. The Chernobyl disaster is still in memory. Political pressure, economic pressure and, excuse me, bribes in the form of American economic assistance or sale of uranium and plutonium from the warheads we have must be undertaken.

This leads me to my final conclusion about why it is impossible in the immediate future to apply the principle of equality to the possession of nuclear weapons. We have to recognize that in the near future some states will have nuclear weapons. Others will not. It is totally impermissible to allow for so-called “threshold nuclear countries”—the countries that are new nuclear states, states with bombs in the basement. If such a double-standard is applied, there will come a time when nuclear weapons are not just proliferating, but are used.
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Nuclear Dismantlement: Leading by Example

We are less than two years away form the fiftieth anniversaries of the first nuclear explosions at Trinity, Hiroshima, and Nagasaki. The world has reason to rejoice in the fact that not one nuclear weapon has since been detonated in anger and war against an enemy. We also should reflect on the most recent history of reining in growth in nuclear arsenals. Nuclear weapons inventories, which were expanding well into five figures in both the United States and the Soviet Union, have now been cut back dramatically to four figures and will continue to fall throughout this decade.

There are many other important accomplishments as well to which arms controllers, anti-nuclear activists, politicians, and citizens can point. The decade of burgeoning Stars Wars research and development, including the possible use of nuclear and exotic space-based weaponry, has come to a close. Additional countries continue to join the Non-Proliferation Treaty regime. Deployments of tactical nuclear weapons on board naval vessels have now ceased, a result of the surprise announcement of former President George Bush. No new nuclear weapons are currently under development. Pershing and ground-launched cruise missiles have been eliminated from European arsenals. The US Army has totally eliminated tactical nuclear weapons from its arsenals.

We also have had a nuclear testing moratorium now in place for over a year and are working toward a comprehensive test ban in 1996, possibly sooner.

These are all very hopeful signs of the declining significance and influence of the role of nuclear weapons in world affairs. The anti-nuclear movements, in which many of you here today have actively participated, should take considerable comfort and credit for bringing the nuclear powers, particularly the United States and Soviet Union, this far.

And yet I am concerned about hulling ourselves into complacency regarding nuclear weapons. For several reasons—the above successes in nuclear arms control and disarmament foremost among them—the American debate on nuclear weapons and nuclear strategy appears to have largely dissipated. A related major reason for this is obviously competition with other pressing foreign policy issues such as Somalia, Bosnia, and Haiti. It may also be partly a result of preoccupation with domestic issues—jobs, the economy, health care reform, NAFTA, campaign finance reform, and a host of additional issues which score more highly in American polls today.

The Persian Gulf victory in a non-nuclear conflict may also have assuaged some American anxieties about the potential for use of nuclear weapons. And, of course, the Democratic victory in last year's presidential election, under a banner of "The Economy, Stupid," has not helped to shed public light on foreign policy in the new Clinton Administration.

Let me try to disabuse us of the notion that nuclear weapons are a problem which we have largely resolved. I will touch upon four interrelated topics and also seek to provide some insight into the sometimes arcane and always political discussions taking place on these issues in Washington.

First on my nuclear agenda would be the topic of nuclear weapons testing. Last June there were a series of meetings with congressional staff, members of Congress, and the National Security Council to evaluate the possibility of new nuclear testing. A very divided Administration was probing nine nuclear tests between now and September 30, 1996. These nine tests would have included three "safety tests" to improve the W-80 warhead for the Air-Launched Cruise Missile (ALCM). Three more would have been for "reliability," testing three different nuclear weapons currently in the American arsenal to judge if they would work properly. And the last three would have been British tests at the Nevada Test Site, apparently to help develop a new nuclear gravity bomb.

There were many problems with this proposed testing program. Foremost, of course, was the political fallout (pardon the term) from a renewed testing program, especially its potential immediate impact on the nuclear moratorium of other nuclear powers and the longer-term effect any testing might have on the possibility for extension of the Non-Proliferation Treaty in 1995 and successful completion of a Comprehensive Test Ban by 1996 at the latest.

It was also difficult for the Administration to convince many individuals of the need for these nine tests. The official position of the US Air Force has been that the safety of the W-80 warhead has been and remains adequate, that it would not be cost-effective to upgrade the weapon, that air-launched cruise missiles are no longer loaded on strategic bombers, and that, if tests were to be conducted, budget constraints would likely preclude upgrading the cruise missiles anyway. This all seemed to obviate any need for the first three safety tests.

Reliability tests were also judged unnecessary. The weapons labs have extensive facilities and techniques for ensuring reliability of nuclear weapons without exploding them. In the history of the US nuclear weapons program there has been only one case of a reliability problem with a full-tested warhead and that was in a non-nuclear component. The US has not generally tested for reliability purposes and the British have never done so. And the proposed tests would have contained no special instrumentation to develop later baseline assurance programs; they would simply be live tests to check if the weapons work. These have been derisively referred to as "Admirals' tests."

Many analysts also judged the argument for British tests to be specious. Why would the British need a new tactical nuclear weapon to be deployed on board aircraft for war in Europe? What impact might British testing have on our efforts to convince the Ukrainians to give up their own recently inherited nuclear missiles?

On July 3rd, President Clinton announced an easing of the anti-nuclear testing moratorium for at least another fifteen months through the end of fiscal year 1994. Rather than a clear testing moratorium, however, his statement was a "no-first-test" policy which left open the option to renew testing should another country test first.

And, of course, China exploded a nuclear bomb at its Lop Nur test site in northwest China on October 5th. This test resulted, unfortunately, after strong diplomatic pressure by some two dozen countries for China to continue the moratorium. China’s response was that it had never officially acknowledged any testing moratorium and was therefore not violating any such temporary test ban.

To the President’s credit, his response was measured. He first directed Hazel O'Leary, the Secretary of Energy, "...to take such actions as are needed to put the US in a position to be able to conduct nuclear tests next year..." And he conditioned his ultimate decision on four points: (1) the contribution of further tests to improving safety and reliabil.
bility of the nuclear arsenal; (2) the extent to which China and others respond to a US appeal for a global testing moratorium; (3) progress in CTB negotiations; and (4) the implications of further US nuclear tests on broader non-proliferation goals.1

House Armed Services Chairman Ron Dellums and others have written the Clinton Administration urging that the moratorium continue.2 Another hopeful sign is that French President François Mitterand stated publicly on French television on October 25th that France would not test as long as the US, Russia, and Britain did not test;3 this was an important shift from Mitterand's former opposition to nuclear testing. Furthermore, the 1994 elections loom on the horizon, more than a full plate for the Administration.4

Though the Administration remains deeply divided over the benefits of an ongoing nuclear testing moratorium. The weapons labs and the Joint Chiefs of Staff on the whole support renewed testing, while the State Department has supported the nine-test plan. The Arms Control and Disarmament Agency, many (probably most) members of Congress, and Energy Secretary O'Leary have all spoken out in favor of a CTB and non-resumption of testing. Where they stand now after a Chinese test is open to question.

It is clear that we do not need more nuclear testing for safety, reliability, or any other national security objective now before negotiating a CTB. Yet the option remains open, and we must await the report of the Energy Secretary sometime in the near future. It is also clear that it would be difficult politically to resume nuclear testing; no testing could take place practically before mid-1994, and we are then very close to the April, 1995 NPT review conference and in the middle of CTB negotiations. Also, the last political battle the President needs in coming months is nuclear testing; NATO, campaign finance reform, health care reform, and 1994 elections loom on the horizon, more than a full plate for the new Administration.

I am therefore optimistic that American testing will not resume. We, however, should not be surprised if it turns out otherwise. In a September 17th letter to Chairman Ron Dellums the President requested full funding of the Nevada Test Site in order "to resume testing if required and [to] speed work on alternative means of maintaining confidence in the safety, reliability, and performance of our nuclear inventory." The ranking Republican on the House Armed Services Committee, Congressman Floyd Spence of South Carolina, released a white paper on September 23rd highly critical of the nuclear moratorium. Spence declared that "the Clinton Administration appears to be pursuing a policy of nuclearatrophy..."4

Pressure must therefore be kept on the Administration and Congress to continue the current moratorium, to pursue negotiations towards a CTB along three parallel avenues—In the Conference of the Committee on Disarmament (CCD) in Geneva, in five-power talks, and in the New York amendment conference of the 1963 Limited Test Ban Treaty (LTBT), and to finalize a genuine CTB by 1996 at the latest.5

The second nuclear agenda item of concern today is that of regional use of nuclear weapons by the United States and possibly others. Tactical nuclear weapons have fallen into disfavor among both political and military circles of late, yet the potential remains for this to turn around for a number of related reasons.

First, there has been frustration in Coalition military circles during and after the Gulf War due to the difficulty of effectively striking selected targets such as fortified command bunkers (read Saddam Hussein). The rise in major regional conflicts, "MRCs" in new military parlance, as part of Defense Secretary Les Aspin's "Bottom-Up Review" and his "Win-Win" strategy, has also shifted nuclear debate.6 There has also been interest by the nuclear labs in catalyzing new weapons designs in order to continue "cutting edge" research and development in nuclear explosive devices. And, of course, our Nevada delegation is interested in retaining an active Nevada Test Site which employs several thousand citizens.

In many ways, the current debate around the utility of nuclear weapons in war mirrors past debates we've had around strategies of deterrence versus war-fighting. We all remember Robert Sheer's interesting book, With Enough Shovels, Richard Pipe's famous Commentary article, "How to Fight, Survive, and Win Nuclear War," and other such pieces concerning the early Reagan years and first-strike, war-fighting strategies.

Are nuclear weapons useful only for strategic deterrence, or are there more limited uses for them in smaller wars? Can nuclear weapons be surgical in nature? Can they be designed so as to limit or eliminate collateral damage, thereby meeting some of the "just war" criteria?

Much of this current debate has yet to surface in public but I can assure you that it exists. On one side are those who believe that nuclear weapons have only one remaining purpose, nuclear deterrence; a subset of these would like to move forward as quickly as possible with further reductions and possible abolition. The National Academy of Sciences' 1991 study, The Future of the U.S.-Soviet Nuclear Relationship, took this position when they argued that all nuclear weapons should be declared "that they will not use or threaten to use nuclear weapons against non-nuclear states in any circumstances and that their nuclear weapons serve no purpose beyond the deterrence of, or possible response to, the use of nuclear weapons by other nuclear states..."7

The other side of the debate exists in military and laboratory circles. In October, 1991, the Chairman of the Joint Strategic Target Planning Staff of the Strategic Air Command, for example, stated that the US should "reject the thesis that the only purpose of nuclear weapons in the new world order is to deter nuclear attack, or the threat of nuclear attack, as well as the thesis of "no first use"... The US should adopt neither a declaratory nor an employment policy which suggests that American nuclear weapons are called upon only to deter other nuclear states..."8

The Fall 1991 issue of Strategic Review, a widely read in military circles, also included articles regarding limited use of "small nuclear weapons." One argument put forth was that a small force of tactical nuclear weapons, for example, could have very efficiently deterred and, if necessary, defended a small Arab army trying to cross into Saudi Arabia before Coalition ground forces were deployed.9

After some review this past summer, Congress discovered that indeed there have been studies underway at Lawrence Livermore National Laboratory (and possibly other Department of Energy facilities) concerning a new generation of so-called "mini-nukes," low-yield nuclear weapons which could be used ideally to penetrate hardened underground bunkers but could also be used against concentrated troop forma-
tions. Congressman Ron Dellums and Congresswoman Elizabeth Furse have heavily criticized these developments and sponsored legislation to ban any research and development into nuclear weapons with a yield below five kilotons.¹⁰

There are obvious problems with development of mini-nuclear weapons. First, the battlefield utility of such weapons is highly questionable. Most battlefield commanders would be very reluctant to employ such weapons given the risk of radioactive contamination, if not immediate blast and fire. Second, tactical nuclear weapons blur the threshold between conventional nuclear war and obviously present a high risk of conflict escalation. And third, any further development of nuclear weapons, let alone deployment or use, would only serve to undermine American efforts at non-proliferation and arms control.¹¹

It is therefore key that citizens be aware of this risk of nuclear weapons development and convey their feelings to their political representatives. It would also be useful to renew past calls for “no-first-use” declarations. Such a statement by the Americans and Russians, for example, would undermine any arguments for mini-nuke R&D.

A third agenda item for our discussion today is the need for implementation of both START I and II strategic agreements, and further deep cuts in existing nuclear arsenals. The START I agreement was negotiated under Reagan and Bush Administrations from 1985 to 1991. It was signed by Presidents George Bush and Mikhail Gorbachev on July 30, 1991 and has been subsequently ratified by Kazakhstan (July 2, 1992), the US (October 1, 1992), and Russia (November 4, 1992). START II was negotiated under the Bush Administration in 1991 and 1992, and finally signed in Moscow on January 3rd, 1993. Under these two historic agreements, American and Soviet (now Russian, Belarusian, Kazakh, and Ukrainian) arsenals would fall to some 3,000-3,500 total strategic warheads in two phases, ending at the latest by 2003, ten years hence.

These agreements, although not formally implemented yet, have impacted both American and Russian nuclear arsenals, both in process of reduction. Slowing the process of implementation, however, has been the dismemberment of the Soviet arsenal among four republics. Very important is to get all the parties to the START agreements to ratify and implement the treaties. The most problematic at the moment seems to be the Ukraine, which continues to ponder the options of remaining a nuclear power.

Beyond full implementation of these agreements, the goal should be twofold: (1) accelerated dismantlement of START arsenals; and (2) further deep cuts in nuclear arsenals. There is no practical reason at present for maintaining the number of strategic warheads which we do; all past target lists are now obsolete and, as pointed out recently by the Congressional Budget Office, several billion dollars could be saved annually with faster and additional cuts in nuclear arsenals.¹²

Both Americans and Russians have analyzed cutting strategic nuclear arsenals to 1,000 warheads or less in recent years. There would seem no reason to postpone deeper cuts in existing arsenals, given the end of the Cold War and the large costs involved. The only reason to postpone would be lack of facilities to dismantle weapons quickly enough.

As a step on the way to additional deep cuts, it would seem logical to reduce active deployments of weapons such as the Trident ballistic missile submarine. In this year's defense authorization bill, for example, we have sought to remove $100 million from the Trident operations and maintenance account. This was an easy way to economize in defense spending without diminishing the national security of the United States. Yet the Defense Department has appealed our cut, arguing that it would “decrease the operating tempo and degrade the readiness of the strategic submarine forces, resulting in submarines being unable to conduct at-sea operations safely.”¹³ There have also been recent reports that, in fact, the Navy has not decreased but increased the operating tempo of strategic forces of late.¹⁴

Thus, pressure must be kept on all the nuclear powers, including the British, French, and Chinese, to begin further reductions beyond the current START limits. This is also an opportune time for nuclear strategy to take lower numbers into account; Defense Secretary Les Aspin has just authorized the first comprehensive review of US doctrine on nuclear weapons since the end of the Cold War, which is reportedly aimed at producing a “new national policy.” We also still await the nuclear weapons part of the recent “Bottom-Up Review” from the Defense Department which, to date, has released two sections of this report.¹⁵

A fourth major agenda item which we all must be concerned about is proliferation of weapons of mass destruction. All of us want the Non-Proliferation Treaty renewed in 1995 and the Clinton Administration is pursuing a path to guarantee “indefinite” extension of the 25-year-old treaty. Yet we must not forget several issues which remain key to successful life-extension of the agreement. First is the fact that the nuclear parties to the NPT promised in the preamble “to achieve at the earliest possible date the cessation in the nuclear arms race and to undertake effective measures in the direction of nuclear disarmament.” This, of course,
relates vertical with horizontal proliferation and only emphasizes the importance of further deep cuts in nuclear arsenals.

Second is the other important preambulary paragraph which argues for the "discontinuance of all test explosions of nuclear weapons for all time..." Thus, the importance of a CTB to the NPT cannot be ignored. A third related issue is the perception of many non-nuclear parties to the treaty that it remains a discriminatory regime, setting two standards for nuclear and non-nuclear parties. This must be overcome in order for the treaty to be truly comprehensive, and means that all restrictions and conditions, such as inspections by the International Atomic Energy Agency, must be uniformly applied to all parties, nuclear and non-nuclear alike.

A strong non-proliferation policy today also must include support of dismantlement monies, technical advice, and related support for Russia, Belarus, Kazakhstan, and the Ukraine to all come under the START regimes and safely get rid of their nuclear arms. It must also cover, of course, strict limits on production of nuclear materials as well as verified and environmentally sound storage of radioactive materials. International commerce in plutonium, highly enriched uranium, reprocessing of nuclear materials, and production of tritium, all part of bomb-making, must be stopped.

My last point on non-proliferation is that the United Nations, including the United States, must take a strong stand against any new nation developing, deploying, and/or using nuclear weapons. This means Iraq, North Korea, Pakistan, and the several other potential emerging nuclear powers. This is obviously a complicated subject, having much to do with regional stability and military balances, conflict resolution, international trade in nuclear-related components, national security guarantees, and diplomacy.

I believe, in short, that the time is very opportune for a strong nuclear dismantlement policy to take effect, not only in the new European and Asian republics, but also in the existing nuclear powers as well. In summary, this must include (1) a comprehensive test ban; (2) a no-first-use agreement; (3) deep cuts in all nuclear arsenals, but especially Russian and American, including speedy implementation of the START agreement; and (4) a comprehensive and non-discriminatory non-proliferation policy.

Only by delegitimizing weapons of mass destruction—nuclear, biological, chemical, and some conventional—will this world be successful in controlling, perhaps even abolishing one day, the Bomb. Because we as a nation are so invested in nuclear weaponry, nuclear materials, and the nuclear industry, such dramatic change requires American leadership. And such change always begins with citizens, not governments; our continued efforts, therefore, are extremely important to help these results.

Almost thirty years ago, while accepting the Noble Peace Prize in Oslo, Dr. Martin Luther King, Jr. spoke of the "need to overcome oppression and violence without resorting to violence and oppression." Nuclear weapons represent the ultimate example today of violence and oppression. If we are to follow Dr. King's mandate, then anti-nuclear activism must continue even more forcefully, regardless of our hard-won successes.18 

1 See the President's statement, Office of the Press Secretary, The White House, October 5, 1993.

2 See Congressman Ronald V. Dellums letter of October 5, 1993 to National Security Advisor Anthony Lake. Five major points are made: (1) In order to criticize the Chinese test, the "high moral ground" of no testing must be maintained; (2) renewed testing would likely derail NPT and CTB negotiations; (3) testing might play to the wrong political groups in Moscow; (4) testing is not needed for reliability and safety, as stated by President Clinton on July 3rd; and (5) the fact that the US has tested over 24 times the number of Chinese tests (942 versus 39) undermines any argument that we must follow suit.

3 See Mitterand's statement quoted in "NATO Alerts Network" briefing notes of October 27 and printed in Le Monde on October 27, 1993.

4 "The Clinton Administration and Nuclear Weapons Policy: Benign Neglect or Erosion by Design," Republican Staff, House Armed Services Committee, September 21, 1993. The paper concludes that "the prudent approach to maintaining a credible nuclear stockpile is to slow the decommissioning of DOE defense facilities, slow the rush to methodically dismantle the DOE nuclear weapons complex 'brain drain' and continue to perform nuclear tests to ensure the safety and reliability of the US nuclear weapons stockpile and other critical military weapons systems."

5 House Foreign Affairs Committee Chairman Lee Hamilton and Armed Services Chairman Ron Dellums wrote President Bill Clinton jointly on February 3, 1994 to urge him "to establish a target date and to work hard to conclude a Comprehensive Test Ban Treaty by March, 1995, "before the beginning of the NPT Review Conference."

6 Former Secretary of Defense Dick Cheney also made it clear that "we must reconfigure our policies and our forces to effectively deter, and quickly defeat,...future regional threats." US Department of Defense, 1991 Joint Military New Assessment, March 1991, p. ii.

7 Page 5.

8 Thomas C. Reed, "The Role of Nuclear Weapons in the New World Order," briefing by the Chairman of the JSTPS/SAG Deterrence Group, October 10, 1991.


10 See Section 3105 (e) of HR 2401, Department of Defense Authorization Bill for FY94, October 6, 1993, which states that "no funds appropriated pursuant to this Act or any other Act in any fiscal year may be used to conduct or provide for the research and development of any low-yield [less than five kilotons] nuclear weapon which, as of the date of the enactment of the Act, has not entered production." Pages 724-25.

11 At least three laboratory-related individuals have spoken out against development of mini- and micro-nuclear weapons. See Michael M. May and Roger D. Speed, The Role of U.S. Nuclear Weapons in Regional Conflicts, June 30, 1993, unpublished paper; and Roy E. Kidder, "Comments Concerning the Development of 'Micronukes' and 'MiniMines'," Lawrence Livermore National Laboratory, June 23, 1993. I have used both of these papers in my remarks.


The Dangers of Nuclear Weapons Proliferation and the Meaning of the Non-Proliferation Treaty

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The topic of my remarks today is improving controls on weapons-usable fissile material. I'll talk about what weapons-usable fissile materials are. I will be referring to highly-enriched uranium, HEU for short, and separated plutonium. I'll talk a little bit about what some of the existing controls on these materials are, what some of the weaknesses in these existing controls are, and make some proposals for improving these controls, talk a little bit about some recent proposals that President Clinton has made, and I will conclude with some recommendations.

I'll be giving you a fair amount of detail but there are only a few things that I really want you to take away with you and I will tell you what they are: First, and very important, is that the materials needed to build a nuclear weapon are not found in nature, and that making these materials is both difficult and expensive.

Let me explain to you a little bit about the process that you have to go through to produce these materials (see Figure 1). The starting point is uranium, which comes in several isotopes. Isotopes of an element are essentially identical chemically—the only difference is a very, very slight difference in the weight. The two primary isotopes that are found in nature are uranium-238, which is the majority of natural uranium at 99.3%, and then there is a little bit—0.7%—of uranium-235. It turns out that this is the isotope—uranium-235—that is of interest both for nuclear weapons and for nuclear power. You can't make nuclear weapons with natural uranium. In order to get something you can use to make a weapon, you have to go through a process known as "uranium enrichment," which is both complicated and expensive. What comes out the other end of this process is one of two things. One possibility is low-enriched uranium, where you have increased the amount of uranium-235 to less than 20% (remember that it started out at less than 1%). This material is also not usable for weapons. The other product this process can produce is highly-enriched uranium, where you have increased the amount of uranium-235 to greater than 90%, and this is usable for nuclear weapons. So in order to get something that is weapons usable, you start with natural uranium and put it through a uranium enrichment process.

The other option is to go the plutonium route. Here again you start with natural uranium. You can either use it directly as fuel for a nuclear reactor, or you enrich it to low-enriched uranium. Then you need a nuclear reactor. Now there are some reactors that are specifically designed to produce plutonium, but any nuclear reactor will do. In the normal course of operation, plutonium is produced. It will be produced in the spent fuel; it will be mixed up with all the other stuff that is in the fuel when it is withdrawn from the reactor.

In order to make the plutonium usable for weapons, you have to separate it from the spent fuel. The spent fuel is very radioactive. It is very difficult to handle. It is expensive to handle. What you have to do is put spent fuel through a reprocessing facility where the plutonium is separated out, and you end up with separated plutonium which is weapons usable.

The key thing I want you to take away is that to make material that you can use to build nuclear weapons, you either have to have an uranium enrichment facility or a nuclear reactor and reprocessing facility.

From a proliferation point of view, the difficulty of getting highly enriched uranium and separated plutonium is very good news. It means that we have a chance of getting a handle on both facilities and materials, and of addressing the problems of horizontal proliferation, of existing arsenals, and of vertical proliferation.

Now the bad news is that there are other uses for highly-enriched uranium and separated plutonium (see Figure 2). So the world has not prohibited the production and use of these materials. Natural uranium can be used as fuel for some types of commercial power plants. Low-enriched uranium also can be used as fuel for commercial power plants. In fact, LEU is used for most existing commercial power plants. In addition, it can be used for research reactors, and the Chinese reportedly use it to power their submarines and some of their navy surface ships. Now highly-enriched uranium, which is weapons usable, is also used for some types of research reactors, and the US, Britain and Russia use it to power their naval propulsion reactors. Separated plutonium, in addition to its use in weapons, is used in some types of commercial power plants.

So these other uses of highly-enriched uranium and separated plutonium have made it such that the world has not prohibited their production. Instead, the existing controls on these materials consist mainly of an arms control treaty and verification of the treaty. The arms control treaty is the Non-Proliferation Treaty (NPT). There are more than 150 countries that have signed on to this treaty as non-nuclear weapons states—which means they promise not to develop or import nuclear weapons. The verification method that exists to verify that they are not doing this is known as full-scope IAEA safeguards. These are safeguards that are administered by the International Atomic Energy Agency (IAEA). The word "full-scope" means that it covers all of their material, all of their uranium and plutonium, whether it is indigenous, or whether it is imported—all of it is covered.

The basic scheme is that each country is required to keep records of the flows and uses of all of their material, and the IAEA monitors these records and monitors their inventories in a process that is similar to a bank audit. The goals of these safeguards are to be able to detect diversion of fissile material from its intended use in a nuclear power plant to weapons use, to detect the diversion of enough material to make a nuclear weapon before it is possible to make the weapon, and to discourage the diversion through the possibility of detection. International IAEA safeguards don't involve guards. It is somewhat of
a misnomer in that sense. It is basically a verification regime.

However, I don’t want to give you the false impression that this material is out there, loose and widely available, because each country does guard its own material. But international safeguards are really just a verification method.

What I want to talk about now are some of the weaknesses in this regime, of which there are three basic ones. I am only going to have time to talk about two of them today.

First, there are weaknesses in the basic framework of the regime. One such weakness is that there are no constraints placed on the use of fissile materials by the five nuclear weapons states. The Non-Proliferation Treaty has two categories of signatories: the 150-plus countries that I told you about and the five that are allowed to have nuclear weapons: the US, Britain, France, China and Russia. That is the first—and the biggest—problem with the basic framework. The second problem with the framework is that there are no constraints placed on the production and use of highly-enriched uranium and separated plutonium—which are weapons-usable fissile materials—if they are under safeguards.

A second issue, that I am not going to have time to talk about, is the question of whether safeguards, as they are implemented, actually provide adequate verification. That is a separate topic, but it is an issue that people are looking at.

The third issue is that this regime has incomplete adherence. There are several countries that are outside the NPT regime and that will not accept full-scope safeguards. The ones people are most worried about are Israel, India and Pakistan, which are known to have nuclear weapons programs. There are also questions now about North Korea and Ukraine.

Now let’s return to the first problem—that there are no constraints placed on the use of fissile materials by the nuclear weapons states. There are three things that could be done to rectify this problem, and which, incidentally would have the positive effect of making the NPT less discriminatory. The first thing that could be done is to prohibit the production of any more highly-enriched uranium or separated plutonium for weapons purposes. About a month ago President Clinton released a new non-proliferation policy. It includes several new goals that the Administration plans to pursue. One is a multilateral convention to prohibit the production of highly enriched uranium and separated plutonium for weapons purposes. This is very good and some-

Figure 1. This diagram illustrates the two routes to obtaining weapons-usable fissile material—highly enriched uranium (HEU) and separated plutonium. (Rectangles signify facilities, whereas circles and ellipses signify material.) In both cases, natural uranium is the source material. Natural uranium occurs as a mixture of several isotopes and is roughly 99.3% uranium-238 (U-238) and 0.7% uranium-235 (U-235). It is the latter isotope that is of interest for both nuclear power and nuclear weapons. In order to be weapons-usable, uranium must be enriched to greater than 20% in U-235; this process takes place in a uranium enrichment facility. The other route starts by using either natural uranium or low-enriched uranium (LEU) as fuel for a nuclear reactor. As the fuel is burned, plutonium is produced, and the spent fuel that is removed from the reactor contains plutonium. This plutonium is separated from the rest of the spent fuel in a reprocessing or plutonium separation facility, resulting in separated plutonium, which is weapons-usable.

thing that this community should be supporting. The US actually stopped production in 1988. What this multilateral convention would do is formalize the US commitment and bring in the other nuclear weapons states. It could also of course apply to the states outside of the NPT such as Israel, India and Pakistan. This convention would be verified through the type of safeguards that we have already talked about.

The second thing that could be done to rectify the problem that there are currently no constraints on the use of fissile materials by the nuclear weapons states—and part of the reason the US is willing to curtail further production is that it has plenty of this material in existing stockpiles—is to submit these existing military stockpiles of highly-enriched uranium and separated plutonium to safeguards to ensure that they are not used to build new nuclear weapons in the future. Clinton’s proposal says the US will submit its excess stockpiles to IAEA safeguards but not its reserve stockpiles. This is an open question because no one has yet defined what is excess and what is reserve. This will obviously be an issue. The questions are: How big will the reserve be? and What is the justification for having a reserve stockpile of a certain size?

The third thing that could be done is to require that warheads that have been withdrawn, either under treaty or unilaterally, be dismantled, and that the material from these dismantled warheads also be placed under safeguards.

Steps two and three are necessary to make any future cuts irreversible, or, at least more difficult to reverse. You want to make sure that it is as hard as possible to increase nuclear arsenals.
Currently the START treaties don't require dismantlement. There is no formal commitment to dismantlement, although both the US and Russia are doing it. What we would want ideally is a formalized commitment.

That was the first problem with the framework that I just talked about: that there are no constraints on the use of fissile material by the nuclear weapons states. The second problem with the existing framework—and people disagree about to what extent this a problem—is that there are no constraints on the production and use of highly enriched-uranium and separated plutonium if it is under safeguards.

At the beginning of my talk I said I would point out to you the few things I really wanted you to take away with you, and here is fact number two that I would like you to remember: uranium comes in two isotopes of which cannot be used to make nuclear weapons. Low-enriched uranium for practical purposes cannot be used to make nuclear weapons while highly-enriched uranium can. But all isotopic forms of plutonium can be used to make nuclear weapons. You'll hear people talk about “reactor grade plutonium” and “weapons grade plutonium.” There is a difference between these two types of plutonium in that weapons grade plutonium is optimized for use in nuclear weapons, but you can also use reactor grade plutonium in weapons. This is unfortunate from a proliferation point of view for obvious reasons.

Let me outline the three basic problems that result from allowing the use of these materials under safeguards. First, however, I want to clarify that these problems are not the problems of a country that has openly initiated a nuclear weapons program and is trying to build nuclear weapons. That is a separate problem. But these are problems that arise from the safeguarded civil use of these materials. The first problem is that if the materials are available, it is possible for the government to divert it from civil use to military use. Safeguards don't prevent diversion, they only detect it. The second problem is that so long as the material is around, there is always the possibility of theft by either a terrorist group or by a group of insiders. This threat will increase as the use of this material and its transportation increases. The third risk that arises with the safeguarded use of these weapons-usable fissile materials is what is referred to as the “latent proliferation risk.” Countries with stockpiles of weapons-usable fissile materials or the means of producing them have a latent capability to build nuclear weapons quickly, and therefore to “breakout” of the NPT.

This latent proliferation risk will become more of a problem as the nuclear weapons states make deeper cuts in their own arsenals. These states will be more reluctant to go to very low numbers of weapons if there are other countries that have large stockpiles of weapons-usable material, and if these nation's civil nuclear programs have the capability of being geared up quickly to build nuclear weapons. Ideally what you want from a non-proliferation point of view is that the firebreak be as wide as possible. If a country decides it wants nuclear weapons, you want that decision to be clear and unambiguous to the rest of the world. You don't want them to be gaining the capability through civil programs and making it ambiguous. You want it to be a very clear firebreak.

I am going to talk in a little bit of detail about the three main non-weapons uses for these materials. First is the use of highly-enriched uranium in research reactors, which for various technical reasons is desirable. But it turns out, fortunately, that you can replace the highly-enriched uranium in most reactors with a special kind of high-density low-enriched uranium, which is not usable for weapons. From a proliferation point of view, this is obviously quite desirable, and the US Department of Energy has a program to develop alternative fuels and to convert existing reactors around the world from HEU to LEU fuel. Moreover, the Clinton policy that was announced last month stated that the US will seek to minimize the civil use of highly enriched uranium. The downside is that this DOE program was cut back. It really needs to be revitalized and continued, and the DOE needs to convert its own research reactors—something it has been reluctant to do.

The second non-weapons use for highly enriched uranium is for naval propulsion reactors. I mentioned earlier that France and China actually use low-enriched uranium for their naval reactors, which indicates that it is possible to do so. There are two issues here.

First, it's important to figure out whether it is possible to convert existing naval reactors in the US, Britain and Russia to use low-enriched uranium the way the French and Chinese reactors do. Second, if this is not possible, we should be thinking about making the next generation of nuclear reactors fueled by low-enriched uranium.

The real problem with the use of weapons-usable material under safeguards is that of plutonium use in power reactors. Twenty years ago the assumptions made by almost everybody were that, first, the demand for nuclear power would continue to grow and, second, that uranium reserves were scarce and the world would soon run out of uranium-235. Remember uranium-235 is the isotope needed for nuclear power or nuclear weapons. Because there was a concern about this, a solution proposed by the nuclear power industry was that we should reprocess the spent fuel to separate the plutonium for reuse as fuel. They also recommended that we develop breeder reactors which are designed to produce more plutonium. But as it turned out, neither assumption was true. Nuclear energy demand did not increase dramatically; in fact, it is leveling off. This is partly because of public safety concerns and economic issues. The second fact is that uranium reserves are now considered to be plentiful. New ones have been discovered and old ones have been reevaluated. The estimate now is that there is enough uranium to fuel the existing capacity of the world’s nuclear power plants for the next hundred years or more. So the issue that drove some countries to separate plutonium for use in their civil nuclear programs is evaporating. Because of this, the interest in civil reprocessing and breeder programs has dropped.

On other hand, partly because of commitments made in last several decades, there are a few countries that are still fairly strongly committed to separating and using plutonium. The main ones are France, Britain, Japan and Russia. Their levels of commitment vary

<table>
<thead>
<tr>
<th>Type of Material</th>
<th>Uses</th>
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<tbody>
<tr>
<td>Natural Uranium</td>
<td>• some commercial power plants</td>
</tr>
<tr>
<td>Low-Enriched Uranium (LEU)</td>
<td>• most existing commercial power plants • some research reactors • French, Chinese naval propulsion reactors</td>
</tr>
<tr>
<td>Highly-Enriched Uranium (HEU)</td>
<td>• nuclear weapons • US, UK, Russian naval propulsion reactors • some research reactors</td>
</tr>
<tr>
<td>Separated Plutonium</td>
<td>• nuclear weapons • some commercial power plants</td>
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*Figure 2. The Main Uses of Different Forms of Uranium and Plutonium*
somewhat. There are ongoing technical problems with getting breeder reactors to work and there are lots of economic issues that are raised by the use of plutonium. Uranium is so plentiful that it turns out it is actually cheaper to use than plutonium.

US policy on this question since the late 1970’s has been not to engage in any civil reprocessing. This is explicitly for proliferation reasons. US policy has been not to reprocess plutonium for civilian use nor to encourage reprocessing in other countries. The recent Clinton non-proliferation policy statement states that the US will continue to discourage uranium enrichment and plutonium separation in regions of political risk. This is a direct acknowledgment that the US government is not comfortable with safeguarded uses of this material. If the US is worried that a country has a desire for nuclear weapons, it would prefer that this country not have weapons-usable material or the capability to make this material. On the other hand, this is obviously a discriminatory policy, because reprocessing is going on in France, Britain, Japan and Russia—our allies. In the long run, this policy of discouraging these activities in some countries and allowing them to continue in others is probably unworkable.

Countries with stockpiles of weapons-usable fissile materials or the means of producing them have a latent capability to build nuclear weapons quickly.

The real question is whether we now have a window of opportunity to curtail the use of separated plutonium—both because the economics of plutonium use are not currently favorable, and because proliferation concerns are increasing. The shipment of separated plutonium from France to Japan late last year caused a big uproar. There are two possibilities that we can look at for addressing the plutonium problem. One is what is referred to as a plutonium management regime. This is something that the IAEA is interested in, and it is something Japan and various other countries are interested in. Basically the scheme would be to continue to safeguard plutonium, to continue to allow its use, but the IAEA would have more direct control over the stockpile. They would then release it as it was needed for civil purposes in the country that wanted the plutonium. It would improve the existing situation slightly, as it would eliminate large stockpiles under the control of individual governments.

The second option in my opinion is more desirable, although it is more politically problematic. It would prohibit any further production of highly-enriched uranium and separated plutonium. I think it is unlikely that all countries would be willing to do this in the foreseeable future, but we might be able to get some sort of moratorium. Then, as a second measure, we would want to phase out the use of HEU and separated plutonium for civil purposes. I want to point out that this would still allow a robust nuclear power program, which has positive political ramifications for the feasibility of prohibiting plutonium use.

Very briefly, if you recall, there are three basic problems with the existing control regime. One is the framework in which there are no restrictions on the use of fissile materials by nuclear weapons states. There is a second question of whether safeguards are adequate, which I don’t have time to discuss. Then there was the question of incomplete participation. I have already noted that India, Israel and Pakistan are not members of NPT and have nuclear weapons programs. There are questions about North Korea and Ukraine. Iraq had an extensive nuclear weapons program before the 1991 Gulf War. I want to make a few points about incomplete participation.

The first is that, participation in the NPT is voluntary, as is participation in all arms control treaties. Sometimes people talk about imposing safeguards on a country that has not accepted them. This makes absolutely no sense because safeguards are merely a verification method. It is not possible to “impose” safeguards. I am going to briefly summarize some options for dealing with the issue of incomplete participation. Some are much better than others. The first one is forcible disarmament. In my opinion forcible disarmament is neither desirable nor feasible in most cases. This is basically what happened to Iraq after it lost the Gulf War. It has been more or less disarmed, and its means of producing weapons of mass destruction have been destroyed. But Iraq is a very unique case and I don’t think that we could anticipate the same thing happening in India, Pakistan and Israel—nor do we want to.

The second strategy for dealing with incomplete participation is that of technology denial. Export controls can be used to try to prevent countries from gaining access to the material and technology needed to produce nuclear weapons. This is a strategy that is currently being implemented. There is a group of countries that tries to coordinate export controls. But this is only a method for buying time, although buying time can be useful. Eventually all countries that are interested in acquiring nuclear weapons will have the capabilities to do so as the world-wide level of technology increases.

A third option is to apply a combination of incentives and disincentives. Incentives might include economic assistance or security guarantees. This is what the Ukraine has asked of the US in exchange for returning its nuclear weapons to Russia. As for disincentives, you can imagine a variety of sanctions.

Incentives or disincentives are not likely to work in the case of a country that sees that, for whatever reason, it needs to have nuclear weapons for its security. It may well be that Israel, India and Pakistan fall into this category. They may really believe that nuclear weapons are important for their security. In these cases, you have to address the root security problems. It is a much longer term, more complicated process. There is no quick fix.

Finally, in the long run we need to create a norm whereby the possession and use of nuclear weapons by an individual country is not tolerated. Creating this norm is really up to the nuclear weapon states. There are a number of measures that we would want the nuclear weapon states to adopt to help establish this norm. In addition to the cut-off of production of fissile materials for weapons purposes, in addition to increased fissile material controls, we need a comprehensive test ban, a no-first-use policy, deep cuts, etc. In the long run this is really where the game has to be played.

The problem with countries that are not now currently in the non-proliferation regime is a difficult one. But it may be possible to pull them in a little bit. The multilateral convention that Clinton has proposed prohibiting the production of HEU and plutonium for weapons may also be of interest to India, Pakistan and Israel. This would leave their existing military stockpiles untouched, and it would leave whatever nuclear weapons they have already built untouched. It would, though, be a good first step in bringing them into the regime.

Let me conclude with some summary recommendations. First, stop the
production of fissile material for weapons purposes and verify this by safeguards. This is something Clinton is interested in and he needs support. Second, require the dismantlement of warheads and place the fissile materials under safeguards. Third, address the issue of existing military stockpiles of fissile material. We want to reduce and then eliminate the reserve stockpiles. This, again, is something that Clinton expressed interest in, but he will need to be pushed to define "excess" and "reserve." Fourth, we need to ban the production of HEU and separated plutonium for any purposes and, in the near term, maybe what we should strive for is a moratorium. Finally, we should phase out the use of these materials.

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The Demand Side of Proliferation

I take a different view of proliferation than Lisbeth Gronlund. Preventing wider proliferation of nuclear weapons, beyond the aging club of five, seems newly urgent. The Security Council has learned how much the NPT leaked around the Euphrates. The subcontinent of India has now reached a post-proliferation stage. Hope for safe arrival in a world without many more nuclear powers is fading fast.

Proliferation of advanced weapons by indigenous production, in reaction to efforts in the North to deny their supply, offers no easily grasped handles for denial. Denial of relevant technology can eventually convert a persistent non-nuclear nation into a holder, and even supplier, of advanced weapons on its own account. It can become a master of its own arsenal. Iraq is the latest vivid example of this. Consider its modern howitzers and the upgraded SCUDs. Consider its efforts, almost successful, to construct workable nuclear weapons.

But we should not forget the convincing nuclear missile precedents of China, Israel, India, South Africa, Brazil, Pakistan, and now perhaps even North Korea—a state already long active in missile trade. With the exception of Brazil, all seven countries—with outside help that sometimes was legal and sometimes not—endeavored to manufacture their own nuclear explosives and succeeded. There have been repeated demonstrations that even the most esoteric and closely guarded of weapons technologies can be mastered by determined commitment using the resources of personnel, investment, raw materials and political capital made available for one or another political reason from overseas, sometimes even unwittingly. The effort can be measured in tens of thousands of skilled man years [sic], equivalent to billions of dollars.

The partners of new nuclear states are easy to name with good reliability. For China, it was the Soviets (who have lived to repent it). For Israel, it was both France and the United States. For India, it was Canada. For South Africa, it was Germany and to a lesser extent, Israel. Pakistan had Dutch and German aid, and perhaps Chinese as well. There is a view that the Chinese offered a ready design to Pakistan. Only North Korea has no evident foreign associate.

Specialized technological trade, both legal and extralegal, the training of specialists overseas, and then local production form the supply side of proliferation. These processes attract keen attention from earnest arms controllers and eager weapons merchants alike. But there is certainly a demand side to proliferation as well—the many fears and ambitions that compel less developed nations to acquire advanced weapons, including even nuclear bombs. In the North's efforts to stem weapons proliferation, this demand side has scarcely ever been addressed. Awareness for all of us who are interested in non-proliferation must widen beyond the symptoms of weapons proliferation to its causes. It is intentions and needs, not just capabilities, that ought to become the main focus of international attention. It seems easier to control supply, yet it is the distant pull of demand the raises the tide of proliferation.

Supply side controls are mainly small steps. They may be easy to implement, although they are numerous and shift over time. The computer power at Los Alamos that allowed the design of the earliest successful thermonuclear device was unmatched in the world of the 1950s. Now it is rivalled by any $10,000 work station. Even if some prohibition measure offers the best opportunity close at hand to retard the spread of advanced weapons technologies, only serious attention to the demand side can arrest the spread effectively in the long run.

What are the causes of demand? They can be aggressive in nature. Nations may want to develop nuclear weapons either to blackmail or to actually attack neighbors, to acquire land, resources, etc. But there is also a defensive need for nuclear weapons which many feel, especially those who have neighbors with nuclear weapons. You know the story: the Soviets felt they should have them because we had them; the Chinese felt that they should have them because the Russians had them; and it continued like this to Pakistan and other countries.

A widely shared conviction in the industrialized North is that proliferation of nuclear weapons beyond the initial nuclear five—the United States, Soviet Union, England, France and China—must be stopped. The original nuclear club members strenuously resist the spread of proliferation of nuclear weapons because their asymmetrical possession confers advantage. While nuclear combat will always tend towards a symmetrical negative-sum final state of two devastated losers and no winner at all, there remain instances...
of asymmetrical possession in which the use of nuclear explosives is still thinkable. The easiest to grasp is the free ride realized 1945 by the United States. Only one of the adversaries possessed such weapons and therefore could use them. It may arise also that only one of the adversaries is targetable. The case, perhaps, of para-national terrorist groups indicate this possibility on a small scale.

Fear of nuclear asymmetry, especially with respect to a particular rival, has been the prime motive for nuclear proliferation. Stalin had cause to fear the American nuclear monopoly, and the Chinese had cause to fear the Soviet bomb. Israel saw itself greatly outnumbered and therefore wanted to level this asymmetry by generating another asymmetry—a nuclear one. The asymmetry between Israel and its enemies was conventional, so Israel generated a nuclear asymmetry in order to balance out the conventional asymmetry that it feared.

India found nuclear asymmetry with China intolerable, and Pakistan followed the well trodden path along with India. The result there is clear: the subcontinent has now reached a post-proliferation stage. A few unassembled weapons are held in either side in a state of plausible stability with which we and they contrive to live.

Given the sharp, binary asymmetry between nuclear haves and have-nots, nuclear weapons can be and certainly have been instruments of tacit coercion. The same effort at nuclear non-proliferation that nuclear powers view as a prudent step to maintain their special status are viewed by many have-nots as instances of nuclear imperialism.

Such diametrically opposed interests cannot be balanced forever by simple supply side attempts that would deny access to specific nuclear technology in a world in which advanced technology grows steadily more available. Only a wider sharing of security and decision making, one that addresses the demand side of nuclear proliferation, will attract the have-nots to permanent nuclear abstinence.

Let me point out to you that one reason we should be thinking seriously about the demand side of proliferation is that supply side efforts have failed. So far efforts to staunch the proliferation of advanced weapons, including nuclear arms, have focused mainly on the control of their supply. But it is inherent, even in the best organized barriers to arms technology transfers—always founded on a myriad of technical details—that over the years they will spring leaks. In the long run, supply side nuclear non-proliferation efforts led by nuclear states will fail by leakage, just as they did in China and South Africa, Pakistan and India, and began to do in Iraq. A developing nation with maturing industrial infrastructure can accelerate its mastery of scientific and technological nuclear know-how by determined and astute investment of resources. Supply side efforts can certainly retard the emergence of deliverable nuclear weapons, but they can never prevent it indefinitely.

Demand side efforts are more promising. Even nations that can develop nuclear weapons can be convinced not to acquire them, as Brazil and Argentina have recently demonstrated. South Africa took the next step and destroyed its assembled nuclear weapons. Despite the original nuclear club members strenuously resist the spread of nuclear weapons because their asymmetrical possession confers advantage... [These efforts] are viewed by many [nuclear] have-nots as instances of nuclear imperialism.

The necessity for demand side non-proliferation measures emerges from the realization that supply side efforts did not, can not and will not by themselves stem proliferation. The demand side approach begins with serious, sincere attention to the needs and motives of nations which impel their governments to seek advanced weapons, even the means of mass destruction. The response will have to be policies and measures which make weapons acquisition uninviting and eventually unnecessary. It will require heavy, but still self-serving, political and economic burdens on the nations of the North. But those burdens will be lightly borne compared to the cost of preparing once again for nuclear war, for chronic instability, for ceaseless waves of poor migrants at the shores and runways of the prosperous North.

The demand for nuclear weapons that arises from the fear of nuclear asymmetry with a neighbor can be attenuated with positive guarantees. Consider as an example the eventual establishment of a multinational nuclear deterrent force consisting of four nuclear ballistic missile submarines on loan from their current possessors—United States, Russia, France, England and China.

Under international control, such a force would deploy two submarines on ocean patrol at all times, kept on the leash of shore based "go" codes. It would constitute an untargetable assured deterrent capable of inhibiting nuclear attack by any nuclear nation against any nuclear have-not nation. Actual use of this international force would certainly be a remote possibility, a very final resort. In its shadow, the punishment of nuclear aggression would start with easier steps, from economic restitution to the victim of nuclear attack by the offender to the self-destruction of some of the attacker's national assets. In the case of an obstinate aggressor, say one that might threaten attack on some nearby population, even a non-nuclear one, the ultimate step may be nuclear destruction of one or more of its cities after proper notice for civil evacuation.

Worse case scenarios for limited application of so terrifying a force are easy to construct. What, for example, if Israel, threatened with extinction by an Arab attack, used nuclear weapons on the battlefield? Would the international force nuke Tel Aviv? This dilemma does not constitute a contradiction to use of the international forces which need not, but could employ nuclear weapons against a conventional attack. Israel could be dissuaded from using nuclear weapons by immediate and decisive arms support by an international community well prepared to meet international aggression anywhere. The international security force would be likely to use the weapon only against nuclear users.

An even more difficult scenario invokes a truly reckless government. What if some nuclearized state dropped a nuclear weapon in the Saudi desert as
an extortive warning, threatening attack on Riyadh and then actually destroying a city upon Saudi refusal to comply with their demands. Would the international nuclear force obliterate the responsible capital? What if the reckless nation threatened to destroy innocent third party hostages—say Alexandria—in retaliation? In such a scenario, the proper use of the international nuclear force would be to help impart the deterring conviction to the reckless leadership that such a course would result only in physical occupation and punishment, the replacement of the leadership, and long-term and expensive reparation to the injured parties.

An unusual degree of cooperation among nuclear club members would surely be necessary. Ceding exclusive possession of strong nuclear forces will require considerable political courage, but the price is small compared to the cost of preparing to avoid nuclear destruction of their own cities, as Soviet citizens and perhaps even American citizens can testify.

Utopian though it may appear so soon after the Cold War, a multinational nuclear force, firmly controlled by a broadened United Nations Security Council that includes Germany, Japan, perhaps Brazil, and a democratic Nigeria or even India as permanent members, can dampen the demand and, in the end, arrest the spread of nuclear weapons world-wide.

The formation of an international nuclear force as the intermediate step towards the complete elimination of nuclear arsenals would be in the enlightened self-interest of the nuclear club of five. It would not constitute an absolute guarantee against all conceivable nuclear acts of aggression, but by providing a potential nuclear counter to any nuclear aggressor threatening a non-nuclear nation, it would establish the same symmetry that completely prevented the nuclear nations from using nuclear weapons against each other during the long Cold War.

Most demand side anti-proliferation measures require lengthy preparations leading to unusual cooperation among the wealthy and powerful nations of the North. Novel institutions will have to be established and familiar practices arranged, new international formations and military forces assembled, wealth and power more broadly shared. The difficulty here is that this effort may take too long to implement. In the meantime proliferation, nuclear and conventional alike, must be the target of our efforts. Its costs must be dramatically increased in order to gain time for more complex and more permanent demand side measures to take hold.

Success with demand side proliferation measures will need consistent and impartial attention over an extended period of time. But this time will come to an end. After a while, demand for new weapons will wither. By comparison, supply side efforts will have to be kept up indefinitely, even when successful, in order to counter continual and unattended demand.

The advantage of demand side efforts is clear. The reduction of militarization worldwide is a constant goal. Eventual rectification of the asymmetry of the five nuclear states in an otherwise non-nuclear world to create a symmetrically denuclearized globe is ahead of us. Smoothing the sharp asymmetries in standard of living and rate of development between the advanced industrialized North and the second and third tier nations of the South can be the first step—I think a necessary step. Steps towards lowering the economic disparities between China and Japan, Mexico and the United States, or Poland and Germany are evident immediate examples. Attention to the steep gradient in the economic landscape is part and parcel of demand side non-proliferation efforts. Mutual fear must be replaced by mutual aid in a world tending over many decades towards safety and well-being for all. Common security can oppose decisively those aggressive nations that dissent from this vision for any reason or attempt to gain even needed change by large scale military violence.

Now, what can we do in this country? We can initiate, encourage and support an effective demand side non-proliferation policy to parallel our current attention to the supply side. Seven steps, in incremental order of difficulty, some very familiar to you, some novel and long lasting, sketch a beginning towards a hopeful future.

1. Stop developing, testing and producing any new nuclear weapons immediately and permanently.
2. Declare a policy of no first use of nuclear weapons, contingent on an agreement among all nuclear powers to do the same.
3. Initiate negotiations among the members of the nuclear club aiming at eventual monitored and operational elimination of all nuclear weapons, to be held for a long time only in abeyance as deterrents for first use. This might be called at the initiative of the new nuclear powers in the Indian subcontinent, where such a status seems incidental. There it first ought to become declaratory and thereafter both binding and monitored.
4. Sponsor and support the admission of Germany and Japan, along with a few large nations from underrepresented continents, as new permanent members of the UN Security Council.
5. Extend large scale civilian aid to developing and underdeveloped countries and phase out all military aid and loans world-wide.
6. Initiate negotiations under UN sponsorship to raise a permanent international common security force, perhaps divided into regional commands, and designate US units—marines, air force, navy, and space assets—to be part of this force with appropriate training, equipment, recognition, and support.
7. Initiate consultations among the US, England, Russia, France and China on the formation of an international nuclear deterrent force of ballistic missile submarines being controlled by an expanded UN Security Council.

Tomorrow's world, if we are a little lucky, is full of promise. The US has no military enemies, no ideological sides to choose, no dreaded "evil empire" to threaten it. It has only the real unruly world, newly impoverished by the excesses of militarization and facing eventual limits of economic growth. Will the nations sink for a long time into the chaotic anarchy of past and present ethnic, religious, and regional strife, or will they work together much better, for many more, than ever before? We have a choice. Demand side non-proliferation implies a more equitable distribution of decision, of control, and of security. Both because of its novelty and its contradiction to the United States' undiluted supremacy among nations, it is received with mistrust by the critical elites both here and elsewhere in the North. But its logic is unavoidable. The failure of supply side approach makes it indispensable. Science and technology make it inexorable.
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An Historical Summary of the Non-proliferation Regime

[This paper has been edited for length. The complete text is available upon request.]

The Emergence of an International Norm

The adoption of a resolution jointly sponsored by the USSR, Britain, France, the United States, Japan, China, and Canada for the creation of an Atomic Energy Commission (AEC) at the first session of the United Nations General Assembly (UNGA) in January 1946 represented the first international approach to the control of the newly discovered atomic power. This resolution showed that control of nuclear weapons was immediately seen as a problem of a “different order of magnitude.”

Despite failure to achieve tangible progress, evidence of international interest in non-proliferation was provided by the number of proposals devoted to the control of nuclear energy. These include among others the Baruch Plan, the Soviet counterproposal for the creation of an international convention to prohibit both the production and use of atomic weapons and to supervise the destruction of existing atomic arsenals, and the efforts devoted between 1952 and 1957 to ambitious calls for general and comprehensive disarmament. These negotiations gradually shifted away from the AEC towards a gradual bilateral dialogue between the superpowers.

From the mid 1950’s to the end of the decade several proposals were discussed involving both conventional weapons and nuclear weapons. To this period belong the first test ban initiatives as well as the increasing participation of non-nuclear weapon states as expressed by demands to reorganize the bodies in charge of arms control negotiations. The impasse in arms control negotiations emerged as a source of increasing international dissatisfaction. This concern was expressed in the agenda of the General Assembly of those years, which emphasised the immediate need to resume negotiations, to institute a test ban, and to develop a framework for preventing a wider dissemination of nuclear weapons.

Nuclear tests had reached unprecedented levels of unpopularity, and the right of the superpowers to exercise sovereignty beyond their national borders was seriously challenged by the international community.

Two main factors contributed to the emergence of more effective approaches to arms control negotiations. The first was the role of international pressure on both superpowers to achieve tangible results in disarmament negotiations together with the demands of non-nuclear states for greater participation and responsibility. The second was the gradual shift from general and comprehensive disarmament to limited agreements designed to deal with particular problems or specific weapons categories.

In September 1961 the US and the USSR issued a joint declaration to inform the General Assembly about their exchange of views on questions related to disarmament, including a number of guidelines which contemplated the need of an “appropriate body”. In this declaration the mutual interests in controlling nuclear proliferation was clearly expressed. While it is true that this was partly motivated by increasing international pressure, it also resulted from the emergence of common interests between the superpowers. Indeed, the common ground of interest between the US and the USSR led progressively to a shared concern for the stabilisation of their strategic relationship. The “threshold of deterrence” gradually awakened the awareness of the nuclear powers to their mutual interests in setting limits to the arms race and to preventing an increase in the number of nuclear powers.

Although Soviet-American cooperation in controlling the arms race and nuclear proliferation through arms control agreements had still to wait some years, during the further sessions of the General Assembly signs of an emerging consensus favouring non-proliferation were clear. In 1963 three non-controversial resolutions were adopted: a general resolution on the control of nuclear weapons, a proposal for the prevention of wider dissemination presented by Ireland, and a joint resolution presented by Austria, India and Sweden which urged the nuclear powers to continue their negotiating efforts at Geneva for a test ban treaty. Superpower cooperation in non-proliferation was consolidated in the mid 1960's following the Cuban Missile Crisis and the 1964 Chinese nuclear explosion.

Concern with nuclear proliferation was first reflected in: 1) American efforts to centralise and reinforce its leadership within NATO and to avoid any further development of independent nuclear forces; 2) the setting up of the Atomic Energy Agency for surveillance of nuclear facilities and peaceful uses of nuclear energy; 3) the common interest of both superpowers in avoiding the nuclearisation of West Germany. Yet in retrospect, the Cuban Missile Crisis appears to have been the catalyst for the emergence of a period of successful arms control negotiations, and a diplomatic rapprochement between the two superpowers allowed them to exchange views about the need to control nuclear proliferation. Moreover, by the 1960's—and particularly with the 1964 Chinese nuclear explosion—it was feared that the number of nuclear states could rise considerably in a short period of time. This assumption awakened international concern for halting this process. The 1963 Partial Test ban Treaty represented the first arms control agreement of a decade of successful arms control negotiations. It expressed the concern of both the United States and the Soviet Union with managing their nuclear relations as well as their mutual interests in controlling horizontal nuclear proliferation, and was the first step in the creation of a non-proliferation regime.

The Role of Non-nuclear States

As mentioned earlier, the contribution of non-nuclear states to the emergence of the non-proliferation norm in the late 1950's was linked, on the one hand, to the pressure exerted on the US
Although the 1963 Partial Test Ban Treaty [PTBT] was the first expression of such cooperation, formal negotiations for a NPT only started after the Cuban crisis and the 1964 Chinese nuclear explosion had offered clear evidence of common security issues.

Until then neither American nor Soviet concerns about nuclear proliferation had been consistently articulated. Each had unilaterally dealt with this problem in their respective spheres of influence. The Soviet Union's hostility towards the Chinese nuclear programme and its decision to halt all nuclear assistance had offered evidence of its interest in maintaining control over nuclear developments within the communist bloc. In the US, Eisenhower's "Atoms for Peace" programme represented the first American approach to this problem. By the mid 1960's, after China's nuclear detonation, the focus of non-proliferation concerns shifted from industrialised countries with nuclear capabilities—such as the UK, France, Germany, and Sweden—to developing countries.

The 1968 NPT emerged as the pillar of a global non-proliferation regime. Its negotiation and subsequent implementation was to considerable extent the result of converging interests between the superpowers and a significant number of non-nuclear states. As Martin Wright wrote in the early 1970's, "if the Non-Proliferation Treaty marked the highest point of American Soviet interests yet attained," its broad membership has reflected this almost universal concern. Although the 1968 NPT defined the rights and obligations of nuclear and non-nuclear states, its implementation soon met considerable obstacles. If the NPT had helped to identify those countries with potential nuclear aspirations, its criticisms pointed to the major weakness of the agreement. While the distinction and discrimination against non-nuclear states pre-dated the treaty, the latter actually gave these conditions a legal foundation.

Disregarding the fact that the agreement embodied one of the first commitments by the nuclear powers to limit their arms race, criticisms were leveled at its unequal distribution of responsibilities between nuclear and non-nuclear states. A third category of criticisms either questioned the inadequate framework for nuclear cooperation or underlined risks involved in the promotion of peaceful nuclear energy.

Peaceful nuclear applications provided the benchmark for early evaluations of the treaty's effectiveness in preventing nuclear proliferation. During the 1960's and early 1970's the general assumption was that IAEA regulations were sufficient to maintain control over nuclear development. Nevertheless the technocratic approach to both the use and commercialisation of nuclear energy gradually eroded the regulating framework. This was particularly the case during the Nixon administration when greater competition within the international nuclear market led to a significant expansion of enrichment facilities and reprocessing technologies. Ironically, subsequent efforts to re-regulate the nuclear market paved the way for renewed attacks against discrimination, highlighting one of the weakest dimensions of the non-proliferation regime.

The 1974 Indian nuclear explosion not only shook the credibility of the non-proliferation regime but also revealed the fragility of the basic assumption that until then had separated civilian and military nuclear energy considerations. For years, most international efforts on nuclear energy had been concerned with two basic goals: 1) controlling and eliminating atomic arms; and 2) promoting and exploiting atoms for peace. Yet a serious dilemma soon became evident: "the development of nuclear energy for either purpose also helped to enhance its potential for the other." By the time the Indian test took place, the promotion of peaceful nuclear energy had already created a market of buyers and sellers with vested interests. Supported by some major suppliers, such as Canada, US policies became the centre of efforts aimed at strengthening the non-proliferation regime. Ironically, some European suppliers, including Germany, France, and to some extent the USSR, showed their capacity to take advantage of a reversal in US nuclear export policy from a market oriented approach to increased regulation.

The 1975 NPT Review Conference again brought to the fore the unresolved confrontation between nuclear and non-nuclear states. Initially the conference was seen as an opportunity to strengthen the treaty's basic provisions in order to reinforce the regime. Yet its results seemed to be a widening rather than narrowing of the gap between nuclear and non-nuclear states. Most of the criticisms leveled at the NPT revolved around its discriminatory nature or "colonial approach," its attempts to institutionalise an essentially unfair international status quo. While these facts were partially acknowledged, a gradual recognition of the infeasibility of reversing the status of nuclear powers led to the decision to reaffirm non-proliferation as the next best option. The other major issues underlying the first NPT review conference were the Indian nuclear explosion and the unwillingness of both France and China to join the agreement.
The first NPT Review Conference recognised the continued validity of the treaty's objectives and the need to achieve universal adherence in order to strengthen the non-proliferation regime. Addressing the major criticisms levelled at the NPT, the conference underlined the essential need to maintain an acceptable balance of responsibilities between nuclear and non-nuclear states and acknowledged the important role that nuclear energy could play in the light of "changing economic circumstances." In addition, the conference showed its capacity to adjust to changing international circumstances. This was reflected in its requests for the development of "common exports requirements," for work to start on a comprehensive test ban, and in its acceptance of regional or multinational nuclear fuel-cycle centres as potential alternative means of "safely and economically" satisfying state's energy needs. The review mechanism welcomed the achievements in the field of arms control but also reaffirmed the need for a dual approach reflecting the two dimensions of non-proliferation: the vertical nuclear arms race between the superpowers and its horizontal spread over states.

By the late 1970's nuclear non-proliferation was challenged from three directions: 1) by the superpower's failure to halt vertical proliferation, 2) by the arguments favoring proliferation as a potential source for stability, 3) by proliferation advances in spite of the supposed barriers of the PTBT and the NPT, and 4) by the impact of an expanding nuclear market. Indeed, in these years the number of what became known as "threshold nuclear powers" increased significantly. Notwithstanding this, and while it is true that many of these states opposed the NPT with official postures asserting their right to keep the nuclear explosive option open, they have also shown significant restraint and have not openly declared a nuclear power status.

Redefining Non-proliferation

Although the Indian explosion had a profound impact on the non-proliferation regime, the solidarity of the regime's foundations was also soon manifested. By challenging the non-proliferation regime, this event prepared the ground for a reaffirmation of its validity and the need for measures to strengthen it. Moreover, the subsequent Indian insistence on the "peaceful character" of its explosion and its systemic denial, of having reached a nuclear status, demonstrated the influence of the NPT as a restraining factor. Notwithstanding this, the 1975 NPT Review Conference acknowledged the need to reinforce the non-proliferation regime. This view was soon reaffirmed by the 1975 Brazilian-German and Pakistani-French deals which made clear the erosion of American control over civilian nuclear power and enriched uranium supplies. At the time these events stirred a debate about the extent to which further proliferation represented an inevitable trend.

The need to further develop the concept of non-proliferation attached to the NPT became evident as laissez faire policies continued to erode the effectiveness of the non-proliferation regime. Carter's efforts to tackle non-proliferation on a multilateral basis were a reaction, while European exporters were inclined to a moderate position. The states on the nuclear powers. Most countries such as India, Argentina and Brazil, with a great deal of sales, faced significant challenges in reconciling market interests with safeguard requirements. The salience of proliferation policy among nuclear suppliers enjoyed significant support, but numerous obstacles to its implementation soon began to emerge. Not only were most nuclear transfers already responding to market considerations, but tight regulation led to renewed and vigorous accusations of discrimination.

These issues were the object of debate during the 1980 NPT Review Conference. Discussions focused on the need to provide the nuclear market with some measures of control and to reconcile market interests with safeguard requirements. The success of policies of denial was highlighted by the fact that after decades of protest, particularly on the part of countries such as India, Argentina and Brazil, the salience of PNEs had significantly diminished. Increasing skepticism about the economic, technical and environmental benefit of PNEs would gradually lead non-nuclear states to surrender their right to such explosions. By 1985, and in contrast with previous occasions, the NPT Review Conference showed fewer signs of the traditional attacks by the non-aligned states on the nuclear powers. Most criticism focused on the US for its refusal to enter into negotiations on the cessation of nuclear tests, and consequently on the need to balance the obligations of nuclear and non-nuclear states.

Despite the increasing optimism underlying the validity of the norm, problems of implementation continued. On the one hand, the difficulties faced by the NPT with regard to the mecha-
ics of its implementation, stimulated a shift favouring regional schemes and increased interest in NFZs as a less discriminatory and viable alternative. This revival of NFZs indicated on the one hand, the reaffirmation of the parties' interest in remaining non-nuclear, and in some cases, in preventing the emergence of regional nuclear powers. On the other hand it reflected greater dissatisfaction with the global implementation of the non-proliferation norm. The second critical problem of implementation, concerned the disruptive effect which accompanied policies of denial and which threaten to open an important fissure in the non-proliferation regime. By placing increasing restrictions on access to nuclear material and sophisticated hardware, these policies encouraged states, like Argentina, Iraq and Egypt, to enter into cooperative arrangements with other dissenting states. Indeed, by the 1980's, estimates about the advances made by states such as Iraq, Argentina and Brazil both in uranium enrichment capabilities and military technologies, including missile systems, highlighted the need to adjust the non-proliferation norm, both in terms of its coverage and its implementation. Moreover, increasing reliance on conditionality to grant access to nuclear technology had a perverse effect since it came to dominate the decision of a number of states both to join and/or to remain within the regime. As a result of this, the distinction between genuine demands for peaceful access to nuclear technology and military motivations became increasingly problematic. Negotiating access to nuclear technology was not always accompanied by genuine and transparent non-proliferation commitments, and ironically, prospects for access increasingly dominated the decision of certain states to maintain their adherence to non-proliferation instruments. During these years one of the main challenges to the NPT came not from dissenting states, but from parties of the NPT like Libya, Iraq and more recently Korea, which have signed and ratified the NPT but could no longer be trusted to honour their commitments. As these cases have made clear, the non-proliferation regime has been challenged by the attitude of parties to the NPT which has questioned their commitment to the non-proliferation norm, even though their nuclear activities were in principle internationally safeguarded. Clearly, this type of challenge is more closely linked to the motivations that provide the foundations of the positive value attached to non-nuclear postures and that influence the decision of states to freely and unilaterally avoid the nuclear option.

2 The initiatives for the suspension of nuclear tests and the later moratoria carried out by both superpowers in the late fifties, regardless of their respective positions in the general impasse of the arms control negotiations, represented the first signals of an emerging nuclear dialogue between the two nuclear powers. The shooting down of the American U-2 spy plane was interpreted at the time as a Soviet decision to escalate the crisis while in fact 12 hours before the plane was shot down Cuban troops had over-run the Soviet anti-aircraft base. If it is true that It is not yet clear whether the Cubans gained actual control of the base, this event demonstrated miscalculations on the part of both superpowers, particularly in believing that they were absolute masters on the stage. For a detailed review of the crisis from the Cuban perspective see Philip Brenner, "Cuba ad the Missile Crisis", Journal of Latin American Studies, Vol. 22, Part. 1, February 1990.


Confronting the Legacy: Production of Fissile Materials and the D.O.E. Infrastructure

Grace Thorpe is the President of the National Environmental Coalition of Native Americans, whose mission is to stop the US Federal Government from dumping nuclear waste on Native American lands. She is a part-time District Court Judge and a Health Commissioner for the Sauk and Fox Tribes in Oklahoma and is a former employee of the US Senate Subcommittee on Indian Affairs and the Congress for American Indians.

I've got a story to tell also about a work horse. My Aunt Eva told me this. She has passed on now. She was a young girl in Los Angeles when they still had dirt roads there—they didn't have pavement. They used to have fire horses, and, after the fire horses couldn't run too much any more, they would sell them. And she tells the story about a Chinese peddler that had bought one of these old fire horses for his vegetable cart. She recalls the story as a young girl watching the peddler come down the street. He had a row of vegetables on the top, another row of vegetables beneath that and one down on the bottom on an open wagon. So she tells the story that the peddler, with the vegetables, was coming down the street, and the bell starting ringing for a fire. The fire horse started going and off went the grapefruit, the tomatoes and all, up and down and the road.

When I learned in January of 1991 that my tribe, the Sauk and Fox of Oklahoma, had put in for a $100,000 grant "to study the feasibility" of putting nuclear waste on our land, then the old fire horse was in me started coming back. I had retired in 1976, I thought, "Well, now I am going to do what I wanted to do all my life." I wanted to learn how to work with clay and make pottery, and paint pictures of wildflowers out in Oklahoma. I was having just a perfectly delightful time in my retirement. Needless to say, since January 1991 I haven't thrown any more pots—I might of thrown some other things, but not pots.

I want to tell you about the MRS [Monitored Retrievable Storage] proc-
years ago in the fall of 1991, sent out a thick packet of information to all states and to all the Indian tribes stating that grants were available to study nuclear waste. It was a program through the Office of the Nuclear Waste Negotiator funded through the Department of Energy.

Of the people who applied for the grants, there were four counties. They have all since withdrawn. In one of them, Grant County in North Dakota, the three commissioners who submitted the applications were all recalled. That's good news, right?

Unfortunately, nineteen Indian tribes applied for these grants. That number has now dwindled down to just four. Those four are the Mescalero Apaches in New Mexico, and the Fort McDermitt Paiutes in Nevada, the Goshutes in Utah, and the Tonkawas in Oklahoma. There were thirteen in Oklahoma and I was able to dwindle that down to one, and when I get back home again, I am going to try to dwindle it down to zero in Oklahoma.

At the time I heard all this, I thought, gee, I can't take on the whole world (at least not today). But I can maybe handle my tribe and get my tribe to withdraw from the MRS process. That is exactly what I did.

I first read up a little bit on the nuclear waste issue because I was really very ignorant about it. I generally just didn't like nuclear waste. But when I read that you can't see this stuff, you can't smell it, and you can't feel it but that it is the most lethal poison known in the history of man, I didn't figure I needed to know much more than that.

I checked the constitution for our tribe, and I found that you only needed to have fifty people sign a petition to call a special meeting. We easily got eighty people to sign a petition, and we called a special general meeting of the tribe on February 19, 1991. Out of 75 votes, 70 wanted to withdraw from the MRS program. The only five who were for it, unfortunately, were our five elected officials. I found later on that that was what was happening elsewhere. The elected official of our tribes were going for the MRS—going for the money and all—but the people didn't want it.

We have about 365 tribes within the United States today. There are only 4 going for it now. That is about 1%, right? That means about 99% don't want it. I found that to be true in general.

When I got my tribe to withdraw, before you know it, word started passing around and I was getting calls. In June of 1991, I got this call wanting me to be a keynote speaker at the Indigenous Environmental Network in Dallas, Oregon.

I said, "What do you want me for?" And he said, "Weren't you the one who made that motion to have the Sauk and Fox withdraw from the MRS program?"

I said, "Yeah."

And he said, "That's what we want you for. We want you to just come tell us how you did it."

I have been so actively involved since then it is really hard to believe. I am a volunteer. I've been existing on my Social Security and a small VA pension. But word passes around.

You know I ask myself these questions: Why would our Indians, protectors of the land, go for this nuclear waste? My gosh, what is this doing to our image? Then of course I have to say to myself, "But Grace, only 1% of them are going for it, remember?"

I was on the Mescalero Reservation about a year ago. I asked people there, "Why on earth are you going for this?" Those of you have seen the Mescalero Reservation know that it is one of the most beautiful that we have. It is a high mountain that sits in the middle of the desert. It goes up 7,000 feet in the air and it is all wooded and gorgeous. They have two ski lifts in the winter and a five star resort there in the summer. You can get deer and fish and it is just beautiful. They call it their sacred mountain.

I said, "Why on earth are you going for this nuclear waste?" They said the people want the jobs. They want the jobs and, of course, the money. A lot of the tribes are still in a very poor economic situation. Mescalero Apaches are not. The Goshutes actually are not either, and there are only about 100 of them. Their land is already so fouled up. They've got a bombing range on one side, a chemical waste dump on another side, and I can kind of see them going for this. And maybe I can see the Fort McDermitt Reservation, which sits on the Nevada and Oregon line. They have absolutely no jobs there and no economic development at all. If they want work they have to leave the reservations. Those I can understand.

I have good news that I am going to be telling you. It is coming up.

The NECONA Organization (The National Environmental Coalition of Native Americans) was formed on March 17th, in Las Vegas. We were attending the National Congress of the American Indian. Let me tell how bad this is really, what the Department of Energy has done. They had jeopardized some of our finest national Indian organizations by giving them money. They have hired the National Congress of the American Indian to put on gatherings to try and entice our tribal leaders to go for this nuclear waste.

I find that just really sad. I used to work for the National Congress of the American Indian, and it makes me very sad that they have done this. Hopefully, with the good news that I am telling you, maybe they will have some alternatives to this coming up.

Now for the good news. In April I was lobbying in Washington, D.C. with the Military Production Network. I made a call with Margaret Cards from Santa Fe on Senators Bingaman and Domenici who are New Mexico Senators. I knew that they were opposed to the MRS program and putting nuclear waste on our Indian lands. So I called on him and I plain asked Senator Bingaman if he would just stop the funds for the MRS...
Grace Thorpe talked about "Killing the MRS," and it reminded me of an article I wrote in a newsletter about reincarnated reactors. Robert Oppenheimer remembered Hindu scriptures when the first bomb went off on July 16th, 1945. He quoted the Hindu scriptures saying, "Now I am become Death, destroyer of worlds." I think he set in motion a whole train of unfortunate aspects of nuclear Hinduism in which things get reincarnated in the most unfortunate way. The thing about reincarnation is that you don’t get reincarnated if you are good. If fact, if you are a saint you go up to heaven and don’t get to come back because heaven is supposed to be a good place. But if you are bad, you have to come back. Reactors seem to follow this pattern. Every one of them that has been killed has come back. So, you have watch out. You have killed Monitored Retrievable Storage, but remember that there is nuclear Hinduism at work out there, and these things tend to come back.

I run the Institute for Energy and Environmental Research in Takoma Park, Maryland. It has been my pleasure to be sort of the movement’s egghead. I write a column in our newsletter called "Facing Reality" by Dr. Eggehead. This newsletter was born out of my work with the Military Production Network, and it has been my great pleasure to know one of the founders of the network, Bill Mitchell. I think those of you who don’t know the Network, ought to find out about it and some of the publications, Facing Reality being one of them, that the Network and its members put out. I have also worked with IPPNW (International Physicians for the Prevention of Nuclear War), and it was one of my special pleasures to be at the founding meeting of the National Environmental Coalition of Native Americans. So I have had many wonderful experiences working with people in this area.

I guess the way I might describe both my work and what I am going to talk about today is that when I was a teenager I liked Agatha Christie books a lot. I don't look a lot like Miss Marple, but essentially that is more or less my job description. The evidence that comes our way is very skimpy. The establishment is very secretive. They don’t let many numbers out; they don’t let much text out. You have to kind of sit back (I tried to learn to knit and failed), contemplate, and try to piece it together.

There is a difference between the way the establishment does science on the environmental side and how it does science on the weapons side. The word I would choose to describe how it does science on the environmental side is “bad.” And the same word applies for the way it has handled its political affairs. The establishment has generated some numbers on the political side that have been very bad for democracy, and it has generated numbers on the environmental side that have been very bad for the environment. This is unlike the numbers they have generated when they have made bombs. For instance, the first bomb they made at Livermore was a dud. They didn’t need the FBI to go after them, or a grand jury to be impaneled, for them to get together and figure out what went wrong. They got together, figured it out and made the next one work. They haven’t shown such enthusiasm for their own issues.

In my investigation of these problems and the legacy of nuclear weapons production over the last half century, what I found was not only some of the shocking stories that you all know from the headlines and from your work organizing in this area, I also found other quite shocking scientific stories that give rise to a bumper sticker slogan for the new Department of Energy, “Cook Food, Not Numbers.”

The cooking of numbers started with the bombing of Hiroshima and Nagasaki. An economist, Henry Stimson, who was then the Secretary of War, wrote a letter during the war saying that we ought to compromise with Japan so that the Soviet Union didn’t get a foothold in Japan and China the way they got a foothold in Eastern Europe after 1944. We ought to give Korea over to Japan, he wrote, and that would prevent the Soviet Union from invading Japan at the end of the Pacific War. It would also, he added, save half a million to a million American lives by preventing the necessity of the American and allied forces having to invade Japan.

Stimson sent this over to General Marshall for evaluation, and the Joint Chiefs of Staff sent back some correspondence saying that they didn’t think they ought to give Korea over to Japan, that they ought to stick with their goal of unconditional surrender, and that when they evaluated the casualty estimates in terms of the number of American lives that would be saved, the estimate that half a million American lives would be lost in an invasion of Japan
was "entirely too high."

This letter by General Marshal is an astonishing document because President Truman, when he wrote his autobiography, said in it that General Marshal told him—that half a million American lives would be saved by preventing the invasion of Japan. Therefore the bombing of Hiroshima and Nagasaki, by putting an end to the war, saved half a million American lives.

Now the Joint Chiefs of Staff actually had their own casualty estimates. They had evaluated what it would take to invade Japan. Their estimate was—of course nobody knows what would have happened, everyone on all sides was only talking about estimates—their estimate was that about forty thousand American soldiers would die in an invasion of Japan if Japan were to be completely vanquished.

That is not half a million. It is not the million that Churchill wrote about in his autobiography. Right after the end of the war there was even cable traffic among American generals being very embarrassed that civilian leaders were saying that 200,000 American lives had been saved by the early end to the war. They were wondering what to do about these exaggerated estimates and decided to lie low.

The lie that half a million American lives were saved still continues after I publicized this in 1985 on the 40th anniversary of the bombing of Hiroshima. The lie has been completely resistant to the truth. It surfaced two years after the bombings and on any 6th of August, if you pick up the newspapers, you will see one editorial saying the bombing was to scare the Soviets and another editorial saying half a million American lives were saved.

The casualty estimates were completely fabricated, and there is no evidence to support them. None of the casualty estimates and figures from the actual prosecution of the war lent any credence to this estimate.

I found these documents, by the way, in the National Archives from the Manhattan Project papers. I think the National Archives is a wonderful institution and a great tribute to some of the democratic freedoms that we have. I think people ought to use that wonderful building with papers in it more often.

There are a lot of treasures in there.

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NEW CONTEXTS, NEW DANGERS:
country from other countries which call themselves democratic, like Britain which has an Official Secrets Act, a sort of anti-FOIA. We don’t know the purpose of this experiment yet, but we do know releases of radioiodine exposed children’s thyroids in the region to quite high doses of radiation over the 20 years since the Manhattan Project and into the mid-sixties. The damage from that is only now beginning to be calculated. I don’t think we can calculate it very well.

Plutonium production resulted not only in those iodine releases, but in many radioactive wastes which sit in 228 tanks at Savannah River and Hanford. Submarine reactors make radioactive wastes which sit in Idaho. These tanks contain explosive chemicals. The ones at Savannah River are supposed to be emptied, and the waste is supposed to be glassified—except they can’t seem to get the plant started. It was due to be started in 1989. The model on which they build these plants for environmental protection is very much like the Manhattan Project. You put in couple of billion dollars. You don’t need a pilot project. You don’t need to investigate the consequences of what you are doing thoroughly. You throw the switch, and everything will be perfect. Just like July 16th, 1945.

Protecting the environment, and the science it requires, is quite different from the science it takes to build bombs. The culture of the science—some scientists may be appalled to know that there is a culture in science too, but there is—is very different. When you throw the switch, you are concerned with the boom, and then you can walk away from it. It is successful. But you can’t ever walk away from environmental protection. It is a continual job. You have to do it every day. You have to worry about it every day. I won’t get into the gender specific analysis of the results it gives back to you and the satisfaction it gives back to you.

I’ll give you another example of the way the nuclear establishment does environmental science. In the environmental data that was taken from 1969 to 1982 at the Fernald Plant, where the uranium that was put into the reactors to make plutonium was machine made, I came across this string of zeros. “Zero releases.” Zero. Zero. Zero. Zero. Month after month after month.

When I see a lot of zeros in a radiation release record, I think that the plants were not operating, or that it was less than a detectable amount, or that somebody was making up the numbers. We found the production data and I did a few calculations. It was very clear that the filters should have had more deposits than the minimum detectable amount of radiation that was reported by this plant consistently since the 1950s. These people were questioned in the context of a lawsuit that was filed by a very angry and upset citizen, Lisa Crawford, who found out in the mid-eighties that her water had been contaminated with uranium and that officials had known it since 1981. She, her husband and her son had been drinking this water for four years, and nobody had bothered to tell her. She filed a law suit and we did the expert studies on it.

We got the documents, and we were able to show that these numbers—this string of zeros—were fabrications. But to this day, the operators of this plant do not share the definition of a “fabricated number” with us. Even though we showed that these filters should have registered more than the minimum detectable amount even if they operated perfectly, even though we showed from

The establishment has generated some numbers on the political side that have been very bad for democracy, and it has generated numbers on the environmental side that have been very bad for the environment.

plant records that the pollution control equipment was not operating perfectly. Even though we showed all these things, the plant operators do not admit to this day that they fabricated data. We even showed and publicized a document from a plant engineer that said one of the formulas that was used to calculate radiation was “inherently deceptive because it showed low radiation releases when the filters were not working properly.” Until this day, even the independent studies sponsored by the Centers for Disease Control has not called the government to account about why it continued to use this bogus formula that assumed constant efficiencies when they knew efficiencies go down to zero sometimes—that is, that things aren’t working at all. The CDC never called on the government to account for why plant operators continued to use this formula and to cover it up for so many years.

Now we are in the process of cleaning up Fernald. I got a call from a reporter about a year ago. He asked me what I thought of this new vitrification technology. They are going to take all this highly contaminated dirt and sludge and so on, and they are going to clean up some of the dirt. It won’t be very clean but will be cleaner than it is now. They plan to concentrate the radioactivity and turn it into glass marbles. I said, “Well, how many tons of glass marbles? How much are they going to concentrate it?” I did a few calculations. This is just one plant and just partial clean-up. We figured out they are going to make half a million tons of glass marbles. Ten billion radioactive glass marbles! So my question is “Where are they going to put these marbles?” They say, “Well, we will think about that tomorrow. We are not going to deal with that today.” Lisa Crawford is very militant. She is right here. She is still angry. She is still active. We are going to do something here that will calm her down.” They are planning to spend 600 million dollars on a technology that I think doesn’t look like it is going to do the job right. But it is the best one that they have, although it ignores some of the more serious problems that they have.

The nuclear establishment is now like a wounded tiger. Even Secretary O’Leary sided with those who wanted to stop nuclear weapons testing. I think it was a very courageous thing that she did earlier this year. It was historic. The nuclear establishment is coming up with all these reincarnated reactors. We have breeder reactors, used to make plutonium, which are coming back as plutonium burners. We have got reprocessing plants which are coming back as assisting plutonium burners. We even have nuclear weapons coming back in the guise of energy producers. There was a proposal that came out of Livermore which recommended generating electricity by setting off nuclear explosions in huge underground chambers. Technology Review [an MIT periodical] put that proposal on its front cover a year or two ago as a potential idea for generating electricity. I calculated that it would take 2 million nuclear explosions every year to generate the equivalent 20% of the electricity supplied for this country by nuclear power plants today. The gentlemen from Livermore, paid by your tax dollars and mine, didn’t even consider what the environmental consequences of fabricating 2 million explosions would be when we have made such a mess—at least 200 billion dollars worth—with a nuclear weapons complex that had the capacity to manufacture only 4,000 nuclear explosives every year.

We have a terrific mess on our hands. There isn’t any such thing as clean-up. “Clean-up” really means a
radioactivity relocation program. There may be some sense to this radioactivity relocation, because through this relocation we might be able to reduce this risk to ourselves and to future generations. But we have to have a culture of environmental protection. I put it to you that as long as leading scientists in the nuclear establishment are more worried about testing, making more nuclear weapons, making mini-nukes and micro-nukes and making nukes for nuclear power—this is kind of nukes for nukes' sake—we won't be able to have a culture of environmental protection.

We have a gigantic machine, what I call Government Issue Pork, or GIP. I suggest that we put all the folks with fancy PhD's (I hate to dump on my fellow PhD's) on a kind of Kosher diet: no more Government Issue Pork. Then we will have some hope of being able to look our children in their faces and say, "It is true we made a mess, but we are doing as well as can be done under the circumstances." I need not add that a clear road to nuclear disarmament is a necessary counterpart to this clean-up that we have to undertake.

Concluding Plenary:
Preventing Nuclear War Means Preventing All War

Eugene J. Carroll, Jr.
is a retired Rear Admiral of the US Navy and is currently the Director of the Center for Defense Information. He has served on General Alexander Haig's staff in Europe, was the Director of US military operations for all US forces in Europe and in the Middle East, and, as the Assistant Deputy Chief of Naval Operations for Plans, Policy, and Operations, engaged in US naval planning for conventional and nuclear war. • • • • • • • • • • • •

Each one of you here today has some picture of a world without war. It is easy to visualize the key elements of such a world. It would be a world in which every nation-state had surrendered national sovereignty—the right to use—or threatened the use—military force in pursuit of national goals. Powerful sanctions against any nation resorting to violence would be exercised by a supra-national agency in accordance with the will of the world community. International tribunals would possess mandatory criminal and civil jurisdiction over all nations in order to settle disputes between nations on the basis of the rule of law.

Such a snug harbor in which all are sheltered from the winds of war is pleasant to contemplate—but very, very far away! To get there will take a steady hand at the helm. And a very skillful navigator.

Today I want to address two hazards, the rocks and shoals a navigator must consider in setting course on the first leg of the journey to our snug harbor. The rocks are nuclear weapons and the shoals are conventional weapons.

Fortunately, nuclear rocks are less numerous and not as close at hand as they were during the 45 years of Cold War, not nearly as threatening now as they were during the 1980's when the United States and the Soviet Union were engaged in a frightening confrontation marked by ugly rhetoric and a mindless nuclear arms race. All arms control efforts had collapsed. Both sides were adding new bombers, submarines and missiles armed with ever more destructive nuclear weapons. Five nations were actively testing nuclear weapons.

The growing dangers of nuclear war produced a powerful, healthy, active world-wide anti-nuclear movement in the '80s which led the way to a far different nuclear world today.

• Only one nuclear weapon has been tested in the last 13 months.

• Thousands of nuclear missiles and bombers which were on a hair-trigger in 1981 are no longer in alert status.

• Many delivery systems are being dismantled.

Under various arms control agreements and understandings, Russia and the United States are slated to reduce total strategic weapons to 6,500, far fewer than the 17,000 in place in 1981. Prospects for a Comprehensive Test Ban Treaty and an extension of the Non-Proliferation Treaty are great and improved.

Yes, every one of you who was a part of the anti-nuclear campaign has every reason to be proud of your contribution to a much safer world. But not all nuclear danger is behind us—there are still many more rocks ahead. Continued pressure by peace activists every-where is essential to turn good prospects for a Comprehensive Test Ban and extension of the Non-Proliferation Treaty into realities. And even if every current US-Russian agreement is fully implemented, ten years from now these two nations alone will still possess approximately 16,000 nuclear weapons in their combined strategic and tactical forces. France, the United Kingdom, the People's Republic of China and Israel will add at least 2,000 weapons that ominous figure.

The danger of a 30 minute nuclear war which might doom all life on earth is fading and should continue to shrink in the future. But a world with 18,000 nuclear weapons still needs doctors, and scientists, teachers, religious leaders, political officials, even admirals and generals, working together to prevent nuclear war. We must not stop now! We must demand that the nuclear states live up to their moral and legal obligations under Article 6 of the Non-Proliferation Treaty to work toward general and complete disarmament. Total nuclear disarmament! That is the only cure for the nuclear disease which first infected the human race 48 years ago. We must stamp out nuclear weapons globally the way modern medicine eradicated smallpox.

I used to say I could not imagine what solution in my lifetime—a world with zero nuclear weapons. But then, I could not imagine that I would live to see Yitzhak Rabin shake hands with Yasser Arafat on the White House lawn. When I heard the moving words of Rabin, "We have had enough of blood and tears. Enough!" I understood that reason and the human spirit can triumph over hatred and fear and lead the way from war to peace.

It is possible to create a non-nuclear world for our children—for all children—and we must never lose sight...
of that goal! But safely navigating past the nuclear hazards does nothing to save us from the whims of conventional weapons. In truth, today these are the real dangers—immediate, universal and growing. To illustrate this point, let’s look at the Middle East where Rabin and Arafat hope to bring peace.

Although Israel certainly possesses nuclear weapons, they are the bar to peace. The real problem there is that every nation, every faction, every organization in the Middle East is heavily armed with conventional weapons. These weapons will be used in the years ahead to oppose the peace process, to support violent resistance to peaceful resolution of extremely difficult political, economic and religious issues. Enduring solutions to these critical problems can be achieved only through cooperation and accommodation, not through the clash of arms.

Despite this obvious truth, conventional arms have been pouring into the Middle East for decades. In a very real sense, the arms provided by outside nations have expanded and intensified the scourge of violence in the region. Incredibly, this infectious process continues, despite the end of the Cold War and even after the defeat of Iraq in Desert Storm.

Because of the central importance of this issue of war and peace in the Middle East I want to provide you with some measurements of the magnitude of arms sales to the nations in the region.

In the decade of the 80’s Middle East nations paid or borrowed $172 billion per year leading up to the Gulf War. Since Desert Storm the United States alone has announced new arms transfer agreements in the region of $39 billion. For all of our other sins, America is reasonably open about arms sales. I cannot, however, find comparable figures for other nations shipping arms to the Middle East. But we know that France, the United Kingdom, Germany, China and former Warsaw Pact nations are all actively promoting sales in the region. It is clear that arms are continuing to flow at least as heavily as they did before Desert Storm. The developed nations have learned nothing and they continue to fuel violence, death and destruction in the most dangerous region in the world.

This is particularly tragic now, after the Israeli-PLO agreement to work toward peace. Because the many radical opponents of the peace process there will seek to block progress through terrorist violence, it makes absolutely no sense to provide more arms to support and expand that violence. Furthermore, in procuring arms the entire region is wasting precious resources needed to address critical social, medical, and economic problems. We always think of the United States as the great spender for military forces, and we are, but comparatively, the situation is much worse in the Middle East. The US spends 5.4% of our gross domestic product on military forces while the nations of the Middle East double that figure. More than 10% of everything produced there goes into the weapons of war.

As evil as arms trade is in the Middle East, it is not only there that international traffic in arms increases violence and inhibits the peaceful resolution of domestic struggles and cross-border conflicts. Africa is a crazy quilt of overarmed nations, South East Asia and Latin America are scarred by battles fought with foreign supplied arms.

Somalia is a classic, and tragic, example of the real consequences of supplying arms to people whose real need is for capital investment in agriculture, energy, production, water systems, roads, housing and medical care. For 14 years the Soviets armed Somalia. When the Soviets moved on to Ethiopia, the United States promptly supplied another $600 million in military support over the next 14 years. Most of the weapons ended up under the control of Slad Barre, a tyrant who used them to suppress democratic reformers and dissident clans. They are now used to kill Americans and Pakistanis, Italians and Frenchmen who are there trying to deal with the ruin and chaos they have produced.

Middle East, it is not only there that international traffic in arms increases violence and inhibits the peaceful resolution of domestic struggles and cross-border conflicts. Africa is a crazy quilt of overarmed nations, South East Asia and Latin America are scarred by battles fought with foreign supplied arms.

Addressing arms trafficking requires a new perspective on the role of arms in politics and economics, a will to stop the arms glut, and a commitment to finding the broader solutions that people can feed, cloth and care for.

Whatever the original motives of the weapon suppliers—profits, politics or military advantage—the consequences are an epidemic of destruction, disease, and death which no one can cure.

As dramatic and dangerous as the Middle East and Somalia situations are, the problem of arms trafficking is much broader and deeper than just those two examples illustrate. I recently reviewed the current extent of arms sales globally.
housed at levels which sustain life. Until that absolutely fundamental goal is achieved, there will be acute instability and violence in many parts of the world. Obviously, money wasted on weapons is not available for investment to achieve these goals.

Second, arms trade fuels the violence which economic insufficiency creates, and directly inhibits non-violent efforts to produce peaceful solutions to domestic problems as well as cross-border disputes. North-South issues are not solved with weapons, only expanded and inflamed.

To this point I have spoken about conventional arms in the abstract, in generalities. Let me focus briefly on arms in concrete, specific terms to illustrate the human suffering they produce. I will offer just two examples to make the dangers of the arms trade more real.

Land mines—A recent study estimates that there may be 85,000,000 land mines already scattered over the surface of the earth. They are everywhere—in Afghanistan, Angola, Cambodia, Latin America, Iraq.

Every day children are dying at play, farmers are dying while working their fields, bus loads of innocent travelers are murdered by these weapons which do not discriminate between soldiers and civilians. How many thousands of maimed and blinded victims of these vicious weapons must physicians treat in the years ahead? How many more victims if we don't stop the sale of such munitions?

Heat seeking missiles—During the Cold War, the United States and the Soviet Union built and sold or gave away thousands of small heat seeking missiles which are deadly against low flying aircraft. These weapons have been widely distributed through arms black markets and have been used for terrorist acts and during insurgencies. In just the last few weeks, three of these easily transported missiles damaged or destroyed three civilian aircraft during hostilities in Georgia. More than 75 innocent non-combatants died. How many more tragedies lie ahead if arms sales are not restrained?

As horrible as land mines and heat seeking missiles are, the greatest danger of international arms sales is that the universal availability of weapons works against non-violent efforts to settle disputes. Nations, clans, dissidents who can arm themselves resist compromises and accommodations with their adversaries and try to impose their wills through armed violence. Just resolution of disputes and enduring peace can never be achieved by force of arms when the underlying issues are economic, ethnic, political, historical or religious. The greatest hope for a peaceful world community is to stop trying to solve such problems by the rule of force and address them under the rule of law. This will never happen as long as the developed nations go on promoting violence by selling weapons to nations willing to use them against their neighbors—against their own peoples.

While nuclear dangers remain and efforts to reduce them must continue, I hope that you share my concern that conventional arms transfers are an even more immediate, active, destructive peril to a peaceful world today. I hope that you also feel the same sense of urgency and outrage I do that the world community permits this obscene traffic to continue.

At the Center for Defense Information we have turned our outrage and horror into a major project. As citizens of the nation which sells more arms than the rest of the world combined, we are attacking the practice on legal, moral and ethical grounds, as well as on the ground that such sales actually weaken our national security.

This report I show you is the latest Defense Monitor, mailed to 50,000 readers in order to convince American citizens that international arms sales are truly a road to disaster.

I am pleased to tell you that it has already been reprinted verbatim in the Pentagon's own newspaper, "Current News." It has reached every admiral, general and senior civilian official in the Department of Defense. I did exaggerate when I said, "verbatim." The editor actually removed all CDI identification and listed the source as "Unattributed." Remember the old saying, "There is no limit to the good which you do as long as you don't care who gets the credit"? Mr. Unattributed is OK in my book.

I have hammered hard on the problems of controlling nuclear and conventional arms as major steps in the prevention of war. Obviously, the peace process is much broader, much more complex than just controlling arms.

Perhaps the most demanding action needed to change the present "war system" into a "peace system" is to strengthen and expand the capabilities of the United Nations to perform the role of global peacekeeper.

Fortunately, as the Cold War was ending the UN began to evolve and already has a growing number of successes to give clear evidence of its potential. The fact that the United States has often been at cross purposes to the UN in Somalia and Bosnia explains, in part, why the UN has acted uncertainly in these difficult situations in recent days. If the United States would assume its supporting role rather than operate independently, the UN could proceed with greater consistency toward common objectives.

Recognizing that a peaceful world order does depend on a more active and effective international agency, the problem of controlling and spread of arms suggests a very practical place to start building the UN.

On the nuclear side, there is a clear course of action. All of the nuclear states should support a much more powerful International Atomic Energy Agency. Their staff should be expanded with nuclear scientists no longer needed to
design and build nuclear weapons. Their budget should be doubled, at least, and IAEA safeguards inspections made mandatory in nuclear and non-nuclear states alike.

Similarly, on conventional arms the UN should assume a leading role because no one nation alone can restrain this obscene trafficking in arms. Reports to the newly instituted UN Arms Registry should be made mandatory and cover all classes or armaments rather than only major weapons. Receiving nations should be required to report all weapons. Receiving nations should be required to report all weapons receipts and money expended on arms imports just as suppliers must report sales.

The UN Military Staff Committee should be required to analyze the pattern of arms transfers and to determine if imports are contributing to instability and the risk of war in any region where arms trade is excessive. They should also identify situations in which authoritarian governments are using imported arms to repress political reform and violate human rights.

When the Military Staff Committee reports such problems, the Security Council should act to cut off developing nations from international aid programs and IMF loans when arms expenditures are excessive. Suppliers should be subject to significant economic and political sanctions (including trade embargoes and freezing of credits) if their exports are contributing to regional instability, conflicts or human rights violations.

As difficult as such actions might be initially, a concerted UN effort to restrict and restrain arms trafficking would have two important benefits. First, the direct effect of reducing the availability of arms to fuel regional violence and inhibit the peaceful resolution of disputes. Second, the indirect effect of increasing confidence in and reliance on the UN to lead effective international peacekeeping efforts.

The UN problem is a classic chicken and egg situation. The organization cannot grow and assume new responsibilities until the world community has confidence in UN leadership. Conversely, confidence cannot grow until the UN has been entrusted with additional responsibilities and authority and demonstrated genuine achievements in peacekeeping.

It seems to me that entrusting the UN with comprehensive authority to limit world-wide trade in arms is a good place to begin. It would be a direct contribution to world peace as well as an important demonstration of the peacekeeping potential of the United Nations.

In short, I believe that we still live in a violent, uncertain world. We no longer face the holocaust of a 30 minute nuclear war which could end all life on earth but we do suffer continuing conflict with the conventional weapons which kill, and maim countless innocent people everyday. As peace activists you are committed to oppose these inhumane weapons just as you oppose the monstrous arsenals of nuclear weapons which still exist on earth.

At the Center for Defense Information we commend your active leadership in the campaign to bring an end to war and we pledge our support for all of your work. Please call on us at any time we may assist your dedicated efforts to create a safer and more peaceful world.

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**Peacework**

Global Thought and Local Action for Nonviolent Social Change

Peacework is the monthly journal that helps activists put it all together! On nuclear disarmament and dozens of other issues, Peacework is your wholistic supermarket of alternative information. Each 16-page issue brings organizers, educators, clergy, and progressives around the US the latest news, views, and networking on events, campaigns, resources, and challenges faced by social justice and peace movements.

Published since 1972 by the New England Regional Office of the American Friends Service Committee, Peacework offers both a broad, eclectic overview of the social change landscape and on-the-scene reports from participants at the grassroots and community levels. Plus, our “Century Watch” column focuses in each issue on initiatives and resources related to the millennium.

Peacework is an information bargain, with a two-tiered subscription price—$15/year by first-class mail or $10/year by third-class mail. As a bonus for readers of “Preventing Nuclear War in the Post-Cold War Age,” you are invited to subscribe to Peacework and receive free copies of two recent Peacework special issues: “Violence, Nonviolence, and the 20th Century,” and “Nonviolence, Prayer, and Politics.” And for an additional $12, we’ll include a copy of the 147 "greatest hits" articles from our first two decades, the 288-page large-format anthology, Peacework: 20 Years of Nonviolent Social Change. Subscribe now to Peacework-PNW, AFSC, 2161 Mass. Ave., Cambridge, MA 02140.

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PREVENTING NUCLEAR WAR IN THE POST-COLD WAR AGE
ORGANIZING AND CAMPAIGNING

The agenda for arms control negotiations, community based disarmament struggles, and the 50th anniversary of the atomic bombings of Hiroshima and Nagasaki make 1995 a focal point and turning point in human history. The calendar, and thus the essential framework of our strategic thinking, couldn’t be clearer. The Non-Proliferation Treaty is scheduled to expire only months before the 50th anniversary of the atomic bombings of Hiroshima and Nagasaki and are to be commemorated. It appears that a precondition for any extension or modification of the NPT is a commitment by the nuclear powers to a Comprehensive Test Ban. Over the next year and a half, those of us in the number one nuclear superpower will carry unique ethical and political responsibilities while political elites and peace activists across the planet struggle over the structures of power, terror and human security for the next century.

The NPT review poses essentially three options for the future: 1) continued discriminatory order based on the dominance of nuclear have-over the nuclear have-nots; 2) use of the NPT process to win nuclear disarmament; 3) collapse of the NPT regime and a 21st century marked or ended by nuclear anarchy and terror.

Juxtaposed and intertwined with “arms control” questions will be profoundly important struggles over the meanings of the atomic bombings of Hiroshima and Nagasaki and the fifty year nuclear era. Nuclear powers will seek to legitimate their privilege and power—based on nuclear terror—by arguing that the 1945 atomic bombings actually saved lives, and that Mutual Assured Destruction ensured peace throughout the Cold War. We can change the terms of that debate by placing the Hibakusha (of Hiroshima, Nagasaki, Semipalatinsk, Nevada, Utah, Washington, Bikini, Tahiti and other communities) and the economic and historical records at the center of the debate, and through traditional forms of nonviolent direct action. We can profoundly change the debate as we did with the Nuclear Freeze movement and as Native American activists and other people of conscience did in the period leading up to 1992.

We are in the early stages of developing strategies, organizational structures and resources to concentrate on the CTB-NPT-50th Anniversary triad. Some of these strategies, like the Year of Jubilee growing out of Campaign 1995, carry the potential of reframing the debate and transforming the movement. Following are some of the many organizations and resources you can turn to.

CAMPAIGNS, ORGANIZATIONS, & FOCAL POINTS

Campaign 1995

This is a catalyst to generate reflection, education, and action so that fundamental renewal can transcend the failings of the past. The focal point of its work include the fifteenth anniversaries: the liberation of Auschwitz, the death of Franklin Roosevelt, the founding of the UN, the atomic bombings of Hiroshima and Nagasaki, Vietnam’s declaration of independence, the establishment of the Nuremberg War Crimes Tribunal and the creation of the World Bank and IMF. It produces a newsletter and spurred the call for a Jubilee Year from July 16, 1994 (the anniversary of the Trinity Test) to July 16, 1995, proclaiming liberty from mass violence. c/o The Fourth Freedom Forum, Dept. 951, 803 N. Main St., Goshen, IN 46536 (800) 233-6786 or 1601 Connecticut Ave. N.W., 5th floor, Wash., D.C. 20009, (202) 234-9382.

Manhattan Project II

Initiated by Daniel Ellsberg, now a project of Physicians for Social Responsibility, MPI seeks to “eliminate the conflict between our declared aims of nuclear disarmament and nonproliferation and our own actual operating policies.” It is working for a comprehensive test ban by 1995, a ban on production of weapons-usable fissile materials, continuing the momentum of START I and START II and deepening the cuts of strategic nuclear arsenals, moving the US to a no first use of nuclear weapons policy, pursuing a “zero option” for US & Russian tactical nuclear weapons, creating bilateral and international safeguards to verify nuclear arms control agreements, c/o Physicians for Social Responsibility, 1110 14th St. N.W., Suite 700, Wash., D.C. 20005; (202) 898-0150.

Comprehensive Test Ban

Most traditional peace, disarmament and arms control organizations are working for the CTB. A CTB Planning Group, led in part by Peace Action (1819 H St. N.W., Suite 1010, Wash., D.C. 20006; 202-862-9740) and Physicians for Social Responsibility (1101 14th St. N.W., Suite 700, Wash., D.C. 20005; 202-898-0150), is giving greater coherence to the work. Nevada Desert Experience (P.O. Box 220, Pt. Hueneme, CA 93044; 805-985-5073) is organizing non-violent direct action at the Nevada test site (and elsewhere) and continues to focus public and political attention on the human, environmental and spiritual costs of testing.

Non-Proliferation Treaty

A network of organizations, led by Campaign 1995 and Peace Action is linking work for non-proliferation and against community violence under the theme “Stop Weapons, Stop Violence.” A citizens assembly in New York at the time of the NPT Review and actions across the US are being planned. Two coalitions are in the process of being organized. The “New Nuclear Coalition” was initiated by the International Association of Lawyers against Nuclear Arms, International Network of Engineers and Scientists for Global Responsibility, the International Peace Bureau and International Physicians for the Prevention of Nuclear War. (Contact IPB, 41 rue de Zurich, 1201 Geneva, Switzerland (42-22) 731-6429. The Stimson Center, 21 Dupont Circle N.W., 5th floor, Wash., D.C. 20036, (202) 223-5556 has launched a US based coalition.

Hiroshima and Nagasaki

Many initiatives have begun, and many more will be developed. The best current listing of initiatives and resources is in Campaign 1995’s newsletter. Nevada Desert Experience has called for an “International Year of Reflection and Action” which will be punctuated by an “Atomic Mirror Pilgrimage from Chimpao, New Mexico—the site of the Trinity test—to Hiroshima, with additional stops including the Nevada Test site. The monks of Nipponzan Myohoji are organizing a walk from Auschwitz to Hiroshima. Contact Sister Clare or Ven. Kato at the Peace Pagoda, 10 Cove Hill Rd., Leverett, Mass. 01054 (413) 367-2202. The American Friends Service Committee is organizing a youth delegation to Hiroshima and Nagasaki in the summer of 1994, with a reciprocal tour of Japanese youth and A-Bomb survivors being discussed for 1995. Many Japanese organizations will be organizing commemorations and related actions. Nihon Hidankyo is the Japan Confederation of A & H Bomb Sufferers Organizations, 5-31-7 Shimbashi, Minatoku, Tokyo, Japan.

Joseph Gerson
March 15, 1994

NEW CONTEXTS, NEW DANGERS:
CONFERENCE RESOURCES

Videotapes of the "New Contexts, New Dangers" conference available from the AFSC Film Library

| VIDEOS: (see below) rental, $10; sale, $25 |
| CONFEREnCE PACKET: $5.00 including postage |

The following six key portions of the conference have been videotaped and are now available individually or as a group for rent or purchase from the National AFSC Film Library in Cambridge:

- Preventing Nuclear War in the Post-Cold War Age
  - Daniel Ellsberg

- Collective Security for the Post-Cold War Era
  - Randall Forsberg

- Beyond the Mythology: Threats and Dangers of Nuclear Weapons in the Post-Cold War Age
  - Virginia Gamba, Sergey Rogov, Paul Walker

- Dangers of Nuclear Weapons Proliferation
  - Lisbeth Gronlund, Kosta Tsipis, Mónica Serrano

- Confronting the Legacy: Production of Fissile Materials and the DOE Infrastructure
  - Grace Thorpe and Arjun Makhiajani

- Preventing Nuclear War Means Preventing All War
  - Admiral Eugene Carroll

The AFSC Film Library also maintains a collection of 900 videos, films and slide shows on over 30 separate topics including many related to the issues raised in the "New Contexts, New Dangers" conference. Programs are loaned out or shipped locally and nationally for donations ranging from $10 to $30 per program. The Film Library also provides a home video lending service for $2 per day.

OTHER VIDEOS THAT MAY BE OF INTEREST ARE:

- Haiti: Killing the Dream—an important new hour-long film on the present crisis in Haiti, the repression under military rule, the role of the popular movement in bringing President Aristide to power and the history of Haiti. Special focus is given to the past and present role of the US in Haitian affairs.

- Sadako and the Thousand Paper Cranes—the true story of the young Japanese girl who became a symbol of peace for the people of Hiroshima and all Japan. Thousands of drawings are used to tell both this poignant personal story and the history of the atomic bombing of Hiroshima. The "children's book" format makes the video excellent for children age 8 and up to watch with adults. Also appropriate for adults.

- Summer of the Bomb—a dramatic recreation of the decision to use the bomb against Japan that unmasks the lie that the bomb was needed to end World War II and examines the real rationale for its use.

- Panama Deception—Academy Award winning documentary that exposes the deception and devastation of the US Invasion of Panama at the end of 1989.

- Hiroshima-Nagasaki 1945—the original black and white footage (suppressed for many years) of the US atomic bombings of Japan

- The Last Empire—16mm film that provides a gripping history of US military intervention and nuclear threats related to those interventions.

Videos of Noam Chomsky lectures:

- Free Trade and Democracy: Noam Chomsky and Hilda Salazar Ramírez' presentation on NAFTA at M.I.T. in 9/93.

- New World Order Debate: Noam Chomsky is at his best in this debate with W. Scott Thompson at the University of Lowell right after the US victory in the Gulf War. Chomsky completely refutes the conventional wisdom on the war and carefully unmasks myths about US foreign policy by looking at numerous case studies from East Timor to South Africa.


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