First of all, I would like to thank the organizers from IEER and, especially, Dr. Arjun Makhijani, who invited me to be here. Second, I would like to invite you to share with me a minute of silence because today is the anniversary of the Chernobyl accident. (Silence.) Thank you. The issues being discussed here - nuclear weapons, what is going on in this specific NPT conference, nuclear doctrines, and new types of nuclear systems under development - can bring the world to a much worse disaster compared to Chernobyl.

Today, I would like to talk about the revolution in military affairs and also a little bit more broadly. My presentation consists of four parts. First, I would like to outline new threats to international security and stability. Second, I will describe some issues related to ratification of START II and the CTBT by the Russian Duma, with links to the ABM treaty and the National Missile Defense story. Third, I would like to give you some hints about the new Russian concept for nuclear security, which was recently adopted and approved by the elected President, as well as about the military doctrine, especially the part of the document related to nuclear weapons. Then finally, I would like to share with you my understanding of the new challenges to the NGO community, and what needs we have for redesigning our strategy. From my point of view, the new aspects of nuclear development in the world demonstrate the failure of NGOs.

What about the new threats? I would like to say that in the last decade, and especially in the last three years, the world community has observed new threats for international security, including local armed conflicts, international terrorism, and military separatism, which offer, as the Foreign Minister of Russia Ivanov said in his speech to the delegates of the 2000 NPT Review Conference, "a nutrient for the proliferation of nuclear and other types of weapons of mass destruction and their delivery means." Kosovo, Chechnya, Iraq, and North Korea are very clear examples of such threats. The world community still has a lot of room to develop appropriate means for resolving these types of conflicts. It seems to me that the use of forces by developed countries is definitely not the best solution in all situations, in Chechnya as well as in Kosovo. I would like to remind you what Mr. Ivanov also said during his speech: "Misappropriation of the
right to use force in violation of the fundamental principles of the UN Charter and the international law is equally dangerous. This is, in fact, a direct invitation to a new arms race on the planet."

The second threat, and this is also a quote from Ivanov's speech, is "a tendency to undermine the existing system of strategic stability and the attempt to build national stability at the expense of the interests of the other states." This is the real threat that we are now facing. The ABM treaty and National Missile Defense debate is a very good example of this threat, but not the only one.

The third threat is the emergence of a new military revolution, or the emergence of technology called the revolution in military affairs. The new technical capabilities of conventional weapons are becoming as effective as nuclear weapons, for instance, in the case of their precisely guided use against deep underground military facilities. If you keep in mind this new type of threat, it is clear that the nuclear arms reduction process is in danger, as some nuclear weapons states and the so-called threshold nuclear states are not yet able to compete with the U.S. in the field of precisely guided missile systems. I will elaborate a little bit on that later on.

Let me start with the description of what happened at the NATO summit last year. You know that the new strategic concept was adopted about one year ago. According to this new strategic concept, there are four initiatives. First, the Defense Capabilities Initiative is aimed at adapting conventional forces for new missions. This is directly connected to the revolution in military affairs. (One of my Russian colleagues told me that this term "military revolution" was taken from the Soviet literature, but I haven't checked it yet.) Second, the Weapons of Mass Destruction Initiative is aimed at increasing military readiness to counter weapons of mass destruction. Third, the European Security and Defense Identity Initiative is aimed at creating "separable" forces and sharing NATO assets with the western European Union in collaboration with the U.S. through NATO. In addition to these initiatives, the Membership Action Plan creates the NATO open-door policy. The new NATO countries are already close to the Russian border. All of these developments, of course, create some increased concerns at various levels of Russian society. Let's take just this Membership Action Plan. According to the NATO Charter, it will be necessary to rebuild the military infrastructure in the new NATO members to create the opportunities for them to be involved in any military operation. This means that very soon, at the border of Russia, Russia and its allies will observe a new arms race.

What happened in Kosovo last year showed me that NATO is definitely transformed by this specific action into a military political formation, with vaguely defined responsibilities and clearly aggressive offensive intentions. First, inside of this strategic concept is their so-called "out of area" NATO missions. It means that NATO can use its forces out of the area of their responsibilities. However, there are no adopted regulations on how they will apply their forces in such cases. Procedures and rules are not clearly defined. The procedure for the NATO approval should at least be codified. If they would like to use this procedure, then their compliance with international law must be justified somehow. Lawyers from many countries showed that NATO violated not only basic international agreements, including 1975 Final Act of Conference on Security in Europe, the OSCE Helsinki Act, but also basic principles for international security were broken. It seems to me that we need to keep in mind all these developments.
We should at least understand that, in the so-called Russia-NATO Founding Act, Russia was invited to be a partner with NATO. But when the decision was made about NATO expansion, Russia was not invited to discuss or participate in this decision-making process. Given the political rhetoric about the NATO and Russian partnership, such a NATO transformation will only worsen the situation at global scale and even within Russia because my country now has a GNP that is 10-12 times less than the U.S. Can you imagine that? Even so, Russia would like to keep some kind of parity with the U.S. It will be a heavy burden on the military part of the budget, and on the budget itself. All the above mentioned negative tendencies, along with the NATO air diplomacy in Kosovo, I consider as a great gift for the Russian hardliners.

It seems to me that what happens also undermines the process of nuclear disarmament for the indefinite future. As an outcome, the world will observe an expansion of the Nuclear Weapons Club. For example, the United States Air Force in Europe controls dual-capable fighter aircraft as well as physically possesses 150 nuclear bombs located in 10 nuclear weapons storage sites in seven European countries. This is a result of the so-called nuclear sharing policy. Yesterday we already discussed this, so I will not go into details. But nuclear sharing is also question mark: what is it, and how does it fit to the NPT and the NATO-Russia partnership?

Now I would like to talk a bit about the revolution in military affairs. The information technology offers advanced military organizations the ability to locate, identify and track a far greater number of targets over a far greater area for far longer periods of time and to engage those target with far greater lethality, precision, and discrimination than has ever before been possible. This is according to the paper written by Dr. Kosiak in the Bulletin of Atomic Scientists. The emerging revolution in military affairs clearly means that conventional weapons have begun to catch up to the nuclear ones due to critical advances in the effectiveness of precision-guided munitions, stealth, and the electronic means of cloaking aircraft or missiles from enemy detection. A conventional precision strike capability can be employed with the same speed and effectiveness as a nuclear strike. It constitutes a new option. This has also been written about in many military papers.

I would like to stress to you that, and maybe Michael Klare will support this, the only country that can use all these facilities is the U.S. and, of course, NATO countries because this alliance gives them the opportunity. In fact, the U.S. military leadership plans to field an integrated group of networked systems, called architecture, that could rapidly execute conventional precision strikes against an adversary. It involves linking airborne and space information platforms, as well as unattended ground sensors to provide near-real-time targeting information to long-range precision-guided munitions (PGMs) or platforms carrying PGMs. This type of strategic strike capability might also include what some specialists call "electronic strike forces." Electronic strike forces, such as computer viruses, logic bombs, high-power microwave generators, or conventional electromagnetic pulse munitions, might become increasingly feasible as a means to disable both strategic military targets and critical elements of newly emerging information based economies. I have a list of the conventional capabilities that are under development or already available in the U.S. These are:

- conventional air-launched cruise missile and stand off PGMs;
- hypersonic air-to-ground missiles to more effectively attack mobile targets and deep
underground facilities;
- long endurance weaponized aerial vehicles;
- broad area conventional electromagnetic pulse and high-power microwave; and
- immature warheads incorporating advanced high explosives (5 times higher than recent ones).

Advantages of these non-nuclear strategic strikes are so much greater. It seems to me that very soon Russian strategists will also be involved in restructuring Russia's conventional forces in order to properly protect the reduced nuclear arsenal against new types of threat from conventional precision strikes. I guess that we already have started - at least according to some articles that I read by Russian military specialists.

What are the issues related to the second threat? I would like first to come to the topic that I prepared before I left Russia, because it is important to give to you the information about what and how the law on ratification of START II was approved by the Russian Duma. I would like to stress once again that it was extremely important for me, as a member of the Nevada-Semipalatinsk Movement, when the Russian parliament ratified the CTBT. This was a very good event because 298 votes were in favor compared to 74 against and 3 abstentions. It seems to me that this ratification is extremely important for Russian anti-nuclear activists. Not only for Russian but for NIS activists living in Kazakhstan, who were involved in our activities against nuclear tests during the years when we launched the movement. Then we succeeded in imposing a moratorium on Soviet testing and finally in shutting down the Semipalatinsk test site. It seems to me that now we are now approaching the final work in this very narrowly defined area of NGO activities. Unfortunately, anti-nuclear activity now in Russia is not so broad as here in the States.

The second point is to give you some information about the structure of the Russian law on START II ratification. This is a really very interesting document. About five years ago, the Carnegie Endowment had a conference in Moscow on START II ratification. The original text of the treaty and some Protocols were written in 1993. Among those who participated in the discussion and delivered the invited papers were Dr. A. Arbatov, who is now a member of the Defense Committee of Russian Duma, Ambassador Yu. Nazarkin, who was involved in initiating negotiation on START I with the U.S., Dr. R. Jones from the U.S., and me. When I found the 2000 Law on ratification and what were the reservations made by Russian Duma and I compared it with the version of my 1993 paper, I was happy to find that some my proposals were imbedded now into this law. It's interesting, because we had no chance to pressure the Russian Duma during the legislative process.

What are these reservations contained in Article 2? I will just read it to speed up the process. Extraordinary events, giving the Russian Federation the right to withdraw from the Treaty in exercising its national sovereignty and in compliance with Article 6 of the START II treaty shall be: "(1)...breach of the START Treaty on the part of the United States. (2) The United States of America withdrawal from the IBM Treaty or its infringements." The other six I won't read, just the last one - "Extraordinary events of economic and technical origin which make it impossible for the Russian Federation to fulfill its obligations on the START II Treaty or jeopardize the environmental security of the Russian Federation." I would stress to you this last point. You
know why...because we have already very bad experience with chemical weapons convention implementation in Russia. If Russia be obliged to implement this Treaty without proper financial and technical support, it will be done at the expense of the environment and human health. I am very worried about these aspects.

Observers and correspondents pay a lot of attention to Article 9, which says that "The exchange of instruments of ratification of the START II by the Russian Federation shall be done upon completion by United States of America of the procedure of ratification of the START II Treaty, including the Protocol Relating to the START II Treaty of September 26, 1997, done at New York, Memorandum of Understanding Relating to the ABM Treaty of September 26, 1997, done at New York, First Agreed Statement Relating to the ABM Treaty of September 26, 1997, done at New York, Second Agreed Statement Relating to the ABM Treaty of September 26, 1997, done at New York, Agreement on Confidence-Building Measures Related to System to Counter Ballistic Missiles other than Strategic Ballistic Missiles of September 26, 1997, done at New York." This means that the Duma conditioned much of the implementation of START II. Up to now, as far as I know, the Clinton Administration has not yet transmitted the 1997 START II ABM Agreements for the Senate approval. And I would also like to say that there is the Law on Ratification Relating to the ABM Treaty. It is interesting to compare that document (it consists of just one sentence with no reservations) with the law on START II ratification, which is a seven-page document.

The next topic hints about the ABM Treaty and what problems we have. According to the text of this treaty, Article I says, "Each party undertakes not to deploy an ABM system on the territory of its country and not to provide a base for such a defense and not to deploy an ABM system for defense of individual region except as provided by Article 3 of this Treaty." Of course, the plans for deployment of National Missile Defense is in violation of this specific article.

The U.S. Administration says that the system will be designed to protect all 50 states from attack by several dozen warheads carried by delivery vehicles of the so-called "rogue states." I do not understand what they mean by "rogue states." I brought with me the list, in Russian unfortunately, of the countries that possess some capability for delivering nuclear weapons (if any). Almost all of them possess vehicles of low range, short range, etc. While in the U.S., I found the same type of material in English recently released by the Coalition to Reduce Nuclear Dangers and the Council for a Livable World Education Fund. There is a very interesting table entitled "The Missile Threat to the United States: Dominated by Russia." If you look at the list of countries that are given in the table and numbers of delivery vehicles and warheads they possess, you will see that for Iraq, all cells in the table (ICBMs, SLBMs, bombers and corresponding warheads) are zero, zero, zero. Iran: zero, zero, zero. The same picture for North Korea: zero, zero, zero. You will see slightly different numbers for Pakistan (zero in all cells, but the number of warheads (including tactical, hedge) that can be made is 30) and India - 60.

Israel is mentioned as a country that possess 200 warheads. However, up to now no one has called it a "rogue state." And I hope it will never happen. The United Kingdom, France, China and Russia all have the capability to deliver their nuclear warheads around the globe, but, I am sure, they will never use it. In other words, there is no reason for the U.S. to worry about the capabilities of so-called "rogue states" to attack the U.S. territory. Then a question arises - what
will the NMD system do? The only reasonable answer is to help nuclear military industrial corporations to make profit by getting money from the Federal Budget.

I would like also to share with you my last point. The Pentagon plans to test the space-based laser weapon in 2012. For this purpose a missile of 23 tonnes is going to be deployed in space. Such an event will be nothing but the violation of many international treaties. As far as I know, the combat antimissile laser will consist of 50 nuclear energy driven lasers. A prototype for it was developed at Livermore in 1983 as a part of the Strategic Defense Initiative unveiled by President Reagan.

In 1983, the Soviet Union began an asymmetric response to the development of the Star Wars system in the U.S. At that time, the Soviet Union developed a ground-based compact laser located in Sary Shagan in Kazakhstan. It was even used one time in October 1983 when the Challenger crew in orbit were observed by specialists on this test site to be flying over the test site several times. They decided to apply this laser for detection purposes in order to warn the U.S. crew to not fly over again. The Challenger commander wrote later that their communication failed and some equipment went out of order. There is also the story about the sea-based laser, a combat laser, which was developed by the Soviet Union and installed on a ship in the Black Sea. In 1995, when Ukraine decided to sell this particular ship to the U.S. as scrap metal, the U.S. found several facilities on board that were related to this laser, but not the highly classified parts. When the Black Sea fleet was split between Ukraine and Russia, Russian specialists had dismantled the most classified parts. Nevertheless, it was sold to the States and, after dismantling the parts which were left, the U.S. Department of Defense classified it all again. These recently declassified data show that both the U.S. and Russia possess scientific knowledge and know-how to build a quite effective space-based and sea-based lasers.

Although I expected to talk about military doctrine today, it seems much more important for me to share with you my thoughts on what I'm calling the "Need for Redesigning the NGOs' Strategy." Yesterday, Chris Payne made it very clear that the rejection of the CTBT by the U.S. Senate was the fault of NGOs and research think tanks, who were never really involved in educating the Senators on how important to ratify that treaty. A lot of the dangerous developments for the international security and stability require NGO to change our strategy. I will list just a few activities of traditional NGO's and scientists prior to the Kosovo crisis:

- ending nuclear testing
- freezing nuclear weapons programs of threshold countries
- extending the NPT
- promoting weapons-free zones
- working on non-proliferation issues
- opposing vertical and horizontal proliferation
- watchdogging nuclear materials
- dispositioning of military uranium and plutonium
- designing and promoting a Nuclear Weapons Convention
- insisting on public involvement and verification of what is going on in the nuclear complex.
But now, we have new challenges. First, it seems to me that now the system of international law is somehow being redesigned. There are many parameters of this new system (before the globalization) and a new international legal system should be very carefully attended and challenged by NGOs.

Second, it seems to me that we need to extend our activities on all stages of the stockpile life cycle, including the disarmament measures. I tried to use some words that were opposite to the life cycle, such as "deploying" - "defusing" and "targeting" - "detargeting" and so on. We need to be involved more in all of these stages.

Third, it seems to me that we need to connect technical goals, such as detargeting, de-alerting and all the other goals of nuclear disarmament to restraining space-based and precision-guided nuclear weapons development. I began my talk from that point. If the capacity of these new types of weapons are approaching the effectiveness the nuclear weapons through the revolution in military affairs, then we need to address that. Otherwise, Russia will never disarm.

Finally, the NATO challenge, which I have already talked about.

Thank you.