

*re: Nunn-Lugar*

National Academy of Sciences  
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I want to say to John Deutch, before the beginning my remarks, it is great that you are going to bring a sense of humor to the CIA; they need it now.

I want to thank Jane Wales, the Office of Science and Technology Policy, the Council on Foreign Relations, the American Association for Advancement of Science, and others who have participated in putting this program together.

I endorse everything Dick Lugar has said. We have seen this eye-to-eye from the very beginning, and I think that is the reason this program has had the kind of support it has enjoyed on Capitol Hill.

The subject today is of immense importance and there are very few jokes that go with it, but there is a true story that I guess I can tell to this audience about a Republican senator. I will not name him, but he was elected a few years ago. He had a press conference the morning after his election, and the news media asked him what his top priority was. He was a little flustered. He said, "I have thought about it a lot during this campaign and decided my top priority is to prevent my beloved state from becoming a nuclear suppository."

We do not want this wonderful world to become a nuclear suppository either, and that is what we are all about here today. I have been asked to give you a brief summary of the history of this program, and I can do so by telling you a little bit about why I came to the conclusion that something like this was needed.

My own experience started in 1975. I went to Germany and toured some of our tactical nuclear weapon facilities there at the request of Senator Stennis, who was Chairman of the Armed Services Committee. I came back after a very revealing -- I would say almost shocking -- experience. As I was getting the normal tour that generals give in the Department of Defense, I was told that these nuclear facilities were perfectly safe and everything was wonderful. A guard handed me a note and said, "Senator Nunn, there is a lot that you need to know. Please come by my barracks so I can tell you, anytime after five o'clock." Well, I thought about it, and then decided to do it. I went by the barracks and I had an eye-opener because everything was wrong with the nuclear security at those tactical nuclear bases.

First of all, we had a demoralized military coming out of Vietnam: A lot of alcohol and tremendous drug problems. A

number of the people who were guarding those weapons were on drugs, I was told. I went back and I looked at the physical security, too. That was a big problem.

When I came back, I did not go home when I got off the plane at about four o'clock in the afternoon. I went directly to see then-Secretary of Defense, Jim Schlesinger, and gave him a full report, because I felt that something had to be done very quickly. We were very vulnerable to having just a few terrorists, well-organized, come in and actually take over a facility guarding nuclear weapons in those crucial countries in Europe at a time when it would have been devastating to our national security and probably to our nuclear deterrent. That was my first eye-opener.

We had a number of hearings in 1982 and 1983, but we had them all during the 70s, also. I slowly but surely was coming to the conclusion that perhaps the greatest danger that confronted us was not an all-out first strike by the Soviet Union, but rather some kind of accidental nuclear launch or some Third World country launching a missile or a submarine missile that would start a war between the two super powers.

I asked Dick Ellis, who was then General Dick Ellis with what was then the Strategic Air Command, to give me a summary of the United States ability to detect the origin of a nuclear strike. I do not mean by that an all-out strike. That would have been obvious. But one or two weapons -- even some being delivered by submarines. I asked him whether we would know where such a strike came from and what the origin was. He gave me a somewhat ambiguous answer. He said he did not have a real study on that. So I asked him to go back and look at what the United States could do to detect the origin of nuclear strike and what the Soviet Union could do.

He took it very seriously and spent about six months on it. He put some of his best staff people on it. I went to a classified briefing -- some of it was later declassified; some of it is still classified. The bottom line was we were fair in our ability to detect the origin of a nuclear strike. The Soviet Union was much worse. That was not comforting.

I came to the conclusion out of that, as did General Ellis and all the staff working on it, that we had a real stake in the Soviet Union's ability to detect the origin of a nuclear strike. It was no comfort that their intelligence was not as good as ours and that their means of ascertaining the origin of the strike was not as good as ours. In fact, it was more concerning than if it had otherwise been the case. Because, if they thought that a strike -- let us say from a Chinese submarine -- against the Soviet Union came from the United States, then we can all imagine what might have happened in the 1980s.

Out of that I came to the conclusion that this whole nuclear business was not a zero-sum game and that we had better stop treating it as such.

The next event that had a real impact on my thinking was in the then Soviet Union. I was there about four or five days after Gorbachev returned from the August 1991 coup attempt. I had a long meeting with him, and during that meeting I kept coming back to the question of nuclear control during his captivity or his semi-imprisonment. He kept giving me somewhat glib and not very thorough answers. It was obvious to me he was very uncomfortable about the whole subject.

About that time I concluded that we had to start doing something. It was apparent that the Soviet Union was coming apart and that we had better start working with them to be able to help them control their own weapons. We had a vital national security interest in doing that.

To make a long story short, about the time I was concluding that, Les Aspin was concluding that we needed to help them at that stage with some emergency food shipments. We had passed the House bill on Armed Services. We had passed the Senate bill, and we were in conference. Les proposed that we do something on emergency food shipments. I proposed that we do something on the overall question of helping them control their own nuclear, chemical, and biological weapons.

We came up with a conference report that included a provision and money for both purposes. It was not well received -- there was tremendous opposition. There was legitimate opposition, because it had been in neither bill -- not a good habit. I felt it was an emergency and it was justified. Nevertheless there was substantive opposition because people felt that we were helping the Soviet Union. We had all sorts of people come out against it on the floor. The bottom line: Les and I decided in prudence that we needed to go back in conference and take it out; we did. This was in late September.

Then, in early November, Ash Carter gave his report on nuclear weapons security in the USSR, which I understand was financed by Carnegie. The topic of your conference is how science and technology can assist in making the world more stable. This was a science and technology project done by Ash Carter at Harvard and financed by Carnegie.

That report had an astounding effect. Dick Lugar and I got together. I knew that Dick had tremendous influence on the Republican side, tremendous influence in the Senate, and in the country. We really formed a partnership. Ash Carter presented his report to us. We then brought in other senators, and within about three to four weeks we had built a consensus.

A proposal, which in an earlier stage received overwhelming opposition on both the House and Senate side, became one that was widely accepted. It became known as the Nunn-Lugar proposal. We passed it about six or eight weeks after it had been overwhelmingly not voted on, but rejected in terms of voices on the floor on the House and Senate. It became known as the Nunn-Lugar program, and that was the beginning of what we are here to discuss today.

There has been a lot of talk in the media about how slowly implementation has occurred, but it has been very effective -- even when the money was not being spent. It created a psychology that focused the Russians and others on their own problems. It calls them to be much more attentive, as Dick Lugar has already said, to their own problems -- to make them a priority because they knew that we thought it was important and they knew there was some money, at least in pipeline.

Why was it slow? First of all, this was not an Executive Branch initiative. Whether a Republican administration or a Democratic administration, things that do not originate in the Executive Branch are not always treated as high priorities. We have noticed that over the years. The Bush Administration was rather cool to the idea at first. They were not opposed to it; they were simply cool to it.

The second reason, was because of the stage of the proceedings and because we were trying to get the money any way we could, we had to authorize transfer of money from other DOD programs into this program. We did not give them what we would call "fresh money." It was transfer authority, and that meant they had to cut something else. So they had to find the money somewhere else in order to transfer it, and that is always a problem in terms of Congressional initiatives.

The third, and maybe the most important reason, was that the breakup of the Soviet Union left the "nuclear" successor countries in a situation where they did not have the kind of coherence or the kind of governance that would allow them to make tough decisions in these areas. The Nunn-Lugar program did start off slowly, but it has been a very solid success and an example of how we are going to have to use innovative ways to deal with these unprecedented problems.

This is the first time in history that an empire has broken up that had in its possession over 30,000 nuclear weapons, over 40,000 tons of chemical weapons -- that is very conservative estimate -- and an undetermined number of biological weapons.

It is also the first time in history that we have had an empire break up where there were thousands of scientists that knew how to make these weapons of mass destruction, conventional

weapons that have tremendous implications, weapons that could get into the hands of terrorists, and missile technology. It is the first time we have had thousands of scientists in that part of the world not knowing where their next paycheck was coming from, also knowing that their services would be in great demand in a number of rogue nations in the world and certainly with a number of terrorist groups.

One of the first contests in the period after World War II was which side was going to get access to the German scientists. We got more of them than did the Soviet Union. We are in a comparable period right now, but we have not focused on it as much as we should. Bill Perry will go into more details about what has been done.

If we could develop a weapon that would basically cause three nuclear states to give up their nuclear weapons, how much would we pay for it? The Nunn-Lugar program has done that. Belarus, Kazakhstan, and Ukraine have given up -- or are in the process of giving up -- their weapons.

If we could develop a weapon that would get rid of 2,500 strategic nuclear warheads which have been removed from the launches, how much would we pay for it? If we could have a weapon that would get rid of four regiments of SS-19s that were aimed at the United States, how much would we pay for it? If we could develop a weapon that would get rid of 600 launches physically, how much would we pay for it? If we could develop a program that would employ in a gainful way some 5,000 former Soviet weapons specialists, what would it be worth? A great deal, I think many, many times more than we have spent of the Nunn-Lugar program. Thank you.

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Questions and Answers

John M. Deutch (JMD): The Nunn-Lugar effort addresses an issue of broad international interest. To what degree have our allies taken actions of substance in this area, including commitment of resources? If the answer is none, why not? What is our position on pushing this issue with our allies?

William J. Perry (WJP): The one area where we have had substantial support from allies has been in a program we have not described to you this morning, but it is an important and integral part of what we are doing here. This is setting up a science center in Moscow and Kiev to provide employment in nonweapons areas to nuclear scientists and technicians who were employed in the former Soviet nuclear program.

The objective of this program is to keep these scientists from wandering out of Russia into Libya, Iraq, and Iran by giving them alternative means of employment. We know for a fact that there is intensive recruiting going on in Russia to try to hire these scientists. This program was set up for that purpose and, it has substantial support from two of our allies. More of the half of the total support for it comes from allies.

Sam Nunn (SN): If I could add to that, I think we need to push that part of it. The Nunn-Lugar program focuses mainly on chemical, biological, and nuclear weapons and scientists who are dealing in those areas, as well as missile technology. I think we need a much broader look at the Soviet scientific community. I mean by "Soviet" the former states of the former Soviet Union, not just Russia.

At the national level we need to encourage every university and scientific group in this country during this crucial period. So many former Soviet scientists are really without means to sustain themselves and their families. We need to get them over here and have our people over there. We need a maximum exchange program. I would like to see every university that is involved in research in the United States have former Soviet scientists on board for the next year or two, maybe on a rotating basis. We need to have a national initiative in this regard. It will be a colossal failure of initiative if we let these scientists end up dispersed all over the globe doing all sorts of things that may not contribute to world stability.

JMD: Why has United States funding for United States/Russian scientist-to-scientist cooperative research been so meager and so

slow in coming. Can and will this change? It seems that there is an ambiguity in Congress about their willingness to see Nunn-Lugar program resources used for scientist-to scientist programs. Is that correct, Senator Nunn?

SN: We had to draw that program in a narrow way so that it would be aimed primarily at weapons of mass destruction. The further away you get from that, the more you jeopardize the program. This program is not sufficient. It is a very good start, but we either need to broaden some of its own applications, or we need to create other funds that would go beyond the weapons of mass destruction and scientists involved in that. That is what I was just alluding to. We need a major program, because there are all sorts of conventional weapons that can be used almost like weapons of mass destruction, and there are all sorts of scientists over there that know how to make conventional weapons or soon could. They have tremendous scientific talent in those former Soviet Union countries.

Richard G. Lugar (RGL): Saying that it was narrowly drawn certainly describes the situation politically. A good number of senators on both sides of the aisle were hostile. We drew up a program that targeted weapons of mass destruction, and it was a chaotic situation. We could not sell it.

From that point onward, we all learned much more about the conversion situation and about the science situation. We visited with a lot of these people. This was sort of hands-on, on-the-ground type of operation, not legislation from afar. We have been working with our colleagues ever since to try to think through and understand what all is involved in this. That is why we come to you today with an appeal to help us. There has to be a much broader American understanding of our security interest. It clearly affects these scientists as well as transparency and accountability. I often see in my mind a large vat with all the highly enriched uranium which we know is there. You can count it and see it in both the United States and in Russia, and then we put pressures on others for accountability, working from the strength of that relationship with the Russians -- which is considerable amidst of all the headlines about turmoil and pragmatic politics and the end of the honeymoon. We have our work cut out for us. It is always missionary work, both here and abroad.

SN: We have got a situation right now that will come up in the next week sometime. The logic will be that if Russia goes forward with the sale of reactors to Iran -- which the Administration properly opposes and I think we need to vigorously oppose that -- that we ought to cut off Nunn-Lugar and all other funding. I suppose the logic is if we are going to see Russia sell weapons to Iran, we also want to keep Russian weapons pointing at us. That is the only logic I can see to cutting the

Nunn-Lugar program as a retaliation. It would be an act of destruction in terms of our national security, but that is the logic we are in right now.

I think we have amendments on the floor of the House and Senate to cut off every single bit of aid to Russia based on this Iranian sale of reactors probably within two months. So we are really going to need the scientific community. I see this as similar to the time after World War II, from 1945 to about 1950. We are in a very formative period in terms of the next 20 to 30 years, and what we do in the next couple of years is going to determine a great deal about the future of our children and grandchildren.

We have never had a crisis like this in terms of the challenge, and we probably never had less public understanding about the nature of this challenge. It is a proliferation challenge of tremendous magnitude, but it is not commonly understood. I have never yet had an audience that I spoke to that did not understand it when I got through explaining it. It is something that is not hard to explain. It is awfully hard to have access to the media to get the mass information out there, and I think we are really going to need the scientific community to help explain the context of where we are in this point of history.

JMD: In these days of budgetary authority and deficit reduction efforts in Congress, is Congress willing to provide the funds needed to make the Nunn-Lugar successful? What steps can be taken to improve the program presentation to Congress in this regard?

RGL: One of the purposes of our panel today is to try to gain a larger forum. As Senator Nunn said, we need a mass understanding of the criteria and priorities of this. I think the budget situation will be a very difficult battle. We are bound to have an ongoing debate throughout the entire end of the year. We may revisit it again and again, but I think we are of a mind that this is vital to our national security, and therefore it needs to remain at least at the current level of funding. That certainly will be our quest in a bipartisan way.

JMD: How about the balance between the chemical and biological efforts and nuclear efforts in Nunn-Lugar, Senator? Is there a sense of what you think that balance should be?

SN: I think that it is not as balanced as I would like to see it. More focus has been on the nuclear side -- mainly because the Russian nuclear side has been more willing to work with us as have the Kazakhstan, Belarus, and Ukraine nuclear side. The chemical side has been more difficult because of the personalities of some of the people we are dealing with.

To me, the chemical side is the area where the whole world has much at stake. The Tokyo subway tragedy was a good example of what I am afraid may be the terrorist choice of weapons in the future. I think the chemical side deserves a great deal of attention, not just in the program but worldwide to determine how we are going to try to deal with this situation. Biological is much more difficult, because the Russians basically do not acknowledge some of the things that we suspect have happened in the biological area. We are not quite sure how much some leaders really know about that, but Bill could probably take it from there.

WJP: The situation is as Senator Nunn describes it. In the last four to five months we have made some real progress in the chemical area, particularly in assisting the destruction and demilitarization of chemical weapons. I see that as a potential major breakthrough in the chemical area.

There is very great potential for conversion in the biological area. We have not made progress there, because we have not been able to get a full and open discussion of what the biological program is (or was) or how it could be dismembered. I am by no means pessimistic on that. I have continued to work that program, and I continue to believe we will have success there. In sum, most of the progress has been in nuclear. Just in the last few months we have started a major program in chemical demilitarization. The biological program is important, but there is no progress to date. We must still continue to try.

JMD: Slowness in initial implementation of the Nunn-Lugar program resulted in a negative psychological effect in states of the former Soviet Union, since their hopes were first elevated and then dashed. What is the impact of the slow implementation on expectations in the states of the former Soviet Union?

WJP: That is a very good point. Expectations were not only higher than we have achieved, but probably higher than we ever had any possibility of achieving. In just the six months, there have been substantial projects started in this area. One of the purposes of my visit over there is to highlight them to the Russian and Ukrainian public so they can see the progress that is being made in this area.

We have joint ventures now underway that are actually manufacturing dental equipment, manufacturing air traffic control equipment, bottling soft drinks, and conducting scientific research in areas of interest in the medical field. All of these programs are now underway. We see tangible progress coming out of it, so I think that highlighting these programs will be a substantial help.

In terms of expectations, we are talking about a relatively

small amount of resources to deal with a very large problem. The 20 percent or so of the Nunn-Lugar funds amounts to about \$80 million a year dealing with a defense industry which is substantially larger than the United States defense industry -- it spent tens of billions of dollars a year for defense programs.

From the beginning we have taken the position -- and have tried to explain to the Russians -- that the Nunn-Lugar program cannot convert this defense industry. We do not have enough resources to do that. We can only serve as a model for how the conversion should take place and as a magnet for attracting other funds.

The real test will be whether these small model programs we started, the pilot programs, are successful in attracting large sources of private funds. I am taking with me on this trip, ten CEOs of major United States companies who either have investments in Russia or in Ukraine or are contemplating making major investments focused on defense conversion. I am also taking Ruth Harkins with me, who is president of OPIC, the Overseas Private Investment Corporation. She has set a fund of \$500 million specifically for investments in defense conversion in those countries.

This provides the amplifying funds necessary to follow up on what I would call first-round seed capital investments being made with Nunn-Lugar. From a venture capitalist point of view, the venture capitalist makes the seed capital investments, but then some large source of funds is needed to come in for the second and third rounds of investments. That is what we see coming from private industry and OPIC. The purpose of bringing the CEOs and OPIC along on this trip is to let them see with their own eyes the early stages of what we are doing with Nunn-Lugar so that when the second round of investments -- much larger sources of funds -- become necessary next year, they will be there and they will be ready.

The expectation problem has two aspects to it. First all of, we were slow getting off the block, for the reasons that have already been discussed, but we are now functioning. Secondly, and more importantly, we are only a small part of what needs to be done. The second and third round of financing is still ahead of us, and we are trying to accelerate the date. We hope to pass the baton quickly and efficiently from what we are now doing on Nunn-Lugar to private and OPIC-type investments, which will make the second and third round.

JMD: There is a widespread impression that the Defense Department is not very interested in conversion of the defense industry in the former soviet Union to civilian purposes. How broad do you make this Nunn-Lugar effort in the Defense Department?

SN: If I had my way, I would make it very broad. I think we are in a crucial period of time. The more we can give them the incentive to convert their own defense industry, the better off the world is going to be -- whatever regime may emerge two, three, or four years from now.

Looking at the reality on Capitol Hill, to enlarge the purposes of the Nunn-Lugar program or to move much further down the line on defense conversion than we have already gone would jeopardize the whole program. I do not want to jeopardize the whole program. I think we have got to keep the core program focused and narrowed toward weapons of mass destruction. I think we have to make sure that everyone understands it is not a perpetual program -- that we are going to have it expire around the turn of the century. If we do not, the whole program could be shot down in the atmosphere we are in at the moment.

Yes, we ought to have a much broader focus. We have a tremendous stake in the kind of world that our children and grandchildren are going to face. The years to come are going to be determined by what Russia ends up being, in terms of a democracy and a market economy -- if they make it. History tells us that it is going to be difficult. Some people take the fatalistic view that historical reading indicates that it is hopeless. I do not view that. That is self-fulfilling prophecy, and history will judge us harshly if we do not do what we can on the margins -- and I admit it is on the margins -- to give them assistance where assistance can help.

The main thing, though, is private development. What Bill Perry is doing in terms of taking CEOs over there is the key. Government funding is going to do only a limited amount here. The main thing in terms of the overall economy is going to be the question of private investment. That requires a whole set of things they have to do in terms of rule of law and getting control of some of their crime problems which are very serious and overlap into this proliferation area.

The ultimate horror is a combination of proliferation, broke scientists, disgruntled military, and organized criminal elements operating not just in Russia, but all over the world. That is the ultimate kind of danger we face. There is a law enforcement issue here. The FBI has a big role to play. I have talked to FBI Director Louis Freeh about it a number of times. He recently made a trip to Russia. We are only on the margins there, but it is imperative that we help them develop a better law enforcement system.

#### Summary

Universities and research institutes throughout the country need to have an affiliation with Russian scientists in some fashion: Some exchange program would be enormously helpful for

the next 10 years. I know resources are a problem. I do not see the governmental resources to do that beyond what is already out there, but I do think it is very much in our national interest.

It would be enormously helpful for those of you who believe this program has merit to get as familiar with it as you can. I know Ash Carter and others are available to brief the scientific community on what is happening in terms of details. Constructive criticism is not only welcome, but very helpful. Capitol Hill also needs a lot of support. We need letters to the editor. Most letters to the editor now or most op-ed pieces are critical. People who are defending a program that seems to be going along pretty well usually do not speak up. If that continues to be the pattern, we will have a very difficult time sustaining this program. I thank you all for your interest and invite your continued assistance and constructive help.

END