



# Global Security Newsmakers

Transcripts of GSN seminars and events for foreign affairs, defense, and security professionals

## Deterrence and the Future of Defense

### The technical and moral underpinnings of the missile defense debate

*“US ballistic missile defense and defense strategy” was a seminar sponsored by Global Security News in cooperation with the Defense Attaches Association and the Institute of World Politics on June 26, 2001. The guest speakers were Amb. Henry Cooper and the Hon. Richard Perle.*

The United States will defend itself against ballistic missile attack in conjunction with its friends and allies if it can, and alone if it must. That’s what Richard Perle, chief of the Defense Policy Board at the Pentagon, told international defense attaches at an exclusive Global Security News forum in Washington. Ambassador Henry Cooper, a former space negotiator with Moscow who later headed the Pentagon’s ballistic missile defense office, described the different technologies already available to deploy.

Perle’s speech, and his answers to questions, gave military attaches from 35 embassies the keenest insights yet into the thinking of a key member of Defense Secretary Donald Rumsfeld’s inner circle. His eye-opening and provocative comments were a big change from the nuanced, diplomatic language the attachés normally receive, and raised the moral as well as practical issues motivating the Pentagon’s missile defense program.

Cooper’s outstanding, fact-filled presentation showed how much of the technology needed to deploy a missile defense system is already tested and available — a stark contrast to the image that the technology is years away.

Both Perle and Cooper are members of the Global Security News board of advisors. The June event was cosponsored with the Defense Attaché Association of Washington and the Institute of World Politics. Global Security News has transcribed their remarks, as well as their answers to the attachés’ questions.

—J. Michael Waller, President, Global Security News

**Ambassador Henry F. Cooper** is Chairman of the Board of High Frontier. He was Director of the Strategic Defense Initiative Organization (SDIO) from 1990-1993 and served as Chief Negotiator at the US-USSR Defense and Space Talks from 1985-1989.

Everybody know who Yogi Berra was? He was a catcher for the New York Yankees. A little book

has just been published called *When You Come to a Fork in the Road, Take It!* Maybe that doesn’t communicate humorously to you but to Americans he has become sort of, I guess, a philosopher of sorts. And he’s one of my favorite ones. One of his sayings, when referring to current affairs, is “this is déjà vu all over again.” And if there were a theme to my talk, that’s what it would be.

Because the current debate is a debate that’s been going on for 30 years at least. And in particular, where we are in our discussions in the international scene today is not very different than where we were a decade ago. But unfortunately, most people have

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forgotten that. The former Bush Administration was focused on a global missile defense. The allies were growing comfortable with the idea.

Congress had approved the programs. In fact they had approved them as a low to moderate risk program — something that was demanded by Sen. Carl Levin, who is now the Chairman of the Senate Armed Services Committee. And let me tell you, it was not easy to get through the Pentagon a program that met that standard by their definition, by the acquisition authorities of the Pentagon. And it was approved in the authorization bill of 1993 as a low to moderate risk concurrency program.

It mandated deployment with a long-range goal — which I'll say a bit more about shortly — of a comprehensive system. What we call National Missile Defense now — multiple sites, up to 1,000 interceptors. It mandated the deployment, initially, of the first site in Grand Forks, ND with 100 interceptors. It directed comprehensive — and what was referred to as robust — funding be applied to a comprehensive program on space-based interceptors. There were multiple Theater Missile Defense programs that were approved and fully funded and that's the one thing that survives.

Many people think that it was the Clinton Administration that initiated Theater Missile Defense. Not so, and I'll say more about that as we go along and why that was. In fact, all of the current programs, plus several others, that were cancelled by the Clinton Administration were viable a decade ago or eight years ago. And there was a robust technology demonstration activity intended to deal with the complex subject of countermeasures, most of which was killed fairly early in the Clinton administration. And I hope will be revived.

Steve Hadley, who is Condi Rice's deputy at the National Security Council, was Dick Cheney's representative to high-level talks called the Ross-Mamedov talks, instituted by President Bush and President Boris Yeltsin in June of 1992. And there were several working groups. One to deal with the threat, which was then characterized as proliferation. There was a technology group to worry about what we might be able to share with the Russians, and with others at the time.

My deputy for technology — now Brig. Gen. Pete Worden — was a co-chair of that group. And I actually paid for programs that began research and development — including bringing Russian scientists to this country and setting up shop down in Albuquerque, NM — to worry on nuclear power for space applications. And a variety of other



*Amb. Henry Cooper speaking to Defense Attaches at the Global Security News headquarters.*

programs, some of which survive to this day.

The specific architecture, which I will say more about, was briefed by Barry McCaffrey — then a Lieutenant General who was an assistant to then Chairman of the Joint Chiefs Colin Powell. This was briefed to our friends and allies. It was also briefed in the Kremlin. This included the full architecture of ground-, sea-, space-based elements and air-based elements of a comprehensive missile defense program. I say this so that you understand that the current Secretary of State is well aware of where we were then, or should be in any case.

Russian officials publicly stated in 1992, at the last meeting of the Ross-Mamedov group, that the ABM Treaty would be irrelevant if there were cooperation on missile defense. And that we were working together in that direction.

Regrettably, President Clinton abandoned all this in April of 1993 when he met for the first time with president Yeltsin. Yeltsin wanted to continue these high-level talks. Apparently, there was no one on our side of the table who even knew what Mr. Yeltsin was bringing up, when he requested that this be

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done. Worse than that, the Clinton administration regressed to language that pre-dated the talks that I was a part of starting in 1985. And began talking, as a US position, about the ABM Treaty and Mutual Assured Destruction, its underlying doctrine, as the cornerstone of strategic stability. And declared its allegiance to that position.

This astounded our friends in Russia who had persuaded, previously, President Yeltsin to take an initiative in early 1992 to work together with the US. As he put it, to refocus the SDI program to take advantage of Russian technology and that we together build a global defense for the world community. And that was the subject of the Ross-Mamedov talks.

This undercut our friends in Russia. And it makes things awkward now in terms of trying to reinstate a serious program in this area. Because many in Russia — who, just like in the past administration, can't seem to get Cold War ideas out of their mind — are opposed to missile defenses. And our friends and the activities there have been put down for some eight years. Reviving that may not come easily.

But I believe that the current Bush administration is seeking to revive these concepts and programs and I personally think there needs to be a greater sense of the threat and the urgency with which we need to get on with it. Even though I recognize that what I just described to you as where we were eight years ago has been forgotten around the world. And it takes some time to get it through people's heads that this is a plausible way to proceed.

Among professionals like yourselves you should understand that there is a very strong basis for the arguments that I assume Richard Perle will be giving later on, as being more reflective of the current administration. I am not speaking for them. I am here to report to you where we were eight years ago. When it was clear then, as it is now, that the ABM Treaty is something we have to move beyond in

order to build effective defenses. I believe the clock is ticking and that needs to happen immediately.

Now I have charts — that I put together, that I want to speak from — that are drawn from three documents with which I was personally associated in the period eight years ago. And I'll make comments on this.

*[tape flipped]*

You will recall the Berlin Wall had come down. The Soviet Union was still in existence. But it was clear that things were changing and they were changing rapidly. So he asked for a review that looked at our policy, which was the arms control world that I had been involved with and related matters, and also the technologies of the SDI program, and to recommend how the program

should be directed in the future.

As I'll show you momentarily, the budget was in decline at this point in the SDI program. And there was concern by those who wished to proceed with a serious defense program, what we should be thinking about.

And I gave my report to then Secretary of Defense

Dick Cheney on March 15, 1990. And the reason I emphasize that point is that global protection against limited strikes was the basic recommendation. And he asked me to come into the government and lead the SDI program in this direction after discussing it with President Bush. That predates the Gulf War. And what I'm going to be showing you, that was in the briefing at this time, was a strategy that we embarked upon earlier which I believe is every bit as applicable today as it was then.

This is after the Gulf War but the report I was referring to predates the Gulf War. In fact I took office just a few weeks prior to Saddam Hussein going into Kuwait on the second of August, 1990. In fact I was hosting Margaret Thatcher at the national test facility in Colorado Springs when that happened and she took the phone call from President Bush at which she is reported to have said, "Now is no time

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***“ . . . the ABM Treaty is something we have to move beyond in order to build effective defenses.”***

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to go wobbly George." My point is that the Gulf War was a validation of the strategy rather than a cause of the strategies I'm going to discuss.

After this period, three important things happened in addition to the Gulf War, which roughly coincided with the briefing. Two of them had to do with the Congress explicitly. This is the budget profile from the briefing that I just mentioned to you that we were going into. You can see that in fiscal year '89 there had been a big hit. [see Chart 1 on page 5] And this is what was recommended.

In '90 this was the origin of the Theater Missile Defense program as the first separate entity. Although there had been Theater Missile Defense activities in the original SDI program and all the way along at a lower level. You can see that my recommendations had led to a major ramping up of those programs. You'll also note some of those things that you wouldn't recognize. ERINT is now called PAC-3.

Israel's Arrow and our THAAD started at the same time. It is a bit embarrassing to notice that Arrow is operational and THAAD is some, depending on who's counting, six or seven years away from an operational date. Arrow costs less than \$2 billion, mostly of US taxpayer dollars.

THAAD is going to cost ten times that much. And that says something about acquisition strategy differences. THAAD will be better — when we get it — than Arrow to be sure. But until we get it we have nothing in the wide area defense field beyond Patriot and PAC-3 — which is a little better than Patriot but not substantially better, as THAAD will be.

And I believe that's because of lack of political will. It is a lack — even though THAAD has enjoyed wide support — so it's more importantly, perhaps, a lack of serious, steady, competent, technical management — programmatic management. And I think that we have to get our act together in the Pentagon and in industry. I think this is a black mark on us.

This country has been able to do extraordinary technical things in times past in four years, when the demand was there, when the political will was there and we put our best people on it. And I think it's outrageous that Arrow came in two years after this and THAAD is somewhere over here [mid-90s] in terms of operation capability. That's unacceptable.

The main point that I wanted to give you from this chart was that this reversed in 1991. You can say it was the Gulf War. I do believe that was a major

factor, without a doubt. But we were also talking with the Congress throughout this period and with our allies. And we were making headway at adopting a strategy where the threat was no longer the Soviet Union per se. It was proliferation. It was perhaps an accidental or unauthorized launch out of the Soviet Union, but it was not seeking to deter a massive attack from the Soviet Union involving many thousands of reentry vehicles.

The other significant thing that happened in 1991 was the Congress. The Missile Defense Act of 1991, passed by a democratic controlled Congress, was far more substantive, and specific and



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# BMD BUDGET EVOLUTION

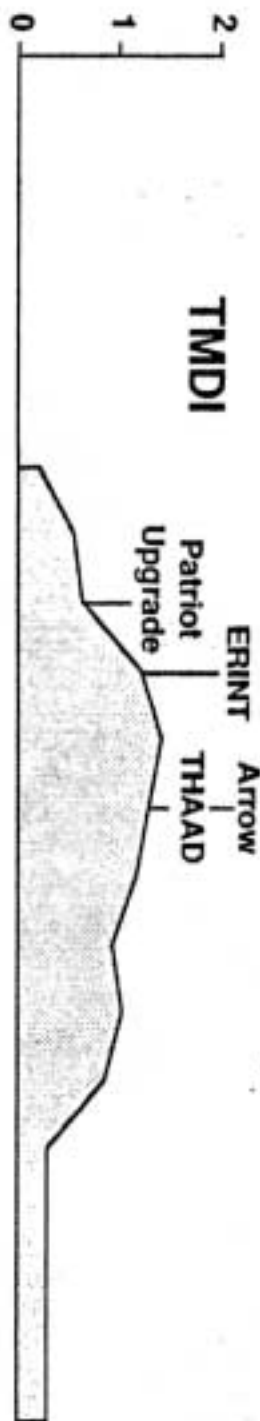
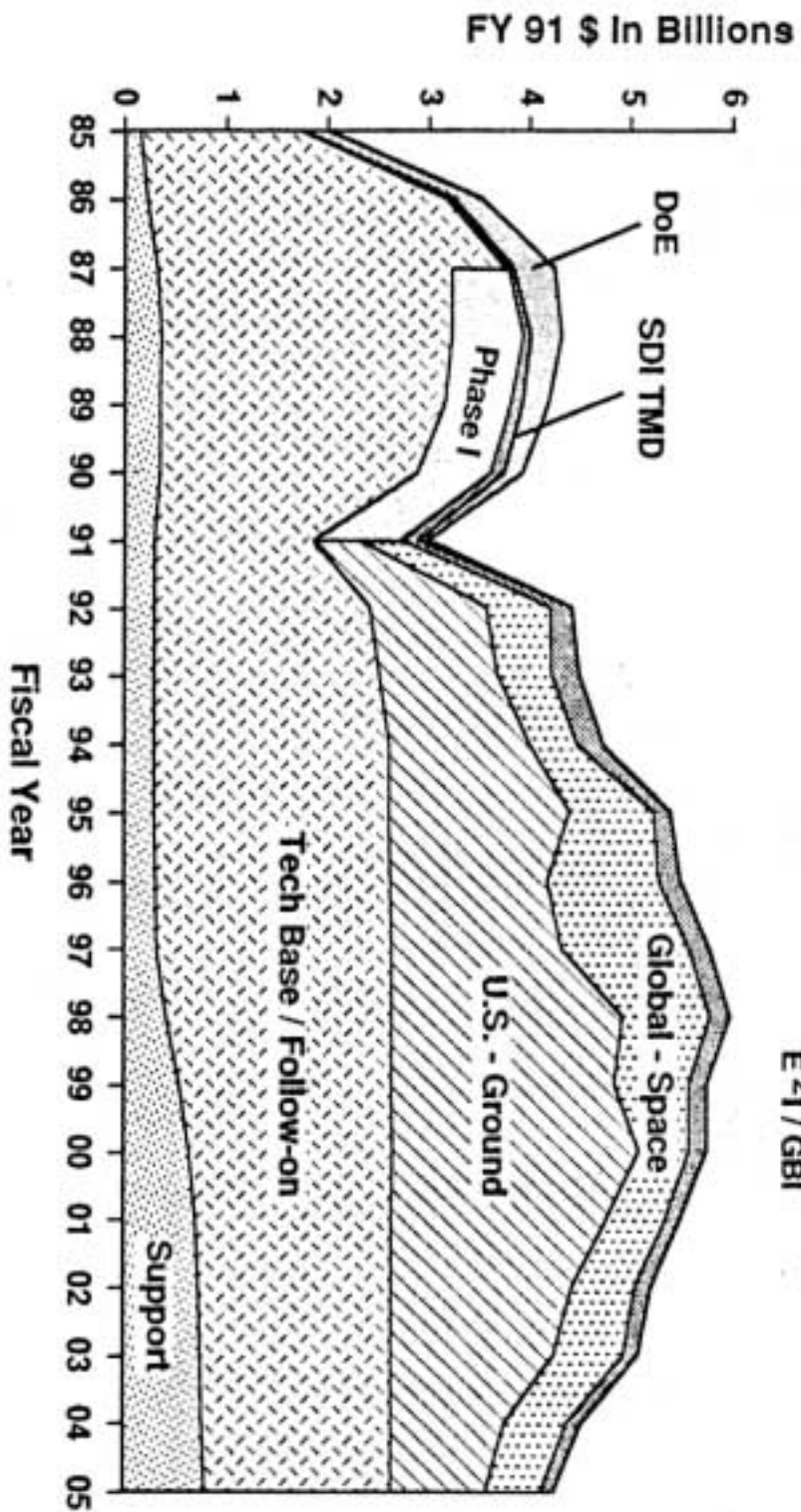


Chart 1



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supportive than what was possible for a Republican controlled Congress to get by the veto pen of President Bill Clinton, who really opposed building defenses.

That's to make the point that the executive in the United States' form of government has enormous power. We are a government of checks and balances.

The Congress does write the checks and its main instrument is dollars, the control of dollars. They can stop programs. They can start programs. They can give directions, but as was proved time and again in the last eight years, if the President doesn't want to go there, he can veto the bill and it takes 34 votes to block a veto.

He can take executive action and hang up programs as he did the Navy theater-wide program for many years, where the Comptroller just sat on the money.

The Congress would demand studies, and there would be studies done, and they would just ignore the directions of Congress.

If the executive wants to go somewhere he has enormous leverage. A lot is being made right now about losing the Senate. The number of votes hasn't changed on either side. What's been lost is the power of controlling the agenda on Capitol Hill. But at the end of the day, what they have is money. And that's important, no question about it. And they can beat up on the executive by cutting the budget. They answer to the people next year, just like the President will answer in three years. The point I'm making to you is that you should go a little deeper than just the headlines about the political fights in the country. To understand what the potential for the President's program being accepted really is.

You'll notice here [chart not available] as I already said. This was for a comprehensive ABM system including one or an adequate number of ABM sites and space-based sensors. So space-based sensors were part of the mandate in the Missile Defense Act 10 years ago. That system has been screwed up beyond belief, to me, over the last eight years. This is

now called SBIRS-LO. At that time it was called Brilliant Eyes.

It talks about maintaining strategic stability and, of course, this was the result of a conflict at the time in the argument about the ABM Treaty. Although the goal here clearly goes beyond the Treaty. So it was a mandate that says you have to worry about the stability issues. Whatever that may mean. As Sven [Kraemer] was saying earlier, our position had been in Geneva for the five years I was there, and Dave Smith who was my successor was still carrying this message, that stability and deterrence include defenses. Mutual Assured Destruction is a concept

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***“ . . . space-based sensors were part of the mandate in the Missile Defense Act 10 years ago. That system has been screwed up beyond belief . . . ”***

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we want to put behind us. And so there needed to be a new discussion of what stability and deterrence were.

Theater defenses were a major part of this. It says here to have highly effective theater defenses for our forward and expeditionary forces and for our friends and allies. So the Congress accepted this point of view then. And we had an aggressive program, which they supported — which was placed by Secretary Cheney under my leadership at SDI at the time — [that] called for an initial deployment, at the time, by 1996. Or as early as the appropriate technology would permit. Of the site in Grand Forks. Optimum utilization of space sensors, including a sensor's capability of killing ground-based ABM interceptors and providing initial targeting vectors. That's a curious line there but it's there because of the ambiguities of the ABM Treaty, and what's permitted or not.

And the Senate was on record as saying that we should be able to do something like the cooperative engagement concept, if you're familiar with the Navy's programs, with missile defense, including

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homeland defense. We haven't gotten by that hurdle yet, in the last eight years. We lost the interest both in the Administration, I fear, and our friends on the Hill. The National Missile Defense system was called out, specifically space-based interceptors were to be robustly funded and the ABM Treaty negotiations were called for by 1994. There was a deadline, placed implicit in that law, that if an agreement were not reached, perhaps we would leave the Treaty. This was passed by a democratic controlled Congress. Of course, the executive wanted to go. May 1994 was the target. Of course the world changed.

So some of this argument that's going on right now is absolute nonsense.

Of course, if you're doing it together as I've said before and working together then that argument is moot. I think there's even more basic reasons for arguing with it. But that was the other important thing that happened that year. At that point even the most reluctant of our allies became interested in supporting the idea. Because if the Russians and the Americans were going to do it together, then, where are you? Somewhere else if you're not trying to get a piece of the action, as someone says. Now hopefully

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***“ . . . arguments that you can't have reductions, or reduce offensive weapons, while you're working on defenses is disputed by Russia's formal position declared openly to the world in 1992”***

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that day will come again.

That was a report, by the way, that was mandated by the Missile Defense Act. The title, as you saw, was the *Conceptual and Burden Sharing Issues Related to Space-based Missile Defenses*, which were then, and still are, the most effective defenses

The other important thing that happened, between the '91 briefing that Steve and I gave and the next report that I want to talk about the following year, was that Boris Yeltsin said yes. Now the situation was that the Congress had passed a bill mandating deployment, increasing the funding substantially. We of course had been talking with our allies and friends around the world for a year and a half by then.

But in January of 1992, Boris Yeltsin made a speech at the United Nations when he said, as I said before, we should refocus the SDI program and together build a global defense using Russian technology, as well as American, for the world community. So he said yes.

In the same speech he proposed the reductions which became START II. The important point I'm making to you is these arguments that you can't have reductions, or reduce offensive weapons, while you're working on defenses is disputed by Russia's formal position declared openly to the world in 1992.

that you can deploy.

What is less well understood is the technology is mature to do that. It was mature eight years ago. And it's still mature. It has progressed over the last eight years more by the activities in private industry than by the Pentagon, I regret to say. But, nevertheless, that option is still very real today. And this was the report that was put together and submitted to the Congress to back that argument up.

And the final thing I'm going to take out of my end of tour report, which was January 20th, the day that President Clinton was sworn in in 1993. The main thing I'll get from that particular report is where the budgets were when I left the program. That's important because the substance of programs, of course, is controlled by how much money is available to do necessary research, development and so on. I'm going to just use some charts.

This was President Bush's State of the Union address, January 1991 [see *Chart 2 on page 8*]. He directed that it be refocused at limited missile strikes, whatever their source, from anywhere in the



## PRESIDENTIAL DIRECTION



"... Looking Forward, I Have Directed That The SDI Program Be Refocused On Providing Protection From Limited Ballistic Missile Strikes, Whatever Their Source. Let Us Pursue An SDI Program That Can Deal With Any Future Threat To The United States, To Our Forces Overseas And To Our Friends And Allies."

*President George Bush  
State Of The Union Address  
29 JAN 91*



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world directed anywhere. Pursue an SDI program to deal with any future threat to the US, our armed forces overseas, and our friends and allies. Sound familiar?

What we mean by refocusing? Again out of the briefing [see Chart 3 on page 10] . . . Refocusing means moving from deterrence to protection. Deterrence in the Cold War meant attriting, a massive rate, perhaps reducing the number of incoming weapons by half, making it very difficult for a Soviet planner to have confidence in a debilitating strike at the United States. That was the point. We weren't trying to destroy them all. In spite of all the arguments you read in the papers now about needs for perfect defenses [tape flipped]

There are countries around the world who might, by that capability, seek to intimidate, blackmail or perhaps even attack the cities in our nation, and in the nation where our deployed troops might be at risk, or members of an alliance with the United States might be at risk. And for the political leadership of those countries to have confidence in the defense, it had to be a very good defense and protection was the word for saying that. Not deterrence. Not that we don't believe serious defenses add to deterrent capability. But because our objective from a military-technical point of view was [that] we wanted high confidence that we could destroy essentially all of a relatively small attack. And that's the point here — from massive to limited strikes.

By limited strikes — I wrestled with what do we mean in the study I did in early 1990 for Dick Cheney. What I came up with as a rationale was, how many missiles might be controlled by an errant or rogue commander of a Russian submarine, or a Soviet submarine at that date? And the number was 200 weapons. A regimental commander who might go off the ranch or disobey orders was somewhat less than that. But in any case the number I picked for the GPALS that we wanted high confidence

protection for was 200.

That was the objective of the program that was accepted by the Joint Chiefs as a part of the requirements process. We switched from a focus on the United States as the object of the defense to a global focus. Including theater defenses as well as US homeland defenses. And then we moved from a large-scale deployment to a limited space and ground-based deployment. And this, we argued, was associated with the changing strategic environment.

This was in the days still of the Soviet Union, in '91 when this briefing was given, and we were saying that they'll retain large modern strategic

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***“ . . . we moved from a large-scale deployment to a limited space and ground-based deployment. And this . . . was associated with the changing strategic environment.”***

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forces into the indefinite future and we were worried about the instabilities.

At the time Sen. Sam Nunn, who chaired the Senate Armed Services Committee, and Congressman Les Aspin, who chaired the House Armed Services Committee, had both come out for accidental launch protection systems because of this problem and this concern about this problem. The Nunn-Lugar programs to deal with the residual nuclear weapons in the former Soviet Union, of course, had their genesis in this time period too.

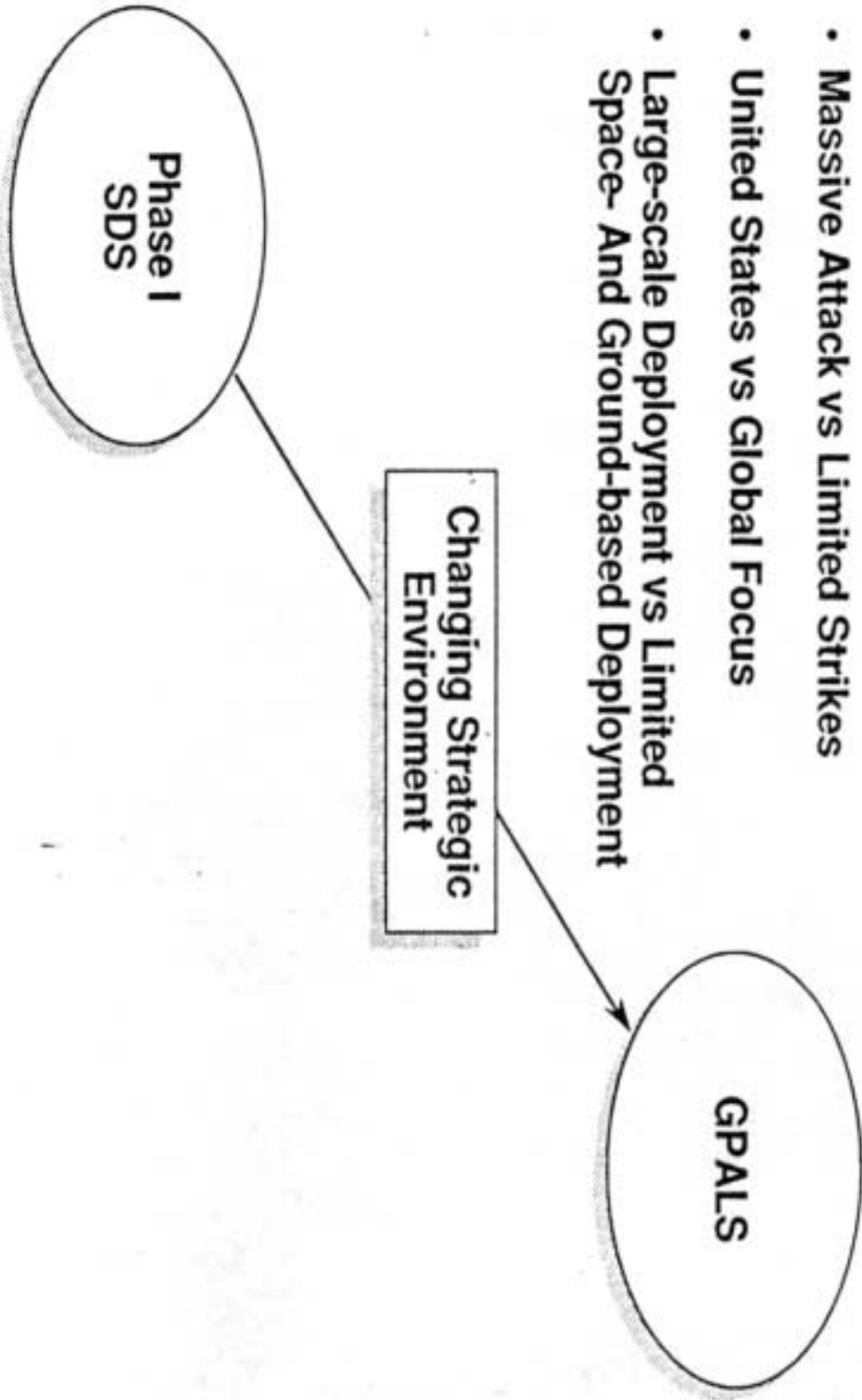
Proliferation was recognized as a growing threat. The Defense Science Board in 1988, I believe it was or '87, had done a comprehensive study on this issue and had pointed us in this direction. The arguments about this being a current problem — it is more widely recognized now but the trends were in place fifteen years ago for the initial concerns and the instabilities about the proliferation problem. And it was noted that this threat would be one that in time



# WHAT DOES "REFOCUS" MEAN ?



- Deterrence vs Protection
- Massive Attack vs Limited Strikes
- United States vs Global Focus
- Large-scale Deployment vs Limited Space- And Ground-based Deployment



**Chart 3**

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the Soviet Union would perceive, as Mr. Putin has recently acknowledged, and that the threat was associated with a growing number of other countries.

We recognized the potential still of regional conflicts. Proliferation would raise the stakes. And by proliferation we had in mind chemical, biological, and nuclear weapons, of course. Under these conditions, traditional deterrence — central deterrence theory between the United States and the Soviet Union — would not apply.

To make our point in that briefing, we said “What if Saddam Hussein had had a 4,500 km range missile and could have threatened the cities shown here?” [see Chart 4 on page 12] Would President Bush have been able to put together the alliance that performed as it did in the Gulf War? And I think the answer to that is no, he would not.

As it was, the US Senate supported him by a margin of three votes. Sam Nunn voted against him. And I think that’s what ended Senator Nunn’s political career.

But, if many of these cities — and I assume your countries are represented within these rings — could be threatened, I think you can see that we would have had trouble pulling that alliance together. And if US cities — which are potentially under the gun as well — were threatened, that would have been the case. Bottom line, the objective of GPALS was to protect all of us against accidental and unauthorized launches and intended launches from a growing number of states other than the Soviet Union. [see Chart 5 on page 13]

Theater defenses — lest you think that all the current arguments are new arguments. There was clearly an increasing priority on the programs when Steve and I gave this briefing. Congress had appropriated programs to accelerate and they had done this following the invasion of Kuwait but, of course, before the shooting war. The Congress had acted in the previous fall. They supported the plans

to deploy in the near term and to seek increased cooperation with allies around the world — building on already existing programs, architectural and otherwise, that we had going in the SDI program. Including interceptor research, particularly with Israel.

We were open to other avenues of approach — and the bottom line here is one that I hope you carry away. If any ally chooses to deploy theater defenses, the US envisions them having an autonomous system but one that is capable of operating with US systems. So that you could have a global defense architecture.

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***“Bottom line, the objective of GPALS was to protect all of us against accidental and unauthorized launches and intended launches from a growing number of states other than the Soviet Union.”***

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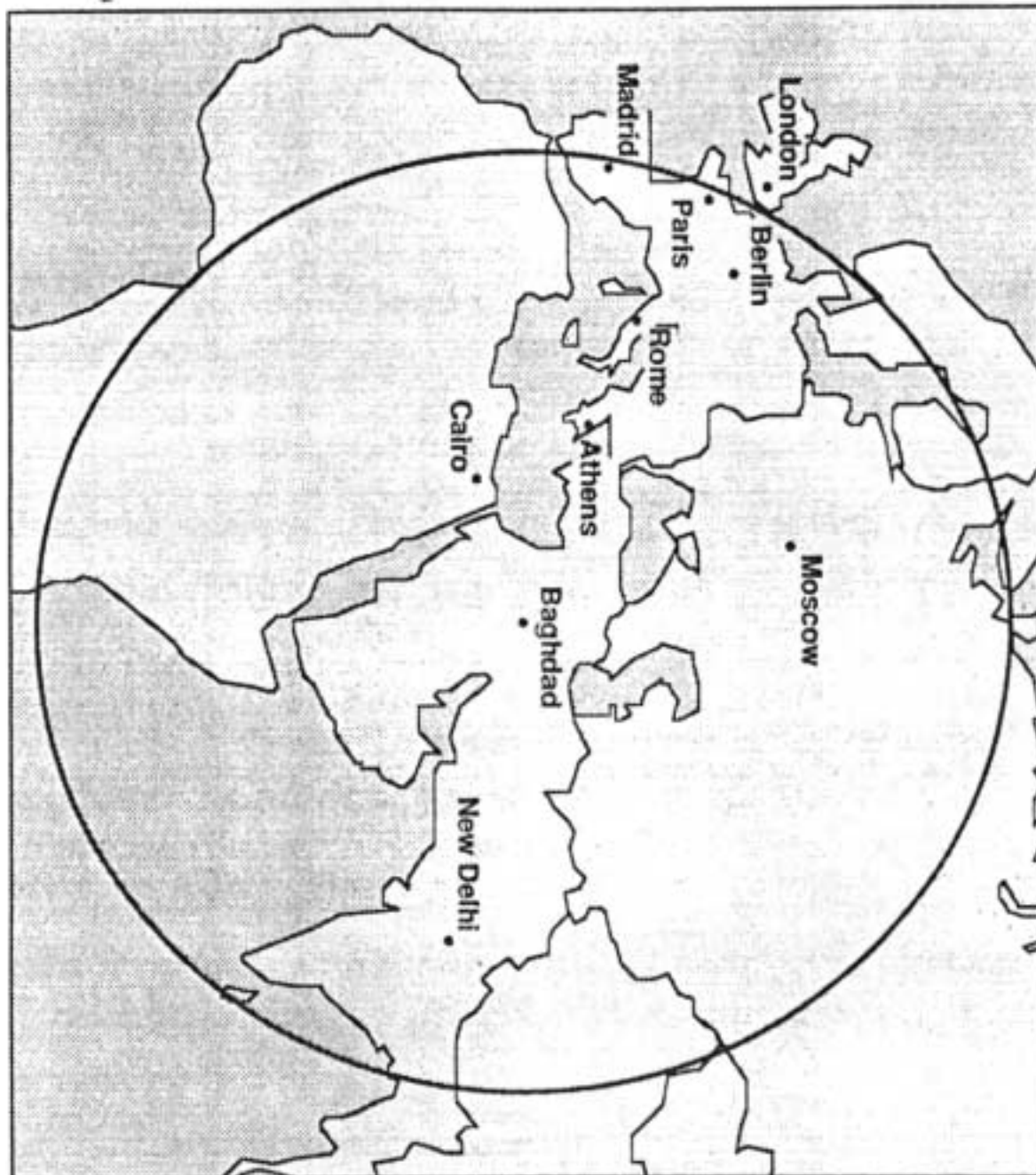
Now that’s a challenge not unlike the air defenses within NATO. And I think we’ve been reasonably successful in NATO in building an extended air defense capability that all participating nations can interact with.

That vision was lost in the eight years preceding and is only now, I believe, being revived. Actually, I think the revival began, and we’ll give all due credit, within the Clinton administration. But certainly defenses for the US theater, or I should say the North American theater to include Canada, were never seriously considered by the Clinton administration.

The point of strategic defenses (these are homeland using the old jargon, if you will, rather than the over-arching thing, it’s really a misnomer), that:

- it’s relevant to the new situation;
- it’s technically feasible — I’ll say more about that

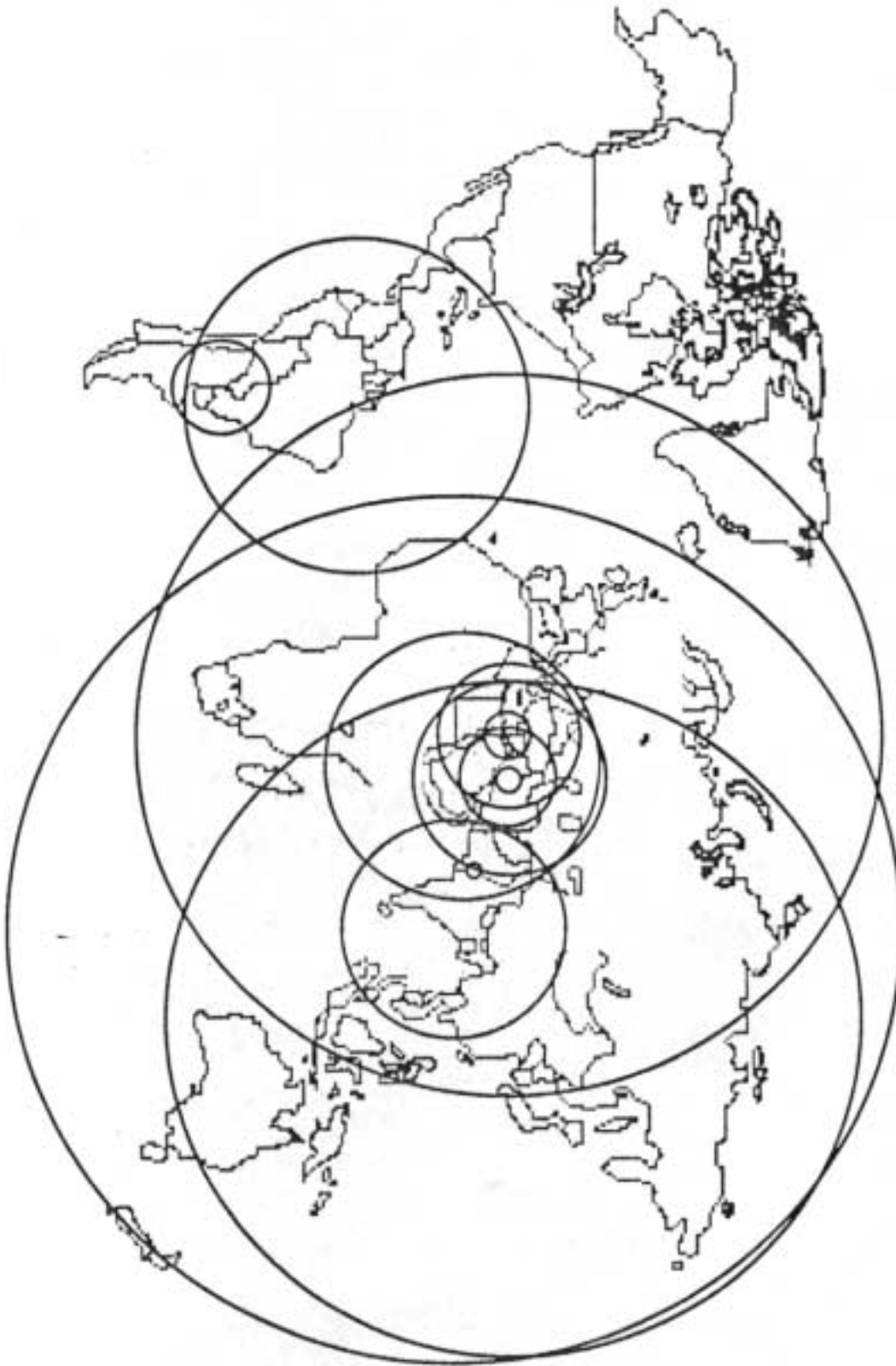
**Chart 4**



# WHAT IF IRAQ HAD A LONGER RANGE MISSILE?



**Chart 5**



**THE CURRENT THIRD COUNTRY  
BALLISTIC MISSILE CAPABILITY**



- in a moment; and
- there were opportunities to demonstrate and validate the technology where it was;
- we expected further cost reductions. The cost had been reduced from something well over \$100 billion for the Phase I architecture, down to something like \$41 billion, which was our estimate for homeland plus the theater defense programs at the time. That has since grown. In part because of program incoherence, I believe.
- we would have increased survivability for strategic forces and for population centers;
- increased effectiveness because of the advancing technology; and

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**“ . . . space sensors are important adjuncts to any ground-based or sea-based or air-based system**

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- we wanted a reduced complexity in systems. Unfortunately, something that we’ve regressed on in the last eight years. Now I mentioned earlier that the Congress had included space-based sensors as a part of the mandate. It was understood then, as it should be understood now, that space sensors are important adjuncts to any ground-based or sea-based or air-based system because:

- they are ever-present;
- they can provide early initial warning information; and
- if they’re designed correctly, track information.

In fact, during the Gulf War our defense support program, the geosynchronous satellite, provided sufficiently accurate track information that, had we had a space-based interceptor program, all of the SCUDS launched during the Gulf War could have been intercepted.

Space-based weapons were a part of our program and I believe should be a part now [see Chart 6 on page 15]. And I’ll say a bit more about that in a moment.

One of the other things to remember about space

defenses is, it’s an important hedge against alleged resurgent Soviet threats. What happens if they break out of START II, as Mr. Putin has been talking earlier? Well if you have a space defense program that can shoot missiles down in boost phase, then there’s no incentive to MIRV. This takes away the incentive to MIRV, if you have an effective boost phase intercept capability. Which if you can shoot missiles down while they’re rising before they deploy their warheads. Which was always a primary objective of the SDI program and in particular our space defense components.

I mentioned the quantitative build-up of theater defense. Fewer interceptors for ground-based homeland defense, and Brilliant Pebbles, which was a space-based interceptor program was reduced to a quarter of what had been carried in the old SDI architecture. From some 4,000 space interceptors to

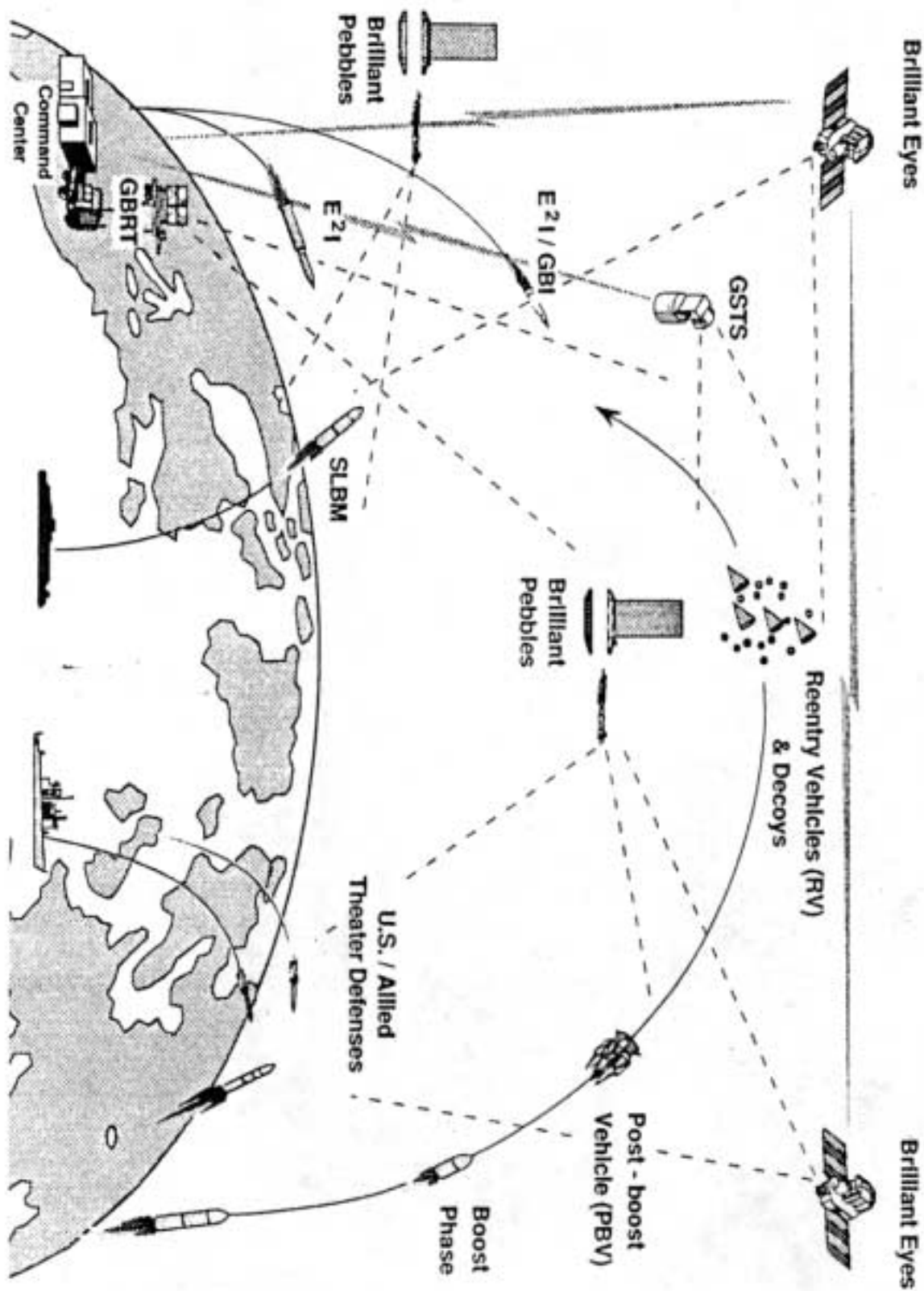
1,000.

And we had two contractor teams, that had been selected, working under a fully approved acquisition program in the Pentagon when I left it in 1993. Actually, it had been approved in early ‘92, I believe, by the acquisition executive.

Many people think that’s far off, distant in the future. It was actually the first of the acquisition programs approved by the Pentagon’s acquisition bureaucracy. The technology for space interceptors led the development rather than followed the development of defenses.

The homeland defense [see Chart 7 on page 16], which included the ground-based interceptor which you hear talked about now, is an exo-atmospheric interceptor only, outside the earth’s atmosphere. Something that was called E<sup>2</sup>I, which was an interceptor to do intercepts high in the earth’s atmosphere after decoys are being slowed down by the increasing density of the upper atmosphere. The challenge then of course is the high temperatures and so on associated with reentry and hitting the target rather than going after a false target associated with the plume.

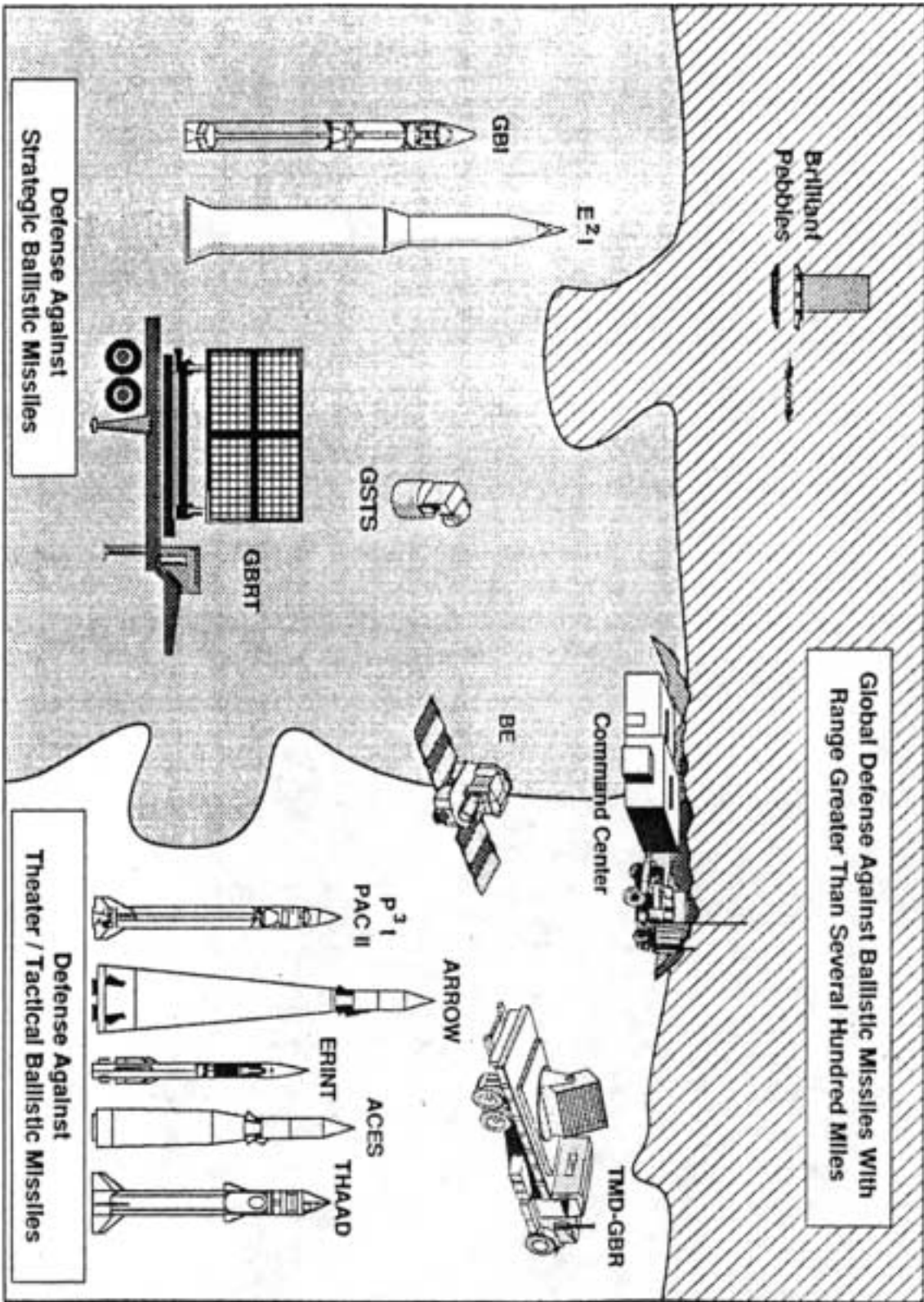
Chart 6



# GPALS ELEMENTS - STRATEGIC AND THEATER



Chart 7



# GLOBAL PROTECTION AGAINST LIMITED STRIKES (GPALS)





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The ground radar, which was a family of radars. It's the same elements of the ground-based radar involved in THAAD. On the right-hand side you'll see listed the various programs in theater defense that were intended for acquisition at this time period. And I've already made the point about ARROW delivering, ERINT became PAC-3, and the space interceptor was the overlay. Brilliant Eyes was here because it supports these other elements. I should note that it's somewhat redundant in the architecture because if you deploy the Brilliant Pebbles, it can accomplish the mission also of the Brilliant Eyes.

Now do people here remember the Clementine program? If I use that word does it ring a bell? It was clear to me in '92, after the congressional hearings, that the Congress was intent on killing this program. Even though they had passed a law and repeated it, actually, in 1992 (fiscal year 1993), that this program would be robustly funded. It was clear to me they fully intended to kill it.

So, I called in our program director for this program and our technology guys and said invent for me a program that will demonstrate all the key technologies for this but which will have acceptance among even the wildest opponent of the SDI program.

And they created what we call Clementine, which was the first mission back to the moon. It cost \$80 million and was launched, within 2 years from the day in my office when I said go do it, by a very small team of people. Letting you know what can be accomplished. It involved all the first generation hardware for the Brilliant Pebbles. We mapped the entire surface of the moon in 15 spectral bands. I think it was 1.7 million frames of data that was on the web, that you could get off. The team that did this won awards from the National Academy of Sciences and from NASA. This program became the pathfinder for the faster, cheaper, better approach

that Dan Golden, the NASA administrator, has advocated for deep space exploration.

And because it was so successful — I think they let us do it because they expected we'd fail — the President used his line item veto to overrule the Senate when it wanted to do a follow-on mission to go to the next generation of technology. But all the technology to do the program was space qualified in 1994 by Clementine, with the exception of the rockets. And the rockets were validated, the propulsion part of the technology, was validated a year later in an Astrid program. So all the technology exists to do this today.

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***“Clementine . . .  
involved all the first  
generation hardware  
for the Brilliant  
Pebbles.”***

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Just to make the point of the progression — the Homing Overlay Experiment, the size of a Volkswagen, in 1984 shot down a minuteman missile over Kwajalein island in the South Pacific [*see Chart 8 on page 18*]. ERIS repeated the feat in 1991, the size of a large trash can. These are the weights. This is 1200 kg,

about 200 here. GBIX was supposed to be at that stage in 1995 and be down in the 40 kg range and the one that was to be the baseline on the deployed system was much smaller.

That was the demands of technology. Because the technology program was killed, the current EKV that is being pursued for the National Missile Defense is between here and here.

So these programs did not meet their objectives or at least the objectives I laid out. And I believe that's because they did not adapt the technologies that were pursued under the space interceptor program — and demonstrated — which give you lighter weight intercept capability. It has to be lightweight because it costs a lot of money to put things into space. So there's a real incentive to reduce the weight. And it was done. But because it was politically incorrect, those who had worked on ground-based defenses did not include them.

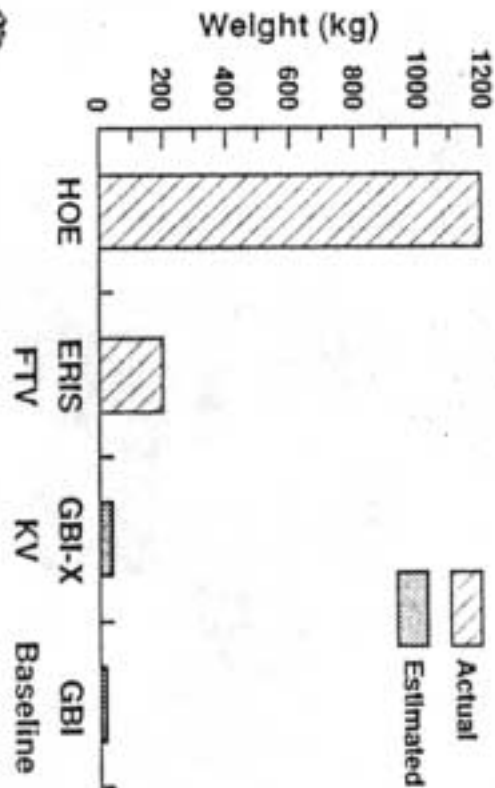
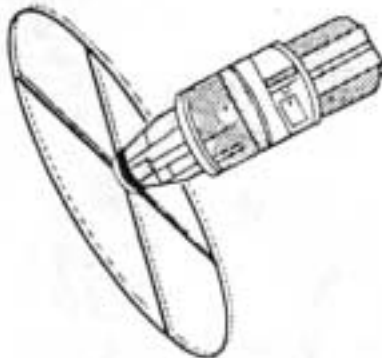
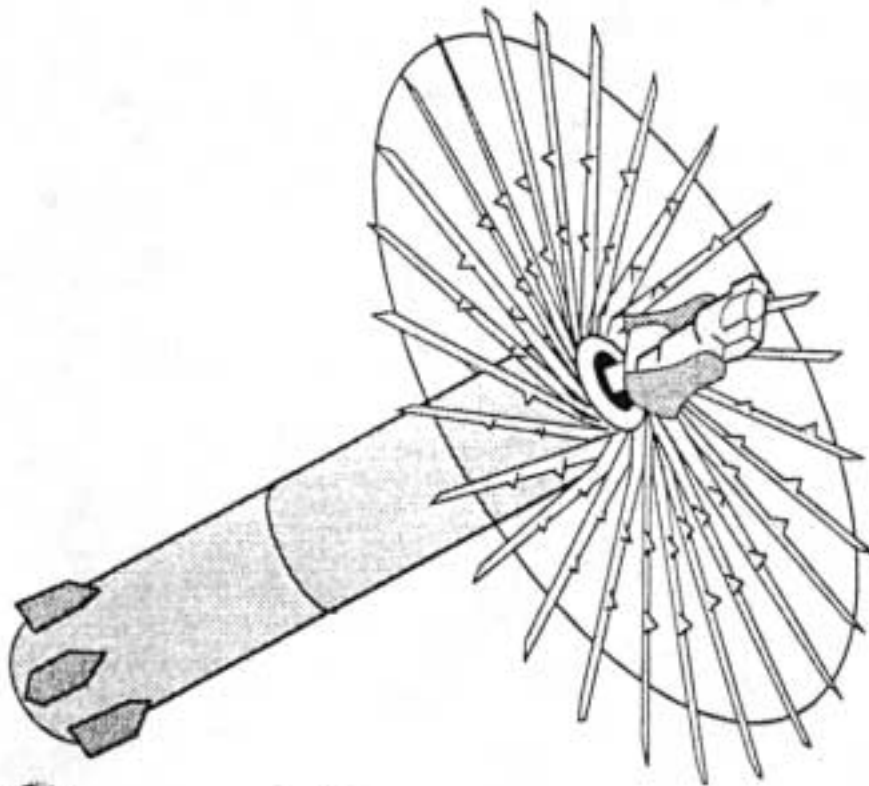
This is just to point out where we were on the Brilliant Pebbles idea, which was a highly



# GBI TECHNOLOGY HISTORY



**Chart 8**



Technology	1978	1986	1990	1994
GBI Evolution	HOE Kill Vehicle	ERIS FTV Kill Vehicle	GBI-X Kill Vehicle	GBI Baseline Kill Vehicle
Proven / Tested	1984	1991	1995	1998

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autonomous system, which was given the requirement to shoot down 60% of the overall threat, that is 120 of the 200 that was established as the overall requirement.

This is notionally all of the pieces. You'll notice here that sea-based defenses were part of the architecture. I consider that to be one of the real innovations that happened on my watch. Its not really a great innovation if you say you want a global defense and you look at the globe and you see 2/3 of the earth's surface is water and you can get between your potential adversary in most instances.

This was discussed on my watch in military committee. Admiral Bill Smith, who was our military representative to NATO, he assembled admirals from numerous navies from around the world, even outside of NATO. I met with them and talked with them because this and the way the Navy thinks, in my judgement then and my judgement now, is the pathfinder to global defense. Including defense of the United States, if we can get beyond the political incorrectness.

E<sup>2</sup>I was canceled. That's part of the reason right now in the debate about decoys and so on, the Administration has no real comeback in their programs. Because they canceled all the boost phase intercept programs. And they canceled the E<sup>2</sup>I program and they bet the entire farm on solving the mid-course discrimination problem.

And the study I did in 1990, my conclusion was that is a serious mistake from a programmatic point of view. Because that is a very difficult problem and, whether you beat it or not, there will be credible technical opponents who you will have great difficulty debating in public on this issue. And so any serious program that you want to build with defense has got to have options that cover you against the mid-course problem.

One more point I want to make, that I think is fundamental to this group, is to point out — as military people I'm sure you know. If you have terminal defenses, ground-based defenses, you don't get any shots in the early part of the mission and

you have to deal with the mid-course discrimination problem.

The best help you can get is when reentry begins and, by then, you begin to worry about whether the RV can maneuver. And if what you're trying to do is protect cities, the other guy has an advantage. It doesn't have to be a very complicated design.

Saddam Hussein's SCUD posed very difficult problems, even for the systems that are currently being built. And it was nothing more than a kluge, which broke up on reentry but pulled 8-10 G's as it corkscrewed in. That's why Patriot didn't intercept any. That's why most of the systems being worked

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***“If you have . . . ground-based defenses, you don't get any shots in the early part of the mission and you have to deal with the mid-course discrimination problem.”***

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on today couldn't.

So hitting things inside the earth's atmosphere is not a picnic either. A layered defense is actually required. The point on this is here's your first engagement opportunity, you get three independent shots from a homeland defense in Alaska or the United States. That's shoot, look, shoot, look, shoot. If you have a space defense — this comes out of the report to Congress on Brilliant Pebbles — you see depending on whether it's short range or not, you can have 20-25 pre-apogee shots, even at a 2,500 km range missile. If it's very short range, of course, you can't intercept them.

But as I said earlier, SCUD-like range missiles can be intercepted from space. If it's a long-range missile aimed at the United States, you get a single shot in boost phase. You get 30-35 opportunities in post phase, this is with a 1,000 satellites in lower earth orbit; 55 in pre-apogee, mid-course outside the earth's atmosphere; 70-75 shots as it's coming in. So you have many, many shots and that's why we

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assigned 60% of the mission to the space interceptor for GPALS.

I want to just conclude now by pointing out where we were at the end of the program. These came out of my end of tour report, the budgets. Theater Missile Defense — as I said earlier, it is claimed that these programs started, and were given emphasis, by the Clinton Administration.

In fact, they cut these budgets by some 20-30% of what was in the program. You'll see a flat program on the order of \$3 billion a year in the out years. These are all the elements — part of the space sensor program was funded under the Theater Missile

cut within the first year to \$400 million by the Clinton Administration.

Of course, money started coming back in the '97 time period and I'm not sure exactly what the current numbers are. I think they're probably approaching those levels now but the problem is that they have lost a big gap in between where the technologies that needed to be carried along were not carried.

And just to emphasize that point, as a separate line we had a billion dollar plus program that was going on research and development arbitrarily. But in order to get the political deal with the Congress to

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***“Space is the least expensive, most effective defense that you can build. And you can build it quickly if you can figure out how to deal with the political hurdle — the arguments about the militarization of space . . .”***

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support the program deployment of the Brilliant Pebbles, the space interceptors was deferred 'til late in the game, after the ground-based systems were deployed. But there was on the order of \$400 million a year. These are then-year dollars so under 400 actually, \$395 million designated against carrying along an intense technology demonstration for the space elements.

Defense line to provide incentive to those folk to work with the space component. And this included all the back-up technologies to worry about countermeasures for the various systems as well.

The homeland defense, now called NMD — this was the budget which had been approved by the Pentagon's bureaucracy and, at this stage, the National Missile Defense program had been approved by the acquisition authorities. Requests for Proposals had been issued. They were in Huntsville, Alabama and the new Administration told the Army to send the proposals back to industry.

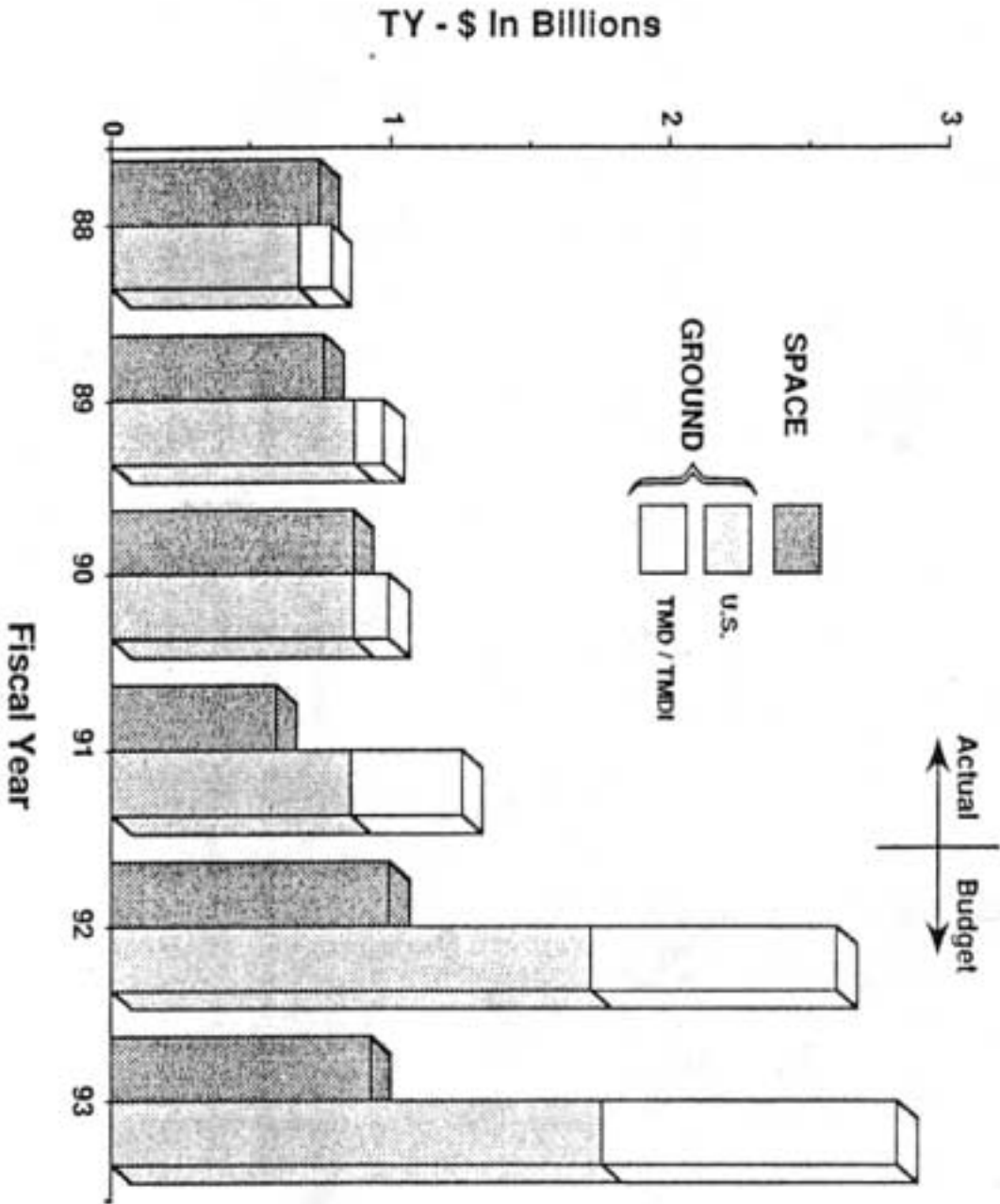
And it was directed to designing the initial capability out in as early as in the year 2000. This program was to ramp up to something on the order of \$3-3.5 billion. It included the space sensors and the command and control elements, all of the management and so on to do this program. It was

The follow-on, which included lasers and so on, was also in here and various research elements. This was cut by the Clinton Administration to something on the order of \$30 million. I don't know what it is, so it will be a different program.

But buried in here, as well as in places in the other programs, was all of the red team activities — the countermeasure, measure-countermeasure-measure, counter-countermeasure activities that are necessary if you're serious about making defenses work. And that's a weakness, I believe, in the current program.

There's a lot of noise in the international scene about the militarization of space. And the defenses are about the militarization in space. Even from the very beginning (the cross-hatched here is the investment in space research and development), even at the beginning we were investing as much on ground or terrestrial elements of defenses as we

Chart 9



# SPACE - GROUND R&D INVESTMENTS



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were on space. [see Chart 9 on page 21]

Beginning on my watch when we froze the design on Brilliant Pebbles, which is a relatively inexpensive space option, and deferred work on space lasers, the designated program was less than a tenth of what the investment was on the ground-based elements. Space is the least expensive, most effective defense that you can build. And you can build it quickly if you can figure out how to deal with the political hurdle — the arguments about the militarization of space, which is a big international problem as I'm sure you know.

These are the bottom lines from Hadley's speech, which I think are still true. A global defense deals with changes in the strategic environment, deals with the proliferation threat and there are options remaining for expanded missions that would involve our allies. The dollars came down in this time period, substantially.

People are now elevating and exaggerating the costs again. It's like the mid-1980s, the arguments

here. This kind of thing I think will sustain public support not only here but overseas. And at the time it was clear we had an executive and legislative consensus on moving ahead.

Just to quote Gen. Chuck Horner. I assume that people here remember that Chuck was the commander of the air campaign during the Gulf War. And he noted that the military, and he said he personified it himself, underestimated the importance of the SCUD. Some 30% of the missions flown in the Gulf War by the Allied forces had to deal with the SCUD. Not a single air campaign was successful.

Defenses are needed, as he said. And he said in 15-20 years, when very accurate missiles with mass destruction warheads are available, the US would need a regional-wide air defense — and he included missile defense in that air defense — to duplicate on a grand scale the Patriot's pivotal role in defanging the SCUD. And I think that's where we are today, except we no longer have 15-20 years.

### Question and Answer Session

*For technical reasons, many of the questions from participants were inaudible and are noted as such where applicable.*

#### Q: [Inaudible]

**Amb. Cooper:** The argument about the action-reaction dynamic is as old as worrying about all conflicts. This is not a new idea and, in that sense, it's certainly valid. What I would say about defenses to the degree that you're talking about them, is that it is a mistake, I believe, to leave ourselves defenseless against ballistic missiles. So that there is one avenue that's a cheap shot.

In my mind, that guarantees an escalation in the proliferation of ballistic missiles, which is a problem. And it has been a problem. I try to make the point that this is not a new trend. It has been going on for quite some time. The idea that we should be defenseless is — I find no basis for that in history.

The arguments that led to the current situation had to do with a bipolar world. And whether I agreed with it or not, the idea was that the whole world would be safer if we had a mutual hostage arrangement with the Soviet Union. Our troops have been in Europe for many years, most of that time as a hostage in that arrangement. And the argument was to keep the peace.

When we're dealing with threats as diverse as what we're talking about now. And where the incentives, I would argue, are already there — and history, I think, bears me out for building missiles. We invite a bigger problem if we remain defenseless.

And the asymmetric threat that you refer to, there's a mirror to that in the US strategy as we think about the problem. And it has to do with our ability to act to protect our interests and those of alliances with whom we have commitments around the world, if we leave ourselves vulnerable to this threat. And that was the point of the chart about what if Saddam Hussein had long-range missiles. I think that our ability to deal with that problem would have been severely constrained at a political level. And that was the point of Chuck Horner's words. It isn't just about military activity when you're dealing with a ballistic missile, which has the

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potential of delivering weapons of mass destruction.

Deterrence as we thought about it in the Cold War notably failed in the Gulf War. I mean really did not work. There are people that may argue, and with some credibility, that that's why Saddam didn't use chemical or biological weapons. I would argue that had nothing to do with our nuclear capability, it had to do with Israel's. He turned deterrence theory on its head. He was trying to provoke retaliation when he sent missiles to Tel Aviv and Haifa. It wasn't about deterrence.

So we have to reexamine our thinking. I don't deny the measure-countermeasure aspect of this and the expense associated with it. I would just note, I know there are people that say there are ways we can be attacked — with a suitcase bomb and other things. We're spending 2-3 times as much to deal with other forms of terrorism as we are on missile defense. We're spending an order of magnitude more on air defense. Why should we remain defensive about defending ourselves against ballistic missiles? I think we need to reexamine the arguments that led us to this position both in the United States and among our friends and allies.

**Q:** [inaudible]

**Amb. Cooper:** There are people that argue, for example, that Homing Overlay and ERIS were done in cooperation with the target. I point to the F-15 anti-satellite system, which was tested in 1984, to counter that. Because, as you may recall, we launched a smaller interceptor than the ERIS, in fact, and even, I believe, than the EKV, you'd have to check that. That brought down a satellite that had been in orbit for many, many years. Against a dark sky, black ground in 1984 or '85. Maybe it was '85. But it was of that time frame, 15 years ago.

During the '86-'88 time period, there were a series of experiments called the Delta series — 180, 181, and 183 — that won wide acclaim in this country for intercepts, in space, of programs that were carefully designed to skirt the ABM Treaty because they were not testing in an ABM mode. But any physicist that was looking at the speed of satellites — 7+ km/sec — and relates that to what an ICBM is doing when it transits space, which is slightly less than that. And you've got another satellite that with its onboard sensors and so on takes data — which to this day is some of the best data that we have — and performs a closing, pass-by or intercept. You're accomplishing, for an engineer anyway, a very significant demonstration that gives us confidence that we can do this job. So it's more than just the test I put on that sheet.

**Q:** [inaudible]

**Amb. Cooper:** The technology has moved forward [in the last decade]. I tried to make the point, not as fast as I thought it should have, and largely because we ceased to invest in the cutting edge. If you go over and try to find some of the best folks who were working for me, you'll find they're no longer working for the SDI program.

The emphasis turned to acquisition primarily of theater defenses and they turned off the basic technology support. And we're still running on the investments in missile defense that were made in the 1980s and early '90s, right now. To the degree that technology is pulling it, it's because that technology is mature. Again, I argue for political reasons we haven't used the best technology to get where we are right now in the acquisition program.

The EKV is much heavier than it needs to be, given where we were eight years ago with the Brilliant Pebbles. And one of the things that needs to happen particularly for the Navy program, just to make my point. That technology needs to be exported, and in the case of the Navy, employed on the standard missile which is their navy theater-wide interceptor. If they did, they would be able to reduce the weight of the payload sufficiently to where that velocity, which is now on the order of 3km/sec. You know the VBO, the

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burnout velocity could be increased by 50% — on the order of 4.5 to 5 km /sec. That technology is in hand.

It was demonstrated as part of the Clementine program in 1994, not politically correct so not allowed. A lot of other things not allowed on the Navy program as well. And it was designed so it could intercept missiles aimed at our friends and allies and our troops, but not missiles if they were aimed at the United States. It's a ludicrous proposition.

Its turning engineering on its head to say make sure the defense is not too good because if its too good then you see Article 5 of the ABM Treaty prevents you from even developing or testing it. And that's at the heart of what Don Rumsfeld is talking about, and others are talking about, when they say they need relaxation from the ABM Treaty. Because Article 5 prevents even the testing of these concepts.

And so the Navy has deliberately, whether the Navy has done it, put the blame in the right place, the policy of the last Administration deliberately dumbed down the Navy theater-wide system. And the way they did it was they slowed the interceptor down from the 4.5 km that I left in place, to something on the order of 3. Which is close to what was agreed in an unratified agreement in September of 1997 at the United Nations that said 3 km /sec, suspiciously close to that, but that's permitted for theater defenses. Silent on what the Navy would do per se but that's the magic number. But they slowed it down and you understand what that does to your coverage, it's the square of that number.

They insisted on sensors being placed on the interceptor, which are basically near-sighted, to use a colloquial term. A single color sensor which will not have capability against reentry vehicles that might be aimed at the United States from some of the serious threats, and a single sensor at that. They refused to permit the integration of the external sensors beyond the collocated spy radar on board the cruiser which is near-sighted also. It's limited certainly by the earth's curvature and also by its own power.

And so we're not using what we're doing as a matter of course in designing to defend the fleet against cruise missiles. Because if we did, you see, we'd be able to shoot down a missile aimed at the United States. And the most ludicrous of all the constraints was a protocol placed on the captain of an Aegis cruiser where he can't launch his interceptor missile until after the target rocket burns out. He's in a tail chase and can't catch up with a faster rocket. And these were designed so that the Navy could proceed with a theater defense but at the same time not defend the United States.

It may be too cute for this audience but for the United States' population, it communicates to say that what we've done is we've made a situation where a captain of a cruiser in the Sea of Japan can shoot down a missile launched from North Korea at Tokyo but not if that same missile is launched at Hawaii. Which is the same track going overhead or the northwestern part of the United States or the whole West Coast. That's ludicrous. The President can't defend that if the American public knows that. They'll be outraged. And so obviously we have to have relaxation from the constraints of the Treaty.

And I respectfully disagree with the Secretary of State last Sunday when on Cokie Roberts' show *This Week* he said we don't need relaxation from the Treaty in the near term. It's just not so. If we're serious about defending the country and using sea- and air-based defenses as the President said, in his May 1 speech, was his objective, we have to have relaxation from the Treaty and we have to have it soon.

**Q: [inaudible] Where did the word "national" missile defense come into [inaudible] which had an impact on quite a lot of allies thinking?**

**Amb. Cooper:** The reason the last charts talked about a limited defense system was because that's they way the Congress in 1992 (for the fiscal year '93) talked about it. But National Missile Defense, if you go back to the puzzle chart, that was the segment that dealt with defending the United States. There was National Missile Defense, Theater Missile Defense, and then the Global Missile Defense was the space segment.



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**Q:** But the politics has been called “national” sort of in/around the ‘97 period.

**Amb. Cooper:** If I were to describe the politics of the last eight years, the pivotal change came in 1994, when the Congress became Republican and I learned my civics all over again. And we had as a part of the Contract With America, I think was what Newt Gingrich called it, a commitment by the Republicans coming in to reinitiate and reinvigorate the missile defense agenda that had been on the Reagan and Bush agenda earlier. And in 1995 which was the first time out, there was a bill that passed the Congress mandating deploying . . . [tape flipped]

. . . opened the doors in the intelligence community beyond anything that the analysts, the general analysts had seen. So even the folks who were very negative about missile defense signed up to the proposition that the United States was confronting a period, an uncertain period to be sure, but that within five years of a third country deciding to build missiles to threaten us, they could have them. On the basis of proliferation, the things you could buy and on the basis of indigenous capability as well. And that we wouldn’t know when that clock started.

Immediately, the reaction out of the Administration was negative. But within six weeks North Korea launched a Taepo Dong. And it passed over Japan and almost to Hawaii. It was intended to put a satellite into orbit and it fell short. It was a failure in the third stage. The third stage caught the intelligence community totally by surprise.

And that result I think galvanized things on Capitol Hill. In 1999 there was a Missile Defense Act that passed and I think there were only three votes against it. Democrats and Republicans alike. To make sure it was not a campaign issue in 2000, Democrats had a program for missile defense.

My prejudiced view is it’s designed to fail, both under its own weight technically and because of the money, which they lied about to begin with. But they could argue that “we’re for missile defense too.” It’s just details and the public can’t understand it so as to take it off the table in the 2000 campaign. But the technology has been there and is still there. And technology better, in fact, than was employed by the Clinton Administration in the current programs. I mean that’s reality.

Whether the politics is leading or holding, or whatever right now, I don’t know. Ask Richard [Perle]. He’s going to be here later and he’s a better judge of where things stand inside the current Bush Administration.

My own view is that the President really has to lead. And if he chooses to lead on this issue, just as his father did with a Congress that was controlled by the Democrats, he’ll mostly get his way. He has the veto pen now. He has the bully pulpit with the American people.

And I hope last week’s discussions with our allies and with Mr. Putin will be positive. It was interesting to me to read, in I believe it was the *Taipei Times* and I gather that there were other articles earlier, that Andrei Kozyrev, who was the foreign minister in 1992 under Yeltsin when the Ross-Mamedov talks were going on, had an article urging the Russians to get on the cooperation bandwagon again. So there are pressures inside of Russia today to move in this direction.

Mr. Putin last summer, it was curious to me why he did it, but he proposed cooperation in NATO on boost phase intercept programs. And as I understand it, something like that, although its fuzzy, has been repropounded to the Bush Administration. And while that was clearly intended to split the North American contingent away from the European contingent, I think there are things to build on there.

A ground site in Eastern Russia could protect the world against launches out of North Korea. That’s just a fact. And that technology, in spite of what Gen. Larry Welch said recently, is not beyond our grasp in the near term. That job can be done. A site in Turkey would provide great protection from launches out of the Middle East. And by interceptions in boost phase.

And that’s not to argue there aren’t political issues to be dealt with, I’m just saying look at the globe and if we decide collectively that we want to do something about this, there are numerous ways to cooperate.

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Radar sites just as the Fyling Dales, and Thuli, could be incorporated in a homeland defense, they can be incorporated in a defense for NATO or in the Far East or the East for a defense that has its focus there. It could be airborne sensors, they could be space sensors, command centers in various and sundry places.

Logically, it is no more complex to do missile defense than to do air defense. In some sense you have less control over space because Kepler's laws dominate. Many people have the wrong idea about space. They imagine Star Wars literally and people flying space planes and so on but its not so easy to move things around in space.

**Q:** [inaudible] What about a cyberwar in this context?

**Amb. Cooper:** I think that's a serious problem. And I think its interesting that at the National Security Council, now as I understand the way this is being put together, Bob Joseph has a portfolio for homeland defense. That is being put in the right place with missile defense and counter-terrorism, counter-proliferation issues. I think that's a serious problem for the future. And it's going to come no matter what. As I said earlier I believe we're spending 2-3 times on these kinds of problems today and I believe that budget is going to go up and because it is clearly a growing problem.

We didn't design for it specifically but it is clear to me, that if you're serious, you can't take off-the-shelf software for the command and control of vital systems of the sort I'm talking about. Anymore than you would do it of our strategic forces. And it's not by Microsoft. That is a problem right now in at least our defense community because of a press, which I think is bipartisan — it's not to blame on one or the other, but to use commercial technology across the board.

And there are some missions that are extraordinarily important, that we have to be very careful about that. And this is one of them. It's not by chance, I believe, that US Space Command has been given the mission, that's not to say they know how to do it yet, but to worry about what's called computer network attack and defense. That's the whole computer network operations on the military front for dealing with, at an architectural level, how we deal with this problem.

**Q:** [inaudible] How do you look at that question, how much is enough?

**Amb. Cooper:** There are many ways to think about this. I guess people that just look at the bottom line, note that the overall defense budget — while it's an enormous amount of money in the United States, as the gentleman pointed out back here earlier — we have a very robust economy, I hope it's not failing on us. And we're spending less as a percentage of our Gross National Product today on defense overall, than at any time since before World War II. We can afford it. That's one comment I would make.

So the issue of acceptability has to do with the tradeoff among programs and projects in the United States — domestic politics vs. foreign affairs. Today in the United States, I think it's less than 20% of our Congressman and Senators have served in the military. So how the legislature thinks about these issues is a dynamic that is different now than it was even ten years ago as the Congress ages. That's a real affect, I believe, in the priorities.

The political arguments are dominant in this area too in ways that, for me as an engineer, are frustrating. One chart I didn't use to make the point. Space interceptors are unacceptable politically. I'm not here to try to debate that. The point I want to make to you is just a technical and economic point.

If that were not a problem, the technology is here, was here, was approved by the acquisition executives of the Pentagon, the bureaucracy that was there then is still there. George Snyder was the guy in the chair then, he's the guy in the chair now. That program to build a space-based interceptor, we believed then and I believe now, could be built in 5 years. For \$5-7 billion. A third the price of THAAD. Defend the entire world.

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A high probability of destruction of 120 missiles launched from anywhere with a range more than a few hundred miles.

If economics is the driving force, why don't we do that? Well, it's obvious that economics isn't the only driving force. There's the political argument, the militarization of space. Guys come out of the woodwork. They're not SDI arguments. They go back to the 1950s.

This is the percent of warheads killed vs. the range of a missile. Out here is 3,000 km. This is 100%. For a very short range missile you could do for one RV for 20 you get to 90% if the range is about 1,800. By the time you're up to about 3,000 RVs you get to 80-90% kill for somewhere between attacking 20-50 attacking missiles from that space constellation.

If you want to look at a nominal one where you're dealing with a threat of 20 missiles. And that's three times the largest raid in the Gulf War — seven SCUDS in a single salvo. This shows you what the percent of kill data says upon a range from depressed trajectories, which is getting as low and flying as fast as you can, to lofted trajectories. You can have a very effective defense inexpensively. And we know how to build this system.

Iridium, which was a financial disaster for its investors — Do you know what Iridium is? — was deployed for \$5 billion and its based on how we would operate and control this system in space. And it works just fine. The Pentagon is getting good use of that system for pennies on the dollar today. So I'm not talking about hypotheticals here. Hypothetical only in the sense that there is a political bar against doing this. It's not money. It's political.

**Q: If the politics still hold back from that cheaper system, what is the outcome?**

**Amb. Cooper:** Well, I'm worried, quite honestly. Because the most politically acceptable system is also the most expensive, least effective, takes longest to build system [land-based]. And the ABM Treaty was designed that way — to preclude building effective defenses. It succeeded as a political instrument. So I'm worried.

The nearest short term action which, I believe, has political support is the Navy program. And I strongly have favored that program because the Navy thinks right about these issues, naturally. The key to an effective global defense is what's called an open architecture. And the Navy captain is king on his ship. They think correctly about how you do command and control of a defense to begin with. And if this is internetted and woven into the air defense architecture, and we can relieve the constraints on the testing and development of the Navy system, I believe that system can also be built within three or four years and operating for under \$3 billion.

So it's cheap but you've got the Treaty, Article 5 of the Treaty. The same Article that blocks the space-based defense blocks the sea-based defense. ♦

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Let me begin by taking what I think is probably the most controversial issue. You've already had what I know from experience over many years with [Ambassador Henry] Hank Cooper, a clear and intelligent and forceful presentation on the technology side of ballistic missile defense.

The first and most important point about an American ballistic missile defense program is that it is going to happen.

It is going to happen if no one else in the world wants it to happen except the President of the United States and the majorities he will have to

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assemble in Congress. And I have no doubt that substantial majorities are there. It is inevitable. I can't tell you exactly what the architecture will look like. Maybe you've heard some ideas about architecture today. And the architecture will in any case evolve.

But it is a certainty that this country will not continue its current abject vulnerability to anyone who can lay his hands on a single ballistic missile capable of reaching our territory. It's an intolerable situation to be in. It's an abnormal situation to be as vulnerable as we are to a known threat. And we are going to do something about it.

And we will do something about it — ideally with encouragement and support from others who can look at our situation and come to the obvious and logical conclusion

that, of course, we wish to be defended. Or it can go forward in the face of criticism from those who do not share our interests or our situation.

We are not all in the same situation and we each have to do what we have to do to provide for our own defense. That is normal. That is natural. That is how it has always been. And I am sometimes astonished by an idea that seems to have emerged in recent months, because it's very fresh. This idea that there is an approach to international security affairs known as unilateralism that is somehow illegitimate.

I was raised on the idea that there is a thing called the national interest and it differs from one country to another. And it is the responsibility of the leadership of any country to protect its national interest. And I would be surprised if anyone in this room would disagree with that.

When the United States asserts its national interest it is sometimes, now, criticized, principally by Americans because we are our own most vociferous critics. It is sometimes criticized as unilateralism. Well, we are not about to submit our most sensitive security interests to a vote by other interested parties. It makes no sense. There's no history, there's no tradition, there's no logic that suggests we

should. So if I sound unilateralist, it is without apology.

It is entirely appropriate that every country decide for itself what is in its own best interest. And I know that each of you is dedicated to make the best judgement you can about the best interests of your country. And that's something that, obviously, we need to do too.

This does not mean that we're insensitive to the consequences of our action in the world. And if we were to embark on policies that met with universal disapproval, and if that disapproval manifested itself in a way that prevented us from achieving our

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***“The first and most important point about an American ballistic missile defense program is that it is going to happen.”***

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objectives, we would have embarked upon foolish policies. But the point about them would not be that they were unilateral. It would be that they were foolish. So we are going to make the best decisions, the best judgements we can about our security.

And one of the judgements we have made is that permanent vulnerability to ballistic missiles is not an acceptable condition for the United States. It may be acceptable for other countries. There are countries in the world who are not threatened by ballistic missiles now and are unlikely to be threatened by them in the future. There are other countries that may not have the means with which to provide a defense. But a country that is both threatened and has the means, it seems to me, can be expected to do the obvious thing, and that is provide a defense.

What is extraordinary about the controversy surrounding ballistic missile defense is that it reflects the persistence of thinking that developed in the long half-century of the Cold War. And in particular in the last thirty years of the Cold War. The Treaty in 1972 that banned the deployment of missile defense was intended to regulate a balance between offensive and defensive forces in such a way that neither the United State nor the Soviet Union could

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expect to launch a massive, disarming first strike and avoid retaliation by absorbing the retaliatory blow with a defense system in place.

In other words, it was part of the structure of the relationship between two mortal adversaries. And I think there's no question that from the point of view of the United States, and I expect from the point of view of the Soviet Leadership as well, we were locked in mortal combat. It happily never erupted in the use of weapons against one another. But it might have. And everyone understood that it might have.

And in that context, without arguing the history, there was a case to be made. That if one side or the other deployed a defense, it could empower the side with the defense — particularly if it had defense alone — to act with impunity on the offensive side, confident that it could not be retaliated against.

So the notion of Mutual Assured Destruction became the central doctrinal feature of the Cold War.

And happily the context of the Cold War is gone. And the most important point about the change in that context is not simply that the Soviet Union no longer exists. It is that the United States and Russia are not, and need not be, enemies and, in my view, need not even be adversaries. There is no reason now why, after the Cold War, the relationship between the United State and Russia cannot be a normal relationship between two countries — whose interests are not identical but who have a common interest in resolving any problems that may exist between them in a peaceful way and a way that is beneficial to both sides.

In the 1980s when I was part of the Reagan administration — it's a metaphor but not too far from the truth to say — we went to bed at night not knowing the precise nature of the threat we faced. We saw a very large military program. We saw a military program that included tens of thousands of

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***“I don't know anyone, any American official at the Department of Defense or elsewhere, who worries that Russia is capable, politically capable, of launching a massive nuclear strike on the United States.”***

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This was an abnormal situation. I think one would be hard-pressed in reviewing past history, prior to the Cold War, to find the notion that the path to security was the ability to destroy the civilian population of the other side and that stability in that context required that one make oneself vulnerable.

And I remember the earliest conversations between American and Soviet officials in which the Soviet officials took the position — as we proposed limits on defensive forces — how can you limit the freedom to defend your country? They were, I think, genuinely mystified that anyone would propose the idea that vulnerability was a good thing.

But if it was a good thing in the context of the Cold War, it is certainly not a good thing today.

nuclear weapons. And in that condition of uncertainty, we resorted to a series of programs that we considered necessary to our defense. And we worried what a leader, whoever he might be, in the Kremlin might decide to do. We

don't go to bed with those worries any longer.

I don't know anyone, any American official at the Department of Defense or elsewhere, who worries that Russia is capable, politically capable, of launching a massive nuclear strike on the United States. No one can conceive that it would be in the Russian interest to do that. And I hope that people go to bed in Moscow not worrying about whether George W. Bush might contemplate a massive nuclear strike against Russia. That is a world that no longer exists. Some people would say it was misperceived even during the Cold War. But today we are not threatened by Russia and Russia is not threatened by us.

And in those circumstances it makes no sense for

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the United States to subordinate the requirement to defend itself against ballistic missiles, that may originate elsewhere, to the preferences or desires of any other country, Russia included. President Putin is reported to have said recently that if the United States acts unilaterally with respect to the ABM Treaty — which is to say if it exercises its rights under the Treaty to withdraw upon 180 days notice — that this would cause Russia to keep more nuclear weapons than it would otherwise keep. Maybe even to build new nuclear weapons.

Some of you may have seen Jim Woolsey's piece in the *Washington Post* this morning. I think Jim was exactly right in his comment on that idea. If Mr. Putin decides he wants more nuclear weapons, that's OK with us. Because we don't feel threatened by those nuclear weapons. I think it would be a foolish decision from a financial point of view because there are much better ways to employ the limited resources of any nation, than in an excess of nuclear weapons.

But if he chooses to keep more nuclear weapons, or even add to the total number of nuclear weapons he has, or alter the structure of the Russian Strategic Force, I for one would be indifferent to that. It makes no difference to us. It in no way affects our security. Similarly, Russian security is not going to be affected by decisions we make with respect to our offensive or our defensive forces.

With respect to the offensive forces, I can tell you that we will be reducing the total size of our nuclear force — significantly, substantially. And ideally we will do so not in the context of a lengthy negotiating process. Who would we negotiate with? But by making — unilateral, if you like — determinations about what nuclear force is in the best interests of the United States. And without delay, without negotiation, reducing to that level.

Now that may sound aggressive. It's not meant to sound aggressive and it isn't aggressive. And it only sounds aggressive, in my view, if we allow the penumbra of the Cold War to dominate our thinking. Because once you set the Cold War aside, it seems to me entirely logical and reasonable that we should

decide what we need, and build what we need and no more than that. And adjust our forces up or down accordingly as we see necessary, whether they are nuclear or conventional forces. And the same applies to the mix of offensive and defensive forces.

Now just a word about why we consider it intolerable to be vulnerable to any ballistic missile. And that, of course, is the current situation. We are vulnerable to even a single ballistic missile. And I just want to raise two issues in this connection because we can talk all day about this subject. One is a practical question and the other is a moral

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***“ . . . frankly, treaties with the likes of Saddam Hussein and Kim Jong Il are worthless scraps of paper.”***

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question.

The practical question is simple enough. In our current situation, the threshold for achieving the ability to threaten the United States, or others, with a ballistic missile and a weapon of mass destruction — which could be nuclear, it could be chemical or biological. The threshold is one missile. Without a defense, even a single missile places the country, or even the group, that acquires it in a position in relation to its victim, or potential victim, that is radically different from the situation they're in without that weapon.

So the development of a defense is, among other things, a powerful discouragement to building that weapon in the first place. Because if all you need to do is to build one, that might be a plausible proposition for a Saddam Hussein or a Kim Jong Il. But suppose instead of building one, you have to build a significant number, 50 or 100 or 200. Maybe 400 if the likelihood that they're going to work is only 50%.

That is a barrier to proliferation which is far more effective in my view than any round of treaties that we might sign. Because, frankly, treaties with the likes of Saddam Hussein and Kim Jong Il are worthless scraps of paper. So I would like to see —

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and I think the whole world should welcome — raising the proliferation barrier. So that tomorrow, which could be 10 or 20 or 50 years from now — when somebody acquires the ability to attack and destroy another country — there is a means of coping with that, other than retaliating against the territory from which that missile may have originated.

And this is a protection that, in principle, we should be prepared — I think are prepared — to extend to the world. If a missile is fired at Pakistan or at India or at South Korea, wouldn't the world be better off if there was a defensive missile that might intercept it? So we have begun to think in global terms and I think that's right and proper.

And this brings me to the moral point. As things now stand, the only ability we have to discourage the exploitation of that vulnerability is the threat to retaliate. And the threat to retaliate became accepted during the Cold War. I think in part because the stakes were so high and in part because there was no plausible alternative. So, many of us swallowed very hard and accepted what is really a monstrous policy.

Had we been attacked, our response would have destroyed tens of millions of people. Almost all of whom would have had no responsibility for that attack. That is to say, we would have punished the innocents for the sins of the guilty. It's a moral nightmare. After the Cold War, when we have the alternative of a defense, I don't see how we can sustain reliance on that policy. That policy of the threat to destroy.

Now I am sometimes astonished at friends and colleagues, Senators, Congressmen, editorial writers,

who so cavalierly suggest that deterrence is just fine. All we need is deterrence. And what deterrence really means is that if a Saddam Hussein should do something crazy, that the women and children of Baghdad should be destroyed. And I think that is a morally untenable position. And the sooner we put in place an alternative to reliance on deterrence alone, the prouder we can be of our effort to provide for our own security without having to rely on the threat to destroy women and children. Which is the situation we are in today.

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***“ . . . what deterrence really means is that if a Saddam Hussein should do something crazy, that the women and children of Baghdad should be destroyed. And I think that is a morally untenable position.”***

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Now I've chosen to focus these remarks rather narrowly. And there is a great deal going on in Washington at the moment in the defense area. There are reviews underway. So what I suggest is that in the question period we follow the rules of the United States Senate. Which is to say that your questions, comments need not be relevant or pertinent to anything I've had to say [laughter] and I'm happy to discuss any topic that's of interest to you.

Let me just say something I should have said at the outset that what you have just heard me say reflects my own view and Secretary Rumsfeld, as Sven[Kraemer] indicated, has very kindly asked me to serve as Chairman of the Defense Policy Board. That is the one job in the Pentagon that permits me to speak for myself because the Board has no corporate view. And I'm certainly not speaking for the government. Thank you very much.

### **Question and Answer Session**

*For technical reasons, many of the questions from participants were inaudible and are noted as such where applicable.*

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**Q:** [Inaudible]

**Mr. Perle:** It seems to me that the ABM Treaty prevents Russia and the US from deploying a defense. We believe that's unacceptable, not least of all because we have enemies, unfortunately. We'd rather we didn't but we do. Saddam Hussein is an enemy of the United States. So I believe is Kim Jong Il, despite the diplomatic process underway. And there may be others and there undoubtedly are others.

So how do we deal with that? Well, one way to deal with it, and it deals only partially with it, is to deploy a defense. Russia may have enemies too. In which case Russia would be well advised to have a defense as well. Now if we end the ABM Treaty, and my view is that we should end it mutually. That treaty is not only not in the American interest, it is not in the Russian interest either. And it doesn't bind anyone else. It doesn't bind any potential adversary of either Russia or the United States. The people we worry about are not parties to that treaty. They're not bound by it.

My own view is ending that barrier to the provision of our own defense should not, and logically will not, cause anyone to increase the threat to either Russia or the US. If anything it will discourage that threat. For the reason I was arguing a moment ago. If all you need to do is get a missile or two, that could be a very appealing proposition. And when we talk about obtaining a missile or two, we're not talking about having the scientific and technological base to . . .

[Tape switch]

Look, in principle if we had a perfect defense, it would be a perfect response to proliferation. We are not going to have a perfect defense, we will have a partial defense. But against the sort of proliferators we are worried about, a partial defense is enough to make this a very unattractive proposition.

Look at it this way, if you were in a budget meeting with Saddam Hussein — whether Saddam has budget meetings or not, I don't know. And the head of the Republican Guard is arguing for more money for tanks and the head of the Iraqi nuclear missile program is arguing for more money for nuclear missiles. I would like to be in

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***“ . . . [the ABM Treaty] doesn't bind anyone else. It doesn't bind any potential adversary of either Russia or the United States. The people we worry about are not parties to that treaty.”***

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the position, if I were arguing for more tanks, to say, “you know, even if you get these missiles, they are going to be intercepted anyway. So let's put the money in tanks which can actually accomplish something.” So I think it is very much in our interest to discourage proliferation, in part by rendering that mammoth effort ineffective.

Now, if Russia decided it needed more offensive weapons, I don't see the logical connection. I really don't. For one thing Russia's got a lot of offensive weapons anyway. And the kind of deterrence we are talking about, against the kind of threats we are talking about, is in any case very different from what it was during the cold war. Russia had, and still has, a very sophisticated nuclear capability. As you know we all worried about these mathematical calculations of how many of our weapons would survive that theoretical first strike.

When I first came to Washington in 1969, I had a little slide rule, a circular slide rule, that was called a bomb damage calculator. I'm sure Hank [Cooper] had one, you might have had them. I don't know if you had one of ours or one of your own, but probably both. This enabled you, by turning the wheels, to calculate



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the probability of the survival of an American missile in its silo based on the CEP and yield and whether it was an air burst or a ground burst.

Those calculations are unimaginable today. We need to give substance to the view I've just expressed by changing in some fundamental ways our doctrine about these forces. Some of us are very eager to do that now. And that includes taking some weapons off alert. It makes no sense to increase the threat of an accident, for example, by behaving as we did during the Cold War.

But old ideas die hard. And I think if President Putin examines this carefully, he will decide that if the United States builds a missile defense, a decision to invest more money in offensive forces by Russia would not be a well ordered decision. And I trust that his mind is still open on that issue. But he is vulnerable, as are many Americans, to the ideas that developed during the Cold War and it is not easy to think this through. I argue this subject all the time now with friends and colleagues who are having a very difficult time letting go of the conceptual framework that was so important for so long.

**Q: We hear a lot about the implications of missile defenses for Russia. We hear a lot about what it means for the various rogue states. We seem to hear very little about strategic relations with China?**

**Mr. Perle:** Well let me be very blunt about this. There is a kind of "sotto voce" cynical, well-informed view that this is really all about China. Of course they are not saying it, but this is really what they have in mind. I can tell you there may be people who think that but they are not people in senior positions who are responsible for the policies we are talking about. They just aren't. I don't know anyone — the President, the Secretary of Defense, the Secretary of State, the National Security Advisor — who thinks we will talk about rogue states but we really mean China. Let me explain why.

First of all, there is nothing inevitable about a hostile relationship between the United States and China. We have our differences. So far we've managed to resolve those differences at the negotiating table and there is no reason why we can't continue to do so. The idea that we are going to be locked in a sort of deadly quarrel with China, in which the possession of nuclear weapons and Mutual Assured Destruction is fundamental, as it was once thought to be in the Cold War between East and West. There is no reason to expect that, no reason to anticipate it. If we handle things badly, and we are confused, we can almost certainly create a climate in which that will seem like a rational policy. But we should do everything we can to avoid it because it isn't inevitable. And it would be very damaging to the development of China and to the safety and stability of all the rest of us. So, I certainly don't assume, and I don't know any one in the administration who assumes that Mutual Assured Destruction is going to be fundamental or important to the relationship between the United States and China.

Secondly, the Chinese nuclear force is a small one. It is probably, in a theoretical point of view, vulnerable to a preemptive first strike from the United States, should we choose to do that. If you just look at the numbers, I think the number of Chinese weapons that would survive a preemptive attack if we were to launch one is probably very small.

But why would we do that? And this has been the condition that has existed up until today. Up until today we have not heard Chinese concerns about their vulnerability to a preemptive first strike. I suppose because there is no reason to expect or fear or anticipate an offensive first strike from the United States. Which is exactly how it should be. There's no reason to fear that.

So, I understand the Chinese are repeating, in their official policy, the concerns that were once expressed in the context of the Cold War. And here I think they've learned too much from us. And if they stand back and look objectively at their situation, an American defense need not be a concern to the Chinese. And as we reduce the size of our offensive forces I hope they will take some comfort in that.

Now the Chinese force is going to grow. We all anticipate that. I hope they will be wise enough not to over

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invest in military power, as the Soviet Union once did. I think a third of Soviet GDP was at one time at work in the defense sector. And it unbalanced the economy and in the end did a lot of damage. I don't think the Chinese are going to do that. They haven't showed an indication or a desire to do it. They'd be very foolish to do it.

But to the degree to which the Chinese are concerned about our missile defense, we should be talking to the Chinese about it and urging them to think through why they need be concerned. It is probably true that a limited defense could deal with an offensive attack from China. But we don't anticipate an offensive attack from China. If it were not for threats originating with people like Saddam Hussein, we wouldn't need a defense. We certainly wouldn't need one with respect to China. Now I can't tell you that 50 years from now, if we manage to do things wrong and we make mutually reinforcing mistakes and we wind up in some awful, hostile relationship with China that that situation won't change. But there is no reason to expect it now. And there is every reason to do whatever we can to avoid that kind of relationship developing.

**Q: [AMB. COOPER] If I could, I'd like to comment on the last thing and get your reaction to what I have to say. I think there's one more argument and it underlines this kind of suggestion about the Chinese supposition that we had it right with the Soviet Union and the ABM treaty. And my view is that it was not right then. It was based on a setup of false premises and I think demonstrably so. That in fact, had we both invested in defenses as well as offenses, we would not have built up the massive offensive capabilities that actually resulted. And I remember, I believe it was the mid-60s when we took down our air defense, which was a major investment in this country because we were on the path of adopting this Mutual Assured Destruction model. That's when the Soviet bomber program started. So the action-reaction argument I think is just plain wrong. And I hope we don't make the same mistake with China that I believe we made, in fact, with the Soviet Union. That's my view, I wondered . . .**

**Mr. Perle:** I think it's a very well-taken point and it troubles me that so much of the doctrine that lay behind that mistake was invented here. A lot of it right in this town in places like Brookings and elsewhere. We have a terrible trade imbalance with the Chinese and I hope we don't export some of our bad ideas to try to balance it out.

**Q: I would like to quote one sentence from a speech by Joe Biden on the twenty-first of June. "My concerns are well-known, so is my belief that making it possible to craft a defense with an amended ABM Treaty" and this is the part I want you to concentrate on, "so as not to threaten Russia or China's nuclear deterrent capabilities." No one ever asked these people what it is that China or Russia are trying to deter us from doing. I was wondering if you could comment on that.**

**Mr. Perle:** I think that statement reflects an inability, so far, to move beyond the Cold War. It really is an expression of the Cold War relationship, extended now to China in the absence of the Cold War. It's really very unhelpful and I'm hopeful that by the time this thing has been discussed pretty extensively that Joe Biden will change his view of it.

I'm against amending the ABM Treaty and I'll tell you why. The ABM Treaty can only be understood in the context of the Cold War relationship. That is to say that the requirement that we have a legal exchange of obligations not to defend ourselves, or to defend ourselves only partially, between the United States and Russia implies that Russia is right to fear an American combination of offense and defense that could destroy Russia. And conversely, that we are right to fear that emanating from Russia.

That is the Cold War relationship and if we are going to move beyond that. If we are going try to build the sort of constructive, even friendly relationship, between the United States and Russia that we should be

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working toward, we need to get that out of the way. When you set up the table and put the flags on either side and Russian and American negotiators come in and start talking about how many defensive missiles each side should be permitted to have, what does that say about the nature of the relationship? That was the relationship. It shouldn't be the relationship in the future. So I would be in favor of withdrawal from the ABM Treaty — even if we have no plans to build a defense — as a vestige of the Cold War that we should put behind us.

**Q:** I have a couple of observations. The first thing is with the ABM Treaty, what is the intention if you withdraw? So far, at least, the arms control architecture in general has been helpful for the international situation. This is at least my perception. So what comes instead? This is question number one. I think Putin made that point in Ljubljana [inaudible] as well.

The next observation is, I heard you saying here what I heard from Colin Powell and Condoleezza Rice as well, that you do not intend to have arms reduction talks. You want to do that unilaterally. The historic experience is, at least, under the certain conditions of the Cold War and the bipolar world, that these added a lot of trust between the USSR at that time and the USA. And was also helpful for the rest of the international community. So why not, just a question, go with the two powers who have the biggest nuclear arsenals and discuss that. I understand the approach that you do not want to discuss for ten years and get rid of bipolar defensive systems. But I think one can agree and make that point and say its part of a more stable world.

And if I look down the road, what is your idea? I should make one point in between. Proliferation is quite an issue. I hear a lot of Republicans, or Republican agents, say proliferation failed, therefore we have to do that. Its an intellectually good argument because we don't know what would have happened if we had not tried non-proliferation. But indeed we see the situation that proliferation happened. Well, obviously, our efforts were not strong enough so have now 32 or 36 nations which are of concern for you. But basically an arms control architecture was helpful for the entire international community, not only for bilateral Russian-American relations.

And the last point, if I look down the road a couple of decades, how do you see all of those nations that now have weapons of mass destruction and ways of delivering it, how do we deal with them under the assumption that there is an offensive as well as a defensive capability in the United States — and perhaps in Russia as well, and other countries? How do we put them into an international framework of agreement to make the world a safer place?

**Mr. Perle:** There is a lot there and I want to respond to all of it. Let me take the last point first. I don't have a lot of confidence in the international structure of agreements, to be candid. And the reason is that these agreements inevitably involve bringing together in a single regime, if I can call it that, the good guys and the bad guys, if I can put it that way.

So, you create an agreement and the agreement includes Germany and Portugal — and I was going to say Switzerland but the Swiss tend to avoid these things, but maybe it includes Switzerland. And it also includes Iraq and North Korea. This is a peculiar notion of how you achieve stability. You put together in the same agreement the people you're worried about and the people who are trying to contain the damage that they might do. It's a little bit like organizing civil security with an agreement between the criminals and the police. We'll get everybody in the same treaty.

There's another approach and the other approach is that those of us who are concerned about proliferation

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get together to try to prevent the proliferation of those that we're concerned about. So we get together to stop Iraq or we get together to stop North Korea — in various ways. By controlling what they're permitted to buy, by a variety of means. Peaceful ideally but ultimately, conceivably, even using force. It's a different approach from the notion that voluntary restraint, which is what we're talking about, can be counted upon with people like Saddam Hussein. I think agreements with the people we're mostly concerned about aren't worth very much.

During the Cold War, I know it's fashionable to think that the arms control agreements that were reached contributed to stability. I'm not so sure. Did they build confidence? I'm not so sure of that either. I sat in some of those meetings and there was a great deal of distrust about compliance. We spent I don't know how many billions of dollars in a tremendous intellectual effort, watching every move the Soviets made to see if they were cheating or not — and sometimes they were cheating. I mean, Gorbachev's foreign minister, Shevardnadze, has acknowledged that the radar at Krasnoyarsk was a violation of the ABM Treaty. And there



*Dr. Richard Perle speaking to members of the Defense Attachés Association.*

were lots of other violations and I think we sat in some of those meetings discussing the violations. And it's conceivable that our counterparts in Moscow thought that there were violations on our side. I don't believe there were but there was plenty of mistrust.

Not only was there mistrust. There was exploitation of the imperfection of the agreements. And this is always the case. You have battleships. You prohibit one tonnage, you get another tonnage. You limit the number of intercontinental ballistic missiles and what happens? The SS-20 emerges because it's not limited. The SS-20 was a product of the SALT I agreement. No question about it. In order to maintain the maximum intercontinental capability, the Soviets converted SS-11s to SS-19s and that left them short with respect to Europe and the SS-20 was born. And you and I went through a nightmare surrounding the SS-20 and it was the product of an arms control agreement. Where there are arms control agreements that can be worked

around, it is human nature to work around them. If the political relationship is such and if the fears and anxieties are such that people are motivated to arm against one another, treaties will lead to ways around treaties — and not to an end to the activity. So I think the potential for arms control, looking back historically, is really very limited.

The most popular approach to arms control nowadays is these large multilateral treaties and frankly I don't think we are well protected by those sorts of treaties. Because the people we worry most about will violate them. And I doubt that there's anyone in this room who, when he sits down to plan or to participate in the planning of his national defense, I doubt there is anyone in this room that is prepared to rule out a possible hostile action simply because there's an agreement prohibiting it. I think we all want to make a separate assessment of how likely it is that we might be a victim of some behavior even if that behavior is illegal.

So the world has not yet arrived at the point where we can count on regimes of law and international exchanges of commitments, frankly. We could, among some of us. But those of us who could freely give and accept and rely upon those exchanges of commitment are not worried about one another. It's the people we worry about that will freely accept obligations and then violate them. We were surprised to discover how far along the Iraqi nuclear program was — a member of the IAEA. We now know not only did Iraq have a

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covert nuclear program that went far beyond anything we understood but their ability to evade detection was facilitated by the fact that an Iraqi was in the detection apparatus at the IAEA. Now, how foolish do we have to be?

So I think the kind of prudence that all of us apply in our daily lives should be applied here too. And looking back I'm not convinced that we benefited a lot from an arms control regime. Which is why the problem with negotiating rather than unilateral decisions is not that it takes time, although it does take time. It implies a relationship. It implies that each of us has to be concerned about the forces of the other country. And if the Germans say to us, go negotiate with Russia the precise balance of your offensive and defensive nuclear missiles. You are telling us to continue that relationship of hostility that we want to get behind us. That's not the purpose, but that's the effect. And you don't feel it necessary. The British don't feel it necessary to negotiate with the French the precise size of their nuclear arsenals. Because they're not enemies and they don't conceive that either is going to attack the other. I want us to get to that point with Russia and there's no reason that we shouldn't, now that the Cold War is over. So don't push us back into a way of thinking.

**Q: [inaudible] I was talking about the two nations with the largest arsenals as far as nuclear weapons. And I was thinking on the positive effects [inaudible] . . . it would be a sign for the rest of the international community if those two countries come to a conclusion [inaudible].**

**Mr. Perle:** What I think would really be positive is when we announce very significant reductions in our offensive nuclear forces. The rest of the world can read that as they like. The right way to read it is that we no longer feel we need a large nuclear force to protect our interests. And it would be a good thing if Russia were to do the same. They don't have to do the same and they may see their security requirements different than ours.

During the Cold War we built a massive number of nuclear weapons because we were at a conventional disadvantage in the center of Europe. We were looking at all these Soviet divisions. Well, how are we going to deal with that? Well, we'll have nuclear weapons. So we built thousands of them. Every conceivable conventional weapon was built in a nuclear version. Land mines. We had nuclear land mines, as you know. I chaired a high level group at a period when its mandate was to reduce the total number of tactical nuclear weapons on the NATO side in Europe. And let me tell you there was bitter controversy. One very senior general officer refused to talk to me because I was responsible for a reduction from 7,000 nuclear weapons to 4,000 nuclear weapons. And he thought I had endangered the security of the Western alliance.

That's how we were thinking in those days. And the whole idea was that we had to offset the superiority of the Soviet Union in ground forces. So attitudes about what is necessary will change. I think we're more enlightened now and neither of us needs large numbers of nuclear weapons. If the world changes again, I can't tell you there will never be a time when we don't once again feel we need large numbers of nuclear weapons. But if we don't seize this opportunity now to change the mentality, I think we'll be making a serious mistake. And with the best of intentions. A lot of the old structure and the old framework really perpetuates a sense that a precise balance is necessary for security and I think that's very damaging.

**Q: In your vision of the future, in the balance between defense and [offense-based] deterrence, is your vision that you will eventually eliminate deterrence as a concept?**

**Mr. Perle:** I think deterrence is going to be there as long as there are nuclear weapons but I think it's a great mistake to rely principally on nuclear deterrence. So I think it will fade into the background. Someone contemplating an attack on the United States will always, I expect, have to reckon that if things got completely out of hand it could be very painful and not just with conventional weapons.

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But that's very different than relying on deterrence. There are people who actually argue today that we should rely on deterrence. And we shouldn't do the other things that we might do to diminish our reliance on deterrence. I think that's very shortsighted. So I see deterrence largely going away and limited to the most extreme situation, which is where one is the victim of a nuclear attack. I no longer think it makes sense to talk about the use of nuclear weapons to respond to a whole variety of contingencies that during the Cold War we thought we might use nuclear weapons to respond to. I used to have to deal with the question, as a lot of us did, of the policy on first use during the Cold War. And I was very much against agreements to rule out the first use of nuclear weapons because of the conventional imbalance. I would not have a problem today ruling out the first use of nuclear weapons. The world's different.

**Q: It's about the unilateral ban. If we follow the philosophy of the suggestions of both sides, Russian and US sides, there might be a suggestion where we scrap '72 and the rest of the arms control treaties in nuclear and strategic weapon in existence. I mean START I and START II. [inaudible] Where would we be with the problem of trust, confidence, transparency and control measures if there is no START I in existence, which is quite a mechanism to control what's going in arms control and arms reduction. [inaudible]**

**Mr. Perle:** I really think that trust and confidence is going to flow from the nature of the relationship, which is how it is between most countries. Trust and confidence between France and Britain doesn't flow from an arms control agreement. It doesn't flow from transparency. It flows from the political relationship between them which is a benign relationship. And I see no insurmountable obstacle to the same sort of benign relationship between the United States and Russia. We don't have differences that would preclude that. We won't always see the world in the same way. We may object to a Russian policy here or there and you may object to an American policy here or there. But I see no reason why trust and confidence won't flow from the political relationship and the economic relationship.

I've been quoted in the press so I don't hesitate to repeat it here, in suggesting that one of the things we should be doing, under appropriate arrangements, is canceling the Soviet era debt. I don't think Russia, which is struggling to rebuild its country, its economy, should be burdened by the claims of bankers who lent money to Brezhnev. Who certainly didn't use it for the benefit of the Russian people. Now, I suppose one could argue that we could at the same time be working together cooperatively in the economic and trade and political arena and still harbor such hostility that we need an arms control regime between us. But I really believe that the arms control regime is part and parcel of the Cold War and we won't lose anything by setting it aside.

By the way, as you know, we now hold on to more nuclear weapons than we want. We're obliged to do so by law enacted in the Congress. Because those weapons are regarded as bargaining chips. And my guess is you've got some weapons that you would happily retire if you didn't need bargaining chips in anticipation of future arms control. That made sense during the Cold War — it doesn't make sense today. For you to spend a ruble more than you need or for us to spend a dollar more than we need, just so we can be ready to sit down and agree on exchanges of weapons levels — I really think that doesn't make sense.

And beyond that, by the way, the cost of implementing the current agreements is very high. The compliance with the existing arrangements where instead of scrapping something, in an industrially sound way, we do it in an elaborate way out of a fear that we might secretly reconstitute that capability. This is crazy in the world we're living in today. So I've seen an estimate that the cost to us — and I don't know what it is on the Russian side — but the cost to us of converting some submarines from nuclear to conventional could be as high as \$600 million more per submarine under the START rules, as opposed to the way you would do it if you didn't have that particular set of rules. Now I'd rather give the \$600 million to Russia than

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spend it stupidly to do something that we could easily by agreement decide we're not going to do.

It would be in our interests for you to spend that money creatively rather than to spend it in administering some elaborate set of rules. If we convert a submarine to a conventional submarine, are you going to worry that we might convert it back again?

**Q: [inaudible] You seem very harsh of the role of any arms control — to subordinate it to the other aspects of US relations, and so on. Could you just refocus on that?**

**Mr. Perle:** No, no, I wouldn't use the word harsh. I meant to say what I said. We don't have arms control agreements with Germany, or Portugal or France. Or Brazil. At least I don't think we do. So why do we need arms control agreements with Russia? If we want to hasten the day when we look at Russia the way we look at Germany or Portugal, we should achieve a more normal relationship between us. It's one without arms control agreements. This was a mechanism for regulating the behavior of adversaries. And their mere existence says adversary. So let's get beyond it. There'll be plenty of opportunity to talk about things that we might do or that Russia might do that would worry us but you don't need a formal set of legal obligations in the US-Russian case when you don't have it in other cases where you have friendly relations. It's a pretty good bet that if there are arms control agreements between two countries it is because they are not comfortable with one another and we ought to get comfortable with one another as soon as we can. So psychologically, it seems to me, terribly important that we move beyond this.

And our European friends are nervous. They're anxious about it. And I understand that. It's been 50 years. But I'm hopeful that the more we think about this and the more we focus on what the future can look like and not on the past, the better we'll do. I understand the view that this regime was helpful during the Cold War. Whether one agrees with it or not, I certainly understand that view.

But we're now talking about a different world. And I know I'm repeating myself here and I don't want to sound unduly romantic. There are no guarantees that, with the best of intentions, that the relationship between Russia and the United States will look like the relationship between Germany and the United States. But we should work toward that objective. And if we came to you and said let's have an arms control agreement, you'd be properly concerned that something bad was developing in our relationship [laughter]. And if we say to the Russians let's continue these arms control relationships, they could and should draw the same conclusions.

I know it sounds very radical because something that much of the international community has thought of as making the world safer and more stable, I'm now suggesting to you is going to make it less safe and less stable. And that's a pretty big U-turn, psychologically and intellectually. And I don't expect to persuade everybody of that. But I think we will benefit from looking at that as an alternative future. And not simply carrying on with the way we've done things in the past. ♦