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Morning Concurrent Panel I:
What Nuclear Weapons Can the
United States Afford?**

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Moderator:

Walter Pincus,
Washington Post

Speakers:

Barry Blechman,
Stimson Center

Eric Edelman,
Center for Strategic and Budgetary Assessments

Garrett Harencak,
Major General, United States Air Force

David Mosher,
Congressional Budget Office

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WALTER PINCUS: I think we'll try to start on time or be a couple minutes late.

I appreciate you all coming. My only personal note is I will send somebody out and see if this is a bigger crowd than David Ignatius has. (Laughter.) Might as well keep our competition going.

It's a subject that a number of us on the panel have been discussing for 40 or 50 years. It always embarrasses me to try to lead a discussion. I've grown older, but I still feel rather young and remember the first time I went to Los Alamos when Dr. Agnew was running it. And my introduction to the labs and to nuclear weapons came after I had written about the neutron warheads, which, of course, was a Livermore project, and Harold Agnew invited me out to Los Alamos so I'd get an understanding of what a real nuclear lab was like. (Laughter.)

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And my introduction came when he put me in the library and gave me all the unclassified studies that had been done the last four, five years and made available a number of scientists who had worked on the Manhattan Project. And Harold made it clear he had flown to Hiroshima and told me all about it.

I then went to Livermore for a day and a half, and all I got to do was talk to Edward Teller, who explained to me how wrong I was about nuclear weapons, and if I just stayed at it, he was in the midst of developing a new type of bomb that would be the size of a golf ball. And I asked him how he'd use it. And he said, well, you could just drop them in a row somewhere. And so that was the difference between Los Alamos and Livermore.

I came back and wrote about what I'd read about in Los Alamos. We got a letter from Harold Agnew saying the week after I'd written the story, every study I had looked at was reclassified. (Laughter.)

So that was my introduction to nuclear weapons. And I've off and on been writing about it ever since. And I treat it the same way I treat the intelligence community, which is I really don't know what the hell's going on, and I depend on whoever talks to me or whatever I can read. And so the – like covering intelligence, I'm probably wrong as many times as somebody help me be right. So I sort of start a panel like this (often ?) with people who've been there recognizing that I really never have.

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What we're going to do is spend about the first 20 or 30 minutes, and I'll ask a couple of questions that cover kind of basic subjects and try to get a semiconversation going here, and then a half or 40 minutes in, we will go to questions because I think that's why most of you people are here. And generally, I hope we won't cover the answers you want; we'll raise more questions in your own mind.

So to discuss the cost – which, I hate to say, a number of – some of the panel feel, is about the last issue you ought to discuss about nuclear weapons because it's the least interesting and probably the least important – to start off with, why we have them in the first place. And the basic

idea (that has ?) come out of the Cold War period is deterrence: Why do you have nuclear weapons? And what are we hoping to gain by them?

And so I'll start with Ambassador Edelman. Hopefully, you've all read our profiles because I don't want to go through what each person has done. You've got to do a little bit of homework before you come to these things, so I'm depending on that. And therefore, I'll ask the ambassador to start off.

[00:05:06]

ERIC EDELMAN: Well, thank you, Walter. I should say that, like you, I'm a little surprised to see the room quite so full. I was sort of expecting that this hall would be empty and David's discussion on Iran would be full. So for those who came for a tutorial on how much the nuclear weapons of the United States actually really cost, you know, I'll defer to David.

But I would just say that I think the way to think about the problem, to my mind – and I agree with what Walter said at the outset – is less what nuclear weapons can we afford; I would turn it on its head and say, what nuclear weapons, you know, can we afford not to have? Because we are entering, I think, a difficult period. The last few weeks, I think, are just a foretaste of much of what we're likely to encounter in the next few years because of the developments on the Korean Peninsula, because of the apparent failure of the discussions in Almaty to put any effective break on the progress of the Iranian nuclear program. We are going to be dealing with what many people have called – it's not my brilliant original thought – but a second nuclear era, or some people – depending on your typology, some people say third or fourth nuclear era, but whatever number era you think we're in, we're dealing with one where we're having to deal with some emerging nuclear powers and regional nuclear power balances that make the prospect of thinking about reducing the U.S. nuclear arsenal much below where it already is, in my view, a little problematic – not just my view; I – in preparing for this panel, I read a fascinating article by James Acton called “Bombs Away?” in the – I believe last year's Washington Quarterly – in which he talked about these different regional balances and why they make caution in pursuing further reductions not just desirable but inevitable. And I very much agree with it.

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On the question of cost, I will just say this. David – I don't want to steal his thunder – but 10 years ago wrote an extremely good paper in the book “Holding the Line” about cost savings from reducing the U.S. nuclear strategic forces, which had the wonderful title “The Hunt for Small Potatoes.” I think 10 years on his essay still is the state of the art, and that in fact, the amount of money to be gained from reducing nuclear weapons is actually trivial when compared to the total defense budget and what is likely to be required in cuts because not only sequestration but the fiscal condition of the United States in the next few years is going to make this a very, you know, difficult, tough budget environment. One can – one can already see a decline in – coming in general-purpose conventional forces. Traditionally, when the United States had to face issues like that in the past, like in the '50s, we've ended up relying more on nuclear weapons rather than less. And oh, by the way, so has every other country that's had to face that conundrum since 1945. It's what the Russians are doing today. It's what Britain and France have done for some period of time. So the logic of trying to use cost as a criteria here is, I think, a misplaced way to think about the issue.

I would stipulate at the outset that given the fact that we face new challenges, one could say, well, why do we have the nuclear arsenal that we have? And to go back to Walter's question, obviously, the purpose is to deter anyone from ever using these things because of the dangers and risks that they present. But I think we've tended to forget a little bit of the fundamental premise on which this is all based, and that is that in order for deterrence to work, it doesn't really matter what you think about the use of these weapons; it's what both your allies and your adversaries think. And there I think we have a problem.

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Now, you could say, well, we have a triad of nuclear weapons delivery platforms that, A, was developed in the Cold War, and B, it really wasn't harnessed initially to a particular strategy; it had more to do with bureaucratic and surface politics and domestic politics than it did with people clearly thinking through the specific attributes of our nuclear force posture. Fair enough. But I would submit that in the current period we're entering with the panoply of different kinds of threats we're likely to face with different kinds of actors, that if you were going to start from a blank piece of paper and say what kind of attributes would I want, you know, I think you'd still want something that flew fast and had a hard target kill capability that looked something like an ICBM, I think you'd want to have something that was at sea and essentially invulnerable as a retaliatory second strike capability, which would look like SSBNs, and I think you'd want something that flew slowly through the air that you could deploy visibly, as we did recently, to send a signal to the adversaries or potential competitors that these things might actually be used, to go back to the point of what makes deterrence work.

If they let me run the zoo, where I would say you might some room for going lower in savings is if we could get a safer, more sure, lower-yield warhead, as opposed to the warheads we have, which are a legacy of the Cold War and which were engineered to maximize the explosive power on the end of the missiles for Cold War reasons, I'd be willing to trade off some of nondeployed stockpile that we've been using as a hedge, and we can get some reductions that way. But it ought to be tied, in my view, to steps that try to enhance deterrence so that these things don't get used in a new environment where some people have forgotten the initial reasons why we deployed them in the first place.

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MR. PINCUS: Let me now turn to Barry and pick up on that, Barry, and talk about what adversaries think, and another one about the actual use or the threat of the actual use.

And let me – let me lead into it by talking about – and put you on – take part of the answer out of my mouth, which is, it's all perception. And I go back historically and look at the perception which affected me the most, which was the difference between Jimmy Carter and Ronald Reagan. Jimmy Carter was going to build a hundred MXs and have 3,000 aim points. He ran against Ronald Reagan, who said all the Russians had to do was put additional warheads on the SS-18. Ronald Reagan was considered strong against the Russians as against Jimmy Carter. Cut the MXs in half and put them in hardened silos. Had Jimmy Carter done that, he would have probably been impeached because they were vulnerable, and the ICBMs would be vulnerable. So talk a little in terms of perceptions and whose perception in this idea of deterrence and having weapons for deterrence.

BARRY BLECHMAN: OK. Well, given the United States' overwhelming conventional military superiority, it seems to me the one purpose of our nuclear weapons is to deter the use of nuclear weapons by others. And deterrence, unfortunately, is not a physical principle like the laws of gravity. It's something that we can only speculate upon what will be required to deter some leader in some future or near-future situation.

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Apparently, the Israeli government and the administration believe that no number of nuclear weapons will be sufficient to deter Iran, that we have to prevent Iran from acquiring even a single nuclear weapon. However, we size the nuclear force on the basis of what we believe is necessary to deter the Russians. The Russians by far have the largest nuclear force by order of magnitude, and therefore, if we have forces that can deter the Russians, presumably, that would deter anyone else.

Back in the Cold War, we thought, in order to deter the Soviet leadership, we needed to have enough weapons that could, on warning of attack or even pre-emptively, strike Soviet strategic forces, Soviet conventional forces, command and control, war-supporting industries. This led to a force of 25,000 weapons or so. And the Soviets apparently thought the same thing, that it was necessary to have that capability to fight a nuclear war.

Then the Soviet Union fell apart, and we lost a lot of targets because they became independent countries. We didn't want to attack. And we also previously had changed targeting criteria somewhat to remove industrial targets, to focus more on leadership targets and so forth.

The question we face now is, do we still need to be able to promptly strike Russia with 1,550 long-range nuclear weapons to be able to deter them in some crisis which is hard to imagine – what kind of crisis we would get into with the Russians that would lead to this possibility, lead to the need to be able to affect their perceptions and their way.

Now I certainly agree that nuclear weapons are a relatively small part of the defense budget. If you threw in everything, it might come to \$50 billion a year, pay less than 10 percent of the – to put – nonwar, the baseline defense budget, oh, at less than four-tenths of a percent of GNP. But with tight budget ceilings on defense and the ceiling coming down, it's – obviously you want to avoid spending money on things which are not as useful as types of weapons and what you might find more useful in the contingencies we face.

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So if it is possible to reduce the size of the nuclear forces, I believe we should do that, and the question is, well, what do we have to be able to threaten that the Russian leadership values and with how many warheads in order to deter them in some sort of crisis?

I used to say, well, we only have to threaten Cypriot banks, where they keep their money. (Laughter.) Well, we take those off the target list. (Laughter.) There's a part of Croatian coastline where they have their summerhouses. Maybe we should keep that on the list. I don't know. Obviously I'm joking.

But there was – (laughter) – if there are any Croatians in the audience – (laughter) – but there is the question of what – how many targets and of what type should – do we need to be able to credibly threaten in Russia to be able to deter them in a crisis? And if we're able to do that, that force should certainly be large enough for the much, much smaller nuclear powers that we might face in other crises.

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Now there was a 90-day study done by the administration some two years ago now, which presumably looked at this question, and when that's released, we will see if there are any changes in the requirements for nuclear forces and in the administration's perception of what's required for deterrence.

MR. PINCUS: General, knowing the limitations you're going to have – (chuckles) – about talking about budget and talking about the new study, sort of can you work your way in that field and talk a little bit about deterrence in terms not just of numbers but platforms and also the idea you – although Barry's stressed we're deterring Russia, somehow you've got look at the problem of deterring Iran, a nuclear-armed Iran, if it comes that way, because there's the potential; Korea; and this wild notion of giving nuclear weapons to terrorists – where does that fit into what's still considered the main threat to the U.S.? So if you can negotiate in between all those pieces, what you can say and what you can't say.

MAJOR GENERAL GARRETT HARENCAK: All right. Thank you, Walter. I will try to do that. I'm just in my current position a couple of weeks, moved into my office all day Sunday, so I'd like to not have to move out tomorrow. (Laughter.) So I'm going to try very, very carefully not to talk specific about budgets and get out ahead of anybody else.

First of all, let me explain a little bit from the military standpoint. There is some ex-military in here, and we have a couple in uniform. Our – what we're about as we try to provide a strategic deterrent coordination is to look at people's – at the capabilities of adversaries, wherever they are. And a lot of times we get – we get into a lot of intent – well, you know, County X has no intention of doing this or there's no intention of doing that from this particular group.

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Of course as you all realize, you could – you could debate that ad nauseam. You could have wonderful lunches and dinners all debating who has a particular intent to do what and whether that's valid or not. Those of us in uniform do not have that luxury to debate about intent. We have to be focused – for our public here, what we have to be – do is we have to focus on an adversary's capabilities and what is in the art of the possible to deterring that that use of the capability that others may have. And that's really what this is about.

So the whole idea of how much things cost or whatever, what – when you – and you – people might say, but you're spending this money and so-and-so has no intent of threatening you. Well, that may be true, but while capabilities take many, many years to build, lots of treasure to build, the capability to deter – intents change in an hour, in a day, in a week. So our – we don't have the luxury to talk about the relative usefulness vis-à-vis an intent of an adversary. We have to give you the capability to deter someone's capability.

So that's first off, I think, when military people in uniform start talking about nuclear deterrence.

When you look at it from that standpoint, my view to you, my best military advice, is it's pretty damn affordable when you look at what we're able to do as a nation, as a military, using the triad, regardless of the numbers, a triad that – one of those things for – as you said, Eric, that started probably for reasons we never really truly understood at the time. It has been a very useful construct to provide a strategic deterrent for the nation, and it's been very stabilizing, and we believe – the United States military now – worthy of consideration to keep it.

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Again, not getting involved in numbers here, let's talk about how the mix of the land-based ICBM force, a highly survivable SLBM force that the Navy provides and then of course an ability to control escalation, to show resolve that a manned bomber presents. Those things have been extremely valuable for the last – for the last few decades and, I submit, are going to continue to be valuable. And it comes at a – at a relatively affordable price.

Two legs of the United States triad, which is the Air Force's and which I get to work with and have a great sense that \$50 billion could – you know, I – we could argue all the numbers. I will tell you what – the budget of Air Force Global Strike Command was \$4.8 billion. That's a lot of money – \$4.8 billion for fiscal year '12. When General Klotz commanded it not too long ago – he's sitting right over there – \$4.8 billion – that's a lot of money. The United States Postal Service during the same period lost 5.1 billion (dollars). And we provided deterrence on Sundays. (Laughter.)

And we're going to continue to do it on Saturdays in the near future, I might add. So as Lieutenant General Kowalski likes to say, who's the current commander there, if we would all just buy a bunch of stamps, it would be – it would be zero cost to the government.

The fact of the matter is, is when you look at from a capability basis, which is – which is what we have to do in the United States military, is to deter any potential adversary's capabilities against our only existential threat, against our gravest threat, it's – the United States military and the structure that we have, at numbers that could vary in either direction, it is – it is affordable, and it does continue to make sense. And the triad is as relevant today as it was in the '60s, when I was spending my second year of fourth grade. So you know, it's a – it's a – it's a relevancy that has stood the test of time and, I submit to you, is affordable.

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MR. PINCUS: David, you're the numbers person. Talk a little bit about numbers and – but also talk about the difference in numbers if you go down. And then I want to pick up on what Ambassador Edelman talked about when we go around the second time, a lower yield going to a new weapon, what difference does that make.

DAVID MOSHER: Well, let me preface this by saying that the Congress has asked CBO to do a – an analysis of the 10-year costs of nuclear weapons. That's in progress, so I don't have any results to report, unfortunately, and will have to be circumspect in what I talk about numbers.

Ambassador Edelman raised the article I gave – it was like 10 or 12 years ago – of the hunt for small potatoes, and the argument there was essentially that now, at the end of the Cold War, as we were drawing down and we didn't have modernization program really on the horizon because we'd built a lot of things, that it was really the cost of staying in the nuclear business that was driving costs and that adding – you know, cutting a few – you know, a few hundred warheads, adding a few hundred really made not a big difference either on the DOD side, which is what we've largely represented here, or the DOE side, where there are just high fixed costs of stockpile stewardship and the like. So that was the argument 12, 13 years ago.

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And really over the next several years that probably still pertains, in the sense that we still are living on the systems that we have. The – you know, when we're refurbishing the Minutemen to extend their lives for another what, 15, 20 years or so, at relatively low cost. But we are just coming up to the point where we're going to have to spend serious chunks of change to modernize certainly the SLBM leg of the triad over the next 10 years, maybe a little more limited, but we – that will be some serious money. And I'll talk about that in a minute.

The ICBMs – we essentially have kicked that can down the road with the – with the refurbishment, relatively inexpensively.

And then the bomber – and the challenge we have in trying to figure out how much we spend on nuclear costs when it comes to the bomber leg is, how much of the bomber leg should you really attribute to nuclear weapons and nuclear mission, and how much of it is conventional? Probably a hundred percent of the bomber being attributed – and I'm leaving the B-1 out of this, because the B-1 is not on a nuclear platform – but if you talk about B-2s and B-52s, how much of that is nuclear? Is it a hundred percent of both? That's probably too high. Is it 0 percent of both? That's probably too low. There's something in between, and that's what we're struggling with and trying to think through as we do our analysis.

But that leg itself – we're starting to look now at this long-range strike bomber that's coming along. And the cost of that platform is still to be determined. I know the Air Force says they're going to – what? Is it about \$550 million is sort of the cap that you guys sort of have in mind? There's a real question about whether that mission is being driven by nuclear or by conventional. Clearly if there's a conventional mission, how much is nuclear? So this attribution is difficult.

So let me just step back for a minute and talk about what we're spending today on nuclear forces and somewhere on the order of \$5 (billion) to \$6 billion a day just for the delivery systems to operate them. I'm not – I'm setting aside the weapons for now, and I'm not talking about all the command and control and other things, but let's just talk about the platforms themselves.

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About two-thirds of that would be attributed to the sea-based leg. It's the most expensive leg today. And then about a quarter of it would be for the ICBMs. And then a small fraction – well, it could be, if you're doing the whole enchilada, a significant fraction for bombers, but it's – you know, let's just say it's a quarter or a half. Then it's a smaller piece, the smallest piece of the three,

because in a sense the nuclear mission gets to leverage off of the fact that we're using that for conventional.

So, that's not a large number there – five to 6 billion (dollars) a year. And the modernizations are – for the ICBMs are going to be relatively little. For the – for the SLBM force, I mean, CBO – we've done an estimate at CBO just to look at the shipbuilding costs of that – of that system, and over the cost of doing that, we estimate it's about 100 to \$110 billion. So, that's some really money. Those aren't small potatoes anymore.

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My bottom line is the only way you really save money in the nuclear business is if you walk away from one of the legs of the triad – largely not the bomber leg. So, the bomber leg, we're going to largely be spending a fair amount of money on regardless of whether it's nuclear. It's the ICBM leg and it's the SLBM leg. And we have a time-phasing issue here where the ICBM leg is not going to be that expensive until later. The SLBM leg, the sea-based leg, is going to be expensive fairly soon. So we're starting to spend some real money on those systems, and that's, you know, kind of where the decision is.

So, if you think about where you would save money, you know, if we walked away from the SLMB leg, that would be the biggest savings. And certainly over the next 10 years, probably over the next 20 years, specifics will come – you know, when we look at our 10-year numbers, we'll have some figures about over the next 10 years, but that's really the issue on costs. So, small potatoes. That theory that the cost of staying in the nuclear business is relatively high regardless of the size of your force structure, I think, is still true although that's changing. And we're really starting to reach the point where decisions about which legs of the triad we keep will start to have a fairly significant impact on costs.

MR. BLECHMAN: Could I just add something?

MR. PUNCUS: Yeah.

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MR. BLECHMAN: I just – to add, we – Stimson published this last year, which is about the cost of the nuclear forces, and it walks through all the judgments you have to make about what share of not only the bombers but of administrative costs and so forth. And this concluded costs were 30 billion (dollars) a year. The 50 – you get to 50 (billion dollars) if you throw in the cost of missile defenses and the cost of nuclear cleanup.

But the ICBM modernization does not need to be very expensive – and I agree we should keep the triad, by the way, as long as we don't go to one of these crazy mobile schemes that we last looked at in the '70s and '80s. And many people here remember some of those ideas. But if we stuck with modernizing Minuteman, it could probably be around for quite some time.

The way to reduce cost would be to – and obviously we can't walk away from SLBMs but we could reduce the number of SSBMs if we went from 12 to 10 if there was a smaller requirement

for prompt warheads on target then we could reduce the number of SSBMs and wouldn't save anything in the near term, but looking out into the '20s, there would be substantial savings.

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MR. EDELMAN: Walter, can I – I just wanted to ask Barry something. First, Barry, I want to say I'm glad you indicated that you were taking Dalmatia off the target list, and that that was a joke. (Laughter.)

I've had a little bit of experience with this myself. When I was ambassador to Turkey, I went and gave a speech in Konya where I was asked the following question: Mr. Ambassador, the United States has bombed Afghanistan and overthrown a government; you've bombed Iraq and you've overthrown the government; and we know that you, personally, want to bomb the governments in Iran and Syria and overthrow their governments, too. When are you going to bomb Turkey and overthrow the government? And I said, well, actually, the last thing on the mind of the president of the United States and the American people would be to bomb Turkey, a longtime NATO ally and partner in all these things we're doing, et cetera. Next day – and I'm not making this up – the headline in the Konya newspaper was “U.S. ambassador confirms U.S. has list of countries to bomb; Turkey is the last country on the list.” (Laughter.)

But in your remarks about sizing the force, Barry, you talked about the need to deter the Soviet Union, or Russia, which was the traditional force-sizing construct for our force when it was the U.S.S.R, now Russia. But what about when we deal with a world with many nuclear players and we're talking about a multipolar kind of nuclear competition rather than a bipolar competition? My distinguished predecessor several-times-removed Freddy Clay and Bernard Brodie and others at RAND in the late '50s identified the problem of dealing with an end-player competition in nuclear weapons and how deterrence becomes more complicated.

How do you size the force when it's not just Russia you have to worry about but also potentially a growing Chinese force, North Korea, Iran and potentially others? And in the same vein, it's not just that we have to deter others but we have to assure – it's been part of our nonproliferation policy, in essence, for years to assure some allies that they didn't need to develop nuclear weapons of their own – notably, Republic of Korea, Japan, Germany because they were protected by a nuclear umbrella.

Some people say that one way to deal with the problem of Iran is to extend a nuclear umbrella to the countries of the Persian Gulf. I'm got – I'm not (in print ?) suggesting that there are some difficulties with that but I just wonder how do you, you know, size all these things both to take into account the deterrence requirements but also the extended deterrence requirements?

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MR. BLECHMAN: Well, and this gets back to Walter's first question. I really think deterrence depends much more on perceptions of will and relative stakes in a situation than it does in looking at overall capabilities. I've studied nuclear crises – every crisis in which there's been a risk or a threat, an actual threat, of nuclear use. And it always comes down to those kinds of perceptions. What does the target perceive of the stake that the American president has in the situation and his willingness and commitment to live up to the commitment that's been made?

As far as the other countries, yes, in 20 years, you know, maybe we'll have to worry about China, and that would be an additive to the forces we have in place because of Russia. But at the current time, and I think for quite some time into the future, the other nuclear powers are small enough that we don't have to – they're lesser-included cases. And if we size a force sufficient to deter Russia, they'd be more than sufficient to deter any other nuclear power, in my view.

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GEN. MR. HARENCAK: I think that the key aspect of what we have to remember is that we have to provide a military standpoint to our nation's leadership – flexibility, options. And so any talk of reductions that limit options, I think, would be a mistake. We have to be able to allow a wide range of options for people to be able to respond in order to deter.

You know, some of – some of the (opinions ?) out there, I think, are that – for example, you know, I hear all the time as a military officer in – command and controlling nuclear forces and being – people always say, well, you know, we never use those weapons; they're a waste. Well, actually we use them every day. If you understand deterrence they're being used every day by the fact that they're safe, secure and effective – and remaining so – and providing a credible deterrent. They're being used every day, and they're used not just for a deterrent but to allow for a range of flexibility and options. So I think that's, you know, that's important to understand.

Not too long ago, I was at a conference, or whatever it was. My predecessor who I was following around because I'd just gotten into town, he was asked a question by a member of the Union of Concerned Scientists. And the man stood up and he said, how – can you explain, if nuclear weapons have utility, can you explain the Falklands War? And his question was, Britain was a nuclear power; it didn't deter Argentina from – Argentina from invading the Falklands.

Well, and so his point is therefore – so if it doesn't prevent every conflict, it therefore doesn't have an intrinsic value. Well, think about that. Really? I mean, does anybody in this room believe that the possession of nuclear weapons as a deterrent will prevent any conflict? Of course not. There's a – there's a spectrum of conflict out there. But, but, it does provide a range of options that our national leadership has, and that's what we have to preserve to provide a deterrent across the entire spectrum out there.

So, we just have to be careful as we get into numerology where we start talking about numbers, or whatever they may be, that we don't constrain ourselves in the future to a lack of options that can help us do the one thing that those of us in the United States military want to do, and that's prevent a conflict; prevent the fact that we might actually have to employ a weapon, which we never want to do. But to say we don't use the weapons, I think, is a misnomer. We use them every day in the basis of because they exist, because we're doing what our president said to do. As long as nuclear weapons exist, we'll maintain a safe, secure and effective stockpile. We are – we are indeed using these weapons to provide a strategic deterrent for our nation.

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MR. PINCUS: Well, let me go back to where I started in deterrence and pick up on, again, say, pick up on Ambassador Edelman's idea that perhaps the president is self-deterred because the

stockpile we have is built essentially on weapons of such high yield, 300, 350 – weapons that were designed to knock out protected silos – when in fact the only use of the weapon we’ve had so far was really as a terror weapon. And although Hiroshima and Nagasaki were called military targets, we destroyed the cities. And we destroyed Hiroshima with a 12.5-kiloton weapon and Nagasaki with a 17-kiloton weapon. And, you know, the minimum weapon we have now is sort of 50 kilotons and going up to 400 or more.

So, the question is, is it a better deterrent if we now look for lower yields somehow thinking that that will making them more usable? We had that argument sometime in the ’60s and ’70s. But would a lower-yield weapon make them more usable and thus a better deterrent?

[00:42:17]

MR. BLECHMAN: I think – I think the highest priority in our nuclear program should be maintaining safe, secure and reliably effective warheads. And that clearly should be the number-one priority and (support ?) of the warheads should be getting all the attention and all the resources that it needs. But I don’t believe that it’s necessary or desirable to build a new warhead with a lower yield.

I don’t – as I said, I’ve looked at all these crises and you never see political leaders talking about, well, what’s the yield going to be? What’s the fatalities going to be? It’s the basic decision about, you really want to consider using nuclear weapons is just – it just wipes out all other considerations. And particularly now, after 60 – how many years is it? – 60-odd years of non-nuclear use, that decision to use any weapon would be so momentous that I can’t imagine it would make a difference whether it would be, you know, a 50-kiloton weapon or a 10-kiloton weapon that would affect the president’s decision.

MR. PINCUS: Eric – (inaudible).

[00:43:45]

MR. EDELMAN: Well, yeah, I’m just not sure I agree. Yes, I would agree that people don’t spend a lot of time in crisis worrying about yield. But what you were saying earlier, the – essentially the balance of resolve being the – one of the key elements in the various crises that we’ve had, has turned on a question of whether people thought these things would be used and whether the damage that would result would not be so great that the other side might not want to do it.

And so although there might not be a specific discussion of yield, the perception of willingness to use these things is connected to usability. I mean, people do know that most of the weapons – as Walter was just saying – that are in our inventory, with the exception of some variance of the B-61 that have a variable yield that can go down pretty low – but other than that, are multiples of Hiroshima and Nagasaki. And whether others think a president would actually order that or not, and the options are pretty unappetizing in most cases, I think that’s a matter that we have to take into account.

As you said earlier – and I agree completely with this, Barry – this is only an area in which we can have informed speculation. We don’t – there are no right or wrong answers because we don’t know, because in the end of the day, what we think is much less important than what others

think, and in some cases, we don't have very good fix on what others think, you know, in real time. Maybe, you know – with regard to the Soviet leadership, we now have some data on how they thought about this, which indicates that they were much more reluctant about these weapons than we realized at the time.

But we're dealing with completely different actors now with different sets of motivations, and I think we just don't know. We are dealing now with a stockpile where the last weapons were built essentially in 1988, and we stopped testing in 1992. The ability to continue extending the life of these things is getting harder and more expensive, with the B-61 life extension, I think, now at \$10 billion. I mean, if you want to save some money, you know, I would say let's go with something that we can build that we know is more reliable, safer, surer and will help reinforce deterrence.

[00:46:11]

MR. PINCUS: Now let's open it up for questions. There is a mic. I mean, instead of my picking people out, you have to sort of rush to the microphone. (Laughter.) But I'll put the burden on you people rather than me.

Q: I'm Burgess Laird with the Institute for Defense Analysis. And just to keep this question going, a question for Barry, twice you mentioned some degree of your own credibility or your own belief in a lesser included case, that if we designed a force to deter the Russians, then it's sufficient to work across other cases. And so I just wanted to bring you out a little more on – I assume, therefore, any notions of tailored deterrence, you think, are just not worthwhile, or what? I just wanted to bring you out on that particular question.

[00:47:14]

MR. BLECHMAN: I think you tailor deterrence by your actions, both in peacetime and in crises. Our responses to the current crisis in Korea, I think, have been brilliant, actually. Being calm and cool but demonstrating our capabilities with the B-2 movements and the F-117s and the submarine and so forth has shown both to reassure the South – despite what that gentleman was saying – (chuckles) – this morning, the government has been much cooler about things – and to deter the North from whatever crazy idea they may have. So I think you tailor the deterrence by your action.

There's another case – when we pulled the missiles out of Turkey as part of the deal over the Cuban missile crisis, we sent an SSBN in on a port visit to show the Turks – we patrolled in the Med at that time – to show the Turks we were still in the region. And I think that's how you tailor deterrence.

MR. EDELMAN: Barry, could I just – on that point, because Turkey is something I know a little bit about, that didn't stop President Ismet Inonu in 1971 from making a speech in the Turkish Grand National Assembly saying, the Americans betrayed us. So the assurance, reassurance issues, I think, are sometimes more complicated – (chuckles) – than we think. And by the way, it's F-22, not F-117s – (inaudible) – but I agree with you about the brilliance of the response.

MR. BLECHMAN: (Inaudible.)

Q: Jon Wolfsthal. I'm with the Center for Nonproliferation Studies, and for three years I was the vice president's adviser on nuclear issues. And Barry, I'm the one who took longer than 90 days, so if you want to blame somebody for that, you can blame me.

MR. BLECHMAN: Well – (inaudible) – (laughter) –

MR. : (Inaudible.)

Q: An observation, and then I want to push back on the discussion because I think it's missing a major part of at least how the president talked about nuclear weapons in the Nuclear Posture Review.

[00:49:16]

But the observation first is my understanding, having been involved in these discussions, is that the three driving considerations for the nuclear force in all of its aspects are to deter, to reassure and, should deterrence fail, to defeat. And I would push back and argue that we don't size our nuclear force to deter. We size our nuclear force, what happens if deterrence fails, and what do we need to go and do all the things that the president has asked us to do in the guidance that was previously issued. And the reason that the chairman of the Joint Chiefs and others have been able to say, we believe we can deter at lower levels than we have today, is because when they look at what it takes to deter, it is less than those other missions. So we're not in the position now where our nuclear forces are sized for deterrence only, and that's a real question that I'm waiting to see – (inaudible) – the 89 or the 90-day study – sort of how far do they go. But I think that's an important distinction to make for the audience.

The panel is "What Nuclear Weapons can the United States Afford?" And it cuts both ways. It's not only how much do these things cost – and David, everybody's waiting with bated breath. We're doing a study that looks at the actual full life cycle replacement costs for the new triad, somewhere on the order of \$500 to \$750 billion over 30 years. It's real money.

But the question is also – the president talked about nuclear weapons having a cost, meaning they have a security risk. There's a profile. There's a negative implication for our security, which has to be weighed. It's not just what options would I like to keep, but what is the damage that is done to our security by maintaining all those options? And I want to hear from some of you, do you think there is a security liability to having nuclear weapons? Does it undermine our nonproliferation perspective? Does it make it harder for us to achieve other types of security objectives, whether it's related to nonproliferation or deterrence, or do some of you think that it's actually a free ride?

[00:51:12]

MR. EDELMAN: Well, let me just take a shot at the last. I think, actually, there's not a lot of good evidence that the size of our arsenal has anything to do with the emergence of new states and proliferators. You know, we've reduced our stockpile enormously since the height of the Cold War through a number of arms control agreements, through unilateral reductions. And it really, I think, actually, is driven – that is, the motive for proliferation – by fear of our conventional forces. And you know, to – at some point, as we reduce nuclear forces and put more emphasis on

conventional precision strike that can, in some people's minds, have the same effect – I don't think it has completely the same effect, depending on the mission, but it can certainly have, you know, some of the effects that we used to try and get with nuclear weapons – it actually drives the proliferation even more because it's fear of regime change through conventional means that is the big driving force. So I actually take, you know, some issue with the notion that it's our nuclear force that creates – the fact that there are nuclear weapons is a risk to the United States because there's a risk that we might get into a conflict where they get used. That I accept. But it's been a great strategic advantage of the United States since 1945 that I don't think ought to be given up or traded up – traded down lightly.

[00:52:48]

MR. BLECHMAN: I'd agree that our nuclear forces have a positive effect on nonproliferation by reassuring countries which might otherwise build nuclear weapons of their own, Korea – South Korea being a case in point, and even conceivably Japan, although I'm a little skeptical about that myself.

However, I do think that if we were to start developing new kinds of nuclear weapons, this could have a negative effect on the proliferation regime. It would give lie to our professed policy of wanting to rid the world of nuclear weapons, of not believing that nuclear weapons have particular – are useful in defending security, and therefore I would not want to see us starting to develop new types of weapons. But I would like to – and I do believe we can reduce further, particularly in conjunction with Russia.

GEN. HARENCAK: Only thing I'd like to comment on that is – not to talk about the political implications of it, but just to be clear, since I get a chance to do it here, is the weapons we have, despite their age, are incredibly safe, incredibly secure and effective – and effective, just as we're asked to do. So if you want to – you want to look about larger implications, fine, but I just wanted to make clear that, yes, they are (of an age ?), but I'll tell you, they are incredibly safe, secure and effective, just as the president has asked us to maintain.

MR. PINCUS: I guess I'll jump in as a moderator and say, because I actually wrote about it, I think Korea – North Korea is a lesson and that we tend to forget that nuclear weapons have played an important part in our domestic politics, and to recognize they also have a role in other countries' domestic politics, so that Iran is learning a lesson from North Korea. South Korea – North Korea learned a lesson from us because although it wasn't publicized at the time, we not only threatened to use North – threatened to use nuclear weapons against North Korea, we also put them in South Korea. And when we put them in South Korea is when North Korea went to the Russians and asked to get into the nuclear business, so that – and we've had to take steps both in Taiwan and South Korea to stop them from secretly going for nuclear weapons when they had promised us they wouldn't.

[00:55:55]

A country's leader wants to have nuclear weapons and has the capability, or somebody who wants to be a country leader can use that domestically, no matter what we do, because as I learned when I was a child working for Senator Fulbright, who always told me if you didn't understand the domestic politics of the country you're dealing with, you can't have a foreign policy with them

because all of foreign policy is domestic, including our own. And people tend to forget that nuclear weapons are not that difficult to build, or at least to begin to go to. And so we get nervous when the Japanese want reprocessing, when the South Koreans want reprocessing, when the Gulf states want reprocessing. Or I think you have to wake up to the reality that the idea of stopping nuclear weapons worldwide is the same thing, I hate to say, in my mind, as global zero. It's maybe a nice goal. It's never going to happen.

Yeah.

[00:57:22]

Q: Hans Kristensen, Federation of American Scientists. Well, it's becoming a very interesting panel because it's sort of moving more from the cost over to the mission. And maybe there's a real need for a discussion on the mission issue here, because one of the problems of – about talking about deterrence and requirements is that it's so opaque. It's very much, in a way, more about what we think – (chuckles) – than what adversaries think.

And we've heard a couple of cases about – or a couple of mentioning of, well, suppose we get into an era where there are different nuclear players or what have you. You'd have tailor deterrence to this and that scenario and what have you.

So in an attempt to try to make it a little more concrete, I'd like you to talk a little about, since the Cold War ended, what have been the cases out there in the real world where the nukes made a difference? I mean, we hear they sail around the world all the time, and deployed, and we use them every day and so far. But what have been the cases since the end of the Cold War where we actually thought seriously about using it and where the potential use of those weapons, in some tangible way, where we can say, aha, it made a difference? I think it would be useful to talk a little more about that. And to that extent, also, in those cases, were there situations where we looked at a scenario and said, gee, the capabilities we have, they're really Cold War capabilities; we just can't use it; we can't tailor the deterrence to this mission; we can't do what we want to do in order to be able to deter these adversaries in the way we really wanted to, and perhaps look at future scenarios? I'm just trying to make the debate more tangible about what is a requirement for deterrent – (inaudible).

[00:59:20]

MR. PINCUS: Well, if you lived through the Cuban missile crisis, you saw, I think, the first sort of lesson of reality – I can remember interviewing Bob McNamara after he left office, who told me, and (then often ?) made it a part of his regular lecture to people, that the night that the telegram went back to Moscow, picking out what we wanted to see in what they were doing and trying to settle down what was a crisis in which we were on alert and both the Navy and the Air Force had made mistakes. And they had to stop actions from being taken, McNamara had to. But he told me he walked away from the White House that night having told the president the use of one nuclear weapon would put the world in some kind of jeopardy, because nobody knew what would happen between the U.S. and the Soviet Union after that.

It's one of the problems today, I think, that people have forgotten what nuclear weapons do, the actual danger. I mean, I hate to say it, but when I was young and they were testing in the Pacific, the world used to watch a radioactive cloud go around the world. I remember reports coming out

of Denmark that the cows were showing milk with radioactivity, having eaten grass that had been subject to fallout. In the '60s, I wrote a piece about Rongelap, which is an island 145 miles from Eniwetok where we blew off the first thermonuclear bomb, and the coral from that island traveled 145 miles and came down like snow on the people of Rongelap. And the teenagers that played in it all lost their thyroids, had all sorts of medical problems. The people themselves had to move off the island.

I went to Bikini in the '70s and they were trying to move back to the island and they had scraped all the land – all the viable land a foot deep and taken everything and buried it, the same thing in Rongelap. And they had somehow used the sand to build houses and then something like 15, 20 years later, this – the houses were radioactive. In Bikini and to some degree, in Rongelap today, the coconuts can't be eaten because they're still radioactive. The people have forgotten what these weapons do. They became abstract numbers.

[01:02:47]

But I started with the Cuban Missile Crisis and fear of using weapons on both sides calmed that thing down. The same thing happened in the Middle East in '73 when the Israelis rolled out a couple of their weapons and we thought the Russians were bringing weapons in. Both the U.S. and the Soviet Union, then Russia, realized they weren't going to have – they were going to avoid military confrontation at any cost, even when their allies were threatening each other, if it was going to drag us into nuclear war. So I think there have been crises. You know, I think weapons have prevented major wars.

MR. EDELMAN: I think the question though was about the post-Cold War and – which is I think a good and fair question.

I mean, I think the problem is – you know, Barry said earlier is the evidence always on this stuff is a little ambiguous and not always that easy to parse. But I think it's pretty clearly the case that in the First Gulf War, after a fairly explicit threat of the potential use of U.S. nuclear forces, Saddam Hussein, who indisputably in that period had weapons of mass destruction in his arsenal, chose not to use them in the war.

And there's a description by Secretary Baker of him in Geneva trying to give the letter with that threat to Tariq Aziz, the then-Iraqi foreign minister, and literally having to chase him around the table because he didn't want to take it, didn't want to have to present it to Saddam Hussein. So I think there are at least some, you know, case evidence that this has had an effect.

[01:04:35]

Now, that was also in a period where the arsenal was a lot more modern and I think therefore, over time, the – you know, how credible – and with all due respect to Gary's point, which I accept, and so as the member of the Nuclear Weapons Council, I signed off on all the stockpile stewardship reports about the safety and security of arsenal, I think over time, it's going to be without testing and with aging weapons, it's going to be harder and harder to make that case.

MR. BLECHMAN: The one incident is that one, and the evidence is ambiguous. Tariq Aziz said he never gave the letter to Saddam Hussein, because he was afraid to. And Iraqi

commanders said they would not use chemical weapons, because they knew they were – the U.S. was much better prepared to fight in a chemical environment than they were, but there were different positions on that.

[01:05:32]

MR. : (Inaudible.)

MR. BLECHMAN: But the main point is that's the only case. And in all the conflicts we've had since then, nuclear weapons, they serve their deterrent role on a day-to-day basis, but they have not been made prominent or manifest in any case, which is the point that no matter how little they cost, if your money could be saved by cutting back on them and put into those forces we do use on a daily basis in wars, that's a smart thing to do.

MR. EDELMAN: There is a little bit more evidence, Barry, than that, which is the evidence of the Saddam tapes from the captured records, which indicate that Saddam did have this very much on his mind and was talking about it with his senior commanders at the time.

MR. PINCUS: Yeah.

Q: Wayne Jaquith, the Peace Philanthropy Project. General, you articulated the standard that we've used since the dawn of the nuclear age for evaluating the intention of another country, looking at their capability and their actions and not at all at what they are saying. I'm wondering how you would evaluate the intention of a country that's already the world's biggest conventional nuclear power in the history of the world, that has thousands of nuclear weapons, that is \$13 trillion in debt, it can't afford to, you know, meet its obligations to its own citizens, and yet is spending tens of billions of dollars to build a whole new bomb factory network that's capable of building hundreds of new nuclear weapons and upgrading the capabilities of hundreds of more?

GEN. HARENCAK: Well, I would – I would answer that from – our mission is very clear. And we've got it from our president that as long as nuclear weapons exist, we'll maintain a safe, secure and effective stockpile for us and our allies. That is what we're doing. And there is a cost to it, absolutely, but the fact of the matter is we have not developed any new weapons in decades. And so in order to do it – and we love – in the military, we love clear guidance, OK, clear, unambiguous guidance. We have clear, unambiguous guidance.

As long as nuclear weapons exist, for as long as they may exist, we'll maintain a safe, secure and effective stockpile for us and our allies. That's all we're trying to do. That's all we're trying to do. And there is a cost with that, absolutely. And we could – we'll always, always look at efficient ways of doing it and lowering costs. But at the end of the day, you can't have any clearer guidance than we have in the United States military. And as you know, we do not make the policy. But it's very clear.

[01:08:18]

So yes, there's a cost and the fact of the matter is we could debate how we're seeing everything else, the United States military has a clear guidance, a safe, secure and effective stockpile for as long as nuclear weapons exist. And that's what we're doing. And there is a cost with it.

Q: Hi. Daryl Kimball, I'm executive director of the Arms Control Association.

And I wanted to see if I could encourage the speakers to more directly address the question at the top of the panel and just remind you all about a couple of realities, one of which is what the president's guidance is, General, for the arsenal. And John Woolstal (sp) alluded to this a little while earlier, but the nuclear posture implementation study's not yet done, but the president said last year that we already know that we have more nuclear weapons than we need to meet our deterrence requirements.

[01:09:07]

In addition, I think we're having this discussion today – or at least, Carnegie put this topic on the agenda because Congress, in its infinite wisdom, has decided that we need to reduce federal spending. And there will be reductions in the Pentagon's budget and other programs.

So in the real world, real policymakers have some practical decisions to make about how many subs, bombers, life extension programs do we need and we can afford. And I – and I just wanted to come back and ask each of you to try to address how you would deal with those two realities in the next several years, because these systems are going to be costing, unless we change course a little bit, several hundred billion dollars over the next couple of decades.

And so – David Mosher, if I could start with you, I mean you said that the way in which the greatest amount of money could be saved would be to eliminate one leg of the Triad, and that's because the submarines do cost the most, if we're going to be replacing them at the current pace. But there are other ways to save. My organization's put together a plan to reduce about \$50 billion with some rightsizing of each of the legs of the triad. But it would still preserve the triad. And \$50 billion, to some people, maybe not on the panel, but some people is a lot of money – (chuckles) – that could be used in other ways.

So I just wanted to ask each of you to take a stab at, you know, how would you address this twin problem that policymakers actually have to deal with this year, next year and the next couple of years?

MR. MOSHER: Yeah, if I could, let me just start by providing a little context. And we just produced a report in the last, what, two, three weeks that looks at the size of the reduction that the DOD would have to make, and DOE, in – to get down to the caps that are under the Budget Control Act. And as you know, the plan from last year did not – was at the upper caps, the initial caps, and that the sequestration happened for 2013 and 2014 and beyond those numbers aren't going to go up by much. I think it's about 2 percent over the next eight years.

[01:11:23]

So by our calculations, DOD will have to reduce its overall budget by about 13 percent on average each year – to 16 percent on average each year over that period. And so we're talking significant reductions. And to the extent that nuclear forces in the DOD side or the DOE side are spared, it means that other things are going to have to be cut more, absolutely true.

When I talked about the size of the cuts in relative size, I mean, there's no doubt that you could do things that save a little money here and a little money there and you know, pretty soon, a few billion dollars becomes real money, right? And there's no doubt that that could be done. The point I was trying to make is that if you really want to make big savings in the – in the nuclear costs, the – we're at relatively low numbers compared to the Cold War. And the fixed costs of being in the nuclear business are relatively – are a relatively large proportion of that. And so the marginal costs – although clearly, you can reduce – if I were – if I cut back to 10 submarines today, I would save some of the operating costs of those submarines each year. If I cut, you know, a wing of ICBMs out of the force today, I would save some money in operations.

[01:12:45]

My point was that we're talking sort of 5 (billion dollars) to \$6 billion in sort of the basic direct costs of operating and upgrading those systems over the next few years, certainly in 2013. And so we're not talking about large amounts unless you really start to make big cuts, which may be legitimate. I'm not saying one way or the other what the right answer is. That's not my job and that's not the job of my institution, is to lay out what we think the costs of each of these things would be.

Now, we will be going ahead and doing another report, but we're looking at options for reducing different approaches to reducing cost. But we haven't started that yet and we're probably at least a year from something like that.

GEN. HARENCAK: I totally agree. We're going to have to make tradeoffs. Everybody in uniform today understands, and OSD realizes, that we have to be as innovative, as cost-efficient as absolutely possible and that we're not going to be able to have everything we absolutely want. We're going to have to – and we're committed to it. We're committed to making rational, good, solid choices that allows for the greatest options and capabilities, realizing though that we're going to have declining budgets.

So you know, I agree with you. You know, we're not going to – we don't get a blank check. And we're going to have to make some very serious decisions and choices, but they should be based on capabilities. And we are committed in the United States military, and committed obviously because we realize we can't fund everything. And we're going to have to make some tough choices. But also, we're going to try to maintain as much capability as we can by being as innovative and cost-efficient as we possibly can.

[01:14:28]

MR. BLECHMAN: We could save money from the nuclear forces and use it for more valuable things if this implementation study looked at the basis for the so-called requirements for (prompt ?) warheads. And you can get at that in two ways, one is the types and numbers of targets that you are required to hold at risk; and, two, the confidence with which you want to be able to take out that target. In previous years, that confidence level was extremely high which led to us planning to put several warheads on one target, and – more than several, and particularly high-value targets.

So if this implementation study looked at those questions it might lead to a reduced requirement, the basis for the president's statement, and a reduction in forces, you know, perhaps

down to 1,200, 1,100, 1,000 – I don't know what the right number is. But I did chair a study group on U.S. defense strategy last year which said that in the lowest budget environment that they looked at, we could go down to a force of 300 ICBMs, 10 submarines and essentially the planned bomber force, and save a considerable amount of money that way.

MR. EDELMAN: Well, my view is, if you look at the CBO projections of the country's long-term debt picture, the big drivers in the federal budget is not the Department of Defense. It has repeatedly been identified as the big entitlement programs – Medicare and Medicaid or Social Security. And I think defense is actually already borne the biggest brunt of cuts since 2009 in the federal budget. And my own view is that it ought to stop.

[01:16:47]

I think Secretary Gates' budgets before he departed, which called for about 2 ½ percent real growth in the defense budget, is about what the countries needs because my view is the international environment, just from reading the paper and watching the news, has not gotten any better since 2011. It's getting worse. So you know, I think that some of the austerity arguments are, you know, created by political choices, not necessarily what the country can actually afford. We're already spending on defense less than we have historically. And I don't think the international security environment warrants going any lower.

MR. PINCUS: I'll just add to it that you have to recognize the attitude on the Hill toward nuclear weapons. And we actually had to increase spending to get a treaty approved to cut numbers. And Congress was – because of – and not because of reality, but because of politics, is going to be very hesitant to make more cuts.

Q: Jessica Varnum from the Monterey Institute. And you started to get at some of the nuance I was interested in with the last question, but I'd ask you to get into a little bit more depth with regard to two concepts. One, I don't think you can answer this kind of economics question of what nuclear weapons can the United States afford in isolation, which is mostly what we've been doing so far, aside from the last question. Which is to say, what's the cost-benefit analysis on having certain systems versus others? Because at a certain point the marginal cost and the marginal benefit are going to be disparate.

So tactical nuclear weapons in Europe, for example, would be a great example, in my opinion, of could we be spending this money better somewhere else. And related to cost-benefit analysis, the question of opportunity cost. And don't even look at the whole U.S. government budget, just look at the Defense Department. And what is the opportunity cost of spending – certain categories of nuclear weapon spending that you could be putting elsewhere in the defense budget because, again, we do have finite resources.

[01:19:02]

So while I certainly agree we have to maintain a credible deterrent at this point in time, the question becomes whether there are categories of spending that would do better elsewhere in the defense budget for our overall security. Thank you.

MR. BLECHMAN: I think, you know, what Eric said is correct, that defense has taken cuts since 2009. But we have to remember that since 2001, the defense budget more or less doubled – the baseline budget, apart from the cost of the war. And we're now spending considerably more than we have spent historically – not as a percentage of GNP, but as an absolute amount. And if there is going to be a solution to the overall fiscal situation, politically defense has to play a role in that.

And to my mind, there is – some types of weapons systems contribute more to the real problems we've faced and the real wars we're engaged in than others. And my personal preference would be to scrub the nuclear side hard to see if there weren't savings possible there, rather than cutting back on the conventional forces, which are the ones that have served us so well over the last 10 years.

[01:20:27]

GEN. HARENCAK: Well, I disagree, Barry, in the fact that I think deterrence has served us well for the last 50 years. I think that no one is more in tuned to the fact of you spend one dollar on nuclear, that means one dollar you can't spend on a – on a tank or a ship or another type of an airplane or sort. I deal with that every day. That tension, that give and take inhabits the entire Pentagon every single day because there's just not enough money. Even during good times, if you will, of budget largess, there was never enough to go around, to satisfy.

So we have to deal. Only – the only last point I make is that the absolute foundational basis for all of our defense is against the gravest threat. And that is a nuclear attack. So the foundation of all defense, that allows everything else to move forward and to do all these other things around the world, is a strong, credible strategic deterrent. You know, we could – again, we could debate all day, we could go all night, we could go for months about whether \$1 million should go more to this or that, but we cannot escape the fact that everything else builds on a foundation of a strong nuclear deterrent.

MR. EDELMAN: On the issue of nuclear weapons in Europe, it's a good question; I'm glad you raised it. But I think, you know, that there are – it's an issue that bears very, very careful thought and analysis because I think there are potentially a number of unintended consequences that could flow from it. It – on the one hand, the numbers of weapons is so small that the cost is really not that great. So the savings wouldn't be that great.

But the potential knock-on affects, I think, need to be thought about pretty seriously, one of which, I think, is that in a world in which you have a nuclear Iran, you're almost dictating that Turkey would develop a nuclear weapon of its own. I think it would mean that the Russians would redeploy a lot of their so-called tactical weapons to the – to the east, which would create complications in Asia and the Far East with regard to proliferation.

[01:22:50]

And because sharing nuclear burdens and risks has become such an important part of the alliance, that I believe over the long run not having that shared risk and relying purely on the national deterrent forces of the United States – the United Kingdom and France, would undermine support here in the United States for the NATO alliance.

MR. PINCUS: We have just five minutes left, so if you have a quick question.

Q: David Rush. I'm 45 years in – (inaudible) – responsibility and editor of a journal you've never heard of, called *Medicine and Global Survival*. I find this surreal, when the most likely delivery platform is going to be – cost 29.99 (dollars) at my local U-Haul truck by our most dangerous adversary who is a non-state actor.

[01:23:49]

I – the general has said something which is so provocative, which is, we must respond to capability, which means the only thing we have available to use is lower capabilities on all sides for verifiable if not complete disarmament, gradual disarmament. And I just think that – I hope, General, that you're able to join your distinguished colleagues, General Butler and Admiral Rickover, before I die so I can see how this policy carries forward. But I really think we've heard so few alternatives to deterrence as a way of living in this country, it is really strange.

Q: Time for one more? Thanks. I'm Tara Murphy. I work in Global Strategic Affairs in the Office of the Undersecretary of Defense for Policy. I agree with everything that's been said about the defense budget not being the problem with sequestration and austerity and the fact that nuclear weapons reductions are not a way to lower the budget. All of that being said, the day-to-day reality is that every single part of the defense budget is being looked at very closely. And we're being asked to not just make tradeoffs, but to do business better. We all want to kill ourselves every time we hear the word efficiencies.

So we've talked a lot about platforms today and you've touched on the stockpile side of the issue somewhat, but I'm wondering you can talk more about that. There seems to be a consensus growing that the way the nuclear weapons complex is operating is no longer sustainable. And Ambassador Edelman, I think you raised the best example of B61 LEP; it's not the only one though. So when you look at costs and schedules of some of the programs associated with the nuclear weapons complex, do you see a problem and do you think there is a better way to do business? Thanks.

MR. BLECHMAN: Well, there is obviously a better way to do business – (chuckles) – than the way NNSA has been doing it for the last few years. I mean, the cost growth in all its projects has just been unbelievable and it's – I mean, the fact that there's no one apparently being held accountable for these gross errors of management, I find astounding.

[01:26:14]

The question is, what size infrastructure do we need, given the likely downward glide path in the overall size of the nuclear stockpile? And I think we need to take a hard look at some of those facilities that were, or still are, in the – in the plan. That's – I exempt from that warhead modernization stewardship program. But the question of whether we need a new plutonium facility, a new uranium facility and so forth, I think, are worth looking at.

MR. PINCUS: I think this is going to have to be the last question.

Q: Thank you. My name is Stephen Young and I work with the Union of Concerned Scientists. Sir, I'm the man who asked the question you mentioned, the Falkland War, at the last session. I must say, for the record, that my motives were actually quite pure. (Laughter.) It's a – it's a good question. I had no intent to imply what the answer was. I wondered what the General's thoughts were.

[01:27:21]

I have some question for you, this is your question. The Cold War is over. Deterrence has changed. Can you be as clear as you can, what are those changes? What is the role different now – two questions – what role is essential that can only be played by nuclear weapons and not conventional weapons? Simple question.

GEN. HARENCAK: Well, I – what role? I'm – let's – you asked a question about Argentina invading a nuclear thing. And my response, had you asked me then, is the same response I'll give you now. I'm not claiming now nuclear weapons are going to prevent every conflict. I will tell you the role of nuclear weapons – a strategic nuclear deterrent for the United States, is providing essentially the same amount of stability and deterrence today as it did 30, 40 years ago. What – the adversaries may come and go and change, but as long as nuclear weapons exist, we must maintain a safe, secure and effective stockpile.

In no way am I sitting here or saying that nuclear weapons are going to prevent every conflict. And I – and I think it's – I – you know, I just think it's – you know, I don't understand the thrust of the question.

Q: (Off mic.)

GEN. HARENCAK: OK.

Q: (Off mic.)

GEN. HARENCAK: Well, there's obviously an aspect of conventional deterrence too, but the fact of the matter is that a strategic nuclear deterrent, regardless of whether – who the adversary is – has a value. It still has a value. We must defend against the gravest threat. We must have a capability to defend against someone else's capability. So again, it's not going to – having subs, having bombers, having ICBMs is not going to prevent every low-end conflict, but it does – it does have a utility against an existential threat, which nuclear weapons, as long as they exist, have against the United States.

[01:29:54]

I mean, gentlemen, any – am I missing something?

MR. EDELMAN: I mean, I think, as I said earlier, the growth of our conventional forces is what's in many cases driving the proliferation agenda of other countries. And as long as they have nuclear weapons, I don't think we would be wise to rely purely on conventional forces to deter them. We become deterred ourselves.

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MR. PINCUS: Like all these panels, it never answers the questions because nuclear weapons are here and they're a dilemma and they're going to be a dilemma as long as they exist.

I thank the panelists and I thank the audience for coming. And I'm here to remind you that lunch is in the Atrium right away. (Applause.)

[01:30:40]

(END)