

TRANSCRIPT

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Dr. James Tegnalia
Director, Defense Threat Reduction Agency
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THIS IS A RUSH TRANSCRIPT AND MAY CONTAIN ERRORS. USERS ARE ADVISED TO CONSULT THEIR OWN TAPES OR NOTES OF THE SESSION IF ABSOLUTE VERIFICATION OF WORDING IS NEEDED.

Q: Welcome to Dr. James Tegnalia. He is the Director of the Defense Threat Reduction Agency. Also the Director of the US Strategic Command Center for Combatting Weapons of Mass Destruction. We're on the record, as we always are.

The center is a big new effort for you. Could you take some time here at the top to tell us, what's the nature of this new organization? What will be the size of it? What are the missions of this agency? How does it inter-react with STRATCOM? What kind of budget implications are there of this? And kind of where you are on the timeline from jump street last summer, I guess, to today. On your way to being fully formed, where are you in that continuum?

A: First of all, it's nice to meet all of you. It's a pleasure to be here.

Let me start off with the Center for Combatting Weapons of Mass Destruction and our relationship with STRATCOM. Agencies in the Department of Defense can be appointed to what's called a combat support responsibility. That is that they are in support of the combatant commanders, the regional commanders, in the US Department of Defense. The Defense Threat Reduction Agency is a combat support operation. The QDR, the last publication of the QDR came out in March, I guess, February/March, specified that STRATCOM would be the combatant commander for combating weapons of mass destruction, and that the Defense Threat Reduction Agency in its combat support role would support STRATCOM in its mission of combating weapons of mass destruction worldwide.

So STRATCOM has an additional mission. Its unified command plan was changed to reflect the fact that it is the operational command for combating weapons of mass destruction, and I'll refer to the Defense Threat Reduction Agency as DTRA for all you people who like initials, DTRA

was asked to support that command.

The basics behind that is the fact that DTRA is a technical organization. Some of you may have known the old Defense Nuclear Agency organization in the Department of Defense that took care of the nuclear interests of the Department of Defense. The Defense Threat Reduction Agency is DNA on steroids. It took on responsibility not only for nuclear issues but chemical weapons issues, biological weapons issues, high explosives issues and it's now the defense agency responsible for combating weapons of mass destruction. So the link between us and STRATCOM is a natural. We are a technical organization. STRATCOM can operationalize us in support of the combatant commanders for combating weapons of mass destruction.

Now what does that mean in specifics?

Q: What are you going to do? What's the need for a new agency?

A: The first thing is as some of you may know that one of the important programs in DTRA is the Nunn\Lugar Cooperative Threat Reduction Program. That and other activities mean that we have offices in DTRA in 30 places in different parts of the world. That means that we can provide to, this is a meal I'm not going to have a chance to eat. [Laughter].

Q: You can look at it. [Laughter].

A: That means we have a fairly good what I would refer to as situational awareness on weapons of mass destruction. So the first activity that General Cartwright who is the commander of STRATCOM asked us to do was create a situational awareness element in the Department of Defense. We did that. We were stood up in August of this past year, '05.

We had generation one of the situational awareness activity stood up in the end of January '06. In military jargon we IOC'd in January '06. We're now in the process of tying in other parts of the federal government into that situational awareness for the department.

So we now can give to General Cartwright a government wide, executive branch wide, including the intelligence community, situational awareness. Places like Homeland Security, so we can provide him what the situation is and we can provide him what is the status of the units that could respond to a WMD related activity--units in the Department of Defense, National Guard, first responders, that type of thing. So that's the first thing we did.

The second thing we did for General Cartwright is, one important thing in the military is planning, so we have a planning cell for WMD. We are working with all of the regional commanders providing those commanders with planning expertise to help with weapons of mass destruction. That's the second thing we did.

So General Cartwright now has a world view of the status of the military forces' ability to

respond to weapons of mass destruction.

And the third and final thing we did was if you have a situational awareness and you have a plan, you know what the gaps are. So we're providing him with what capabilities do the US forces need to be able to do a better job of combating weapons of mass destruction.

Those are the three objectives that we set up for him and we're starting doing that.

We're doing that now with a group, your last question had to do with budgets and that type of thing, we're doing that now with a group that will eventually get to be about 150 people. The current FY07 budget request inside the Congress is for \$30 million to start that process and so we're in the process of standing that up. My sense is that it will affect the entire agency and it will grow as we proceed through it but the original budget request for 07 is \$30 million.

Q: So just to tie this off for me the SSC or...

A: SCC.

Q: SCC is separate from DTRA, but what's the connection? I mean does DTRA provide support or is it a wholly owned subsidiary or just what?

A: Let's see it is a mixture of DTRA people and STRATCOM people. The STRATCOM Center reports to the Commander of STRATCOM. He has people in that Center and we have people in that Center. We in effect provide support, we DTRA provide support to the Center for STRATCOM. They are physically located at Fort Belvoir. In the military the process of dual hatting is kind of a common thing. So as the Director of DTRA I report to the Undersecretary of Acquisition, Ken Krieg. As the Director of the Center, I have two hats. I report to the Commander of STRATCOM.

Q: I want to just focus you here before I pass the baton to someone else. You said you do situational awareness, planning and then...

A: What we call advocacy.

Q: Advocacy, let's focus on the planning part for a second. Let's just pull a situation out of the sky, let's say some place like Iran that lots of people are interested in. Would SSC, SCC have a role in plans for dealing with any eventuality there? Again I'm using this as a hypothetical, you can use a different hypothetical but that's one that's in the news.

A: Well the short answer to your question is that we would help the Commander of STRATCOM in his responsibilities for preparing for the hypothetical situation in Iran.

To pick another hypothetical I'm sufficiently jetlagged, I just got back from the Pacific and we

were exploring exactly that issue in Korea. What are the United States' plans with regard to Korea and use of WMD on the peninsula? What would the roles of the US Military and the Korean Military, South Korean or Republic of Korea military forces be? What would their various roles be? Are we prepared to take on that kind of a mission? And the United States as part of the QDR is looking at what force capabilities do they need to be able to handle that kind of an eventuality and are standing up forces that are capable of doing that work. So the answer to your question is yes.

Q: I don't suppose you'd be in a position to tell us any of the results that you came up with on your trip?

A: Well, let's see. The thing that I found interesting about the trip was--I visited Japan, Korea, and Singapore. Various countries have various perceptions of the problem of combating WMD.

The Singaporeans for example, are more than willing to recognize that there is a potential problem to their city and nation and are doing things that you would like to see an organization do to prepare to fight for those kinds of things. We have an aggressive cooperative activity with the Singaporeans. They are trying to figure out whether they for example would like to have a Department of Homeland Security or not have a Department of Homeland Security, how their military would respond, what role would the military have after the fire department, the police department and so forth. Aggressively going after what I would say is a coherent plan for combating WMD in Singapore.

Japan, my perception having talked to the US people there is that after [Amchin Riccio] you don't have to convince them that there's a problem with WMD in Japan. And so they are preparing to handle that situation as well.

The thing that I found interesting about Korea was since my last visit there, a much more confident nation than right after the war and the succeeding years after the war. They really have more of an economic approach to North Korea than a military approach to North Korea. And so I don't think they're going to rely only on a US/Korean military approach to combating WMD so they're looking for other civil and economic ways of defusing that particular problem.

Q: Okay. Thanks very much. Bob you look you had a follow up to that?

Q: Yes I do. When you described the situational activity I was wondering if that includes or is predominately intelligence gathering? Do you monitor activities of WMD development or potential WMD development in other countries like Libya for example, around the world?

A: Let's see, I agree with most of your question with the exception of one caveat and that is I don't believe that the WMD issue is primarily an intelligence issue. So we look for situational awareness in the intelligence community. We work with the intelligence community, the agencies you would expect us to. We work through DIA, the Defense Intelligence Agency, to

help up with intelligence feeds into situational awareness for WMD. But unlike, for example, nuclear weapons, WMD has a lot more commercial, civil implications to it than the Cold War related military activity and so you have to be closer to unconventional sources of information like who's transiting what kind of equipment from place to place.

Q: Do you gather that information or do you get it and analyze it?

A: We get it and analyze it. We don't, right. Now recall for example that we have people in Tbilisi, Georgia. We're helping them set up a network for Avian Flu migration if you will. So we have people on the ground, they understand what the state of the art of let me just say biological vaccine production would be in the state of Georgia. So we have some assessments on the ground ourselves.

We go to the intelligence community to ask them to help us. We try to get with organizations who would for example monitor the transfer of equipment that could be used on things like centrifuges and biological facilities, those types of things, and that might not come from the intelligence community.

So it's a different group of people than what you are used to seeing to gather situation awareness. It's a different group of people than you would expect to see from the Cold War approach to gathering intelligence and we try to use all of the sources that we can.

Q: Including the commercial world?

A: Including the commercial world.

Q: Including people?

A: Including exchanges of scientists who understand capabilities in various countries, that type of thing.

Q: Thank you.

Q: Could I go back to one other thing?

Q: Sure.

A: You mentioned Libya. We just sent a team to Libya as part of the cooperative threat reduction activity. The State Department asked us to go in and take a look at in this particular case their stores of chemical weapons after they changed their position relative to the US, if I can leave it that way. And we're in the process now of creating a proposal for State and for the Office of the Secretary of Defense policy on what would it take for the United States under CTR to help do away with the Libyan chemical weapons capability in the country.

Q: Has that been inventoried sufficiently?

A: It's been inventoried. There are approaches, technical approaches, for how one would go about that. What kind of facilities one would need to do that and

Q: Did they agree to do that?

A: What I suggested was we're just in the process of putting forward what it would take for the discussion of do we want to help the Libyans with doing away with their chemical weapons.

Q: That's obviously a cooperative thing with the Libyan government.

A: It would be a cooperative thing with the Libyan government under cooperative threat reduction just like the Nunn/Lugar funds spent now. They require agreements between the nations to cooperate on these kinds of things. We would expect cooperation from the Libyans to do this as well. It would be a difficult thing because it's in the middle of the desert at 140 degrees during summer and things like that.

But I bring that up first of all because you mentioned Libya; and secondly because it gives you an example of how you get situation awareness. We have people on the ground actually seeing what exists.

Q: Are they there now?

A: Well they just came back. They were there for a month or so in February and they are now back trying to put this paper together that says if you want to do this here are the implications of what it is.

Q: So how much do they have?

A: Let me generalize a little bit. There are two issues there which are generally known. The first one is they have tens of tons of mustard gas and they have some precursor chemicals that are there which require to be destroyed under the Chemical Weapons Convention, and the question is do you want to do everything, do you want to do just the mustard gas, what kind of things do you want to take on? If we were to help them comply with the Chemical Weapons Convention we would have to destroy the mustard gas and the precursor chemicals.

Q: One of the kinds of commissions that your agency has is helping to secure inventories of shoulder fired missiles to work with countries around the world.

A: Surface to air missiles? Right.

Q: ManPads.

A: Yes.

Q: I wondered if you could quantify the threat. Are a lot of these loose on the black market? Could you give us sense as to that, a lot of them floating around, and what is the state of play with other countries? Are they willing to secure their inventory?

A: The specifics that we deal with this is there is an activity called small arms, light weapons. We are the people who will help the State Department when a country agrees, to help them destroy weapons that countries have agreed that they would like to have destroyed. We have been in Africa helping with some of that. We have been in South America helping with some of that. I can tell you that I don't have any sense of an audit of the numbers of these weapons that are around. The one element I guess that I would suggest to you is we're into working with people who want to cooperate with us to destroy those and you can ask yourself the question about whether or there are others who aren't cooperating and whether that would ever let you get a clear audit of the kinds of problems that you have. But we have destroyed a lot of weapons. A lot of countries have not only ManPads but also rifles and RPGs and those types of things. And there are countries who are willing to cooperate with us to reduce that inventory. I wouldn't suggest to you that that is a total solution to that particular problem.

Q: One of the issues I like to follow is the security of Russian tactical nuclear weapons. What's your view as to the trends over the last year or so in terms of security? Are they more secure than they were two years ago or since 9/11?

A: The answers to both your questions is yes. Let me give you some details. I think that's an important question.

The President and President Putin at Bratislava agreed to US help, cooperation with the Russians on securing the former Soviet Union nuclear weapon storage areas and that included the tactical weapons systems. The goal before Bratislava was, as I recall, securing those weapons facilities by 2012. The goal after Bratislava is 2008. We have agreed with, the Russians have cooperated very much with this.

The substance issue here was before 9/11 and before some of the Chechnya things people believed that the problem was an insider problem, somebody inside of the organization becoming a security risk. Now they're worried about an outsider, read terrorist, who would go into those facilities and try to steal a weapon.

So we've got an agreement on the threat. The Russians have agreed that the issue, in Bratislava, that the issue is a terrorist getting a hold of nuclear weapons, that's very important to the US. We've agreed on the threat.

We have agreed on the list of facilities that need to be secured. We and the Department of Energy have taken up an additional I think the number is eight plus seven, fifteen. DOE will secure seven more. We will secure eight more, and we will complete that by the end of 2008 and we have a supplemental in the budget now to Nunn/Lugar of \$44 million to get that activity under contract this year in FY06 to finish by æ08.

Q: And that will be the total sum of the facilities that you were concerned about?

A: That is the total sum of the facilities that we're concerned about, that the President and President Putin agreed should be secured and that would secure their tactical nuclear weapons.

Q: Would you have an inventory of how many weapons are at any facility or a total inventory?

A: My sense of that is that unless the, we do have an inventory of START controlled weapons.

Q: Right.

A: But not tactical.

Q: Right.

A: And my sense of this is that there will be a very clear understanding of the security positions for the facilities but not of the inventories.

Q: If I could just follow up on that myself. We've had a number of folks come in here over the years and asked this question and their answer seems to be along these lines well we don't know how many of those weapons there are but the Russians must know. And they say they've got them all secured so we think it's okay. But I don't know, did you answer that question? Do you think the Russians know how many they have?

A: I believe the Russians know how many they have.

Q: But they're just not telling the United States government?

A: I believe that what you just said is correct. I believe the Russians control their nuclear weapons. I believe they think that those weapons are an important responsibility. I would not suggest, I'm not one to suggest that the Russians have been lax in their control of the number of tactical nuclear weapons and I think that we made a major breakthrough in agreeing about what security capabilities should these sites possess, what should their people possess and how should they be trained and we think that we've done a lot to upgrade the security in their facilities. But I would not suggest that before that time they were not secured.

Q: Doctor, I wanted to get back to Libya. It's my understanding from hearing Secretary [Floury]

talking in the past about the Libya situation that what the US decides to do will depend on the proliferation risk and the condition of the mustard gas and the precursor stores in Libya so I'm wondering from this visit what did you establish as to the condition of those stores and the proliferation risk they pose and what options are you looking at specifically to dismantle them or render them harmless, that type of thing?

A: Let's see I was just on the Hill with Secretary Flourney on this subject and we talked about it a little bit and I don't want to get ahead of the decision process so what I'm going to really do is tell you what I personally think some of the tradeoffs are.

In round numbers the destruction of the Libyan chemical weapons capability is going to be \$100 million and so when you start looking at numbers like that you have to worry about the opportunity costs. What else could you do with a \$100 million in the Nunn/Lugar program for example and how might that help secure faster Russian tactical nuclear, so you have to look at the opportunity cost. And some elements associated with that are what are the Libyans prepared to do to help? What is the condition of their weapons systems? I mean if they aren't a terrorist threat that would have a bearing on how important it is to try and secure them. And you know in the end a meeting of the Chemical Weapons Convention responsibilities are the Libyan government's responsibility and in today's world it's not like they don't have resources to be able to do that.

So I believe that from DTRA's point of view, we've done an important thing by going over there to assay the inventories. We know the condition of the inventories. We have an idea of what it's going to take to do away with them.

Q: But can you say now what that condition of the inventories is? Are they principally located at one site?

A: They are principally located at one site several hundred kilometers south of the Med. They're in the desert. And just to go a little bit closer to what you're trying to say, that's not a good place to store these kinds of things so they will degrade over time.

Q: Have you determined whether or not you could dispose of them or treat them at that site? Because I heard water might be an issue, like access to large amounts of water for the processor?

A: There are issues like water, road access those types of things but we have techniques. We have two techniques we've looked at that would allow us to treat the weapons there.

Q: Do you know the name of that site, sir?

A: I'll get it for you. The answer is we do, but I don't have it on my fingertips, so I'll get it for you.

Q: Sir, I just wanted to ask more about the weapons of mass destruction center. When will it be up and running fully?

A: Let's see in the military jargon you do an IOC. I mentioned to you that there's 150 people that is our total end strength, we're at half that at IOC. Our FOC is Final Operational Capability, is scheduled for the end of this calendar year and we'll be at that 150 person manning. I might indicate to you that the deputy of that commander is going to be a rear-admiral, Bill Lofler is his name, and he comes on-board, I guess I shouldn't use those terms, he comes to Fort Belvoir on Tuesday of this coming week so we're slowly manning up.

The manning process basically is just simply determined by the military rotation process and we're in process of standing up.

Q: One quick follow up question and that is what's been the most serious problem you've had standing up this center?

A: To me, I don't know that I would call it a problem. The balancing act issue that we've had to struggle with is there aren't that number of experts in this particular area. This is a pretty small community and so what we've had to do is balance resources between our DTRA mission, our DTRA technical mission and our support to STRATCOM and I think we're in the process of having done that well, we're training up new cadres of people to help with that process. But the simple answer to your question is it's the allocation and reallocation of scarce resources.

Q: I'm interested in the potential concept between the two roles. DTRA's role is supposedly a peaceful means, to go out and eliminate potential threats cooperatively. STRATCOM's role appears to be more of an offensive type of role. Is there any conflict between your two hats that you're wearing; you know one's a beret and one's a hard hat? [Laughter].

A: Let's see, first of all I don't see a conflict and let me tell you why. If you look at the President's strategy on preventing the use of weapons of mass destruction it has three pillars in it, one of those pillars is what is called counter- proliferation and in a sense counter-proliferation is what do you do with an individual that doesn't want to cooperate with you. The other ones non-proliferation, that's the one that you mentioned, that's when the other person wants to cooperate and Nunn/Lugar is an example of that. And the third pillar is what's called consequence management. What do you do if somebody actually uses a device, how do you restore operations?

DTRA has responsibility for all three and we do work, for example, on conventional weapons that you would use against facilities for weapons of mass destruction. We help special operational forces if they were to have to go into a facility and secure it. We help people who do interdiction if they were to interdict a weapon. So we have both the military responsibility and the cooperative responsibility and by the way I think General Cartwright has both of those responsibilities.

So I don't see a conflict in those two things and for example, General Cartwright is big into, at STRATCOM, into the monitoring of strategic arms treaties and things like that which fit under this cooperative non-proliferation aspect. So I don't see a conflict either from STRATCOM responsibility or from DRTA responsibility.

Q: You're trying to get someone to cooperate and you're also getting information that could be used in a counter-proliferation operation, but you say you have all three of those responsibilities prior to the center's creation?

A: Absolutely and people who we deal with in a cooperative manner are always worried about the intelligence aspect of this problem. They account for that when they make their decisions. So this is a continuum from peace to war and we play the whole continuum.

Q: You mentioned before that one of the areas that you look at is the commercial sector and the kind of trade in dual use and WMD technology, and since the kind of launch of the Proliferation Security Initiative there was initially kind of a lot of talk about interdiction and so forth and we haven't really heard a lot about that lately except for the latest criminal case in Germany. I'm wondering what the state of the counter-proliferation efforts are and, you know, kind of where you think you are in terms of getting at the networks you know, the remnants of AQ Kahn's network and any other parallel networks that are commercially on the side of providing technology.

A: Well let's see, you never know what you don't know so you're never quite sure that there isn't another AQ Kahn network out there. We try hard to understand through the commercial sector the movement of activities to avoid another AQ Kahn. The Department of Energy spends a huge amount of time on that issue with regard to capabilities for nuclear weapons.

The situation in my judgment is going to get worse given what I think is the inevitable move toward nuclear power, given the problems with fossil fuels. I don't think, I haven't seen let me leave it at that, I won't project too much, I haven't see a reactor for power capability that doesn't have non-proliferation implications to it.

So the answer with have we taken care of all the cons, all the potential cons out there, the answer is it's very difficult to make that kind of judgment and the situation is going to get more difficult it's not going to get less difficult.

You can make the same arguments about biological weapons. The more that biological sciences advance the more that we expect new drug regimens to help with every kind of disease that we have, the more nations are going to have biological capabilities that can be turned into biological weapons. We try hard to understand who in both the peaceful and the less than peaceful means, who has that kind of capability. A difficult problem which in my view is going to get worse.

With regard to things like PSI to do those kinds of things, we have not had you know the kind a thing which led to Libya in recent years and I think in that regard you're right. But I would suggest to you that the PSI initiative continues to grow. We exercise that process reasonably routinely with the nations; do cooperative exchanges on various capabilities, cooperative exercises to prepare for PSI kinds of things. So my sense of that is it's a pretty, I'm going to say it's a growing and well trained capability that the allies are teaming up to provide.

Q: Okay.

A: That doesn't answer your question right? I don't know the answer to your question and I'm just saying that we are trying to do things to help with the process.

Q: Sir, let me ask you kind of a follow up question on the recent Libyan trip. How many were in the US team and who led it? If you have any more details about the dates of the trip that would be helpful. And did it focus exclusively on chemical weapons? Any biological or nuclear issues as well?

A: Let's see let me answer a couple of your questions and some things that I can't answer. The person who led the team was a lady by the name of Dawn Brown and I will have her get in touch with you to give you the particulars of what the team construct was and what they looked at and those types of things.

You may be aware of this but the first time that Nunn/Lugar went outside of the former Soviet Union it was asked by Albania to help it destroy mustard gas in Albania which was a remnant of the Cold War. Dawn Brown is leading that activity. This activity in Libya is analogous to that kind of an activity so she led the program and she'll give you the details on what the team was constituted and what they were doing.

The answer to your other question is that they were specifically asked to look at this particular problem. They were not on a go see if they have biological weapons and those types of things.

Q: So the Libyans requested it?

A: Absolutely. They requested some support from the US government. Senator Lugar was involved in that process.

Q: The Pentagon recently sent out policy for foreign consequence management and I was wondering if you could give us some details about what DTRA's roles will be with that, specifically. Are you thinking about new organizations and programs?

A: Well let's see, first of all there are programs on foreign consequence management. We do a lot of that activity particularly in support of European Command and we do things like train people to respond to these kinds of things. We provide them with equipment. We run exercises with

foreign governments in concert with the United States on how one would respond to those types of activities. So the idea of a foreign consequence management program set that program set exists. There are capabilities that have been exercised.

What I got from that policy was a desire to look at it broader with the idea of maybe expanding the opportunities for partnering with people to try to do that. So the bottom line is there are precedents for that program, it's not a new activity, people are doing that now.

We also, just to expand on that a little bit, we also work with a large number of governments in proliferation prevention so that you don't have a consequence management problem. So we work in the Caucasias to provide border security activities, to provide training for people to stop smuggling of weapons, materiel, hardware. We provide them with the ability to do port security. We work with the Department of Energy in that activity. So there's a very aggressive cooperative program on non-proliferation and if that fails, consequence management to help with weapons of mass destruction and I think with that new policy as you point out you'll see more emphasis on the consequence management aspects of that.

Just as an aside, we have an activity going on now related to that in Split, Croatia where we're exercising with the Croatians to look at their capability to do those kinds of things. I think the lessons learned--the end of the exercise is today, I think. Today and tomorrow. So we do those kinds of things fairly frequently.

Q: I believe that DTRA at least as recently as maybe the mid æ90s has studied the threat posed to low earth orbiting commercial satellite by high altitude nuclear detonations. I'm just wondering, it's something the country witnessed in the early æ60s with the Starfish Test. I was wondering is this still kind of a front burner, mid burner, back burner issue for DTRA now? What's happening on that?

A: I would say that the department has actually increased its priorities with regard to the issue of electromagnetic pulse from nuclear weapons and from other means. There was a study led by an individual by the name of Bill Graham, a congressionally mandated study which looked at the EMP problem. That study had several facets to it; one of them was that EMP against a commercial society could shut down things like your power grid. Think what would happen to your bank teller, your automated telling systems, bank telling systems, it could have a very significant commercial problem, economic implications, made some recommendations on that.

They also looked at the Department of Defense and the hardness which is the jargon word in this business, the hardness of our capabilities in an EMP environment and we're out now with the resources that we have trying to check the hardness of key communications capabilities to assure that they're as hard as is reasonable.

So I guess the short answer, and I should probably indicate the Congress re-commissioned that study so it's now into Phase II. So you'll hear more about the EMP problem as Graham and

Company do a Phase II which is in my view a sense of okay where have we come since the first study.

Q: But I mean are you specifically worried, are you worried about a threat infrastructure, satellite infrastructure? It's a distinct phenomenon for me and I think it's related to [inaudible].

A: Well there are two issues as you point out, one is space assets, the vulnerability of space assets and the other is one is the terrestrial implications to it.

We are in fact worried about both of those. For example we are a supplier of hardened electronics for space assets and we have two companies that are now qualified to produce hardened electronics for satellites and we believe that the satellite activities are in fact hardening up for that kind of thing. I don't think they're finished, but they're hardening up for that. So we do that, that's the space element.

It's no value to have a space element that's hardened when your ground stations and communications networks aren't hardened so we look at that as well and we do assessments of things like our communications backbone to make sure that it's secure as well.

Q: So have you been able to get sort of I guess the satellite industry on board and worried about it? Because obviously for them it's an economic issue you know they haven't RAD hardened their satellites because they didn't think they'd have to worry about it or haven't sufficiently RAD hardened them against a threat like this. How does DTRA or how do you entice them to do that? What are the incentives?

A: I think the issue of commercial hardening is a very difficult one. The activity is very competitive. I used to work for Lockheed Martin so I understand a little bit about the competitiveness of it and these kinds of margins on satellites, you know the cost margins associated with hardening, if you design them in up front they're not that expensive but there is a competitive aspect to them. So you'll see a level of hardening even in commercial satellites because they worry about EMP effects from natural occurrences like sun spots but not to the levels that you would expect the Department of Defense to want in an EMP, nuclear EMP environment.

The US Military capability is in fact being increased and there's more emphasis on that now than there ever has been. So we're making progress.

Q: Thank you.

Q: Well on the SCC charter you have you talked about the third thing was to know where the gaps are and to inform STRATCOM about that. I was wondering if you could provide some specific examples of where you intend to look for those gaps and specifically if you could address munitions capability, offensive munitions capability. And I'm thinking of a few years

ago DTRA ran a test with JASSM to take out a bunker that didn't work, but if something like that is still on the table and if that's part of that analysis.

A: Yes let's see, I think that we've already begun to identify some gaps. The QDR, if you read the QDR, will give you an indication of some of those gaps. And I'll just pick one because it's one I worry about.

When we went into Iraq and we thought that there were WMD activities in Iraq the question was asked who's going to go in there and secure those things behind the forward element troops? Who's going to go in there and secure those Iraqi weapons?

Well it turned out that the answer was, the technical expertise for that was going to be provided by DTRA with civilians. So they took an artillery brigade, took the artillery pieces away from it, put DTRA experts in there, put that unit in behind the 3rd Infantry Division. We went in there to secure chemical weapons, look for nuclear weapons, look for nuclear sources that could become those kinds of devices and biologicals if they saw it. That has been commonly referred to in the press as a pick up game. And if we were to go in, we use hypothetically Korea, if we were going into Korea we'd not like to do it that way again.

That issue was identified as a gap in the QDR and we're in the process of standing up an element called the 20th Support Command in the Army who would be responsible for doing that if there were something like that in a hypothetical Korean kind of activity. So that's an example of a gap. You don't want to do it with civilians, you don't want to do it in a pick up game, and you want to have somebody that's prepared to do it.

With regard to the weapons systems that you were talking about there is a continued program aimed at hard target defeat in DTRA and in the military services particularly the Air Force and Navy and we'll be doing some tests on those this summer.

We continue to develop weapons. We just fielded a glide bomb with a hard front end on it to do those kinds of things so those kinds of weapons tests continue to go on. And I think that you asked whether that was a gap or not, I think that the answer to your question is yes but I don't want to leave you with the impression that all these tests are going to close that gap. It's a lot easier to dig your tunnel fifty feet deeper than it is to develop a new physics solution that can go that deep into granite. So the answer is we work on those kinds of things but it's not an easy problem and it's not going to be solved using these kinds of techniques.

Q: Can you say what the tests are coming up this summer?

A: We have several very large penetrators that we're developing.

Q: Is that the MOP?

A: MOP is one of them. We will be doing that. We also have a, are you ready for this? A 700 ton explosively formed charge that we're going to be putting on a tunnel in Nevada and that represents to us the largest single explosive that we could imagine doing conventionally to solve that problem.

The thing that, and I don't want to sound glib here but it's important, this is the first time in Nevada that you'll see a mushroom cloud over Las Vegas since we stopped testing nuclear weapons.

Q: 1.4 million pounds?

A: 700 tons.

Q: When is that going to be?

Q: The first of June, the first week of June.

Q: I assume you're going to notify the Soviets since that will probably have seismic

A: Number one we're notifying the Soviets.

Q: Russians. [Laughter].

A: Yeah I recognize that.

And we're also making sure that Las Vegas understands that too.

Q: What is the name of that 700 pound?

A: There is a name for it, Divine Strake.

Q: What?

A: Divine Strake.

Q: Strike or Streak?

A: Strake.

Q: What does that mean?

A: It's just a code. It's just names.

Q: And what's the purpose of this?

A: It's to understand what, if you want to model these weapons you'd like to know from a modeling point of view what is the idea best condition that you could ever set up in a conventional weapon? What's the best you do? And this gets at the best point that you could get on a curve. So it allows us to be able to predict how effective these kinds of weapons, these large weapons, MOABS would be, it allows us to predict how well they could work against granite hard structures.

Q: I see.

A: So it is an analytical thing it is not a weapon test. It's an analytical test.

Q: Can I ask you just to talk a bit about Pakistan. This is sort of a two pronged question. One, to what extent is DTRA involved in securing or I guess being knowledgeable in how secure the Pakistani nuclear arsenal is, and to what extent are the Pakistanis cooperative in that regard? The second part of that is, I guess it's not too far fetched a scenario that Musharraf's government could somehow get overthrown and we'd have a much less friendly government there. To what extent is DTRA involved in that kind of scenario planning within STRATCOM and within DOD, writ large?

A: Well let's see, with regard to the second one there have been exercises run against that particular problem, what would happen if there was a loose nuke, what would happen if there was instability in a hypothetical country that could be used to model that, and so there are assessments made of how well that process will work. I think you're getting into a classified area about just how well that would work and I can't answer that.

Q: Just from a logistical point of view to what extent is DTRA directly embedded in those exercises, is it run by STRATCOM?

A: They can be run by various places.

Q: Okay.

A: DTRA as a technical organization very oftentimes is asked to set up a scenario, is asked to be a white team, that is the person who plays the game and assesses the outcomes and that type of thing and we do a lot of that all over the country. We do that even in civil exercises where somebody would have a weapon of mass destruction exercise and the last top off was in New Jersey and Connecticut, we did the modeling that set that up and helped them asses how well they were doing. So we do a lot of that kind of thing.

With regard to Pakistan and securing the weapons, I can just tell you that we have had contact and we have volunteered to help them with that kind of thing. But there is no active program

going on in that right now.

Q: By that I would assume that you have volunteered but Pakistan has not been too excited about allowing it?

A: I don't know how I would describe it. Let me just suggest to you that getting a cooperative agreement with the Russians where we have an alliance and we have agreed in principle to do this, takes a long time. And it has to do with issues like you talked about on how do I let you come in and do security but not let you into the middle of my tactical nuclear capability? So it takes a while to get these arrangements to go forward. So I would suggest to you there is contact and we're trying to work it.

Q: A follow up to something you mentioned earlier, who are the two companies who are making these hardened parts for satellites?

A: Let's see one company is Honeywell in Minneapolis and the other company is British Aerospace out here in Manassas, Virginia. You may be familiar with the British Aerospace firm, they were bought from IBM, the IBM facility in Manassas now owned by BAE. And they build hardware and test is all the time. They're available for production now. They've been in this business for a while; we're simply helping them modernize their capability to keep it the state of the art.

Q: And how much money are you putting into that?

A: Let's see, the answer is I don't know the number but we can get that for you.

Q: Can you give us a ballpark? Is it millions, hundreds of billions, billions? I mean can you just....

A: It's not hundreds of millions but it's tens of millions. It's not a small program. Are you familiar with the term ACTD, Advance Concept Demonstration Program?

Q: Right okay.

Q: There was an ACTD to keep these kinds of capabilities modernized and refreshed and available for helping with this and DTRA did that for, who was the lady that runs the ATCD program?

Q: Sue Payton, thank you. We did that for Sue Payton.

Q: Is there any pressure on your annual funding if things go one way or the other, up or down or is it pretty much a steady state?

A: No I think the idea is to sustain that infrastructure base. What we'd like to do it just keep it modern and keep it going.

Q: Yes I wanted to ask you to what extent does Iran depend on foreign sources for its nuclear programming? And sort of related to that, I know that you that you don't know if there's another AQ Kahn network out there but are you seeing any sign of a revival of that network? Obviously not by AQ Kahn but, you know, people trying to put together or put that back together.

A: Let's see, I don't see, the point that I would give you for an observation with regard to that is that I don't think that that publicly the US government's concern is trying to do away with AQ Kahn types of networks now. I think publicly the issue is the ability to secure existing material, the ability to make sure that existing in our terminology demilitarized weapons and material is secure from Russia. We're working on protocols with the Russians now to create facilities that are secured that they could store their demilitarized nuclear weapons capability material so that it isn't out. That's the biggest concern that we're trying to face right now, and I think next behind that is as the nuclear power business begins to expand are we doing the best we can do to control materials that would come out of that program?

So you know there might be something in the intelligence business that I couldn't talk about and don't know, but what I can see from investments the issue is more of non-proliferation of materiel as we de-mil the Cold War inventory.

Q: Why is it that you're less concerned about, you know, networks of....

A: I didn't say that. I didn't say that.

Q: Is it just that the other things have gained greater attention?

A: There is a continual search in the intelligence community to find future AQ Kahns. What I'm simply looking at is in the budgets that I have purview over, where are we investing to try to stop proliferation.

Q: I see.

A: And it is the control of materiel and the control of proliferation from reactor activities.

Now does that mean there is not AQ Kahn network? As I said, I don't know. I don't see any. I'm sure I don't see all the intelligence data and I'm just telling you frankly I don't know that something else like that is going on.

Q: What about the part of the question about the Iranians?

A: Well I think that it's been public knowledge that the Iranians are having to get foreign

assistance to do what they're doing and I think that at least in terms of IAEA activity it's going to get harder and harder to get that foreign assistance.

Q: Okay I think we have one follow up here.

Q: Doctor, how would you characterize the current state of the US Agent Defeat capabilities?

A: The way I would define it is we have a, let's see for people who don't know the jargon, Agent Defeat has to do with the idea that maybe the last thing that you would want to do is put a conventional explosive into a chemical facility or a biological facility because what you would do is spread that stuff all over the place. You would create more of a problem than you're solving.

So the question comes up if you created a weapon to go after a facility, how would you do it in a way that does not disburse the material but would actually defeat the material before it could get outside of the environs of the facility? It's called Agent Defeat. We have, the way I would characterize it is we have a zero base capability.

Q: Zero base?

Q: Base capability. Things like thermal barracks and white phosphorus and those types of things which would burn those chemical weapons before they were disbursed. Okay? Kind of a phase zero. We're spending active work in looking at other more advanced energetics that would help with that particular problem because you can't be assured the thermal barracks will take care of all the problems. They're not hot enough. They have some problems with them. So what I would classify it is we have better solutions than putting high explosives into facilities and blowing the facility apart and blowing the stuff all over the place. We have better solutions than that but they're not perfect and we continue to work for advances in that.

Q: Your predecessor said several years he felt pretty comfortable with the US' ability to, you know, neutralize small amounts of chem\bio agents but he said you know larger volumes that was still the challenge. Is that still pretty much where you're at, or have things progressed a lot since then?

A: No I think that's still a fairly accurate assessment of where the capability is. If you had a large white phosphorus thing against a small vat of material, you can handle it. If you end up with one device in the middle of a huge storage area, you've got a problem. And personally I think that if you ended up with a problem like that you could not go in with the current set of weapons we have today and that's why I'm suggesting to you we have a base line capability. We don't have a good solution.

Q: We're out of time. Thanks very much.

Q: Can I make a point of, on factoid?

Q: Make it quick.

Q: You mentioned the 700 ton penetrator, just for comparison purposes what is the largest existing penetrator at this time?

A: 30,000 pounds is the largest one I know of.

Q: 30,000.

Q: Is this a penetrator though?

A: Yes I want to be careful, it's a 700 ton explosive, not a penetrator.

Q: Okay. Thanks very much. I appreciate you coming in.

A: Thank you all very much for listening.

END TEXT