TRANSCRIPT

Defense Writers Group

A Project of the Center for Media & Security
New York and Washington, D.C.

General James E. Cartwright, USMC
Vice Chairman of the Joint Chiefs of Staff

July 14, 2011

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: Thanks for coming in this morning, everybody. Our guest today is General James Cartwright, Vice Chairman of the Joint Chiefs of Staff. Sir, thanks for meeting with us. This is somewhat remarkably his first visit to the Defense Writers Group, so he's an old pro with the press but a rookie when it comes to this venue. Thank you, sir.

General Cartwright will be in office until August 3rd, then by law he has to step down from the Vice Chairman's post.

Let me begin with the plan for the end of the surge in Afghanistan. When it was announced both Admiral Mullen and General Petraeus said that the drawdown plan was a little bit more aggressive than they would have recommended, or more aggressive than they did recommend. What is your assessment of the plan, and to be effective, how does it need to go?

A: And world peace after that? [Laughter].

My sense right now is that it's pace more than scale that is important in these first few increments, first few months, six months. That's because one, you're going to have a new commander as General Allen takes the post; two, now that we have set the timelines associated with the drawdowns, this initial increment and then a scaling down that goes out through calendar year '14, what you take out will set the battlespace geometry for the other moves after that. So even though we're talking right now initially about the surge, setting the conditions on the ground, the geometry of who's where and how that works is

something that we'll have to take time with. That you want to give General Allen as much time as possible to do.

So it's really more about if you take something out of here, then what are the second, third, fourth moves, and how is he going to figure those out? And given that he's just walking in the door, giving him a chance to understand that geometry, where the likely places are that we're going to want to have force all the way through until calendar '14. Those are the decisions he has to make. Then he has to put down the basing constructs, the infrastructure, all of those pieces to make sure that it matches up.

The piece that I'm probably most worried about is not necessarily the number of forces coming out but the timing that allows the commander the opportunity to set the geometry so that units rotating rotate naturally out of a spot that we're going to vacate, units that are rotating that we want to remove don't create a hole in the battle space between forces, things like that. We've got to work our way through that. He's got to have an opportunity to do that.

So this very first increment, relatively straightforward. That's just saying you're not going to come. You thought you were coming to Afghanistan, you're not going to come. But make sure that what doesn't come doesn't create a hole in the battle space.

He'll work his way through that part of it.

The drawdown also tends to have to be mindful that the combat forces tend to be what we talk about and write about and focus on, but the reality here, it's the enablers that really tend to drive how the tactics are going to lay out and how effective we can be out there. So things like aircraft, things like combat service support, combat support. Those types of activities and where they're based and how they are hubbed and spoked into this new geometry as it declines are all things that he's got to spend a lot of time on. They're likely to not be part of the initial drawdown. They're likely to be left in place as long as possible because they tend to give us the greatest leverage. ISR — the intelligence, surveillance, reconnaissance — give us a good sense of what's on the battlespace out there. And given that you're reducing your battlespace, that leaves area unguarded. You're going to have to watch that area to make sure you understand what's going on out there so that you're not maneuvered around. He's got to make sure that those lines of communication—the ones that we probably are most worried about right now are the ones that come in through Peshawar and those areas and up through the north and then back down through the Sangin Valley. That line of communication, that movement of enemy forces, resupply, everything else, has got to be watched because that allows you to maneuver to flanks and things like that. So those are the types of things he's got to worry about. So it's really now focused on that battlespace geometry and setting it correctly.

Q: Are there locations in Afghanistan that you would logically draw the forces from at this point? Or is that what he needs to figure out?

A: That's really what he needs to figure out. We have areas where the NSF are reasonably capable of taking care of the activity. The forces there have been relatively stable. There are areas, the first five that we're going to transition, those types of areas. But he's going to have to look now at lines of communication, the roads, the major hubs, the cities, and how that's connected up and where we're going to start to withdraw in those areas, where we can put forces in place that have a reasonable expectation from the Afghani side to maintain some level of stability.

Q: Good morning, General. Thanks for spending the time with us.

I had a question for you. With the budget crunch coming, as they describe it sometimes, a lot of acquisition coming out of Afghanistan and Iraq. It's been fairly ad hoc and a little bit confused in their urgent needs and joint urgent needs, and they all seem to come to you. [Laughter]. In the short time you have left.

Are you planning or thinking about changes in how this is done to make it more efficient to get equipment troops need to them more quickly?

A: Most definitely. We started last year to change some of the legislation to allow us to have some more flexibility. I was the author of JSIDS which is the bane of almost everybody right now, in its lethargic approach to doing business. But what I'd like to be able to do and what we have done over the past year is put the framework together of an alternative structure that acknowledges that one size doesn't fit all. A sense of urgency, have a different risk calculus than say building an aircraft carrier. So what we're looking at right now between Ash Carter and myself and what we've written up is a three-tiered approach here. There is a tier that is associated with the conflict and the lessons learned out of that. So the joint urgent needs matched up with the rapid acquisition authorities that we've given to the services where a 30 percent solution is good enough because it's going to save lives, and you're going to push it out, and time is the most important attribute. Get it out there. You don't like to say cost doesn't matter, but it's a very low priority in these types of needs. We want to get them out there, and whatever we can do to improve the lot of the soldier or sailor or marine out there, we're going to try to do.

Then there's the other extreme which is really the way we do business today which is the very risk averse approach. These are for big capital items. The bomber, the ship. These are the types of things where you really don't want to make mistakes. You want to take the time and engineering to work through and understand why you're building these things.

The middle category is the one that is probably the most interesting to me because I sense it's probably the direction that we're heading, which is a category that says there is a mixture of leverage in industrial type capabilities — build me a ship, build me a truck, whatever it is. Then the IT side of them. The way we do that today is if you build an airplane, the company that builds the airplane integrates every system in and they're all tied very tightly together, so that you can in an airplane detect a target on the ground, drop a bomb on it, launch a missile, whatever it is you want to do. That way of doing

business, you are 15 years before you have the asset guessing what the threat is going to be. Building it very specifically to that threat. Then oh darn, if that's not the threat you have to work against, you either put it on the back of the pilot or the operator, whatever the asset is.

I use the Predator as an example. There are a lot of other ones. What we're looking more at is, what is it you expect out of the vehicle? Usually it's energy and mobility. Give me energy, give me mobility, and then I'll hang things on it to do what I need to do.

Can we build the energy and mobility, so to speak here, and get that down to what it is we want, and then open architecture the rest of it? So that what it is that we actually run into when we come to a conflict is what we can put in the aircraft, or we can adapt it very quickly.

With the Predator, I'd like to say we thought this out and we had it all in our head when we started, but that's not the case. But really what you have there is an open architecture internally. So we have hung different sensors on it. We have taken that system from an analog video capability to an upgrade to a digital, and now to high definition. Industry standards, just plugging them in. Those changes didn't require us stopping and going through an entire reengineering. We actually were able to put those in place, each one of those, in about a year across the entire fleet for generally less than $300 or $400 million for the entire fleet. Those kinds of changes are responsive to the battlefield and what we need to do. They're responsive to the opportunities technology provides us. By going digital what we did was open up a whole new set of capabilities because now we can go through hours and hours of film and looking for something precisely.

If you want to find Cartwright on there and you want to go through 50 Predator feeds in a day that cover the entire day, you can do that in a matter of seconds now with an algorithm that's looking for facial recognition or whatever it is you're trying to do.

So those types of capabilities that adapt to what we actually need to do, versus 15 years ago guessing what we were going to need to do kind of help us move these things through. So that middle class is to try to understand how we can start to change the business case with industry, allow competition to occur, but allow us to modify without having to stop and open up.

If you take any airplane today and you want to open up the software on it, figure three years, a minimum of three years, because there's just so many people integrated you don't have an understanding of what second and third order effect are going to be, so you have to go through a huge amount of testing. That's kind of the mindset that we're after.

Q: We are about to hear about a DOD cyber strategy shortly. You've been in the lead in thinking about how to deter cyber attacks and deterrence writ large. I wonder if you can talk a little bit about that. Can we deter a cyber attack? Is cyber war more like—is

deterrence there more like terrorism or more like the Cold War?

A: Much of the skills that we have in cyber today are defensive in nature. If you talk to people — even in the commercial sector, you turn to McAfee or you turn to somebody else and build a better firewall, a better way of keeping the adversary out.

For the Department of Defense, our networks are really our life blood out there. They are critical to our ability to operate. We can do it without them but it's back to yellow stickies and things like that. We depend on those networks in a significant way on a global scale because they allow us to operate on a global scale.

If your approach to business is purely defensive in nature, that's the Maginot Line approach, you really — If it's okay to attack me and I'm not going to do anything other than improve my defenses every time you attack me, it's very difficult to come up with a deterrent strategy. But up until now that has really been the focus. We're probably 90 percent thinking about how to build the next best firewall and 10 percent thinking about what we might do to keep them from attacking us.

I think the attributes that we are seeking right now are attributes, one, that stop looking inwardly for the solutions. In other words, this network is global. It pays very little attention to geographic borders or the borders of nation states and sovereignty and those types of things. So you're going to have to work in your solution space with partners. You're going to have to look outward. You cannot just do this as a single nation. Anything you do will touch everybody else, and vice versa. Everybody that does something will touch you. So building defenses and what not have to take that into consideration.

The other piece here is because it tends to be so fast and cross so many boundary conditions, the same is true inside the U.S. government. The checks and balances between Justice, State, DOD, Homeland Security. How do you manage those at network speeds? And how do you do it in such a way to preserve all of the checks and balances between cabinet agencies that we have today and what not. That has been a large part of this struggle.

The other piece that is difficult here is that we're on the bad side of a divergent threat. A lot of people throw around a couple of hundred lines of code is all it really takes to write a virus and that's been stable for probably 10-15 years. We're now up into millions of lines of code to fix a patch. And if you think about a network or a software as a surface and there's a hole in it and somebody's going to punch through and get to whatever it is they want inside, then a patch is to put something over that hole. The something we're putting over it now is getting bigger and bigger. That's more surface to attack, costs you more. So it's a great business case for McAfee, but it's a horrible business case for the nation at large because it costs us more every time somebody spends a couple of hundred dollars to build a virus, we've got to spend millions.

So we're on the wrong side of that. We've got to change that around. Part of it, Julian,

will be on the deterrent type construct. The question now is, within the government, is to decide how we want to instantiate that deterrence. What does it look like? This strategy talks more about how we will defend the networks. The next iteration's going to have to start to talk about the balance that says here's a strategy that says to the attacker, if you do this the price to you is going to go up and it's going to ever escalate. Therefore, changing your calculus as to whether you want to attack. Because it's not just free. If I didn't get in today I'll just try again tomorrow, is the mindset today. We've got to change that somehow. Right now we're on a path that is too predictable, way too predictable. It's purely defensive. There is no penalty for attacking right now. We've got to figure out a way to change that.

We can do things. We can instrument the systems, we can see the attacks coming. That's really the same as building better firewalls. At some point you have to change it around. Attack doesn't have to be in kind. I've said that publicly multiple times. If we believe that we've been attacked and we have broken a threshold of armed conflict or law of war, we have other venues by which, we have state demarches, things like that that start at the low end on up to kinetic activities if you think that's justified. That's not part of this discussion in the strategy thus far. But that's part of what we're trying to now understand is how do you build something that convinces the hacker that doing this is going to be costly to him? And if he's going to do it, he better be willing to pay the price and the price is going to escalate. Rather than his price stays the same and ours escalates. We've got to change that calculus.

Q: If we're at 90/10, 90 percent defensive, looking ahead in the future, where would you like in 10 years the U.S. to be? 50/50?

A: I'd like the U.S. to be 50/50. I'd like DOD to be 10/90. That's our job. We're supposed to be off-shore doing that and convincing people that if they attack it won't be for free. It doesn't mean we use this, but it certainly means that you believe that we have the capability and the capacity to do something about it.

Q: Sir, is it true what I've heard that OMB has asked you guys that $400 billion is one number but we may have to go deeper, here's the other number? And what is that number? And are you looking at it?

A: We don't have that other number, but —

Q: Is there another number?

A: There may be in somebody's mind. I haven't seen it yet.

Q: You're not doing budget drills beyond $400 billion?

A: I'm certainly doing budget drills beyond $400 billion.

Q: Why?

A: Why not? [Laughter].

Q: The President said it's $400 billion. [Laughter].

A: Fair enough. But the issue here is that if somebody asks you for a set of options against your budget and they say here's the new target, you want to understand that if you go beyond that target, what are the implications and have you done something in the current target, $400 billion that would disadvantage the department or the capability that you're supposed to be providing if you take one more cut. So let's say $400 billion may not be all that hard to come up with, but the decisions you make if you know you're going to do more may be very different decisions. So you have to look beyond that.

We're doing due diligence on that. We're going to go ahead and look beyond it. We're also kind to ourselves and we look like okay, if this doesn't really happen what will life be like? But the reality is you're most worried about a deeper cut. Is there another $400 billion behind the first $400 billion? I don't know what the number is, but if that's the case.

So now you start to look at things like do I want to hollow out the force? Do I want to start to reduce the force size? You generally have three buckets that we can operate in because at the end of the day $400 billion is a number but you have to pay the bills in the year they come due. So in the first three years pretty much the levers that you have are readiness, operating costs, things like that. That's what you're going to have to do, and you have to scale them back in the first three years. You can touch things like pay a little bit, but not a lot.

The second three years tend to be on the structure side of the house. That's forces, changing the number of forces you have or the character of those forces. People generally will look at it and go okay, that means take more people out of the services. Not necessarily. You may just shift the balance of the services from active to Guard/Reserve to the dirty word, draft. But those are all different characters and they have different costs. Then you can manage based on time when you bring those forces into activity.

So we're looking at all of that full range. We have to look at everything.

Out beyond six years you're generally doing infrastructure, entitlements, those types of things because it takes that long one, to get the laws to accept the fact that you're going to have to shut a place down or you're going to have to change entitlements, things like that.

So those are the buckets. Now we're trying to understand that if there is another $400 billion, do I want to make sure that when I set myself up that I'm going to be able to do that, and what kinds of things will I want to do? What's the character of the force we

want to have when we're done?

Q: You were the one who said another $400 billion twice.

A: Yep.

Q: So let me rephrase the question. Is the due diligence self-initiated?

A: Yes. At least it is on my part.

Q: General, can you update us on what's up with the Don't Ask/Don't Tell? Yesterday the Pentagon, Colonel Pan told us that the recommendations were in from commanders and the service chiefs. Do you have any sense of when Admiral Mullen and Secretary Panetta might go ahead and certify?

A: They're going to do their due diligence on this. They'll review what the commanders had to say. They're also out taking their own pulse around to make sure that they understand how the training has gone and whether it's taken and where we've had challenges and where we haven't. What issues have been identified, whether they can be handled. It's not 100 percent of the force so we want to make sure that the sampling had been good and we haven't by omission or by intent left something out, a group of people like say Guard and Reserve or something like that. Have they been sampled enough that we're comfortable, that we know what's coming there?

Then when they've done that, they'll forward their recommendation.

The process is moving along. I think we're well up in the numbers of people that have been touched, gone through training, et cetera. I think we're in pretty good shape there.

Q: General, can I take you back to the cyber security question? One point of clarification, then a question. When you said that currently it's about 90 percent defense and 10 percent offense, you thought it should be the other way around for DOD. Not the United States.

A: The United States ought to be balanced.

Q: My question is, if you stress the need to be less predictable and to change that equation from the focus on defense, why is the strategy not ready to focus on offense? Why are you not there yet?

A: We're dealing with a technology here that while everybody accepts it as a household word, how we employ it, how we act towards it in the government has been challenged, quite frankly. Finding and understanding which legal precedents ought to apply. How do you handle the difference between say the responsibilities here in the homeland for DHS and those that are associated with the Department of Defense that are normally external defense? How do you handle the seams between those activities, defense

infrastructure, things like that? Those are things that this strategy is talking about.

We have to work our way through those. People have to be comfortable that the right precedents are being set. Justice has to understand where their role is in this and how they fit into it. Then the interpretations of things like traditional military activity, the interpretations of, if you're at a base here in the United States then that base is considered DOD area that you would defend. We also expect that today the highways and what not that take us to the ports to embark are areas that we have shared responsibility with other elements of the government. But we have a certain responsibility to ensure that they're available so we can move forces. How does that apply in cyber? Is that concept the same? Does it mean that when I leave the base I have a certain responsibility to be able to get off-shore and get my capabilities out?

We haven't really been able to develop that yet to any large extent. We're working our way through that. Part of this, it's like trying to solve any problem that you try to do in the abstract. It's difficult. It's almost easier if you've got a specific reason and the cause somebody has attacked or something like that, and go at it. Then it's a little easier to come to this.

So a lot of the debate thus far has been in the abstract. Now trying to apply actual to it and see where the precedents come down. See how the courts will interpret activities. And making sure that we don't lose the confidence of the American people by unnecessarily portraying this as some sort of a military activity, any more than any of the agencies in the government portray it as something that is too insightful. In other words, starts to get into privacy issues, et cetera. Those balances and trying to understand the difference and the acceptability of what we're willing to do in the name of making sure that we're secure and how much we're willing to give up of our own personal privacy or whatever rights we're trying to protect. How much are we willing to give up in order to be safe? How much are we not willing to give up? Trying to find that balance. What does culture accept and what does the law protect?

Q: I'd like to follow up on that basic question. What is new then about the cyber strategy you're [issuing] today? What is new? Obviously there would be a declaration that a cyber attack in the United States could trigger a military response. That's not going to happen.

A: I don't see that.

Q: What is the main headline that is your strategy today?

A: It is mostly the laying down the defensive capabilities and how we'll act. It's laying down how we're going to interact with other nations. How we're going to interact inside the U.S. government. Then how we'll interact with the corporate side of the world and the privacy side of the equation.

Q: That you haven't spelled that out before?

A: Not in a strategy. Not at the DOD level.

Q: Interestingly, on the corporate level, are there any more details you can give us on that [interaction]?

A: A lot of what we'll focus on are those things that are what we would call defense infrastructure. How are we going to protect, or how are we going to interact with a company that is building a defense capability and how they'll protect the information that they're using, that they develop in order to build that capability? What's our responsibility? What's their responsibility? How will we partner up with DHS and other law enforcement to do that?

Q: General, you talked a little bit about the requirements process. That in a perfect world assumes that you will have the money to start some of these programs, but we know the acquisition budget is going to get decreased more and more. So everyone you talk to says we have to make this affordable. That's the generic answer to everybody. What is your definition of affordable? And what analysis are you making now? Now that you're getting ready to leave, what analysis are you leaving behind that gives some guidance to the Pentagon as to where they should be spending money in the future?

A: There are multiple ways to come at that. There's the acquisition approach which generally right now we're talking about should cost type activities. What are we willing to spend for capability in this area? How early can we actually articulate that in some way that's reasonably authoritative and can be audited and we can hold ourselves accountable to?

Then there's the other side of the equation which is the reality of okay, what is it we believe are the threats that are beginning to emerge? How much lead can we have on those threats to be prepared for them as a nation? How quickly can we adapt? How do you want to allocate your resource out against those priorities?

The range of military activities isn't going to change. An adversary is going to look and say gee, if you're concentrating here then I'm going to go here. So you have to to some extent be able to cover that range. The question is how agile are you going to be moving up and down that range of activities?

It used to be there was a low end and a high end, the high end being nuclear war and the low end being skirmishes and what not. The challenge that we have today is the low end now has become almost equally lethal to the high end. Their access to weapons, their access to technology is pretty significant.

So what we're trying to understand is, coming back to this earlier discussion of if we can build the truck such that the adaptability allows us to move on that range without having to build individual systems to all of those types of conflict, then we'll be able to do it at a price that's more affordable. That's not good enough. That's not enough.

We're going to have to figure out also how to be able to adapt quickly once we've build something, and we're going to have to have the resource to do that.

So trying to understand what the implications are on manufacturing which is one of the key areas where we spend an extraordinary amount of money as a nation, and yet the timelines seem to be out of sync with the needs. Whether you're dealing in the commercial sector you're dealing in the military sector. In other words, if I need a new fighter jet, I can't wait 15 years. I just can't do it. The new replacement for the Humvee we're talking about 14 years and we're going to try to set a stretch goal of 7. That's a truck.

Can I start to think about manufacturing in a fundamentally different way? Much of what you see in the administration's work on manufacturing initiatives, et cetera.

I wrote a letter to DARPA when we started working the Humvee and said okay, can you give me something in 14 weeks rather than 14 years? They did. The President's been carrying this vehicle around and touting it out there. You've seen it in the Pittsburg show and what not.

The question is, can we do this in a way that allows not only DOD but allows American manufacturing to get its foot back on the ground and be competitive even in lean times? Find a competitive edge on a global scale. Those are the types of things on the innovation side that I think you've got to invest in in order to start to move. Changing process is just not going to do it. We can change chapters to tabs all we want. That's not going to change fundamentally our competitive advantage. We've got to find something different.

Q: The should cost, is that going to be from science? What it should cost, or is that someone's judgment of what it should cost?

A: I wish I knew. [Laughter]. I'd like there to be science in it. There's a reasonable understanding that if you're going to build the next generation airplane, ship, whatever it is, that you should have some idea of what we think it ought to cost. It was almost 20 years ago that I was involved in writing the initial requirement for the F-35. That was going to be the cheap fighter. [Laughter]. Unfortunately —

Q: General, there was a rather heated discussion during the House Armed Services Readiness Committee the other day between the Chairman and two of the admirals there. The [Chairman] kept saying the definition of readiness should be we give the COCOMs what they need to do their mission. Admiral Blake and Admiral McCoy said that's fine except they live in a world without resource constraints and we've got limited resources. The Chairman couldn't seem to get the grasp of how decisions are made. The COCOMs saying we have requirements, providers saying this is all we've got. Where are all those decisions made? And are we denying our COCOMs what they need to do all their missions?

A: Yes, we are. Grand strategy is about the matching of ends and means here, and money and resource against what it is you have to have. We are not limitless on our resource. Even if we had all of the cash that we needed in the world the opportunity to actually bring it to market in time that's relevant is another attribute here that we have to work our way through. Then there are just things they need that we haven't invented yet. They're going to tell you what it is. If I don't know what they need then I can't point the R&D community and the science community towards solving it. So they ask us for things that we just can't possibly solve right now. It doesn't mean they shouldn't ask. It absolutely doesn't mean that. I need to understand, at least in this current billet, what is it I want to focus the R&D community on.

On the side of okay, you've given me the classic on. You've given me 40 orbits of Predators for my ISR. I think that's about 800 percent short of what I need. So we go out and we start to work at that. It doesn't mean we're going to be able to fulfill it. I haven't been able to fulfill it yet. But we're working at it. New technologies, trying to find ways to give them what they need.

Oftentimes, and particularly prior to these conflicts in peacetime, we'll get requests for things that really tend to be, I don't want to say this the wrong way. I'll say it the wrong way. [Laughter]. I happen to be an admiral as a COCOM and therefore I'm going to ask for a specific ship because I know my service wants to build it. Okay? That happened a lot in the '70s and '80s. We've really started to move that out. Now they talk about give me the capability to. That allows us to give us what we can. It may be only a 30 percent solution, but now we've got an idea of what we need to focus on to do it differently. The technology may not be there today but it's on the books. We're chasing it. We're pushing organizations like DARPA and the National Labs to try to give us the basic science to do things like that.

Q: There was a change a couple of years back where the COCOMs were supposedly more involved in setting the budget. Instead of just the Title 10 guys back here preparing the budget, they were supposed to bring the COCOMs in. Is that having an effect on what we'll do, where we put our dollars?

A: Absolutely. Go back to the question on requirements.

When I came back to Washington this time the first thing I did, given that I was coming from a COCOM, was move the requirements process out to the COCOMs. So the functional combatant commanders now run their own requirements process that feeds into the larger. At the time Joint Forces Command, Special Operations Command, STRATCOM and TRANSCOM all had their own JROC-like organization that fed into the larger. What that allowed us to do was get down to things like interoperability. It wasn't just the major defense programs that they were looking at. They now look much deeper into the programs so they can see the smaller programs that drive this. That has helped us substantially.

Then what we have done for the regional combatant commanders is put them in a

position where they are now, in every requirements process meeting they have their own functional JH. We put the people out there to do that and they'd do it virtually through the [SIVITZ] process or on-line. That has really changed it.

This is another one that people won't like, but I think what you'll find now is the pendulum has swung significantly towards the COCOMs. We've had sufficient cash that most of their needs if it exists can be met. Now as the budget restraint comes back in you'll see this start to swing back to the services who are going to have to set priorities and not be able to satisfy every need because they don't have the cash. So there will be a tension in the system, which is good. I think the tension in the system is good between supply and demand, but we're going to have to manage that so it doesn't swing too far.

Q: General, if you could turn your thoughts to Iraq for a minute. On the Secretary's recent visit he said we need a "damn decision". I'm curious what you think the deadline is on this decision. When is sort of the make or break point for us in terms of if we're going to leave a residual force and if we're not? And can you make clear to us, if we leave a residual force, what it will be and what it will do so we understand if we don't leave one it's not going to be done?

A: Sure. I don't know that we have those answers. Those answers are really on the shoulders of the Iraq people. We have a say in it, for sure, but it's they who have to decide if they want a force to stay behind and what function that force would serve.

We believe if you left a residual force behind it would be focused primarily on the external defense, and those things that they have not been able to develop — mobility, logistics, those types of things. It would also be matched up with the systems that they are procuring for their own defense and our ability to train those systems. So there's a training element to this also.

They're going to have to decide soon. Probably our biggest drive here is what are the protections that would be afforded to Americans that stayed behind after this mission was terminated in its current construct. Things like a SOFA, a Status of Forces Agreement. Are they ready to do that? That requires them to go through their congressional legislative body and to get legislation to allow us to stay and to afford us the protections. That engenders a debate. The timeline for the end of December is moving quickly. That's one problem.

The other problem that we quite frankly have out there is the lethality that's going on with some of these rocket attacks and what not. We want to ensure that we have the ability to protect ourselves as well as whatever is around us, and whatever they ask us to participate in protecting their people. The more lethal that gets, the more difficult it is right now for us to do anything because we generally, if it's somebody in sovereign Iraq, if we've got a problem we generally have to go out and say okay, we think this is who it is. Can I get a warrant? Do you want to do it or do you want me to do it? That's a slow process to chase rocket attacks. So that lethal environment is starting to worry us. So we're asking to get a better sense as soon as possible about what their expectation is,

what the likelihood is that they can actually reach their expectation and get us an environment in which we can work with the protections that we need, and that we will be able to protect our own forces as well as anything they want us to protect of theirs.

Q: You say protect their borders, training. Are we talking air power? Are we talking some air power? Are we talking some Special Forces, I guess?

A: I think that's the case. Again, I don't want to prejudge what they may want, but those would be the things. In relatively small doses. So if you were talking air power you'd ideally like—if they're going to buy F-16s then you'd leave some F-16s behind so you could do both training and any protection that might need to be done.

Q: And lastly, Secretary Gates has been very clear, he thinks Iran is stepping up these attacks through its militias to sort of create the impression they're forcing us out at the end of the year. Do we have a strategy to, [inaudible] costs for these kinds of activities, do we have a strategy for lessening the cost to Iran for this?

A: We're trying to do that the best we can from a diplomatic approach to ensure that they understand that we're concerned about this and that if we can track it back exactly where we think it's coming from, that they should take action on that. We're doing that mostly on a diplomatic front right now.

Q: Sir, triad. I understand that you believe that the argument for the bomber has not been convincingly made. I'd like to hear what you think the holes are as much as you can in open session. And do we need a land-based ICBM force or have [inaudible] made that unnecessary?

A: Let's start with the bomber. I'm known as the bomber hater, I guess. [Laughter]. Don't misquote me there.

My concern right now with the bomber is that the trend that we're on, kind of back to the acquisition problem here, is hundreds of B-52s, 100 B-1s, and 20 B-2s. What's the next one? I'm worried that what we're doing is kind of pricing ourselves out of the market, at least in the approach that we're taking.

If we're going to go out and spend billions of dollars to build something less than 20, then I question the investment. That's the requirements guy. You want me to question things, you want me to talk about what we should get. Building five or ten of something isn't going to do it for us. So what is it that we actually need to be able to do with this system? What's our expectation of it? Can we build it in a way that takes advantage of some of these newer technologies? But I want to be able to think in terms of hundreds again because the oldest of that group of bombers is the B-52. If you take that out of the inventory you really don't have much left. So we've got to start to think about what it is we're going to do.

Nobody, throw the gauntlet down here, but nobody has shown me anything that

requires a person in that airplane. Nobody. I'm waiting for that argument and I haven't found it yet.

The cockpit and the manned part of this does not necessarily drive the cost. It's expensive, but it doesn't drive the cost. But it takes you to a design and a survivability characteristic of the platform that are significantly better. If we can get to, like we did with Predator, something that is more oriented on a truck and that is adaptable to the conflicts that we may have as we go to the future, then a long range, long endurance asset that is an air-breather makes a lot of sense.

People have come to me and said oh my gosh, what if this is one of the legs of the triad? You can't have it unmanned. I say gee, I don't remember the last time I manned an ICBM or an SLBM or a cruise missile. I'm not sure I understand that logic.

So what I'm trying to understand is what is it we're going to build it for? Is it the most exquisite, high end, penetrating, go any place, any time type weapon system? Or is it a truck that has today's state of the art survivability attributes, can incorporate the next generation attributes in a way that makes sense, and sensors and what not, and carry reasonable payloads? So I'm trying to understand where we're going, and thus far I would say that I'm on the side of not being convinced of the attributes moving forward.

I think you have to have a bomber. I'm questioning what it is we're building and what attributes we're putting against it.

On the land-based deterrent, my sense right now, that's the last one to be recapitalized. The challenge here is that we have to recapitalize all three legs and we don't have the money to do it.

What I'm worried about is first that the trough should not determine which one we have, so we ought to make that decision now and we ought to engender the discussion about what does deterrence look like when we get out to 2020-2030? We have brought into the system missile defense that has to be making a contribution to deterrence. How do we measure that contribution, its value? We've brought in cyber-type capabilities. What attributes do we want to associate with that? And are those all just additive, or do we put a balance in here that acknowledges that the number of countries now that we have to deter has gone up from one to more than one, and that the deterrence for one is not necessarily the deterrent for the next. So how do we engender the diversity that we need in our deterrent capability without leaving ourselves vulnerable? I just think we haven't really exercised that mental gymnastics, the intellectual capital, on that yet. It's starting. I'm pleased that it's starting, but I wouldn't be in favor of building too much until we had that discussion.

Q: Are you advocating a dyad?

A: No. I'm advocating a conscious decision — I'm advocating a conscious decision on what is deterrence, how does it work, and if you want to do it for the 21st century it

probably ought to be a whole of government. It shouldn't be just kinetic power.

Q: Is your triad subs, missile defense and cyber?

A: Not necessarily. I think you're going to have to think your way through what do you need on the offense to be balanced. You may actually decide that you're going to stay mutual assured destruction with one country, but the other one is not going to be that because it doesn't compel them. You're going to have to be able to have the capability and the credibility in that capability to convince them that you are in fact capable if you want to take this fight to a fight that you're not going to win. That's not going to be the same for everybody.

Violent extremist organizations are very real. If they get to the nexus with weapons of mass destruction in violent extremist organizations, it's not a nation state you're dealing with. It's equally threatening. So we have to start to think about this a little more holistically, is all I'm saying.

Q: I wanted to follow up on the cyber thing, then I have a missile defense question.

So temper expectations [inaudible]. This is going to be a follow-up to Lynn's article on active defense and the White House strategy and not a call to arms.

A: I think that's right.

Q: What new responsibilities do we put on defense companies that they don't already have to keep their systems safe?

A: Right now what we're doing is we're working our way through, going back to the issue of trying to do something in the abstract, we're sitting down and doing pilots with them.

Q: These DIB programs.

A: These defense infrastructure type things. And trying to understand how we can pair up with them, protect or secrets, while their business is much broader than defense. So how does DHS integrate into this? And given that when you leave the premises of the factory you go into the common infrastructure, and how is that going to work? What are our authorities? Who's going to exercise what authorities win? Those are the types of activities we have to work our way through because we've got to figure out how that's going to work. We're losing too much being exfiltrated out right now. And the question is—today if you go to your banking side of the equation you're generally willing to say oh, yeah, I'll give you a password and all that if you'll protect my information more closely. You're giving up a certain amount of your rights to go into that protected enclave because you want to. Should we be doing the same thing with industry? Should we be able to say if you want to do business here in this particular area you're going to have to accept the fact that you're going to give up a little of your rights in order to be

better protected. What's the balance there and how are we going to work that in things like defense?

Q: That's putting more responsibility on defense companies to —

A: It could be. Some portion of it could be. It could be that it's more on our shoulders also. That's why we're trying to do the pilots, to understand how do you do this and how do you actually get to a point where you have more comfort that you're protected and also that you can do it in such a way that you're not having collateral damage, let's say, on other activities.

Q: Missile defense. As you leave the service, you've been a strong advocate of the ground-based program. It hasn't had a successful flight test since December of '08. Walking out the door now, how confident are you that this system would work? And why has the U.S. had such trouble with the ground-based system when the Navy-based system seems to have been doing very well?

A: You're talking about the ground-based interceptor.

Q: Right. The confidence level in the system at this point.

A: Sure. Number one, I do believe that missile defense will be part of the deterrent. I think you have to. I also believe that we are now starting to get to a point on the ground-based system, not just the GBI but the entire system — sea-based, et cetera — where it doesn't make sense to be buying one for one. In other words, if you own 50 missiles I've got to build 50 interceptors. We now have to say there's some credit for me having an offensive capability, so what is it I want to try and do and what's the construct in which to do it? Do I want to buy 48 hours of protection that's on alert all the time and then my offensive forces have to be able to react in 48 hours? Is that the right construct, or is it different? Then do I want to buy some reasonable protection against my most regretful activity, somebody coming in with an ICBM or something? We have to decide that because we don't want to keep building one-for-one, but we want to be able to convince an adversary that their investment is somewhat foolish because these missiles, particularly the short and medium range ones, are proliferating now in the thousands. We're not going to build thousands of interceptors that way. That doesn't make any sense.

So what is the construct, back to this discussion about dyad. What's the construct that we're going to start to put together here of a balanced offense and defense that is sufficiently credible that the adversary's really going to have to think about using those assets.

Q: I'm just asking why they had such difficulty —

A: On the ground-based interceptor, what you're doing now is you're getting to the extreme ends of the flight parameters. We did heart of the envelope testing to get the

system out quickly. Now you're expanding the flight envelope. So you're going out to the max time that the system can operate. The max distances, the max maneuvering, and you're trying to understand is it what it was forecast in the testing or is it something less than that? Have the upgrades changed any of the parameters from the original testing that we did. And then the more difficult incoming activities — higher speed missiles, things with those missiles that protect them, all of those types of activities, so that we can pace the threat.

So we're really at the edge of the envelopes here trying to find those envelope edges so that we know what the system can and cannot do. And why can't it do it if it was supposed to.

Q: Are you still confident as you leave —

A: Oh, I'm very confident, yeah.

Q: — we can take a North Korean attack if we want to?

A: North Korea, they haven't had a successful test of getting anything to fly here other than their short range stuff. So they've got some time yet before they're going to be able to develop systems that will get out and reach us. My bigger worry with North Korea is really their weapons work, their interest in being a nuclear state.

Q: General, you've been a long-time advocate of dimensional prompt global strike, and you've said on a number of occasions that even though you see it as a niche capability, it's something that as a commander you could have used yesterday. Can you point to instances over the last few years, since you became STRATCOM commander to today, when you really wish we had had that in-hand? That it would have been a viable response to something that you were seeing out there?

A: Elaine, I'm more inclined to go at it—you can say I would have, I could have, I should have, but my worry right now with prompt global strike is that it's only nuclear. Therefore you have no escalation control, you have no way to address—let's just say in missile defense we wanted to make it 24 hours. I can't move any ground forces any place in the world in 24 hours. I can't really even move squadrons any place in the world in 24 hours. They have to either be there or not.

So what is it that deters an adversary from doing something prompt if we don't have a counter to it? If all you have is defense to it? And what is it that you do when you get the President up in the middle of the night and you say so and so's attacking. The only thing I've got that can get there for the next 24 hours or 48 hours is a nuclear weapon. Or the first thing he has to use in his arsenal is a nuclear weapon. That to me is putting him, us as a nation, in a difficult position.

I think the biggest strike issue I have with the prompt global strike side of this was the issue of ambiguity. We're working our way through that now. I think the technologies

are coming along for hypersonic activity, but we have to find some way to get a range of action that allows us to be credible in those first few hours if we're not there. And allows us also to not have to start at the nuclear level. I really believe we need to be able to start [inaudible]. Have a discussion. Convince them, one, that we can get there and we can get there fast, that we can hold something that they hold dear at risk, conventionally, without using a nuclear weapon, and then move from there. It just gives us so many other options—diplomacy, et cetera—that we don't find ourselves with only a nuclear option.

Q: What about long range bombers?

A: Because they can't get there.

Q: We did it in Libya pretty quick.

A: Pretty quick. Everybody would argue that we did it at the very last minute and we were lucky, we got there in time, but if you're talking about somebody who — North Korea, South Korea — if you're talking about somebody some place where we're not, the question is can you hold it at risk? And if you're talking about a capability that's, today there are several places on the face of the earth bombers can't reach, and they tend to be very lethal places because everybody knows they can't reach there.

So the question is do you want something that's quick, responsive and highly survivable to be able to get there? You don't need a lot of it, but does it change the adversary's calculus enough that instead of putting a nuclear weapon on top of something you put a conventional weapon on top of it. Have you enabled yourself?

I don't think you build more of these. I almost really believe they're an exchange. They're an exchange rate. I'm going to not need as many nuclear weapons because I've got some conventional

Q: In answer to my question then, are you saying you have not really seen instances in which it would have been useful over the last few years because we haven't seen —

A: I'm saying that I'm not going to dime somebody out and say I should have used an ICBM on you. I'm just not going to do that. [Laughter].

Q: You're short.

A: I'm short, but not that short. [Laughter].

Q: Is it so niche then that this is something that we would not typically see used for many many years into the future? I guess what I'm trying to —

A: Well, any weapon system —

Q: — how necessary is this thing.

A: Any weapon system you build you'd like to not have to use for many years into the future.

Q: F-22. [Laughter].

A: He said that, I just nodded.

Q: So people are talking about this conventional strike missile as being the first conventional prompt global strike weapon to be fielded. They're not talking about it being fielded perhaps as late as 2020. Is that too long to wait in your view? Should a more accessible technology be used instead of that as the first?

A: There are plenty of accessible technologies now available. I think on the R&D side where I'd like to be is to be in something we can keep in the atmosphere so the flight profile is fundamentally different than anything that we have today so there's not a lot of ambiguity about what's happening, A. B, so that you don't have to engender third parties into the conflict. So what we call a minimum energy trajectory has to go on a straight line. If there's anything in between it it has to overfly it. It's not today designed to drive around to come in. If we could get down in the atmosphere we could do something fundamentally different.

Q: Would you be willing to wait until 2020 to get that?

A: It depends on how the threat emerges. If you felt like it was necessary to go sooner, then you could do it. We use cement to test with today. It makes a very big hole.

Q: [Inaudible]. I know there's an upcoming milestone decision on this program but I was wondering what considerations are going into this decision that's coming up in FY2012, as well as what do you hope to achieve after it?

A: I'm not sure what decision you're referring to. We're in the R&D phases on this. The budget type decisions have been how fast and how much. Acquisition decision wise we're not really into an acquisition decision yet.

Q: I remember a letter that Ash Carter sent over [inaudible] there is a materiel development decision slated for FY12.

A: That's probably more on the R&D side of the house. In other words, we have flight tests that are ongoing. How those technology flight tests mature and how successful they are would then generate the rate at which a service would pick up a program and develop a program associated with it. 2012 is probably reasonable to take the first look at moving it, transferring it out of R&D into a service program, but I'm not sure. R&D, I tend to wait and prove it to me first. Test it and show me that it's there.

Q: One follow-up question then. I know that with this program [inaudible]. What sort of intelligence [inaudible] is there? [Inaudible] community [inaudible] gets up and running.

A: Generally you're dealing with fixed targets so they're relatively well known that you're going to hold at risk. So they're not likely to walk out from under you. The same with most of our ballistic missile type activities. It's not that you're chasing something that's able to run around the battlefield. These are generally fixed targets that you're going after.

Q: Can you give us a sense of the state of relationship you have, the Pentagon has, with the [inaudible] Pakistan Army?

A: We're probably at a very challenging time right now. We went through the Pressler Amendment period. That gave us about an 11 year gap. So I certainly have counterparts that I went to school with that are there, so at least good understanding between us, but there's a huge gap, and like me most of us are aging out that came up and I went through schools with. So getting that reinstituted has helped. But we still have a large gap.

So our ability to have a good dialogue and a good understanding is challenged right now.

The relationship because of the cross-border activities between Afghanistan and Pakistan has strained the relationship about what Afghanistan will look like after we depart or whatever residual force we have is a strain because they want to understand what it's going to look like. The activities associated with the raid at Abbottabad were difficult to handle. So we have several stressors on that relationship right now that we're trying to navigate those waters, but I'd say we're probably at a low right now in trying to work our way back.

I still believe in the conversations that we have that both parties want to work their way back, but there's some ambiguity about our future and what's going to happen. There are some challenges just inside of Pakistan alone that are going to have to, that are putting stress on their military. So all of those things combined together. We're just going to have to navigate our way forward. The more we can spend time together the more we get educated together. Things like that, I think the better chance we have over the long run of emerging as two nations that are coordinated and understand each other's needs and are actually allied in cause.

Q: You mentioned the [inaudible] a couple of times.

A: What?

Q: The carriers. You mentioned them in passing a couple of times. What is up with them? You hear some talk about delaying the carrier deliveries, stretching out deliveries, the [inaudible] Kennedy, using more amphib carriers. I'm just wondering if there's a thought process going down the line of reducing the carrier fleet or delaying it.

A: I think you've got the realities of the $400 billion discussion, and whether it's $400 or more. So you're asking, we're asking them to go through drills. We also at the same time are relooking at the strategy. What is the right mix? How much of it needs to be at sea? How much of our capabilities need to be otherwise? So all of those questions are on the table right now as we move forward, and we happen to be at a time when we're, as you say, we're in that transition between out of the Nimitz Class and into the next generation. How much change do you want to invest in? How much cutting edge technology do you want to bet on? Because that will introduce cost into the system. So we're trying to understand those levers.

Then the balance. How many big carriers, little carriers? Is there going to be a STOV variant of the F-35? Isn't there going to be? What's the next generation attack helicopter look like? What kind of capabilities do we want to have on these smaller decks?

The AV-8 has turned out to be a real work horse on those smaller decks because they've got reach and they've got speed out there and lethality. If we don't have an F-35, then do we have a Predator-like, Reaper-like capability unmanned that we can use off those decks? Those are the kinds of questions. If we change, what are the implications for the decks?

Q: So there is a possibility of the carrier fleet being reduced if you go through [inaudible] and it comes out that —

A: We're certainly looking at all those options. Nothing is off the table.

Q: I just want to follow up all this talk about deterrence. Do you see SOCOM or maybe JSOC to focus it more as a key part of that deterrence mix? Maybe almost like the new third part of the triad? Can you go that far?

A: I tend to see more that the conventional, general purpose forces and special operations forces have to be part of the deterrent construct. In other words, we can't just stay at the nuclear and say that's deterrence. We've got to have deterrence. There's so much of the spectrum of conflict that a nuclear weapon is just not relevant for.

The question is can you portray those forces in such a way that they're convincing that they can do whatever it is we say they can do, and that they have that capability, and they can get to wherever they need to get in a reasonable period of time.

Q: Sir, along the lines of deterrence and the nuclear triad, is there a number of warheads beneath which a triad makes no sense?

A: There are a couple of different ways to look at that. If you look at it from training perspective, is there a big enough base that you can actually keep people trained and give them a viable career? If you get an element of the triad too small, that becomes a

problem.

There is just a pure supply line side of that equation. If you're dealing with a very small population can you keep it refreshed and keep it vibrant? Can you keep subs for the manufacturers in business at a low level? All of those things start to come into that equation from a non-operational standpoint. In other words, just keeping something like that going.

On the operational side, generally the smallness in the numbers, it's a credibility discussion. Can you be credible with ten instead of a hundred? If there's really only ten targets out there. You could go smaller if you have alternative capabilities. You could go smaller if the relationships change and you can start to have a different way of understanding each other. The attributes are important. We're trying to understand those attributes right now, quite frankly. What's the difference between having something that's on alert and having something that's not on alert and its credibility? How much do you have to have on alert versus can it be in the barn and I can wait even months to constitute it under warning of some sort? What can we do there? What things can fill in, like missile defense, to give you a level of comfort without having to keep so many of those on alert or actually available?

Those are the calculus that we're trying to run through. But at the end of the day it is a credibility discussion on an operational side.

Q: Is that a long way of saying you don't have a number beneath which a triad makes no sense?

A: I don't.

Q: General, we're out of time. Thank you for coming in. We appreciate it.

# # # #