

## House Armed Services Subcommittee on Strategic Forces Holds Hearing on the Status of US Strategic Programs

### LIST OF PANEL MEMBERS AND WITNESSES

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TAUSCHER:

Good morning. Happy St. Patrick's Day. And happy birthday to General Chilton's father.

CHILTON:

Thank you.

TAUSCHER:

This is a hearing of the Strategic Forces Subcommittee, and the hearing will come to order.

The purpose of today's hearing is to examine the strategic posture of the United States and the status of our strategic forces, including our nuclear weapons program, missile defense systems and military space program.

The Strategic Forces Subcommittee has jurisdiction over each of these areas, which track closely with the responsibilities of the U.S. Strategic Command, or STRATCOM.

I want to welcome General Kevin Chilton, commander of STRATCOM. General Chilton has testified before us before. And I want to thank you for coming back.

I want to thank you for the thousands of men and women that report to you, and the people behind you, who I know are directly responsible for your day-to-day activities. And we work with them very closely, as you know, and we very much appreciate their service and always their ability to work with us.

CHILTON:

Thank you, Madam Chair.

TAUSCHER:

There is plenty for us to discuss today, given the many challenges we face with Russia, North Korea and Iran, and whether we will rework the Moscow Treaty and a comprehensive test ban treaty.

The challenges we face are complicated, and the world we operate in is dangerous,

with rogue states and terrorists vying to get nuclear weapons. We know that our work here is critical to make the world a safer place and to rid the world of these horrible weapons.

In the debate over nuclear posture, there is an emerging bipartisan consensus. Two years ago, former Defense Secretary Bill Perry, former Secretaries of State Henry Kissinger and George Shultz, and former Senator Sam Nunn, called for the United States to move toward a world free of nuclear weapons. President Obama has echoed this call, as well.

But even as we debate the feasibility of such a policy, we still face the ongoing challenge to be good stewards of our nuclear deterrent without undermining critical nonproliferation efforts.

These challenges highlight the urgent need for a robust discussion of the United States' strategic posture.

This subcommittee has acted to enable just such a discussion by establishing a bipartisan commission in the fiscal year 2008 National Defense Authorization Act, to examine U.S. strategic posture and recommend a 21st century nuclear weapons policy.

Under the capable leadership of Bill Perry and former Defense Secretary Jim Schlesinger, the commission submitted an excellent interim report in December, and they will deliver their final report on December 1st. Drs. Perry and Schlesinger will also testify before our full committee on April 2nd.

General Chilton, since your testimony last year, the Congress has continued to have a vigorous discussion over the United States' ballistic missile defense systems and policy. As chair of this subcommittee, I have argued that our primary focus should be on countering the most imminent, here-and-now threat to our deployed troops and our allies: short and medium range missiles.

This subcommittee also has oversight over our military space program. There is no shortage of challenges here either. A year ago we witnessed the United States' successful intercept of a failed satellite that could have re-entered the atmosphere in an uncontrolled way, threatening populated areas with hydrazine fuel.

Last month, an Iridium satellite and an old Russian Cosmos satellite collided in outer space. The debris created from the collision will be a problem for decades. The collision underscores the urgent need for a better space situational awareness capability.

The United States has a host of pressing strategic and policy challenges, all of them interconnected. In this hearing, we hope to continue a critical discussion, so that we may, together, chart the right strategic path forward for the United States.

Now, let me turn to my distinguished ranking member, Mr. Turner of Ohio, for any comments he may have.

Mr. Turner, the floor is yours.

TURNER:

Thank you, Madam Chair.

I also want to extend a warm welcome to General Chilton, and thank you for your

vision, leadership and service to our nation.

General, your testimony today on the status of our nation's strategic forces provides us with valuable context and insight as we begin deliberations in the fiscal year 2010 defense budget.

Now, General, you and I were just talking a moment ago about, these are the hot topics that are facing our nation and our international scene. And it comes at a time where there are discouraging trends in foreign strategic forces developments, highlighted by last month's Iranian space launch and the impending potential North Korean missile launch.

Some have questioned the relevance and credibility of strategic deterrence in today's complex and uncertain security environment. It has also been questioned whether, in these times of global economic crisis and potential tighter defense budgets, we should sustain our current strategic capabilities or invest in their modernization.

Recently, Mr. McHugh, my colleague and House Armed Services Committee ranking member, observed, quote, strategic deterrence may be exactly what will be required to bolster our allies and friends. A weakened global economy is unlikely to lead competitors and adversaries to decrease their strategic capability, as some may hope. In fact, it can be argued that the opposite is more plausible.

Faced with fiscal constraints, will Iran double down on its ballistic missile program? The question merits our most careful consideration. I am also interested in whether or not you share this view.

There are a number of significant events this year on the future of our nuclear policy and posture. As our chair has noted, the subcommittee looks forward to receiving the U.S. Strategic Commission's final report.

While some have urged the nation to work towards the global elimination of nuclear weapons -- an admirable goal -- the commission's bipartisan interim report urged caution. "It is clear that the goal of zero nuclear weapons is extremely difficult to attain, and would require a fundamental transformation of the world political order."

The new administration and Congress may consider treaty ratification and further stockpile reductions. But the commission warned that before such decisions are made "the DOE and DOD should receive from the labs and STRATCOM clear statements describing the future capabilities and flexibility required to minimize the risks of maintaining a credible, safe and reliable nuclear deterrent without nuclear explosive testing."

What military advice would you give policy-makers considering such decisions?

In your testimony you comment that the U.S. stockpile requires the most urgent attention, and that without action, our current weapons are not indefinitely sustainable. I don't know that others share your same sense of urgency.

Has the military begun to accept risk as a result of the aging stockpile? And how much risk are we willing to accept?

To address these risks, you supported the RRW cost and design study last year. Does this concept still have merit?

Later this year, we also expect a new Nuclear Posture Review. I am concerned that unless the NPR makes concrete decisions on nuclear force structure, size and

composition, we may be further delayed in taking action to address the risks in our current stockpile.

Today we will ask what key issues you believe the NPR must address.

Missile defense will also be a challenging topic this year, especially if reports of potential budget cuts prove true. We would benefit from your discussion of the missile defense needs and priorities from the warfighter's perspective, particularly if there are potential gaps and vulnerabilities in our spectrum of defense.

Though our committee, in a bipartisan manner, has emphasized near-term missile defenses -- GMD, Aegis, THAAD, Patriot and sensors -- we also have to figure out a way to preserve investment in future capabilities. I would appreciate your thoughts on what future capabilities are most promising.

Since we will hold a hearing on space security tomorrow, I'll hold my comments there for that hearing. And as our current national space policy states, space is vital to our national interests. Yet recent events, such as the satellite collision last month and the Chinese ASAT test in 2007, serve as stark reminders of the vulnerability of our space assets.

This committee supports the need for greater space situational awareness and the protection capabilities.

We are also interested in how the need for greater survivability influences discussions and decisions about our space architecture and acquisition programs.

What architectural attributes should guide our space acquisition investments? And what are your top priorities in space?

Lastly, I want to touch on intelligence and solicit your thoughts. Intelligence on foreign nuclear, missile, space and cyber developments has a great influence on our policy and program decisions.

Yet, as I observed on this committee, I am always surprised by how much we do not know. Our intelligence analysts are tremendously talented, but we must ensure that they have the capabilities and resources to effectively do their jobs.

Furthermore, is our military intelligence enterprise adequately organized and managed to address our intelligence gaps and shortfalls?

Though we do not have the details of the president's budget request, we are fortunate to have your perspective and expertise.

Today is an excellent opportunity to gain valuable insight from you on the military's requirements, priorities and key issues. On that note, thank you again for being here today, and your willingness to share your assessment of our nation's strategic forces.

Thank you, Madam Chair.

TAUSCHER:

Mr. Turner, thank you for that excellent opening statement. I agree with you. Those were excellent questions you put forward.

We've got your written statement, General Chilton, which is once again very comprehensive and thought-provoking. And I'm looking forward to your shortened testimony.

General Chilton, the floor is yours.

CHILTON:

Thank you, Madam Chair. I have just a few brief remarks I've asked if I might present to the committee.

Madam Chair, Ranking Member Turner, members of the subcommittee, thank you for the opportunity to testify today about the state of the United States Strategic Command.

And, Madam Chair, thank you for recognizing my father on his birthday today. James Patrick (ph) will be most pleased to know that his name was brought forward here in this hearing today. I send him my best wishes.

Since assuming command in October of 2007, I've been honored by your counsel and thoughtful interest in the best ways to secure America's future together. Thank you for your time and for your staff's equally strong interest in visiting and learning about the command's capabilities and requirements.

Your strong support, especially for the exceptional soldiers, sailors, airmen, Marines and civil servants, and their families, with whom I have the privilege to serve, means a great deal to those who already give so much in the defense of their nation.

Today, America faces unique national security challenges and equally unique leadership opportunities. These challenges include global population changes, serious economic difficulties, resource competition, bids for regional and global power, the threat of proliferation of WMD, and an era of persistent and often irregular warfare, coupled with an exceptional rate of technological change that often outpaces capabilities and policies.

These challenges make 2009 an especially noteworthy year, as we look forward to the report of the Congressional Commission on the Strategic Posture of the United States, and prepare to conduct both the Quadrennial Defense Review and a Nuclear Posture Review within the department. The recommendations made in these studies will shape our national security capabilities long into the future.

As the combatant command chartered with the global operational perspective, our responsibilities and relationships uniquely position STRATCOM to execute global operations, to support other combatant commands and to close potential seams between other combatant commands as well, and provide a clear and consolidated warfighter position on future and global capability requirements.

I am pleased to tell you that the United States Strategic Command capably executes deterrence, space and cyberspace operations each and every day, and provides a unique global perspective in advocating for missile defense, information operations, intelligence surveillance and reconnaissance capabilities, and the capabilities that this country needs to combat weapons of mass destruction.

Ultimately, we're about enabling global security for America.

Today, deterrence remains as central to America's national security as it was during the Cold War, because, as ever, we would prefer to prevent war rather than to wage it.

Last year, the secretary of defense approved our strategic deterrence plan, a significant first step toward integrating deterrence activities across the U.S. government. Still, credible deterrence rests first on a safe, secure, reliable and sustainable nuclear enterprise, including our stockpile of weapons; including our delivery, command and control and ISR platforms; including our space base capabilities and our laboratories and industrial base; and on our most precious resource, our people.

Since the end of the Cold War, the U.S. has substantially reduced our deployed nuclear weapons, dismantled our production capability, and ceased nuclear testing.

Despite our reductions and lack of modernization of weapons and infrastructures, other states still seek nuclear weapons today.

Additionally, many of our allies rely on the U.S. nuclear deterrent umbrella. This reliance must be considered when addressing concerns of nuclear proliferation.

The most urgent concerns for today's nuclear enterprise lie with our aging stockpile, infrastructure and human capital. 2009 will be an important year to act on these issues, to relieve growing uncertainty about the stockpile's future reliability and sustainability.

Space-based capabilities provide our nation and our forces essential, but often unnoticed, abilities to act and operate. The satellite constellations that carry these capabilities, however, require more careful attention to eliminate delays that can leave us just one launch failure away from unacceptable gaps in coverage in the future.

We have made progress in space situational awareness. But capability gaps remain and require sustained momentum to fill, as evidenced by the recent collision between an active communications satellite and a dead Russian satellite.

CHILTON:

Cyberspace, another one of our key lines of operations, has emerged as a key warfighting domain, and one on which all other warfighting domains depend.

We remain concerned about growing threats in cyberspace, and our pressing changes in the department's fundamental network culture, conduct and capabilities, to address this mission area.

We also endeavor to share our best practices with partners across the government. Still, the adequate provisioning of the cyber mission, especially with manpower, remains our greatest need.

Finally, the command advocacy efforts for missile defense capabilities, ISR management, information operations and plans to combat weapons of mass destruction, continue to mature and positively influence the acquisition process within the department. And STRATCOM is proud of our role in that process, and our ability to represent the needs of other combatant commanders in each of these areas.

In this uncertain world, the earth support is critical to enabling successful execution across the command's assigned missions and realizing our vision to be leaders in strategic deterrence and preeminent global warfighters in space and cyberspace.

Madam Chair, thank you again for this opportunity, for the committee's providing me this opportunity, and for your support. And I look forward to your questions. Thank you very much.

TAUSCHER:

Thank you, General Chilton.

I wanted to elicit a broader response from you about something that I saw in your statement that I think we certainly agree on. The Congressional Strategic Posture Commission has made it clear that the science-based Stockpile Stewardship Program has been a remarkable success.

And I think that that has accrued to the American people not only fabulous investments in the fastest computers in the world, the largest laser in the world -- all used to simulate the testing that we used to do in the Nevada desert -- but at the same time, we obviously have kept and maintained a large number of hedge weapons.

In your statement, you say that we mitigate the risk of unanticipated technical challenges -- which is a nice way of saying a bad piece of information -- that the way we do that is only by maintaining more weapons than we would need otherwise.

And not to edit your statement, but I think you agree that, fundamentally, the Stockpile Stewardship Program, in and of itself, is the real way that we -- the science-based program is the real way that we mitigate. The secondary way is by keeping the number of hedge weapons that we do.

Can you talk a little bit about your assessment of the science-based stockpile stewardship program and its importance? And how do we potentially leverage that in the future?

CHILTON:

Sure. Thank you, Madam Chair.

A couple of points, though, first on the hedging, just to be clear on that, what I mean by that. I think there are two areas that we retain the stockpile of non-deployed weapons at the levels that we do today.

One is for a technical challenge that might surprise us. For example, to find out a particular family of weapons has an inherent problem that we can anticipate runs throughout the family, and that they are no longer available as part of the deterrent.

Having an excess number of weapons on the shelf that could be rapidly uploaded to other platforms to sustain the level of deployed weapons that we would need for today's policy and strategy, is part of that hedge. And the reason we need those on the shelf today is because we have no production capacity.

In the Cold War, we hedged by having a large production capacity in that area. And we also benefited from the ability to test, to help resolve problems. Although that was not used all that often, it was still a capability.

The second reason for a hedge would be to be in a position to address strategic uncertainty. So, a sudden change in the geopolitical environment of the world, where

political leadership in our country should determine that there is a need to increase the posture of our deployed forces. Again, without a production capacity, the hedge is to retain a large inventory on the shelf.

The Stockpile Stewardship Program has certainly been an important program over the last -- was it 17 years now that it's been in place, since '92. It is a program that I think, had we not started, I think we would have lost confidence in some weapons along the way. But because of the focus of the team and the support of that team, and their ability to delve into issues, discover them early and help us work solutions along the way, that has been quite helpful.

So, I'm a strong advocate for maintaining robust support for the Stockpile Stewardship Program. However, I don't think that's the sole solution in front of us. I think we also need to look at modernization of our industrial base. We need to be able to produce the key elements and, ultimately, nuclear weapons. And I think if we do that, if we have that capability, it will lead to an ability to reduce inventories, which is a desire of all in this business.

Thank you.

TAUSCHER:

Three years ago, we reestablished the ability to produce pits, which is certainly part of the production chain. And so, if you could -- so, it's not completely true that we don't have a production facility. We don't have an end-to-end production facility.

But clearly, where would you rank -- I mean, clearly, we were told that, if we could reproduce pits, that we were solving a very big question mark in the future as to our sustainability of the current stockpile.

We obviously have a number of opportunities going forward to modernize a smaller arsenal, including something called advanced certification, which could effectively replace what was then -- what used to be called RRW -- in a way that we are, I think, being more responsible in the way that we're putting forward what we're doing.

My concern about RRW always was that it led people to believe that we were building new weapons. I don't think we want anybody to believe that.

But I think we all believe that having a smaller stockpile, that is, where we have extreme confidence and reliability, where we also can do more security and create a sense that we had surety and more environmental soundness, is a goal, as long as we're reducing the stockpile and eliminating weapons at the same time.

So, can you talk briefly about the production of pits and where that fits into this area of production and the value that you consider it to have?

CHILTON:

Sure.

A couple points. The ability to produce a nuclear weapon requires plutonium production capacity and uranium production capacity.

So, there are two key elements of the infrastructure that I think need to be supported.



One is the development or expansion of the plutonium and modernization of plutonium capabilities at Los Alamos. And then the uranium capabilities at Oak Ridge, their Cold War -- they're not even that -- their World War II era facilities.

Production -- I wouldn't use the word production capability at Los Alamos. It's a laboratory. And they can make about 10 to 20 pits per year. And that is not on the scale of a production capacity, in my view. And so, I think that needs to be robusted for both of those facilities, for sure.

I agree with you. We do not need a new nuclear weapon with new capabilities.

But I do believe we have a great opportunity here to develop modern nuclear weapons, modernized, that have 21st century requirements put into their design. And the requirements of the Cold War era were maximum nuclear yield and minimum size. That - - because we had small missiles, and we wanted to maximize the number of warheads we could put on top of them vis-a-vis the Russians.

We weren't worried about the Russians stealing our weapons. They had plenty of their own.

If we look forward to the 21st century, we do worry about terrorists getting their hands on our weapons. And in an environment where we have reduced and probably never will grow a production capacity anywhere near that we had in the Cold War -- we could produce close to 3,000 weapons a year. And, the desire that we have to step away from testing, that we have unilaterally, or, you know, self-imposed, not conducted since 1992 -- putting those together.

The number one design requirement, I think, as you look to the future is high reliability. And we have the opportunity to add in a modernized weapon, safety and security features that we never envisioned that we would have or were a part of the original designs, in some of the weapons during the Cold War.

So, moving forward with a modern capability not only provides those opportunities of high reliability, increased safety and security, which then would immediately relate into a confidence that could help you lower the total stockpile, they do another important thing.

And this is, by reenergizing the design, science, engineering and production capability, you reenergize and maintain the human capital element that is also aging. And you attract a youth and energy into the programs that will make sure that 20 years, 40 years from now, America will still have the preeminent knowledge and know-how on how to maintain a safe, secure stockpile and provide this deterrent for America.

TAUSCHER:

General Chilton, you have articulated something that I have been interested in for quite a long time. And I think the context -- I call them the fences (ph) -- as long as the fences (ph) include no testing, no new capabilities for the weapons, in the sense that you're not increasing yields, you're not making the weapons more robust in the sense that it is now a bigger weapon, and that it is all done in the context of ratifying comprehensive test ban treaty and taking down weapons and dismantling them, hopefully in a cooperative agreement with the Russians and others.

You know, I think that that is really the kind of policy that can be reviewed in a very interesting way over the next few years. I think that we have a better sense now for where

the fences need to be, and for what the goals need to be, including, you know, taking down the weapons and making sure that, as we create a weapon that is modern, as you say, that we are also taking away the hedge weapons and satisfying ourselves that what we have is modern and sustainable and safer and more secure.

So I think that those are very good words to use, and I really appreciate it.

Mr. Turner, the floor is yours.

TURNER:

Thank you, Madam Chair.

General, the reliable replacement warhead has been mentioned. And you've previously been before this committee, where you've discussed that proposal.

And in reading your testimony that you've given us this time, you call for, in other words, we need a concerted effort to assuage growing uncertainty and ensure more reliable, safer, more secure and sustainable long-term nuclear deterrent.

And you say, in your opinion, emphasizing what you've just said to us, a stockpile modernization strategy and nonproliferation efforts should be considered complementary, and not mutually exclusive means to a safer world, modernization could provide, as you said, a unique opportunity to introduce enhanced safety and security features that would render our weapons undesirable terrorist targets.

And going on you say, maintaining a robust nuclear deterrent is important for nonproliferation. And then you say, "We should also consider using sustainable designs, employing less exotic and better understood materials, restoring a responsive infrastructure and introducing increased weapon reliability and key safety and security measures as ways to further increase our confidence in our arsenal over time."

Now, I'm not going to ask you to advocate for the RRW. But I am going to ask you, if you would, please provide me with some understanding of, what would be the difference from what you're asking for and what RRW is? We're looking to a policy focus of -- if we're not going to go do that, we're going to go do something else that responds to these, what really are those differences?

CHILTON:

Well, sir, last year the program of record on the table to address the modernization issues was the RRW program. And there were difficulties with getting that accepted in the debate, I think primarily because there was not a, probably a new look at our policy. That was the argument. And we needed to first look at our nuclear policy before we moved forward in this area.

So, a couple of things are happening this year. And this is why I think 2009 is such a great year.

One, we've been talking about this issue for the last year-and-a-half. And I think that has really been important part of enlightening the debate and bringing this forward, so that we're postured now to go forward as a policy review goes on in the Nuclear Policy Review of the new administration and the Department of Defense.

Not only that, we'll have a Quadrennial Defense Review, which those two will be very linked, in my view, because that typically will focus more on the delivery platforms, whereas the Nuclear Policy Review will look more toward the nuclear part of the deterrent.

The fundamental points that I made last year in supporting RRW apply to the fundamental points that you still see in my posture statement today. They are describing a capability that we need of increased reliability, increased security and increased safety in a modern weapon, not desiring a new -- any new capabilities beyond that.

Does that answer your question?

TURNER:

Yes. Thank you.

General, our chair did an excellent job in asking, and you did an excellent job in responding to the issue about the current balance of our stockpiles and our Stockpile Stewardship Program. Recognizing that there are calls for reductions in our stockpiles, what do you think, or what would you believe is essential that we have to accomplish before we could safely do that?

CHILTON:

Well, first of all, you start with -- I think it all starts with a Nuclear Policy Review, and a policy and a strategy. Now, because there could be -- not necessarily, but there could be -- changes in policy and strategy that would lead to reduced requirements for weapons. That's one point.

It could lead to a reduced -- or an increased requirements for weapons as well.

Then on top of that, as we looked -- as we looked specifically at the hedge weapons that I talked about before, they're both hedging for technical and strategic uncertainty.

Remember the way we hedged for strategic uncertainty in the past was having a production capability. That could be part of the solution, to reduce inventories.

The other way we could hedge for reduction in technical surprise is to have more robust design, and again, a production capability.

So, these things are kind of linked in my mind, as we looked at our -- what we retain on the shelf, independent of our deployed forces. And so, that's why I think it's really important that we address the industrial base issues and the modernizations issues for the stockpile, as well as the stewardship program.

And if I could just add one point. It's kind of on what you mentioned in your first question about nonproliferation.

I see there's a linkage here in two ways. One, if some measure U.S. seriousness in nonproliferation by the total inventory of our weapons. And so, following a strategy of improving the industrial base and modernizing the weapons, they would allow you to reduce the amount of hedge weapons you have. It could be in line with that, and supporting of that position.

Additionally, when we think about the reliability of our weapons in our inventory, there's a key linkage, I believe, to our allies, friends and allies, who rely on the nuclear umbrella provided by the United States of America. And their trust and confidence in the reliability of that umbrella, certainly, I think links -- has a linkage into -- proliferation or nonproliferation concerns in the debate. And that needs to be considered as we look at this in the policy reviews this year.

TURNER:

And then, for my last question, turning to missile defense. There's going to be a significant amount of budgetary pressures as we move forward. What are some of the priorities that you would like us to emphasize as we look to missile defense?

And then also, if you could comment on testing. As you view testing that has occurred to-date, and future testing that MDA plans, what are your thoughts and views there?

CHILTON:

First on priorities. I think where we come down in STRATCOM is that there needs to be a balance in priorities. I mean, we developed the missile defense system for really two fundamental reasons. One was for protection of the United States of America. And the other was for protection of our deployed forces forward.

And so, when we look at how we balance the investments in this area, or look at the capability gaps in these areas, we always have -- it can't be an either/or in my view, but there has to be a balance as we go forward.

And I think the discussions we've had internally with regard to how we prioritize, the way MDA has laid out their five block approach to fielding, I think it's been very instructional to us as we look to shift or not shift funding in various areas to support those priorities.

So, it's important that we continue to focus on both, in my view.

With regard to testing, looking in the rearview mirror, I would say, I don't know of how of a better way, or how we could have done a better job of fielding as quickly as we did the missile defense systems that we have in place today.

When you look at any other acquisition program in the history -- recent history, and that wouldn't even go back 20 or 30 years -- it's hard to envision getting a new, a single new airplane on the ramp in less than 11 years from the start of a program. And yet, in the missile defense area, if you look at the advances we've made, both for the theater defenses and SM-3 and Aegis and FAD (ph) and in the defense of the homeland with the GBI system, with the missile, global ballistic missile defense system, it really has been impressive in the fielding of these systems.

But there has been some risks taken on in that, and some -- to be fast. And that has been certainly in the testing area.

Now, as we look forward, I've reviewed and met with General O'Reilly about where he wants to take the Missile Defense Agency in the future with regard to testing. And I think he's on the right path for increasing our confidence in these systems as we go forward. I think the path will help improve the models that are important to MDA.

I think they will find a budgetary savings in the approach he's going to take from a holistic perspective for acquiring targets, for example, and centralizing a little bit of the testing more in the Missile Development Agency.

So, I'm very optimistic of the path that he is charting right now.

TURNER:

Thank you, Madam Chair.

TAUSCHER:

Thank you, Mr. Turner.

The gentlewoman from California, Mrs. Sanchez, is recognized for five minutes.

SANCHEZ:

I thank the chairwoman.

General, first of all, thank you again for being before us.

My question has to do with the Warfighter Involvement Program, and the priorities capabilities list.

It's my understanding that the weapon (ph), the PCL were developed to take warfighter views into account during the missile defense development process, and to identify the warfighters' longer term missile defense developmental priorities.

So, my question is, how does STRATCOM identify, prioritize and address combatant command priorities?

And has it developed an assessment tool that can effectively identify the most urgent priorities?

CHILTON:

Thank you, ma'am.

We have a process that we use, not only for missile defense, but for all of our other areas that we're asked to advocate for for all of the regional combatant commanders around the world. We call it our senior warfighter forum, SWARF.

And my deputy commander, Vice Admiral Mauney, chairs the SWARFs for these areas. And what we try to do in these areas is collect from the regional combatant commanders their requirements. And one would be in the missile defense area for sure.

And so, this is a way that we inject those requirements into the discussions that are then had when budgetary decisions are made later on.

Part of the requirements development and prioritization efforts is the PCL, the prioritize capabilities list. And there's a dialogue that goes on after we have developed a

prioritized capabilities list through conversations with the regionals -- to include NORTHCOM, of course, who is a regional, but in defense of the homeland -- to present the prioritized capabilities list to the Missile Defense Agency, who then returns back to us what they think is technically achievable within technology, and also budgetary constraints.

So, there's that -- I think a healthy dialogue of unconstrained wants with fiscal and technical realities that merge, and then are presented and decisions are made forward on which way to go forward in the program.

SANCHEZ:

Is this a continuous process? Or is it done once a year? Or how do you...

CHILTON:

Well, we stay in continuous dialogue. But the SWARFs do happen on a scheduled basis, so they're periodic.

And ultimately, what you're working toward, of course, is in synch with the budget cycle...

SANCHEZ:

Right.

CHILTON:

... in support of the POM process.

SANCHEZ:

OK. And then my second question. Not only do I sit on this committee, but I also sit on the Homeland Committee. And one of the subcommittees would be the Cyber Security Committee, which, of course, is -- we're placing a lot more attention on, because it's a big gap.

And my question would be, what do you think is the greatest cyber security threat facing the United States? Do you think -- do you think we're more vulnerable to cyber attacks on commercial or public infrastructure, or attacks on military cyber assets?

What type of action is STRATCOM taking to deter? Whatever you can talk about here in an open.

And what were the lessons learned from 2008, when computer hackers from China hacked in to penetrate the information systems of the U.S.?

And what do you need to better protect our country's information systems from these types of hackers?

CHILTON:

Your first question on the threat, ma'am, I'm worried about all the threats.

And the threats, when we think about them, they kind of span from what I'll call the bored teenager, which was really kind of maybe the first threats we started seeing in the hacker world, back in the 1990s, through, obviously, much more sophisticated threats that we're seeing criminal activity out there, all the way up to threats that could be sponsored by high-end and even nation-states that could potentially threaten not only our military networks, but also our critical national networks.

Are we vulnerable today across the spectrum? I would say "yes." And does more work need to be done in defending our networks? I would say "yes," as well.

Of course, at U.S. Strategic Command, what we have been asked to do by the president through the Unified Command Plan, is to operate and defend in the military networks only, and be prepared to attack in cyberspace when directed.

But day in and day out, our focus is on operating and defending our networks. And that takes a close relationship with the intelligence community.

We rely tremendously on support from the intelligence community writ large, and particularly on the National Security Agency, because they can give us a lot of threat warning. They have an information assurance role and mission. And that marriage in the support that we receive from them has been instrumental in our efforts to operate, and particularly to defend, our networks.

We learn every day through various attempts to penetrate our networks -- some which are successful, and many, many, many more which are unsuccessful -- but we do learn from those and roll those lessons back in to.

What we need in this area, I believe, for U.S. Strategic Command is -- well, and let me talk about the military, writ large.

Three things have been our focus area.

A changing culture, first of all. We need to start thinking about cyberspace and our utility of it, not so much as a convenience, but as a military necessity, because every domain, whether it's air, land or sea, depends on cyberspace for their operations.

And I'm not sure we have made that mental shift yet from these systems that really just grew up on our desks and are conveniences to us, to something that we need to protect. So, changing that culture is really important, and perhaps the hardest thing to do.

The next thing we need to do, I believe, is change our conduct. And our conduct -- by that I mean, defense and operation of our military networks is commanders' business. It's not some computer assistance business. It's security and the awareness of the security is our commanders' business. And commanders need to hold their -- to train their people on security. And then they need to hold them accountable. They need to have robust inspection programs in cyberspace systems.

So when an inspection team arrives at my base to inspect my fighter wing, they not only look at my fighters and my maintenance, but they look at my cyber systems. And if I put all the defenses in that STRATCOM has told me to put in, are they operating properly? Am I positioned and worried about the defense of that network? That's a change in our conduct today.

And then lastly, we need to improve our capabilities. And that is in two particular areas, I would say, people. We have not resourced this mission area, in my view, correctly from a manpower perspective. We have made improvements in our schoolhouses, and the secretary of defense has given great support to increasing the throughput in our educational programs through our cyber schoolhouses. But we have not realized that increase in people capability.

And the second part is in technology. Too much today, we rely on still picking up the phone and passing information. And I think we can do better in some machine-to-machine capability, so that we can start anticipating and reacting to threats at network speed, as opposed to at human speed.

And so, some key investments in technologies are going to be very important to us, I think, as we try to advance the ball here in the military defense of our networks.

SANCHEZ:

Thank you, Madam Chair.

And I would just like to say that I don't believe that this subcommittee has really maybe had a classified hearing on this particular area. It's a big area of concern and interest for me. And I might ask that we might do that at some point.

TAUSCHER:

I'm happy to do that. We have shared responsibility with the Terrorism Subcommittee for this very widening area of cyber security. And our plan is to have a joint hearing with ourselves and Congressman Smith's subcommittee. And we'll do that as soon as we can get on the calendar.

Thank you, Mrs. Sanchez.

Now, I'm happy to recognize the gentleman from Arizona, Mr. Franks, for five minutes.

FRANKS:

Well, thank you, Madam Chair.

And, General, thank you for being here.

I'm fully aware that the Air Force does not casually pin four stars on just anyone. But I want you to know I'm glad they chose you to head STRATCOM. I think my own little babies have a better hope for walking in freedom, because they did that. And I'm grateful for all that you do, and for all the sacrifice you've made for human freedom.

I also have noticed that most of the time when we -- preceding some of the questions here, we quote your testimony. I think sometimes, generals get more of their own words spoken back to them, more than politicians, even.

So, I'm going to begin by quoting your testimony.

You said in your testimony that, related to missile defenses, that they "provide a



critical deterrent against certain existing and potential threats, increase the cost of adversaries' already expensive technologies and reduce the value of their investments."

And I believe, General, that that's a critically important point. Oftentimes, when we speak of missile defense, we think just of defending ourselves against missiles, rather than devaluing (ph) entire programs, to the extent that, hopefully, rogue states won't be able to gain technology that they can pass along to terrorists, which remains a great concern to me. And I think it's more short term than we realize.

But the committee has been working through this issue, and I wonder if you could help us understand, or just explain it to us, how missile defense systems deter potential threats and devalue our adversaries' offensive investments.

CHILTON:

Thank you, congressman.

I think they do it in two ways. And I'll even step back further and look at strategic -- or deterrence in a broader sense. And going back to the Cold War, we felt -- I think the United States felt we had a pretty good handle on what it took to deter the Soviet Union. And likewise, the Soviet Union felt they had a good handle on what it took to deter the United States of America.

CHILTON:

Today, in the 21st century, besides the complexities that we've talked about already, it's a much more complex geopolitical environment that we live in. And there's not this bipolar threat. We're not just worrying about deterring one other state. There are other threats to the United States of America that we need to consider deterring.

And some of these potential adversaries may not be as deterred by the nuclear might that we have, and, in fact, may not be looking at us from a nuclear exchange perspective, but more from a blackmail perspective or a dissuasion perspective, where, if we were not otherwise postured, might put -- potentially put -- the United States in a position of thinking more than twice about whether not to engage in a conventional conflict in a region, because the risk would be a potential nuclear attack on the United States of America.

And so, having a missile defense system that could essentially neuter that threat, or counter that threat, has become an important element of the broader deterrence landscape, which looks beyond just a bipolar world, but to a multi-polar world, and to various actors who have maybe different values, different fears and different objectives in mind that they would like to achieve.

There's a dissuasion to objective as well, by having a credible deterrent, a credible defense that might cause them to look at their investments in this area and realize that they can never outgun that capability, and make decisions to steer away from investments in things like long-range ballistic missiles and a nuclear weapons program, and steer those funds to other needs their country may have that are less threatening to the United States of America.

So, there's a deterrent aspect, and then hopefully an aspect, if we demonstrate our capability and it's understood by the potential adversary, a decision calculus that we

would hope they would make to turn away. And that's part of the dissuasion piece.

FRANKS:

Thank you, sir.

General, in a February 27, 2009, press release -- press conference, excuse me -- in response to a question regarding our nuclear missiles being on "hair-trigger alert," which I believe was probably an unfair or unfortunate characterization, you said, "The alert postures that we are in today are appropriate, given our strategy, guidance and policy."

Can you discuss our current alert posture and its appropriateness?

And if I don't get to -- it looks like this will be my last question. So, thank you again for being here.

CHILTON:

Oh, thank you, sir.

Well, you know, you actually quoted back in the correct context. The context of my comments were, in today's policy and strategy, we have our forces, I believe, on the appropriate alert profile.

FRANKS:

Would you characterize that as hair-trigger alert?

CHILTON:

I would not. I think that's a bad characterization.

I think -- because I just think it evokes a vision in the minds at least of my generation of Americans, who grew up with cowboy Western shows, that hair-trigger envisions a gun pulled, a finger on the trigger, and better not sneeze. And our current alert posture is nothing like that at all.

In fact, our current posture in our nuclear weapons are absolutely secure and safe, and not at risk from inadvertent use. And they're not at risk from not being used when so ordered by the president of the United States, who has control over those nuclear weapons.

And so, my context of my comments were exactly as you put it, in today's current policy and strategy. It's not to say that, in the Nuclear Posture Review, as we review that we as a nation may decide to look for a different policy and a different approach to doing things.

But we need to do that in a deliberative fashion, work from policy to strategy to posturing of forces, and not in reverse, in my view.

FRANKS:

Thank you, sir.

And thank you, Madam Chair.

TAUSCHER:

(OFF-MIKE)

LANGEVIN:

Thank you, Madam Chair.

General, welcome, and thank you for your testimony here today.

CHILTON:

Thank you, sir.

LANGEVIN:

I apologize for having to step out. I had to speak on the floor. And so, if this has been covered already, you can let me know.

CHILTON:

I'll be happy to readdress.

LANGEVIN:

I have a particular interest and concern about cyber security, so I'd like to turn our focus there. I've been involved in a number of things that have tried to address our nation's cyber security efforts, including just recently, one of four (ph) co-chairs of the Center for Strategic and International Studies, Commission on Cyber Security for the 44th Presidency, had the opportunity to chair the Subcommittee on Homeland Security on Emerging Threats in Cyber Security last year.

It's obviously an ever-present threat, a growing threat, and an ever-changing nature of the threat is very hard to stay ahead of it.

My question is, listening to your remarks and reading the testimony on the role of STRATCOM in cyber security, I'm certainly pleased to hear that the Department of Defense has a good understanding of the immense strategic global threats that our nation faces. And I've had the opportunity to speak with General Cartwright on these issues a number of times, as well.

As you mentioned, however, these threats spread across government as well as private domains.

So my question is, can you please elaborate more on what you believe DOD's role should be in a government-wide approach to cyber security?

CHILTON:

I'm sorry, sir. DOD's role?

LANGEVIN:

DOD's role in a government-wide approach to cyber security. And -- well, let me -- I'll stop there and...

CHILTON:

Sure.

LANGEVIN:

... see if I can get in a second question.

CHILTON:

Today, Congressman, as you know, STRATCOM is chartered to defend, operate and defend, our military networks only. And so, we worry about the dot-military networks. We are not asked today to defend the .edu, the .com, the .gov. Those -- the consideration for defense of vulnerabilities in that area falls to the Department of Homeland Security.

That said, we are directed to be prepared to support the Department of Homeland Security, and have already begun those efforts by not only sharing office space with them at our -- in one of my component commands, the Joint Task Force for Global Network Operations.

By sharing lessons learned that we have learned over the last several years in trying to get our arms around defending just the military networks, we have established linkages between their centers, their cert (ph), and our command and control centers, so that we can share information, should they -- should we see a new threat vector coming into the military networks, that we make sure that they're aware of that, and vice versa. So today, we have begun to build a support linkage in that area.

I think the broader question of who should best do this for the other parts of America, where we worry about defending our power grids, our financial institutions, our telecommunications, our transportation networks, the networks that support them, I think that's going to be a key outcome of the 60-day study that the president has chartered, and probably findings beyond that study.

But I think that is the intent, is to take a good, hard look at what are the appropriate roles and responsibilities to go forward in that regard? And we at STRATCOM will be prepared to support in whichever way that we're directed to go forward.

LANGEVIN:

OK. Let me go to another one.

STRATCOM recently reorganized its structure -- I think you alluded to this in your testimony -- reorganized its structure for cyber, based on operations placing the Joint Task Force for Global Network Operations under the direct command of the Joint Functional Component Command for Network Warfare, who also acts as the director for the National Security Agency.

How effective do you believe that this reorganization has been?

And as a follow-up, does this put too much military authority under our intelligence community? And as a follow-on to that, where does the Department of Homeland Security's mission to protect critical infrastructure fit under this new command?

CHILTON:

On the first point, what we have done is, the command authority still runs from the commander of U.S. Strategic Command, so these organizations still report to STRATCOM. And that's important, I think, because we have a unified command plan that gives us authorities and responsibility, and a command chain that runs down.

In the past, I had two components working the cyber problem for me, one for prepared for attack and attack as directed, and the other for operate and defend.

And what we've done is, I've delegated operational control of the operate and defend to my network warfare commander, General Alexander.

Now, the advantages of this, and the reason we did this, is because we firmly believed you can't look at operate, defend, prepare to attack, attack, and exploit, in stovepipes. You need to be able to look at them holistically, because they're so interconnected.

One can inform you of an impending attack, and allow you to posture. As you consider offensive operations, you want to make sure your defenses are up. When you're under attack, of course, a way to respond is stronger defenses, but also attack. Offense is also sometimes the best defense.

So, finding a way to bring these two organizations together and more closely aligned is the intent.

Now, we've already begun to see fruits from that, from that work, and better cooperation between the organizations. But we still have a lot of work to go.

General Alexander is just bringing forward to me now, and we're starting to assess, a plan that would show how he would implement, in detail, that organizational construct, which will require for him to grow some capabilities to oversee that entire staff, if you will, to oversee that entire group now.

An important point though. When General Alexander is working in this particular position, as the commander of JFCC Network Warfare, he is a -- he's wearing a STRATCOM badge, and he is reporting to the STRATCOM commander.

We take great advantage of his linkages as the -- when he wears his other hat as the director of NSA, to build the bridges and linkages that we need for intelligence support to do the work that we do for operating and defending a gig (ph) every day.

So, the marriage and the close relationship there between the NSA when he wears

that hat, and when he's wearing his network warfare hat and working for me, is really important when we think about how best to operate, defend, and then potentially, if directed, attack through cyberspace.

And then, sir, if you could repeat the last part of your question. I'm sorry, I didn't...

LANGEVIN:

The last one is, where does the Department of Homeland Security's mission to protect critical infrastructure fit under this new command?

CHILTON:

Where does it fit.

Actually, again, I think the 60-day study might inform us on that. But it doesn't fit at all today. This command organization is aligned directly to support the commander of U.S. Strategic Command and the Unified Command Plan missions we have been given, which do not include defense of the homeland for those other networks, but are solely restricted to operating and defending the military networks.

LANGEVIN:

I know you have a great challenge on your hands in protecting us in cyberspace, and I offer my support and whatever I can do to make your job easier.

And I thank the chair.

TAUSCHER:

Thank you, Mr. Langevin.

And I'm happy to recognize the gentleman from Washington, Mr. Larsen, for five minutes.

LARSEN:

Thank you, Madam Chair.

General Chilton, just to continue on the theme of cyber command, there's renewed discussions about establishing a new unified command for cyberspace operation.

In your assessment, what would be the impact of that, both for it and against it, of moving organizations such as the Joint Functional Component Command for Network Warfare and the Joint Task Force, out from under Strategic Command?

CHILTON:

Well, Congressman, first of all, we have a cyber command today, would be my first comment. And that's U.S. Strategic Command, because we have that mission today. And

it's a mission we take very seriously, and a mission I think we have successfully advanced quite well in the operation and defense of the military networks.

There's another advantage to the mission set that have been given to U.S. Strategic Command. You'll notice they're global in nature. They really are agnostic to lines drawn on a map, or even continents and oceans -- mission sets of deterrence, the mission sets of space, and the mission sets of cyberspace.

One of the great strengths of having those under one organization is our ability to, when given a problem -- and ultimately, a problem will resolve around a country that the United States has a problem with -- we have the unique oversight and insight into these global domains, and can find synergies and opportunities to present integrated capabilities to the regional combatant commanders as we support their operations.

And so, I think there's a good synergy today for these three global mission sets in U.S. Strategic Command.

The other side of the argument is for standing up a single, focused command, you would gain the advantage of single focus in this area. And recall, we once had a single-focused U.S. Space Command. So, it would not be without precedent.

The challenge -- there are some advantages to that in a single focus, of course. But the challenge would be how to make sure you bring that integrated in, in an integrated fashion, to a set of capabilities that it would support, might make that a little more difficult.

And so, I think those would be just the broad balance comments I'd have on that. But rest assured, we have a cyber command today, sir. It's U.S. Strategic Command.

LARSEN:

I get your drift on what your thoughts are on that.

I wanted to talk a little bit about the personnel side, the people side, because you did note that the schools are there. They're putting people out, producing folks.

But you still, I think in your verbal testimony, or your answer to a question, it sounded to me like you expressed some level of concern about, maybe it was a curriculum you had concern with. I'm not sure. You talked about -- you used the word "correctly," to try to be sure we structured these schools correctly.

So, I guess I'm hearing a bit of a disconnect in your thoughts about the schooling and...

CHILTON:

No, I may have misspoken there, sir. I'm not -- I don't have any issues that have been brought to me attention, or that I have with regard to our schoolhouses.

What we're doing is increasing the number of people we're putting through the schoolhouses, in an effort to increase the corpus of expertise we have in this particular area. And I think that's a good thing.

Where we're short of people, if you were to take a look at my Joint Task Force for

Global Network Operations and our Joint Task Force for Network Warfare, and we've done a lot of studies over the last year-and-a-half on what levels they should be manned at.

CHILTON:

The manning is just not there. We have not been able to get either the positions I feel we need, or the belly buttons, if you will, to fill those positions appropriately.

And so, there's a challenge here. And it's not one that you wouldn't anticipate in the development of a new mission set in a new domain. And that is, understanding requirements, what it takes to operate and do the missions you've been given in that area. And I think we've worked that really hard.

And then, growing and fielding the people, and organizing, training and equipping the people to do that. The services know well today how to organize, train and equip people for air, land and sea operations, and space operations.

And now the challenge is to make sure we understand how to organize, train and equip people for cyberspace operations and adequately man the force that is chartered to provide the security the nation needs.

LARSEN:

So, are the services still trying to catch up with the specific needs of what that new community -- that community needs?

CHILTON:

Right. And we've worked very closely with the services to help define and understand what those requirements might be for the future, by kind of looking back on past operations, by doing exercises, tabletop exercises and discussions.

We've done quite a bit of work with the services over the past year, year-and-a-half in this area.

So, at U.S. Strategic Command, we feel like we have a good idea on what the needs are. And now we're in the process of articulating them. And as we look forward, we'll look for additional support from the services to not only send the people to the schools, which they are doing, but to think about how they organize, train and equip to support these mission sets.

LARSEN:

Madam Chair, are we doing a second round of questions?

TAUSCHER:

(OFF-MIKE)



LARSEN:

Great. I'll yield back then.

TAUSCHER:

(OFF-MIKE)

... one of the most important steps the U.S. needs to take to improve our space situational awareness capabilities.

And what capabilities are the services and the combatant commanders and the intelligence community telling you they need from future space systems? And how do you see STRATCOM facilitating the efforts needed to meet those needs?

CHILTON:

From the space situational awareness perspective, it's kind of a multi-pronged approach that's required. And you start basically with your ability to sense the domain or the scan (ph), and surveil the domain.

And so, improvements in this area are important. And so, it's both in ground-based systems, some of which we continue to sustain from Cold War developments, developed systems. But also, we need to look for opportunities to expand our surveillance architecture beyond even just the borders, the traditional borders of the United States and where we have them today, because in this area, geography does matter. Where you are located on the earth matters.

And so, we need to look at opportunities to expand our surveillance, both with ground-based radars and electro-optical capabilities in space. And there are opportunities here, I believe, to work with our friends and allies, to team with them in this particular area.

Next, we could do a better job today, and we're working this problem hard, with taking the data we receive from these sensors, and the data we could receive in the future, and bring them into our Joint Space Operations Center at Vandenberg Air Force Base, in a fashion, and in a machine-like fashion, where we can bring them in in an integrated fashion to look at.

Today, my commander for space, General Larry James, out there, oftentimes finds himself having to integrate all these different piece parts of the domain of space that he's charted to surveil on PowerPoint charts, as opposed to a holistic wave, or we would look at in the air domain, a common operating picture type display, where you could take one look on the big wall and see who the good guys are, who the bad guys are, who the neutrals are, and what they're doing in that domain.

TAUSCHER:

Would that be like a fusion cell or...

CHILTON:

## A fusion technology capability.

TAUSCHER:

... technology capability.

CHILTON:

But it requires...

TAUSCHER:

Would you have to develop that yourself?

CHILTON:

No, you know, we have -- services need to do that for us. And so, we're the demanding customers. And then we look to, in this case, the Air Force is working this problem for us through their acquisition arm at both SMC in Los Angeles, and ESC back at Hanscom.

So, getting common data -- getting more data in, getting common data formats in, into a fusion type machine is important.

Calculation capability, or computer processing capability, is an important element, too, that is resident at the Joint Space Operation Center in the first space control element there, where you need to be able to -- you know, we're tracking 18,000 pieces or objects in space today -- more than that. Some is debris. Some are active satellites. And you worry about them running into each other, as was evidenced lately.

The computational capability to do that can be increased. Today, we only do what is referred to as conjunction analysis, better said collision, potential collision analysis, for our highest priority satellites. And the highest, of course, being our manned systems, the International Space Station and the space shuttle.

But it's a small subset of all the active satellites up there. And I believe we can look at opportunities to improve that capability, because I think where we need to go is to not only worry about those few high priorities that we have there, but all satellites that the U.S. military, at least, relies on for military operations. And that oftentimes includes civilian satellites, which we lease. And we're not able to do that today.

So, better sensors and more of them, common data, fusion element, computational capability, I think are areas that we can improve on. And I'd add one more point.

I'm really excited about the space-based space surveillance system, which will be launched, either at the end of this year or early next, which will be the operationalizing of an experiment, called the MSX SBD (ph), where we discovered there was actually value in being in space in observing space, particularly in the geosynchronous belt.

And this capability, when we get up there, I'm excited to see the improvements that will make in our situational awareness, particularly at the geosynchronous altitudes.

TAUSCHER:

General, are you the first astronaut to be STRATCOM commander?

CHILTON:

Yes, ma'am.

TAUSCHER:

That's pretty cool, isn't it.

CHILTON:

Being an astronaut was pretty cool.

(LAUGHTER)

I was very blessed to be a part of NASA for a part of my career. And what a great organization to be a part of.

TAUSCHER:

Well, you bring a very distinct pedigree to the job. So, I'm sure that that will inform us and make us even better than we've ever been.

CHILTON:

Thank you.

TAUSCHER:

I'm going to reserve any further questions I have and turn to Mr. Turner from Ohio.

TURNER:

Thank you, Madam Chair.

General, earlier this year, the administration requested a review by DOD and DOE to include NNSA (ph) to, "assess the cost and benefits of transferring budget and management of NNSA (ph) or its components to DOD and elsewhere."

What are STRATCOM's or your views on this, on the administration's idea and that (ph) review?

CHILTON:

I guess I don't have any particular views one way or the other on that. I think it's a valid question to ask. I think it's a good question for the administration to take on, and I'm glad they're looking at it.

But I think it's not just a question for the administration. It's a question for the Congress, as well, because, I mean, they're interlinked there in the oversight role, as well.

And so, I look forward to the results of the administration's look at this here when that is published.

TURNER:

One of the issues that you and I have discussed that I just want to put a footnote to this hearing, and not to discuss in an exchange here, is the issue of the security for our nuclear weapons, our labs, our nuclear installations that certainly, any such study would be a part of.

And I would continue to look to you, to your thoughts as to ways that we can enhance that, having a concern as to what our vulnerabilities might be, both within NSA, DOE and DOD. So, I would appreciate your continued thoughts in that area.

CHILTON:

Thank you.

TURNER:

Turning then to space, as our chair was discussing, there is certainly the -- this is an evolving time. You and I were, as we were just talking in the opening, and there is so much that is happening in what we're seeing, other actors doing in space.

If you could talk for a moment, what are our -- what is our posture, our plans or our policies, if we should be attacked? If someone should attack our space assets, how is it at this point that we proceed?

CHILTON:

Well, the United States always maintains the inherent right of self-defense. And our policy has been that an attack on one of our space assets would be considered a serious attack on the United States' asset.

So, those are -- in our view, those are sovereign assets up there, the U.S. satellites that are up there. And it is one that we would take very seriously.

From a STRATCOM perspective, who is chartered to operate and defend our space systems, our military space systems, we have to always remind ourselves to look at it from a holistic perspective. There's a deterrence part of this, and there's an asymmetric part of this, as well.

It's easy to get too wrapped up in the physical defense, if you will, of a satellite, and not pay attention to the fact that that satellite cannot do its mission without an electronic connection to the ground. And that electronic connection, both for the maintenance of the

health of the satellite and for directing its mission, is not only essential, but also a vulnerability.

And that electronic signal comes back to a ground station, which is fixed. So, in itself, that is a vulnerability. And then, it's probably plugged into the cyberspace to take direction, as well.

And so, when we at STRATCOM think about defense of space assets and we bring in both the cyber perspective, the electronic warfare perspective, the physical security perspective, when we think about that, and then also, what can be done with regard to our on-orbit satellites in both enhancing their awareness and our awareness of what's going on around them, or from the ground, being directed toward them -- all as an integral part of the equation when we think about this.

TURNER:

And that was the next area that I was going to, is this issue of deterrence. We have so many actors that are gaining in their capabilities, who are dedicating significant resources to their space assets and their ability to disable or diminish our assets.

On the nuclear side, on the missile defense side, we talk about deterrence frequently. What are some of the things that we can be doing more, or that we should focus on more in looking to the area of deterrence in space?

CHILTON:

Well, deterrence in any area involves a couple of things. One, a position needs to be taken on -- a policy position, if you will.

So, you have to be able to look somebody in the eye and say, "If you do this, then --" and then, whatever the "then" is, has to be credible.

Both credible internally, but most important, credible in the individual's eye who you are trying to deter.

It's not necessarily linked that if there's a cyber threat that you have to have a capability in cyberspace to deter somebody. Or if there's a space problem, that it has to be a space capability that deters them, or conventional, either.

I mean, you can go across domain and across areas and draw the lines in different areas. It could be an economic deterrent. If you do this, then you will suffer these economic or diplomatic penalties. That can be part of a deterrent strategy, as well. So, there's lots of elements that you can bring to bear in the quiver here.

And again, we've got to be cautious that we don't just get overly focused and say, because it's a space capability, we need a -- or space issue, we need a space capability to deter that.

We may have adequate other -- we have an adequate suite of other capabilities to deter that particular adversary. But we've got to have a -- we also need to have a policy statement that puts the will behind the deterrent capability to make it effective.

TURNER:

Thank you, General.

Thank you, Madam Chair.

TAUSCHER:

Happy to recognize the gentleman from Washington for five minutes, Mr. Larsen.

LARSEN:

Thank you, Madam Chair.

General, last year I was briefed on STRATCOM's electronic warfare capabilities assessment -- capabilities-based assessment, which identified gaps in our military E.W. capabilities. I understand you're now working to finish the functional solutions analysis...

CHILTON:

Right.

LARSEN:

... the FSA, which will include recommendations for how to address these deficiencies.

Could you let us know a little bit more about the role STRATCOM is going to play in implementing the solutions for E.W. gaps? Does STRATCOM just hand the FSA, the functional solutions analysis, to the services? If not, what role will you play to make sure the recommendations -- the appropriate ones -- are implemented?

CHILTON:

Thank you, Congressman.

This -- the FSA recommendations, as well as every other area that STRATCOM is chartered by the UCP to advocate in, whether it's missile defense, ISR, or, in this case, information operations or, if combating weapons of mass destruction. These are areas where we have no forces or capabilities assigned to us, but we are ordered to get the warfighter input and advocate.

And so, what we will do with the FSA when it goes forward, of course it will be shared with the services. But the intent of doing this whole work, including the CBA and now the FSA, was to bring those forward in a fashion, to inform the FY '11 POM deliberations that will come this summer and fall.

And STRATCOM has a chair at the table, in particular portfolios of the POM deliberations. And most importantly, my J-8 staff, and that team gets embedded in the issue teams that address the trade space and the issues to be brought up to senior level decision-makers.

And that is where we have our best effect, I believe, you know, just having a seat at

the table and being in the debate, making sure it's an informed debate, and bringing that perspective to not only the Department of Defense at the PA&E (ph) level, the Office of Secretary of Defense level, but also at the services. And we found great success in sharing our input at that level, and coming to accommodations, even before the OSD review of the program.

But that's how we influence it, is by having a chair at the table. And I have a chair at the table at certain elements of the discussions that has proven very valuable.

LARSEN:

Well, it's been an issue I've been tracking quite closely. The Navy's E.W. community, the electronic aircraft community is in my district. And that's -- I kind of got rolling on this with the Prowler squadrons, ended up working on the ground with our Marines and Army folks in Iraq and Afghanistan.

And then, the Army is standing up a cadre of E.W. technicians, 1,600 by 2013 or so. And trying to be sure that we create a -- that we don't create just another set of stovepipe E.W. functions within the services, but looking at a more broad, defense-wide E.W. approach, that's real important. And my understanding of the CBA was this was one of 10 lines I think, capabilities-based assessments that were being done over the last couple of years.

The one related to E.W. is -- the idea is to look at a more broad-based approach, and a more integrated approach within the Pentagon.

CHILTON:

Well, I think that's important. It was brought to the attention of the broader community about -- a little over a year ago, that maybe we had lost attention, focus on the electronic warfare area, and it was an area we paid a lot of attention to I know in the past. I remember growing up in the Air Force we certainly did.

And it's heightened not only by shortfalls perhaps in the air domain, but it was the need for increased focus in a land domain was amplified by the IED problem that we faced over in Iraq and now face in Afghanistan, as well, and the electronic -- you know, the remote ignition of those devices.

And so, I think you're exactly right, congressman. We have an opportunity here, I think. I'm excited to see the results of the FSA and how that moves forward, and an opportunity to look at E.W. again in the appropriate light and focus area, and look at it broadly.

LARSEN:

Just another question. Thank you very much for that and expanding on that for me.

There's an interesting comment in your written testimony that you did not cover in your in your opening testimony. And there's a lot in there. Of course, we give you five minutes, so I didn't expect you to cover everything.

But then you should expect us to read what you wrote. So, on export controls. Near the end you talk about unnecessary constraints by export control legislation regulation

and the need for appropriate flexibility to permit relevant technology transfer to allies or to decontrol -- the decontrol of some technology in a timely fashion when commercial availability renders their control no longer necessary, mainly to help our friends and allies.

That sounds -- that's not new to me to hear that from folks. It's maybe new to me to hear that from STRATCOM or anyone in the military.

Can you talk about some of the discussion taking place within STRATCOM about export control, legislation, regulation, and why you see the need for some changes?

CHILTON:

Yes, I guess it would be unfair for me to say that there's a lot of discussion within STRATCOM. And...

LARSEN:

Well, let me put it this way.

CHILTON:

But I'll...

LARSEN:

You're the four-star general in charge of STRATCOM.

CHILTON:

Sure.

LARSEN:

It's in your testimony. So, that tells me there's enough discussion in STRATCOM...

CHILTON:

Well, observation, perhaps, is a better way for me to say it.

And in working with the Space Partnership Council, we work very closely with the NRO, the joint staff, NASA, the Air Force. I've listened closely, in particular to some of the past NASA administrators' concerns about America's ability to compete internationally.

I've heard comments from foreign -- other folks from the European Space Agency, for example, saying the best thing that happened to their commercial space enterprise was ITAR. I mean, I don't know the veracity of that or not. But the comment was made.



So, I just went down to French Guiana at the invitation of the French government, to observe an Ariane 5 space launch and tour their facilities. And it was very enlightening to me, and I much appreciated that.

I think they launched four satellites on top of that Ariane. None of them were U.S.-made. I think there was a U.S. company participating in one of the satellites.

But just data points, if you will, for me. And as I knit that together in my mind and think about what is required to sustain the industrial base of the United States of America for our critical communications satellites, our early warning satellites, weather satellites, GPS satellites for the future, et cetera, I just -- I am concerned from inputs that I'm receiving from others within our government outside of STRATCOM and the DOD, from observations I have made, that perhaps we need to take a look at this.

I understand clearly that we have to protect critical components that are sensitive in some sense, a military nature or scientific nature, that we might not want to share for national security reasons. But our industrial base is a part of our national security infrastructure, as well.

And so, I think -- all I'm suggesting is that I think it would be fair to take a look at this and see, is it -- ask and try to answer the question, are our current regulations and policies putting at risk our industrial base for our national security requirements of the future, or not?

Which could include our ability to compete commercially, but, you know, that's certainly out of my lane.

LARSEN:

Thank you very much. That was a very informative answer. I appreciate it.

Thank you.

TAUSCHER:

The gentleman from Arizona, Mr. Franks, for five minutes.

FRANKS:

Well, thank you, Madam Chair.

General, you know, I don't want to place you in the crossfire of any policy decision that this committee may have to deal with. So I guess the best way to do that is to be very candid with you as to my own policy concerned about an issue that has been in the news lately, and that I think that there's a growing concern, at least on my part, and that's related to the European site.

I'll be very direct with you and members of this committee. I believe that that site is in danger of being scaled back, delayed or even potentially canceled. And I also believe that there are some windows of opportunity that we may have to devalue (ph) the Iranian nuclear program to the extent that perhaps, you know, the hope is that we can prevent that from ever coming into full being.

And again, an oft-stated concern of mine is that that program may eventually lead to giving technology to terrorists that would change our concept of freedom forever in our country.

With the growing, at least incontrovertible issue of long range missile capability, without even addressing the nuclear component, but with the growing, long-range missile capability of Iran -- and I'll ask you, if I can, outside the policy considerations, to just -- if you could address the advantages, both strategically and tactically, that a fixed missile defense site has, like the one that we have heretofore planned in Europe, over some of the other sites in terms of its defense capability and deterrent capability.

I hope I've said that right, General. Does that give you enough to go on? The main advantage we're -- I'm looking for here is just from a military perspective. What is the advantage to having a fixed missile defense site in Europe to deal with potentially Middle Eastern missiles coming either toward the European allies or forward deployed troops, or, most importantly, our homeland?

CHILTON:

OK. I think I can answer that from a -- it's really, I think, more of a physics problem than anything. And that is, if you envision a threat from Iran in the future, of an intercontinental ballistic missile, and even at a long range, intermediate range ballistic missile threat, a credible threat of that being developed, that would hold at risk the United States of America, and Europe.

Then, if you look at just the geometry of that, if your intention is to field a system that can defend both of those, or add to the defense of both Europe and the United States of America, then you would probably logically look to something on the European continent, in that vicinity.

If you were just concerned about defense of the United States of America, you wouldn't necessarily need to do that. And so, therein lies -- you know, it's really just a geometry problem and physics problem, in my view, but linked closely to our policies and our agreements, and also linked closely to the threat and how that might develop.

FRANKS:

Well, I really hope that this year's Nuclear Posture Review will embrace your position, so that we can appropriate -- then (ph) switching gears on your (ph) -- appropriately support a nuclear posture that is based on reality, and not academics or just abstract theories.

You mentioned that decreasing the level of readiness for the nuclear stockpile would be like -- to use your words -- taking the now (ph) or sort of the now-holstered gun apart, and mailing pieces of it to various parts of the country, and then when you're in a crisis, deciding to reassemble it.

Now, I think that's a very apt description.

But I wonder if you could expand on the risk of decreasing the level of readiness for our nuclear stockpile.

CHILTON:

OK. Again, I made the comments in the context of our current policy and strategy. And I don't take off the table the absolute necessity to relook at that as part of a policy or strategy review.

I perhaps overstated, or stated, I think the analogy is still valid. But you could also say the analogy could be like taking the gun apart and just dispersing it around this room, as opposed to mailing it around the country. So I maybe used one where you envisioned having to rely on FedEx to pull this back together, as opposed to self-assembly.

But the point is that that is essentially what you're talking about doing, is you're delaying the ability, the responsiveness. You're eliminating the responsiveness of the system.

One thing that I think needs to be discussed broadly in the Nuclear Posture Review and in any policy or strategy discussion with regard to our posture, is this concept of stability, strategic stability.

It was really important in the Cold War, and it was important to the Russians and important to us, as well. And there was even dialogue between us and the Russians -- the Soviets, I should say then -- on strategic stability.

And what this refers to in the theory, which I think is, in practice, a real concern, is you want to make sure you've taken away any incentive for an adversary to feel the need to strike first -- or be tempted to strike first, because they felt like they could win.

And so, how you put your forces on alert can add to -- what levels of alert and how you posture them -- can add to or detract from strategic stability. And so, that needs to be considered if we take this question up as we go forward.

How did changing the alert posture of our forces, whether they be the ICBMs or the submarines -- we clearly did for the bombers already -- how does that address the calculus of stability in the deterrence equation?

FRANKS:

Well, thank you, General. I certainly wish you the best.

And thank you, Madam Chair.

TAUSCHER:

You're welcome, Mr. Turner.

Does any member have a further question?

General Chilton, thank you for being before us today. Thank you for your hard work and your leadership of STRATCOM. And the thousands of enlisted people, men and women, and the civilian force that works with you, thank you very much for their service. Please thank them for us.

This hearing of the Strategic Forces Subcommittee is adjourned.

CHILTON:

Thank you, ma'am.

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## List of Panel Members and Witnesses

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### WITNESSES:

GENERAL KEVIN CHILTON (USAF), COMMANDER, U.S. STRATEGIC  
COMMAND

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