Space and the Right to Self Defense

Event Transcript

Rebecca Heinrichs, Senator Tom Cotton, General Charles Jacoby, Jr., Senator Jon Kyl

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Featuring:
Rebeccah Heinrichs, Moderator
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Senator Tom Cotton, Panelist
U.S. Senator from Arkansas

General Charles Jacoby, Jr., Panelist

Senator Jon Kyl, Panelist
Former U.S. Senator from Arizona

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BEGINNING:

HEINRICHS: Good afternoon, and welcome to the Hudson Institute event with our distinguished panel here to discuss the recently released Hudson report, "Space and the Right to Self Defense." My name is Rebecca Heinrichs. I have the privilege of serving as the study director, but I couldn't have done the report without the review group that you will find on page 4 of the study.

Two of the members of that review group are here today, General Jacoby and Senator Kyl. The other members of the group include another former Northern Command commander, General Renuart, former MDA director Lieutenant General Trey Obering, former Air Force Space Commander General Shelton, and Dr. Michael Griffin, former NASA administrator, to name just a few.

Collectively, they have more than three centuries of experience in the fields of diplomacy, space security, missile defense, defense acquisitions, and of course all have borne some responsibility for ensuring that the United States is safe and secure.

The problem the study addresses is laid out in the executive summary. The United States has for decades enjoyed preeminent military stature, in large part due to technology advancements since World War II. However, to an unacceptable degree the United States has not prioritized maintaining this advantage, and near-peer competitors and even rogue states are contesting U.S. superiority in key areas.

Despite the changes to threat environments, many of the U.S. strategies and policies have not really changed much since the Cold War. This study makes several recommendations to change that. It should go without saying that this study is not exhaustive, so for those of you in the audience who are familiar with national security space policy, you might be disappointed that, although we do talk about the importance of our space assets, we do not deal with the spectrum of threats to them. The study is limited to the threat posed by direct ascent anti-satellite missiles.

In fact, the whole study tried to limit the scope just to missiles themselves. And that is because this is a new missile era. Rogue states, as well as near-peer competitors, are developing their missile forces to hold at risk the United States homeland, allies, deployed forces and space assets.

The study recommends investing in current missile defense systems so they fulfill their technical potential, as well as expanding the BMDS by deploying a more robust space sensor capability and space-based interceptor layer.

We concluded that, contrary to the belief of some, this is in fact tactically feasible, and it is affordable in the near term. We concluded that it does not violate current treaties either. We believe the MDA should examine various concepts and devise the most cost-effective configuration and way forward. We have got to get started.
We also found that there should be two policy changes. One, our national security space posture cannot merely remain passive in nature. So while striving for redundancy in our space architectures is good and necessary, as is moving towards a more robust SSA capability, it simply isn't enough. The United States must have the ability to actively defend and protect its space assets from attack.

And two, second policy change, the United States must move away from a limited missile-defense policy to one that is more robust. It does not make sense to defend against some kinds of missiles, especially those from rogue states, especially if those rogue states are developing more complex missiles, while remaining vulnerable -- intentionally remaining vulnerable to more sophisticated missile threats coming out of mainly China and Russia, even as those countries develop missile defense system themselves and invest in offensive capabilities to exploit U.S. vulnerabilities.

With that, I think that's enough to chew on and get us started. So I'm going to turn to my panel. I'm going to introduce each of them. I will save some time at the end for questions, so if you could write those down and keep them concise, and also identify who you are and what organization you are with, that would be helpful. And please do hold your applause until the conclusion of the event, and as I introduce my panelists, of course.

So first is General Charles Jacoby, Jr., who brings over 36 years of experience leading military, government international organizations and is currently serving senior vice chairman with Capitol Peak asset management. Prior to retiring from the U.S. Army, he was the first Army officer to command North American Aerospace Defense, NORAD, and the United States Northern Command.

General Jacoby has commanded at all levels in joint Army assignments from the company to geographic combatant command, including combat operations in Grenada with the 82nd Airborne Division, operating in Operation Enduring Freedom in Afghanistan, and Operation Iraqi Freedom, Iraq. He also served as instructor and assistant professor in the department of history of the United States Military Academy at West Point.

Senator Tom Cotton from Arkansas serves on the Banking Committee, the Intelligence Committee in the Armed Services Committee, and he chairs the Air-Land Subcommittee. He graduated from Harvard and Harvard Law School. After a clerkship with the U.S. Court of Appeals and private law practice, Senator Cotton joined the United States Army in response to the September 11th attacks. He served there for nearly 5 years on active duty as an infantry officer.

While in uniform, he served in Iraq with the 101st Airborne and in Afghanistan with the provincial reconstruction team. In two combat tours, Senator Cotton served with the Old Guard at Arlington National Cemetery. His military decorations include the bronze star medal, combat infantry badge and Ranger tab.
Senator Cotton has proven to be one of the leaders in the U.S. Senate on security issues, and especially ones related to strategic policy for nuclear nonproliferation, nuclear modernization and missile-defense.

And of course last but not least, Senator John Kyl. The senator retired from Congress in 2013, the second highest-ranking Republican senator. He advises companies on domestic and international policies that influence U.S. and multinational businesses and assists corporate clients on defense and national security matters, among others.

During Senator Kyl's 26 years in Congress, he built a reputation for mastering the complexities of legislative policy and coalition building. In 2010, Time magazine called him one of the 100 most influential people in the world, noting his encyclopedic knowledge of domestic and foreign policy, his hard-working leadership and his power to persuade.

Senator Kyl sat on the Senate Finance Committee, and he also served as the ranking Republican on the Senate Judiciary Committee's Subcommittee on crime and terrorism. A member of the Republican leadership for well over a decade, Senator Kyl chaired the Senate Republican Policy Committee and the Senate Republican Conference before becoming Republican whip.

Senator Kyl was and continues to be a leader on these issues of arms control, nuclear modernization, especially of interest today on missile-defense in particular, and also expanding missile-defense to include space.

So with that I would like to turn to Senator Kyl for the first question, if I may.

So considering you've worked on this initiative for many years, how would you assess what we are doing from a policy and political perspective in gaining consensus, and also how have you seen the threat change over the years, and how does that drive this policy and its importance?

KYL: Thank you. First, let me say it's a very great honor to be here on the panel with General Jacoby and Senator Tom Cotton. Senator Cotton is not one of; he is the leader on these issues in the United States Senate today, and because of that I am a little bit more optimistic that I was a couple of years ago when I was still involved in this.

Obviously science and technology change. They don't stand still. And they are especially important to war fighters, who have to understand how best to gain advantage over their prospective opponent. Our enemies have figured out that space is not some sacrosanct area to be avoided, but rather yet one more place on the battlefield that could be exploited. Therefore, they have applied their research and development to ways to deny the United States, a prospective adversary, the benefits of space.

It would be folly for us not to do the same thing, and yet for too long we have ignored the benefits of being in space and the necessity of defending our assets in space. So two
quick points. First, we are talking about defense here. We are not talking about offensive capabilities to attack somebody, but rather defending our own assets.

And secondly, because countries like China, like Russia and even North Korea and Iran have been devoting a tremendous amount of resources to denying our access to space, as well as providing their own capabilities to take advantage of it offensively, it is incumbent upon the United States, as the report that you alluded to, it is incumbent upon us to recognize the necessity of doing that and begin to implement policies that would effectuate it.

For most of the Obama administration it has been a very uphill struggle, for a variety of reasons. Very recently the Congress has begun, I think, to appreciate the necessity of moving forward. So under Senator Cotton's leadership and others, in the last couple of years you have seen the Congress begin to express a strong opinion that it's time to get on with developing space-based assets, and particularly defenses. I am delighted to see that that effort has begun.

HEINRICHS: Senator Cotton, you are on the Senate Armed Services Committee now, and there was a provision, a couple of different provisions and activity toward this end in the bill this year. Can you talk a little bit about where we are and where the consensus is on this in the Senate?

COTTON: Sure. First, thanks for having me and thanks very much for drafting a very insightful report. To the extent I provide any leadership or knowledge on this issues, it's only because I stand on the shoulder of a giant, John Kyl, who has helped teach and mentor me on this and many other matters.

So on the Armed Services Committee we did include two provisions related to these issues in the NDAA, which passed on the floor as well. One would strike the term "limited" from the Missile Defense Act 1999's policy statement. And two, that would call for the research, development, test and evaluation of space-based interceptors.

Striking "limited" I think is an important language set change because when that law was passed during a time when the Russian threat was receding, the China threat wasn't quite as severe as it is today, the only real threat we might have faced from a ballistic missile would come from a rogue nation like North Korea or Iran.

We face a very different world today. Russia has invested a tremendous amount of resources in modernizing its nuclear forces, China has continued to expand its. Obviously North Korea and Iran have been very aggressive in developing and testing ballistic missiles that are capable of holding at risk our troops, our allies and potentially our homeland here in the United States.

And then the second provision about space-based interceptors would recognize the important role that terrestrial or sea-based interceptors play. Some of those are already
deployed. But also the fact that they can't cover as far a range and they don't give us much versatility and survivability and reliability as a space-based interceptor might.

That may be somewhat in the future, but we don't see the reason why we should be putting self-imposed political limitations on our missile-defense systems. As John said, the threat is already with us. Not just in ballistic missiles but in anti-satellite systems as well. The United States depends more than any other nation to fight wars on our space-based communications, timing, positioning, navigation systems and so forth, and our adversaries realize that those are asymmetric vulnerabilities, because they don't rely on space as much as we do, they can take relatively inexpensive weapons and destroy very expensive satellite systems that we have and have catastrophic effects on our ability to fight in the air and sea and on land.

So there is still a lot of research to be done, a lot of studying, but the last thing we should have is self-imposed political limitations on missile defense and on defense in space, which of course are very similar related technologies.

But as you said, it's great to have survivable satellites. It's great to have a nuclear arsenal that can deter nuclear strikes against our country. It's even better to have redundant systems in place to be able to stop other countries' anti-satellite weapons, or to be able to stop a ballistic missile attack against the United States.

HEINRICHS: Thank you, Senator. And that tees up the next question really well for General Jacoby. Senator Cotton mentioned how much we rely on those space assets. Can you talk a little bit about, one, just how much we depend on space, especially from a military perspective? And then two, how the threats have been increasing and how that has a sort of restricting, or restraining effect, or how it could increasingly be so on our military.

JACOBY: First of all, thanks for inviting me to be on this distinguished panel, and it's good to be able to contribute to this discussion.

Just from a commander's point of view in space, I'm not telling an informed audience anything that you don't already know. We've become very reliant, and some of our most important functions in war fighting and in the economy and in entertainment and how we live, very reliant on space-based technologies.

And we've been living a charmed existence. There haven't been extant threats to it in the past and we been able to put capabilities up in space. Considering that as a vulnerability, but now we have to face reality. And because we are so reliant on them, in many ways space-based systems can become a center of gravity for us, different functions of command and control, and you can't leave this to chance and vulnerability.

So I think that the report and I think that the amendment that has been proposed gets us started in a way that will help us mitigate the possibility of falling behind because it would be unacceptable consequences to having our space-based assets taken out. Whether it's in a fight or whether it's just in our daily life, the cars would be without their GPS.
But this is a serious issue and we've allowed a vulnerability to grow and now we, as responsible leaders -- our leaders need to be responsible in charting a course for us that at least puts us in a position to do something about that vulnerability without suffering undue consequences.

Second part of the question?

HEINRICHS: As the threats have increased, how has that had an effect on our ability to make decisions, and how we act from a military perspective?

JACOBY: Well, when I took over NORAD and NORTHCOM in 2011, there were lots of things on the homeland defense plate, to include defense support to civil authorities, which is helping our citizens in times of their greatest need. And I was amazed at the pace of change from 2011 through the end of my command in 2014, growing threats to the homeland.

So I saw my compass needle shift from worrying more about hurricanes and other kinds of things to becoming very concerned about the vulnerabilities to the homeland in all of the domains -- cyberspace, space, aerospace, subsurface, surface, terrorism. I think all of us, if you step back and reflected over the last four or five years, you would say, yes, the threats to the homeland have become tangible in a way that hasn't in the past.

We used to describe a home game and an away game. Now there's just one game, it's defending the United States. It starts with our long-held strategy of forward engagement and alliances, all the way back into our homeland now.

And so it's sad that that truth has changed, but it's not something we can just sit back and allow to happen. We have to respond to it and we have to ensure that our decision-making at the highest level, our strategic decision-making is not compromised by new and expanding threats to the homeland.

And if it is, we have to either address that threat that's compromising our decision-making, or we are going to have to change some fundamental things about our grand strategy for the United States.

HEINRICHS: Great. And just for example, you had mentioned previously, if we know that North Korea does have the KNOA capability, a mobile missile system, and are able to mount a warhead and charge a warhead and put it on there, it will change the calculus for our military commanders and how they would advise civilian leadership in various situations that are happening on the Korean peninsula for instance.

JACOBY: It fundamentally changes the risk calculus of any of our plans anywhere in the world if we can be held at risk in the homeland and threatened in a way that would be catastrophic if we were to execute that plan. I'll take more questions on that, but it's a pretty obvious problem but it doesn't really appear until you have an actor like North Korea or Iran,
and we don't have a relationship with -- a stable relationship or stable relationship or equal
stakes in a problem, and all of a sudden now all of your strategic options in the past have
now been constrained to almost unacceptable options. I would think we all know what I'm
talking about there.

HEINRICHS: I'd like to go back to this. Senator Cotton mentioned one of the
provisions that was changed was amending the 1999 National Missile Defense Act. And that
act states that the United States is to develop a system as soon as possible to defend against a
limited missile attack, whether unauthorized, accidental or purposeful attack.

The language is there so that it doesn't prevent us from building a more
comprehensive, more robust system, but it has had the effect of limiting the system. The
Missile Defense Agency takes its cue from there, policymakers look at that and say, we are
only going to defend against rogue state actors and so striking that "limited" would sort of,
you know, allow policymakers to say, look, we can fulfill technical potential to our missile
defense systems and build what we need to based on the threat.

Can you talk about just how that was that whenever you had that debate in Armed
Services Committee, did you get a significant -- was there a significant amount of pushback
from the other party, or does it seem like we are moving forward to this idea that we need to
go longer remain vulnerable to near-peer competitors like China and Russia, but that we
should just build our defenses as we see the threats appearing?

COTTON: Well, I'm not sure how it got there in the first place. Maybe John can say a
little bit about that. Sounds like a classic political compromise to get a few more votes and of
a long debate. It had to have the effect, and it has had the effect of limiting, especially under
this administration, the development missile defenses to the one-off strike. You know, one
rogue nation like North Korea or maybe someone who is not authorized by a civilian
command authority in his country.

So we thought it was important to make it clear that Congress wants a robust and
redundant and survivable missile defense system. There was some spirited debate, I would
say, in the markup. Ultimately it got, as I recall, bipartisan support.

But there are still some on the left who, frankly, have never gotten over the U.S.
walking away from Anti-Ballistic Missile Treaty in 2002 and still hold to the Cold War logic
of mutually assured destruction. I can't imagine why we would want to live under those
terms if we don't have to. Maybe the technology, maybe the budget implications will never
allow us to reach a point where we don't have to, but I don't think we should be imposing
political limitations on our abilities to protect our people from all kinds of threats, whether
it's North Korea or an unauthorized strike or a submarine launched ballistic missile or an
antisatellite weapon or what have you.

We should let the technology take us where it can go and we should allow our
policymakers to make the choices that are best for the United States and best for our people,
which in my opinion would be trying to defend as much of our people and our territory and our assets and our allies as we can.

HEINRICHS: And Senator Cotton, and you could maybe talk a little bit about that too because you watched this sort of debate unfold. And there still is a little bit of resistance on the part of some wanting to maintain mutually vulnerable with China and Russia. Opponents of moving forward with this would argue that should the United States expand missile defense, that that would be provocative, that that would provoke China and Russia, for instance, so that they would build more offensive capabilities and go to space.

KYL: That's a palpably fallacious argument. You simply look at what has been underway for many years by, you mentioned China and Russia both, but also rogue states like North Korea and Iran. All of our forbearance has gotten us exactly nowhere in terms of their plans and their development.

We are now becoming aware of some capabilities of the Russians in particular, which have been years in the development. We had some idea that these things were being developed, but now they have had to come out more into the open. We've seen some tests. They have actually written about these things in their journals and they have talked about them in their doctrine.

So this has been going on for years, at the time when we were forbearing on the theory that if we did anything provocative, it would make them have to respond in some way. Well, they were responding all along, and now it's evident that they intend to have a new generation of missiles and in the case of Russia, for example, different kinds of missiles, road mobile, rail mobile, the new rail system that they have, replacing the old SS-18, a new kind of cruise missile, a hypersonic type of weapon the United States has also worked on, as has China.

China is maybe the leader in terms of anti-satellite capability, a doctrine. They've tested that. All of these things are going on at the time the United States is forbearing on the theory that if we do that then they will stop. And of course it never stopped countries like Iran or North Korea from proceeding with their plans either.

So it's a foolish notion. It's palpably untrue. It's evident for anybody who looks at the data. And therefore, I don't know why anybody would rely upon the argument in a serious way.

COTTON: Can I just chime in and saying, the idea that developing defensive capabilities, not offensive capabilities, not developing a new cruise missile, which we need, or a new ballistic missile submarine, which we need, or a new long-range bomber, but defensive capabilities would be provocative. I mean, that's the kind of argument that Soviet leaders would have made as well.

And just like Soviet leaders, when Vladimir Putin makes arguments to Westerners that these defensive capabilities are provocative, and Westerners believe them, in private he
laughs at those Westerners and calls them chumps. I mean it is impossible to say that it is provocative to develop defensive capabilities to protect your own people.

And as John said, our forbearance for all of these years has gotten us nothing but greater vulnerabilities that General Jacoby was talking about.

HEINRICHS: I think that’s exactly right. That’s what we found in the study. And in fact, many of the vulnerabilities that we have intentionally allowed to be there had been intentionally exploited, noted and exploited. So we have seen the effect that weakness has provoked. It has provoked them to move forward in these capabilities.

So what we found in the study is that what we need to do is close those deterrent gaps that are there, and that could have the effect we think of dissuading them from investing in those capabilities in the first place, if we can take away that vulnerability that is becoming attractive, especially in the case of antisatellite weapons in the case of the Chinese, and certainly the Russians as well.

We talked a little bit about this idea too of the Russians and the Chinese now, the Russians have for a long time opposed expanding current missile defenses, so not even talking about space. We've seen lately in the news that as the administration moves forward on putting a THAAD battery in South Korea that the Chinese have opposed that. In fact, the Russians have as well.

General Jacoby, can you talk a little bit about that, this idea that deploying defensive capabilities, even theater defenses, how dangerous it is to concede those defenses on the grounds that China or Russia might oppose them, and the effect that that would have on alliances and also on our own defensive capabilities.

JACOBY: In northeast Asia there's really a complex dynamic going on, but the center of it is a very strong and time-tested alliance with South Korea. We have made a huge commitment as a country, and as a number of allies because it still remains a United Nations mission to defend South Korea. We've made a huge investment in that to deter conflict.

That conflict for many, many years was seen as being a large conventional attack across the demilitarized zone. With the introduction of short, intermediate and now long-range ballistic missiles it's gone from a peninsula problem to a regional problem, to include a homeland problem for us.

And if we are still defending with bows and arrows when conflict escalates, we are not going to create the deterrent effect that we need to to keep peace on the Korean peninsula, to keep peace in the region and ensure the homeland is not at risk.

That is just a logical step that actually was imposed by the actions of the North Korean regime, and demonstrating a capability and intention to hold at risk South Korea with the intermediate and short range ballistic missiles. There was no huge desire for us to continue the THAAD line, and it's always a fight for ballistic missile defense systems.
But the truth of the matter is, THAAD was really the logical choice, and after an intense debate and trying to assess what the complexities of the environment might hold, to include perceptions that the Chinese might have, we really can't get in a world where we refuse to defend ourselves and allow us to tagline legitimate, necessary, prudent defensive measures as being provocative.

HEINRICHS: In fact what we have seen, especially over the course of this administration, the last few terms, that when Russia has opposed even short range ballistic missile defenses, and long-range missile defenses that the Bush administration had proposed for Poland and the Czech Republic, that when Russia opposed it, this administration backed away from it, canceled it, and then proposed the European Phased Adaptive.

But then even the fourth phase, which was supposed to provide a homeland defense capability, the administration canceled that as well. And as a result, we have a system that is less capable, and we are still playing catch-up, even as the threat continues to grow.

JACOBY: Could I just add something to that? So one other aspect of this, and this is just a soldier's perspective, but certainly the Russians and the Chinese and other stakeholders understand that in South Korea, besides being a wonderful ally, a significant economic engine for growth throughout the world, that there are tens of thousands of American citizens living there. There are still U.S. forces there. They are playing a defensive role. They are at risk every day to a host of threats that now include the potential for ballistic missile carried weapons of mass destruction. We cannot not act on that.

HEINRICHS: Senator Kyl, if you could, could you just explain the effect that that has had from just a policy perspective of as near-peer competitors push back and the United States withdraws as a matter of foreign policy, how has that had a real, practical effect on our current missile defense capabilities?

KYL: First, the effect on our allies. We have a strategy that relies on others to combine with our own capabilities to provide for mutual defense and a big part of the U.S. commitment is a nuclear umbrella in certain situations, and in some situations also missile defense capabilities.

When the United States unilaterally withdrew, without even notifying our key allies that we were going to withdraw these capabilities, and at the same time tried to press the reset button with Russia, it soured relationships in a way that I think still reverberates among our allies. They wonder whether they can count on the United States.

This becomes very dangerous for couple of reasons. First, it does contribute to nuclear proliferation. If countries that are relying upon our either defense or deterrent effect from our strategic nuclear program don't think that they can rely on that, then they talk more and more about developing their own systems. That's not good.
And I find it ironic that a president who has based much of his thinking with regard to national defense on nonproliferation, which is obviously something to focus on, would yet promote proliferation by causing people to question the United States’ commitment.

So it has created a problem within our allies. It has resulted in some reaction on the part of some nations to kind of go their own way. I know the Polish government, for example, just recently committed to a Patriot program. If the United States can continue to work with these allies to have an integrated system that can rely upon the right kind of radars and tracking and the like, as well as missile systems, we can provide a defensive capability. They don’t have to worry about acquiring an offensive capability.

I would think that would be to everybody’s advantage, but again, it hasn’t quite worked out that way. I’m a little mystified that people in the current administration don’t see the connection between the policy and what happens on the ground.

COTTON: Especially since it’s why the president when his Nobel Peace Prize.

HEINRICHS: And we have seen now, you know, the administration, the Obama administration canceled the Bush administration’s plans for the third ground-based interceptor site in Poland, and then we were to roll out the European phase of that approach, with a fourth phase culminating in the SM32B which would have provided additional homeland protection and that was canceled as well.

So here we are now, with fewer GBIs at our disposal to protect the homeland, and in fact, when the secretary of defense announced that we would be deploying 14 additional GBIs, many of us said, yes, but those should have already been there.

KYL: It just got back to the original number of 44.

HEINRICHS: It got back to the original number of 44, so we truly are playing catch-up. And then the ground-based system of course has suffered quite a bit of funding cuts, and so it's trying to make those necessary improvements that should been happening all along.

And that brings me to the next question, which is, some people argue that because the administration secured the Iran deal, the JCPOA, that the Russians of course would argue that there is no longer a need for missile defense because we have taken care the nuclear component of the Iranian missile program.

And of course my response to that has been that we have seen since the JCPOA was finalized that the Iranians are now taking off on missile development and testing.

So Senator Cotton, I’d like to turn to you. How should we understand the Iranian missile program at this point, especially after the JCPOA? And isn’t this a reason to actually expand, and shouldn’t we find even greater bipartisan consensus because we have essentially -- even though there is a U.N. Security Council resolution that essentially prohibits it, they are ignoring that, and really at no cost to them. Can you speak to that?
COTTON: Well, the Iran nuclear deal, whose one-year anniversary tomorrow, a traditional gift for a one-year anniversary is paper, which is appropriate since it was a parchment barrier to Iran's nuclear ambition or its regional aggression, is still very much a threat to the United States.

Many of the limitations on Iran were the mere sleeves off their vests. They were already facing certain technical and scientific challenges. They had time prohibitions that are going to be roughly aligned with what it would take them to achieve those technical or scientific advances.

And as you say, their ballistic missile program has not slowed down much at all. You see test after test in recent months. Just in the last couple of weeks you have seen both Chancellor Merkel and the German intelligence service saying that they are violating the deal and its associated U.N. Security Council resolutions by continuing to acquire illicitly nuclear and ballistic missile related materials through German companies using front groups.

So the ballistic missile threat from Iran remains very much at risk to the United States in the long-term, to Europe in the medium-term, and certainly to our allies and to our troops in the Middle East in the near term.

There is also a threat from the east from Russia. Russian generals and senior civilian leaders are rattling nuclear sabers in a way that we haven't seen since the height of the Cold War in the 1960s, and we have to take that as a real risk.

We don't mistrust Russia, and vice versa, because we have all those missiles and nuclear warheads. We have those missiles because we mistrust Russia, and as long as Russia is occupying Crimea and eastern Ukraine and Georgia and Moldova and conducting snap exercises which they threaten both conventional and nuclear strikes against NATO allies, we need to continue the development and deployment of missile defenses in those NATO allies.

HEINRICHS: General Jacoby, some people would say that missile defense is too hard. We've gone as far as we can technically speaking. And I have found across defense programs, it seems like people pick on -- they make that argument with missile defense in particular. They don't make the same kind of arguments with other Department of Defense programs.

Can you talk from the combatant commander of Northern Command how much you truly relied on a ground-based nuclear defense system? And also speak a little bit about how this is just sort of par of the course for military programs, that you have to continue to push, you have to continue to evolve.

And that essentially we have proven that missile defense technically works, and that we still need to fill out many of these systems technically. Even GMD can be filled out, we
can expand it on the U.S. homeland, etc., and what that would provide our combatant commanders in charge of protecting the homeland.

**JACOBY:** Unfortunately, missile defense at some point early in its development became victim of a slogan, you know we can't hit a bullet with a bullet. So that is so catchy that it's hard to overcome when actually there is a huge number of systems that hit bullets with bullets, and that is well within our skill set right now. So that gets people off-track and gets them thinking wrong about the problem.

I will tell you as the Northern Command commander, we got to suffer through and observe the repeated North Korean ICBM -- they weren't ICBM tests. They were space launch tests, which certainly served as test beds for ICBM development, and the development of missiles themselves and the continued now testing intermediate-range ballistic missiles.

And I sat in the command center and watched them go through this process and watched them launch. And I will tell you that the feeling you get from thinking about the idea that if I didn't have at least a ground-based missile defense, I would have nothing I could do to defend this country. That's just a personal perspective.

I walked away from that. I didn't walk into the job banging down the door on missile defense. I left that experience believing that we needed to get going and we needed to make sure we could pace the threat. The American people deserve better than no option other than to respond the Cold War way.

**KYL:** Can I just add one thing. The history of missile defense, when it is written, will include this point over and over and over. Every program was brought about to the point where it could have been effectively deployed, and then for political reasons was stopped. It wasn't a matter of technological progress, though it is not easy -- General Jacoby would certainly know that -- it is not easy, but we've been able to overcome the technical problems.

If there were enough funding available, most of these programs could have gone forward. Maybe it's a good thing some of them didn't, but we were briefed more than 20 years ago on the technical feasibility of Brilliant Pebbles, a space-based system. Well, now it's a lot cheaper now and it can be done in better ways now, but the point is that it is not technology that's stopping us. It's political decisions and funding.

**HEINRICHS:** In the GMD program in particular, first the Obama administration cut it in half, the president's first year in office.

**KYL:** Phase 4 was simply canceled, even after having been sold as the reason for the pulling back from Poland and Czech Republic of the system that was going to be deployed there.

**HEINRICHS:** Our far-term systems that we were investing in during the Bush administration, directed energy, which is something that we also advocate for in the study,
that this is something that we would ideally like to put it on a space-based constellation, not just on UAVs, which is the current far-term plan for the Missile Defense Agency.

But this technology, we were seeing breakthroughs on the airborne laser program, and this administration cut that as well. So we have seen major setbacks in that regard.

And to that point too, the Institute for Defense Analysis also did a study per Senator Kyl's work in the Senate before he left. He got a provision in the bill that mandated a study by the Institute for Defense Analysis to look at this concept of putting space-based interceptors on orbit. And in fact they found, which we cite heavily in the study, that it is technically feasible in the near term, and it is in fact affordable.

In fact, if we hadn't cut the budget to the extent that we have under the Obama administration, kept it at the same level, at about a billion and a half dollars more than it is now annually, we could already be doing this, in addition to everything we are already doing in the missile defense budget.

So if I could talk a little bit about cost and the constraints that the Congress finds itself under now, and how that is controlling the conversation about priorities, defense priorities and something like that. Because one of the big arguments against exactly this is that it is simply cost prohibitive. It's just too expensive.

Senator Cotton, would you speak to that a little bit?

COTTON: Well it’s not, and it shouldn't. Taking a step back more broadly about our military, our military is not the reason why we have a $19 trillion debt. We all know the reason is that our economy hasn't grown strongly enough, healthcare, retirement programs and federal government are wildly out of proportion and we haven't addressed those fundamental problems.

If anything, our military helps to secure the prosperous economy that we need so that we can have global trade, so that our economy is strong, so that we can create jobs and have more taxpayers and more economic growth to fund the military in the first place. It is simply not true that the military is responsible for the size of the deficit or the debt.

And in fact, any time we cut our military, as we did throughout the 1990s, it ends up costing us more in the long run. It costs us because our adversaries catch up, because they attack us, because we end up having to fight back. We have to build back capability that we lost. That takes more time, it takes more money to build and then if we had just maintained them.

So even though it's a repeated pattern throughout our history, in most countries' histories, it is the height of folly because in the long term it simply costs more to get back to where you should have been. That's the military as a whole.
Missile defense is a relatively small part of our budget as well, and the consequences of failing to develop effective missile defense systems can be truly catastrophic, on a national level and on an economic level. I think what the president’s budgets have done over the last eight years to our missile defense systems has been appalling because the military as a whole is such a small fraction of the money that our government spends. It's the best return we get on it, and missile defense in particular is even a small tiny fraction of that.

I mean, you hear the same arguments about our nuclear enterprise as well, why do we spend so much money on weapons we never use, when in fact we don’t spend that much money on them, 3 to 4 percent of total military spending, and in fact we use our nuclear weapons every single day.

HEINRICHS: That brings up another point too, the relationship between defensive systems and our nuclear deterrent. There was some effort to actually put some restrictive language that could of restricted missile defense in the New START treaty. Senator Kyl, could you speak to that and how we were able to make sure that that didn't happen, but also where we are in regards to how people think about that in the New START treaty.

KYL: It sure didn't happen by making sure that the administration understood the treaty wouldn't be adopted if language were included in the treaty. The problem is that the administration signaled to the Russians that they didn't need to worry about it anyway, and their actions since then have borne out the commitments that they probably made.

As a result, even though Russia continues to talk about it, the reality is the administration hasn’t -- it has actually canceled plans that we had, and not moved forward in any particular meaningful way, other than one program which was to get back to the original 44 ground-based interceptors, which are not effective except against potentially North Korea at this point.

It wouldn’t be effective even against an accidental launch, say from Russia.

HEINRICHS: If I could, I wanted to circle back. It made me think that it would be helpful to get General Jacoby to explain -- we talked a little bit about that striking the "limited" making sure that striking the word "limited" in our National Missile Defense Act. Do you think, as a former combatant commander, that even just striking that so the policy is more clear, that the U.S. government is no longer merely keeping a limited system but just as a combatant commander, how helpful would that be so that you could possibly advocate for more GBI support, space-based defenses?

Would that be a useful thing from a combatant commander, to make it explicit that the United States was no longer intentionally remaining limited in its defense?

JACOBY: You can understand -- receive an explanation of how we got there and I'm sure there were a lot of thoughtful people working their way through just what the words should say, but it's not helpful anymore. If you are trying to think of what was the positive outcome you were looking for by putting "limited" in there, it's not helping now.
We are defaulting to policy instead of strategy, and that means we are not putting the emphasis on the ends we are trying to accomplish, the means at our disposal to do it and the risks that we are taking by not keeping pace with the threat.

I don't think there would be anybody that would argue for a race, to start a strategic race. We absolutely have to, I would say, start by ensuring that we have, you know, a really clear-eyed view of our threats, both from a policy standpoint and technically, from a technical standpoint so that we are not caught by surprise by strategic systems. We can't allow that to happen in today's day and age.

Then we need to make sure that we are taking the prudent steps and we're making the investments in research and development and we're making investments in test beds like the amendment calls for, to ensure that we can pace the threat and not allow vulnerability to grow that can be exploited by potential adversaries.

It is essential that in today's day and age, when things develop so rapidly, that we not allow ourselves to let that gap widen.

COTTON: I would actually second that we don't want an arms race, but I would go further and say if we did have one, we would win with Russia. One reason why Russia continues to say that developing and deploying defensive capabilities is provocative is because they can't afford it and they can't do it. Just like in the 1990s, when the Strategic Defense Initiative was one of the things that convinced Gorbachev that he couldn't win a race with Ronald Reagan.

HEINRICHS: I think that's exactly right, and I'd also say that right now the Russians are already trying to do that. They are already targeting our assets, and so it wouldn't be a race to just simply close those gaps and vulnerabilities that exit today.

With that we'd like to take a couple of questions from the audience. If you do have one, raise your hand, please.

QUESTION: Thank you for coming. My name is Mitsuo Nakai, Japan native, a U.C. citizen, member of Reagan Foundation. A couple of questions. Number one, my mother country, Japan, is she going to be safe? I'm talking about missile defense, referring to North Korea. Number two, thank you, Senator, for going to - speaking at flag day dinner in southern California. I just moved to D.C. from southern California. They are telling me, oh, yes, he was great. So you have lots of friends in southern California.

HEINRICHS: Who would like to take the first question, how are we doing in protecting Japan.

JACOBY: Well, first of all I'd say that Japan is a terrific ally, and in a larger construct we consider our alliances and our friendships to be a competitive advantage, not a
disadvantage. So Japan’s security is interwoven with U.S. security and South Korean security.

In fact, China and Russia have almost an equal stake in peace and stability in Northeast Asia. But over time with the Japanese government we’ve tried to create a deterrent effect with our forces and our activities there, that would keep Japan safe and deny, you know, potential aggressors from exploiting vulnerabilities.

I would say that today I’m sure Japan feels increasingly threatened by two things: rhetoric and range rings. And so the rhetoric is unhelpful and it’s destabilizing that comes out of North Korea. And the range rings of their capabilities that they are -- which everyone should be concerned that they are increasingly willing to test. Whether it’s successful or not, the fact that they are testing, and testing at a pretty fast pace means they are serious about having a true capability. And so those things should be of concern.

That’s why I think the discussion of THAAD was important, and I think that’s why missile defense is really a right for -- in a large sense missile defense is a right to protect populations and their infrastructure from what’s essentially a terrible weapon really, an ICBM.

I think THAAD plays an integral part of it, and I think that get a chance to talk to the other stakeholders, to include the Chinese in the region, you know, get past the rhetoric, focus on the range rings, I think we’ll see that there are right steps we can do to deter conflict in very meaningful ways. That’s the key to Japan’s security.

HEINRICHS: I would just add too that Japan is one of our greatest partners in the missile defense development. There is great work being done there.

QUESTION: Victoria Samson, Secure World Foundation. I was interested to hear your study found that space-based interceptors could be done at a reasonable cost, more or less speaking. Obviously you crunched the numbers. What kind of interceptor constellation were you thinking? What kind of cost would that be? What altitude would they fly, how would you do space traffic management, that sort of thing?

What were you guys looking at in terms of cost and technological development? Thank you.

HEINRICHS: So what we did for that is we looked -- we relied heavily on the work that the Institute for Defense Analysis already did on crunching those numbers. At the outset it would have to be a limited constellation. It could be a limited constellation so we could roll this out over time and improve it.

Many people say, OK, now how expensive it’s going to be, a global constellation? That’s not what we’re advocating for initially. This would cost less than $2 billion annually over the life cycle of the system. So that’s 20 years, putting a constellation up twice.
It is incredibly affordable. Again I’d say -- I mean, if you just look at the delta of what this administration cut for the Missile Defense Agency budget, you put that back in, you already have enough money to actually get to work on an initial constellation.

So we are not set in our ways in terms of what a concept has to look like. We used that as an example and rely on IDA’s numbers there. But what we do suggest is that MDA just has to get started on this. We have the technical capabilities. It is affordable. We just need to get to concept development.

QUESTION: Thomas Keelan, intern here at Hudson. Just continuing on the theme of budget, because budgetary limitations were mentioned a few times, if a new administration was to increase the defense budget, is increased GBIs, new SBIs, are they priority number one for an increased defense budget? Or are there still areas which take more precedence?

KYL: I can tell you a little bit from -- I’m looking now in the rearview mirror rather than forward as you are. But situational awareness I think would be one of the top priorities for space assets. Important for any system that you later develop anyway, but it also has its own benefits. Systems that would provide coverage all over the world.

You're not limited then to a particular theater coverage but you can cover overseas, you can cover over allies, you can cover the homeland. Systems in other words that would complement what we already have, rather than replacing what we already have. And it would begin to demonstrate the concepts that could then be built on.

That was the idea of the language that we got in from the study, and that was some of the thinking. And it’s been borne out in the results of the analysis and it's what's being proposed in the study.

As to what the political view would be of a new administration or of the Congress next year on priorities -- and the military, frankly, also -- I leave that to our other two experts here.

COTTON: I would say that the most immediate priority needs to be readiness. We still have troops deployed in Afghanistan and Iraq. They’re still being strained by the budget limitations, we’ve got aircraft that are flying too many hours, that are not able to fly, that are having to fly extended missions because their reliefs are not able to take off.

That’s a relatively small pot of money, though, in the much larger pot that needs to be expanded, and missile defense programs should be one of the top priorities in that, in part because of the development time.

KYL: My answer, by the way, didn’t focus on military or security needs overall. Clearly you’ve got things like cyber and all those things. I was specifically limiting mine to if you were to do something in missile defense, where would you start.
JACOBY: So as a former commander, I know this -- I don't want you to think I'm hiding behind a military construct here. So I've been retired for two years and you get out of date fast in terms of some of the technical things.

So I'll just tell you when I was a commander, what I testified to just a couple of years ago -- and you never want to cut the legs out from underneath the current serving commander -- but what I testified to was I would spend my first dollar on strategic intelligence. We don't need to have these prolonged and contentious debates about where is the North Korean missile program.

We were caught by surprise with the North Korean capability, and I don't mean that as an indictment on the intelligence community. We spent a lot of effort over the last decade and a half, rightfully so, on very tactical and operational intelligence, and I think we have to re-invent our strategic intelligence capability and we need to know more about North Korean strategic capabilities, need to know more about their strategic rocket forces.

The same thing is true about Iran and other countries that aspire to have strategic capability. And we're going to have to make that job one because we should be threat-based and we should face the threat. So I would say that's the first thought. The second -- I'm sorry...

HEINRICHS: I was going to say, would you say, then -- you're talking about space sensors as well because I know that not only is there reluctance to put interceptors in space, but there's even reluctance to put sensors in space. Everyone wants to, you know, do terrestrial or sea-based because of the fear of being provocative again in space, but that is really our best vantage point for seeing what's going on in North Korea, for instance.

JACOBY: So as a converted infantryman to an aerospace defense commander, the second priority that became clear to me was -- and not just today but looking forward into the future, is our ability to do discrimination effectively.

Many, many of the systems that we aspire to field really depend on better discrimination. So the long-range discriminating radar is really critical. We need to have that capability to be space-based, not just ground-based and sea-based, where we have sometimes episodic coverage.

So those were the two things, and then missile inventory. It's hard to say that that's a lower priority. It's not. I just told you what would be the first two things I always testified to.

HEINRICHS: We've got time for one more. Try to go to the back of the room. Go ahead.

QUESTION: Mikhael Smits, Hudson Political Studies program. Two sides of the same question from the layman's perspective. I know one of the issues with negotiating the Iran deal was that technology or equipment can be used for multiple purposes, so determining intent was a complicated issue.
When it comes to SBIs, first, what are the other potential uses of the sort of technology we'd be putting up into space, but at the same time, how can we effectively communicate to both allies and adversaries exactly our intentions and how they align with our behavior?

KYL: To some extent, depending upon what the system is, it could have an offensive capability as well as defensive capability, if that's what you're referring to. But as General Jacoby said, there are a lot of things that we need to do that don't have any offensive -- or have very limited offensive capability that we need in order to be able to defend ourselves in a variety of ways.

So there's a lot that could be done that shouldn't raise any question whatsoever. I think it's more of an excuse for some who say, well, this could potentially be used for offensive reasons too. My own view of that is, so what? We need a defense. That's what we're doing it for and you're not going to see us use it for offensive purposes.

But if the United States needs a capability that could be used for either one. So be it. If we need it for defense, let's go ahead and do it.

JACOBY: I think you bring up a good point, though. A lot of what we do in the strategic realm other than the real technical aspects of it needs to be very clear and transparent. Doesn't need to be cloaked in ambiguity. That's why there are inspections regimes. They did contribute to a relatively stable deterrent relationship when the world was a lot simpler.

It's not simple now, so now deterrence is probably going to require combinations of offense and defense. It's going to require combinations of kinetic and non-kinetic and of nuclear and conventional. But we ought to be willing to be clear and transparent. Hopefully every one of those things does more than one or two or three missions, or we would be maybe not using taxpayers' money wisely.

HEINRICHS: I would just add too, of course the Russians don't have any qualms about having dual capabilities and dual uses for their systems.

And with that, if you would join me, I think we're going to close out here if there's no more questions.

Join me, please, in thanking our panelists, and thank you for coming today.

(APPLAUSE)

END
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