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Introduction:

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Panel 1: How the National Defense Strategy May Impact Service Priorities:

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COMMANDER DANIEL G. STRAUB, USN
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COLONEL JOEL "JB" VOWELL, USA
Executive Officer to the Secretary of the Army
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Panel 2: The Return of Great Power Competition:

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TARUN CHHABRA
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KELLY MAGSAMEN
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REAR ADMIRAL CATHAL O'CONNOR
Chief of Staff, J-5, Joint Staff
U.S. Navy

A Discussion with General Robert Neller:

GENERAL ROBERT B. NELLER
Commandant of the U.S. Marine Corps

JOHN ALLEN
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P R O C E E D I N G S

COLONEL GRAHAM: Good morning, ladies and gentlemen. I'm Colonel Gerald Graham. I'm one of the federal executive fellows here at Brookings. On behalf of the other federal executive fellows, I'd like to thank Brookings for putting on this event this morning as well as for those who helped bring this together. Also, I would like to thank the panelists and moderators that we'll have throughout today.

It's my pleasure to welcome you to today's symposium on the National Defense Strategy. On January 19th of this year, Secretary of Defense Jim Mattis rolled out the unclassified summary of the National Defense Strategy. Secretary of Defense Mattis stated the NDS is an American strategy. This is the first National Defense Strategy in 10 years. The National Defense Strategy is designed to protect America's vital national interests, and is inside the framework of the national security strategy, which was published in December of 2017.

Secretary Mattis stated that America's military reclaims an era of strategic purpose. We will continue to prosecute the campaign against terrorists, but great power competition, not terrorism, is now the primary focus of the U.S. national security. The National Defense Strategy goes on to state that we are facing growing threats from revisionist powers like China and Russia, rogue regimes like North Korean and Iran are destabilizing regions through their pursuit of nuclear weapons and sponsoring terrorism.

The drive to develop technologies is relentless, expanding to more actors with lower barriers of entry and moving at accelerating rate -- speed. America's military has no preordained right to victory on the battlefield. So with that, the National Defense Strategy has three distinct lines of effort. First, rebuilding military readiness as we build a more lethal joint force, second, strengthening alliances as we attract new partners, and, third, reforming the Department's business practices for greater performance and affordability.

Hopefully, today as we go through we'll be able to talk about some of the immediate consequences of the policy, and how it affects other countries around the world. That being said thank you for coming out and taking time out of your day. And without further ado, I

will turn the stage over to our first moderator Jung Pak, senior fellow, Foreign Policy Center for Asia - East Asia - Policy and Studies here at Brookings. Thank you and welcome.

MS. PAK: Thanks, everyone. Thank you for joining us on this beautiful spring day finally. Hope it will last this time. I have the pleasure of moderating this panel today of our distinguished speakers, and I wanted to give you a quick introduction, and then we'll roll into our discussion, which I will moderate.

To my left is Colonel JB Vowell, who has served as an infantry officer in the U.S. Army for over 26 years. In that time he has been stationed or deployed in Europe, the Pacific, the Middle East, and many posts across the U.S. He has three combat tours in Afghanistan and one in Iraq, participating in both surge periods.

He is currently the executive officer to the secretary of the army. To his left is Colonel Jesse Friedel who is the national defense fellow at CSIS down the street. Prior to CSIS, Colonel Friedel was the air and sea branch chief in the Force Application Division at the Joint Chiefs of Staff J8 at the Pentagon. He has a command pilot with more than 2,500 flying hours including over 400 combat hours. He has flown in support of Operations Enduring Freedom, Northern Watch, Noble Eagle, and the Republic of Korea defense obligations.

To his left is Commander Kate Higgins-Bloom of the U.S. Coast Guard, who is a federal executive fellow here at Brookings. She has held a variety of leaderships roles of the Coast Guard, conducting missions ranging from search and rescue to counter-narcotics to national defense. She has deployed throughout the Caribbean and Eastern Pacific to the Arabian Gulf in support of Operation Iraqi Freedom, and to numerous domestic responses including Hurricane Katrina.

Finally, last but not least is Commander Daniel Straub who is a senior military fellow at the Center for New American Security. Commander Straub joined the U.S. Navy in 1983 and has deployed to the Atlantic, Pacific, and Indian Oceans, the Mediterranean Sea, Adriatic Sea, South China Sea, and the Arabian Gulf, among other places. He has taught at Boston University where he received his master's degree, and he also has a Ph.D. from the

Naval Post Graduate School. Please welcome the panelists here today.

So I wanted to -- so thanks, Gerald, for that brief synopsis of the National Defense Strategy. And the NDS lays out the current challenges to our national security, the role of the military, and how to meet those challenges, and lays out what our priorities are for spending. And I'm so pleased to be having this conversation with our panelists here today.

Right off the bat the unclassified introductions of the NDS states that our competitive military advantage has been eroding. That's a powerful statement. In addition to what Gerald mentioned about the -- how interstate conflict, strategic competition, not terrorism, is now our primary concern.

And given the shift from counterinsurgency and terrorism toward the strategic competition, I'd be interesting in hearing your thoughts on how this shift in emphasis translates to your services from your perspective. What does this strategy look like in terms of how it's implemented and how it looks like -- what it looks like on the ground, or air, or sea for that matter?

So I want to start with JB if you don't mind?

COL. VOWELL: Thanks, Jung. It's good to be back. I was a fellow here a year and a half ago, so any place outside the Pentagon is a worthy day. We'll all try to stay away from terms and acronyms as best we can, but specifically on the question for the Army, the National Defense Strategy is an acknowledgement of strategic competition that's been brewing for a while.

And the Army, as the service that does the land power component of the joint force, we've been doing counterinsurgency, counterterrorism. We've gotten very good at targeting and human terrain network operations for about 17, 18 years. In the same time period, some strategic and regional competitors have gotten better. While we were looking very focused as an army to working with the human dimension of conflict, we were asleep at the switch in other dimensions.

And that's when the gaps and seams are kind of filled in modernization and capabilities. With both China and Russia they underwent a very aggressive modernization campaign for their forces. And right now we talk about, and the National Defense Strategy

alludes to this directly, we are behind in some of those capabilities, long-range fires. In certain domains in land, air, space, airtime, cyber for example, there are niche capabilities we don't have, or in a comparative advantage compared to strategic peers.

That's a problem. That's a problem for us. So an analogy could be given in 2018 to 1973, the Arab-Israeli War. For the Army that was a wakeup call coming out of Southeast Asia and Vietnam. The use of AT missiles, tank-on-tank warfare, the different capabilities in that conflict brought about what you see today with the Army's Big 5 systems, the tanks, the Bradleys, the missiles, the multiple launch rocket systems, the helicopters that we still have today, the legacy systems.

But with that came a doctrine and an acknowledgement that the environment had changed to fight the Soviets at the time. Fast forward to 2018, we have somewhat of a similar situation where there are capabilities with Russia and China specifically in the NDS that are not peer to us. They outpace us. And it's not necessarily that we are behind. We just need to get forward of that.

And that's an opportunity for the Army. And the NDS acknowledges that gap, those seams, and the capabilities that we need to respond to. And so the secretary of the Army right now, I can tell you, is very focused on updating the readiness, updating modernization, and the reform of the department that will meet and nest with the specific guidance from Secretary Mattis and the National Defense Strategy.

MS. PAK: Thank you. Jesse, what do you think from the Air Force perspective?

COL. FRIEDEL: So I look at this as we begin reading the NDS, the unclassified version, and the first line talks about how we need combat credible forces so that we can deter and then protect our nation. And the deter piece is the piece that I think the Air Force would prefer to focus on.

Realizing that everything I say is pretty much my perspective, but as we -- everyone probably heard the secretary of the Air Force and chief staff of the Air Force defend or talk about the posture for the FY19 budget proposal two days ago. The biggest things that we

look at from the Air Force perspective is we didn't want to sit there and wait for our potential competitors as they drove that competition up. And we looked at the capabilities that they were developing, and we sat idle.

It's not that we're shifting away from the operations that are currently occurring, but if you look at our major defense acquisition programs, you can see that we assured that we were moving forward with our capabilities. So the five big priorities that the secretary of the Air Force came into office last year with were really aligned with the National Defense Strategy because the vision that Mattis put out at the beginning is the way the Air Force continued over this last year as we developed our FY19 budget.

The big things as we're talking about trying to assure that we have that readiness that we need. That we are effectively getting an adequate modernization of our forces, that we are driving the innovation to assure that we are thinking outside the container, and able to utilize industry, utilize academia in order to get the best bang for the buck for every dollar that we have available to spend on our capabilities.

That we develop our leadership to make -- be exceptional leadership, and then to also look at strengthening the alliances, and as we continue through our major defense acquisition programs, the big things that come screaming out is we talk about the competition of equipment and capabilities, we're talking about the B-21, the F-35, that we can't wait until we already have a gap to try to eliminate or minimize that gap. So the Air Force has been forward-looking so that as gaps come up, we already have those capabilities because we predicted what those gaps might be in the future.

MS. PAK: Thank you. Kate, go ahead.

CDR HIGGINS-BLOOM: Thank you so much for having me, and thank you to everybody for making time to come to Brookings this morning. We appreciate having you. From the Coast Guard perspective, the NDS and the NSS really reflect what a lot of us have been seeing out on the water which was rising competition, particularly in the Pacific, and to have that really enshrined in a strategic document is incredibly helpful for us as we look at how we can

recapitalize our fleet to be the most competitive Coast Guard that you could possibly have.

In particular, the emphasis on lethality in the NDS is something that, I think, the Coast Guard had started to move away from over the past few decades as we focused on DHS and our mission. So this is a real opportunity to look at our assets as we build them, to make sure we're building something that's truly interoperable and capable of meeting the needs of one of our statutory missions, which is to operate as part of the Department of Defense as an armed service.

And this ranges not only from recapping our current cutters, the white-hulled ships that you see in our recruiting material, but also icebreakers. They take a long time to design and a long time to build. And the emphasis on innovation and looking over the horizon is something that we take to heart.

One component that we are going to find the most challenging really is capacity. While being an armed service is part of our identity and we are, at all times, military, we also have 11 statutory missions that include a lot of things that are outside the purview of the Department of Defense. A perfect example is last week Admiral Schultz, our nominee for commandant, has his confirmation hearing. And the junior senator from Alaska very rightly questioned him about our deployments of cutters to the South China Sea in support of PaCOM, and how that's going to impact our ability to protect the multi-billion dollar fisheries in Alaska, conduct counter narcotics and immigration enforcement on the southern border, and foster a lot of the partnerships we have that are keeping the western hemisphere safe and secure, and really allowing us to focus as a country on some of these other threats in the Pacific, and in the CENTCOM AOR, and in Europe.

But again, it all comes back to capacity. We have very limited capacity to meet these missions. So our biggest question is how much of the NDS are we going to be able to support relative to our role in DHS.

MS. PAK: Thank you.

CDR. STRAUB: Good morning. I appreciate the opportunity to be here. One thing I noticed, back in 2007 I was on USS Shoup, a guided-missile destroyer. We were down in

San Diego, and we were the host ship for the Chinese warships that were coming in.

Now the one thing that I noticed when those Chinese warships came in to San Diego was that they had an inordinate amount of observation equipment, cameras, microphones, and numerous other devices that I didn't even know what they were up on the masts of those ships as they came in. Now they didn't really seem to be observing water-tight integrity quite well because they had so many cables running everywhere, up through scuttles and et cetera.

But what this was to me was this is an indicator that they were starting to embark on something that we weren't working on. And that is sort of new systems on maybe older ships. What we were doing in the Navy at the time was continued to maintain those old systems, which were very capable, but they were also old.

And so what I saw was is I saw us using these old systems, and continuing to use these old systems. And what I think the NDS is going to do is refocus on not only revitalizing those old systems, but also moving us into the direction where we can get new systems. A lot of money is being allocated toward research and development. A lot of money is being allocated toward investment in these new systems, and I think by the same token, we need to also invest in using those ships that we have, not only for the missions they were originally intended, but also figuring out new ways to use them.

So what am I talking about? Well, I had command of a frigate, a guided-missile frigate, USS Ingraham, mostly old systems, older ship, and the moment that it lost its missile capabilities, anti-ship -- excuse me, its surface-to-air missile capability, it was no longer a carrier strike group asset. That ship was now relegated to do counter drug missions, help out all over the world in different HADR, maybe it was doing counter piracy, but it was independent steaming for the most part, and working with the Coast Guard, those sorts of missions. It no longer was a carrier strike group asset.

So we moved into, I think, getting rid of all the frigates in 2015, I think had the opportunity to command an LCS, a literal combat ship, and the problem there was most of the, well, let's just say it. The three mission modules that were supposed to support that ship, the

antisubmarine warfare mission model, the countermine -- the mine counter mission model, and finally, the antisub -- excuse me, the anti-surface warfare mission model were not ready for primetime by the time those ships were being commissioned.

It took 10 years before the first mission module was really sort of starting to get up and running. I don't think we need to do that either. We don't need to get so ahead of ourselves on the tech that the ships aren't ready to go out there. So I think we're moving in the right direction with the FFG(X). And the FFG(X) is going to do what it needs to do, and that is aligned with the money that the Navy is getting, which is in the budget, for us to build the ships we need.

We're moving toward the 355-ship Navy. By next year we are looking at 299 ships. Ten new ships and submarines, additionally, an additional 120 aviation rotary and fixed-wing as well as unmanned aviation systems. We're really getting to where we need to be. But back to what I said about our older ships, we still need to modernize those ships. And I think we're doing that with the cruisers. But to move into this LCS thing which has gotten a lot of negative press, let's say, and negative talk. I've heard a lot of it as a former LCS CO.

I would argue that we can use these LCSs for more than just those three mission areas. I would argue that we need to start looking at the LCSs as maybe they're going to be drone transport platforms, unnamed systems transport platforms. Maybe they can act as, in a sense, buses or trucks to carry these things, be supported by the, what are called the expeditionary fast transports.

We can use these LCSs in other littorals like the Balkans. What I'm getting at here is a lot of focus has been made on the fact that they are under-gunned, and they're under-armored. Well, maybe let's use the advantages that they do have for those missions that we're currently filling with very highly capable destroyers, cruisers, et cetera. The LCSs can do the freedom navigation operations, those different missions.

As far as the NDS goes, I believe from the Navy perspective, I mean, it is exactly what we need right now. It's looking at capability increases, capacity increases, and then it's

answering everything that the CNO wants which is the bigger fleet, better fleet, networked fleet. And that's an area we need to put a lot of work I believe. That interoperability piece, and finally, agility, sort of the dynamic employment of those forces, not being everywhere at all times, but being where we need to be when we need to be there.

And how we're going to do that is through, I think, the integration of those sensors and through much better coordination in our joint forces.

MS. PAK: Thank you. You know, national security documents generally are not happy reads. But I did really enjoy this one line which is more than any other nation, America can expand the competitive space, seizing the initiative to challenge our competitors where we possess advantages and they lack strength.

From your perspective, what do you see are our competitors' advantages or disadvantages, and what are the ways that we can, or your services can expand our competitive space? So why don't we start with Kate. Do you want to start, jumpstart us off?

CDR. HIGGINS-BLOOM: Okay, great. So as far as our competitive advantages as a service for the Coast Guard, this sort of transcends the NDS, but it certainly serves that. First and foremost is our people, and really their flexibility to operate up and down the full spectrum, not just of conflict, but of competition. So because of our unique authorities to conduct law enforcement, and the role we play regulating maritime commerce, not just here, but as part of an international community, we're able to engage in a competitive space, and then move quickly into a national defense mission. And that's almost custom-built for some of the Gray zone issues that we've seen emerging in the Pacific.

And that's something that you cannot buy overnight or off the shelf. So it's innate, and we really don't see it in any of our strategic competitors, that culture of independence and flexibility, and inability to deal with complexity and adapt to a new mission that might change. Whether it's, you know, you go out on what you believe to be a search and rescue case that turns out to be human trafficking or even something more nefarious.

So that would be first and foremost, and as an extension of that is it has built a

reputation that is global as the premier maritime service, and gives us the opportunity to partner, and really build capacity across the world. We have Coast Guard personnel currently in Vietnam, working in the Africa Partner Station, building capacity where we need it so that these regions can essentially become safe neighborhoods, perhaps a little more resistant to the revisionist activities of China in particular. So those are really our strengths that I would say serve the NDS.

MS. PAK: Dan, could I move to you?

CDR. STRAUB: Sure. I think we need to, for the competition piece, I mean this return to great power competition is one of the essential elements of this document. How are we going to do that?

Well, we need to invest, I believe we need to invest heavily in AI. We need to invest heavily in these unmanned systems, cyber, space domain. We need to work on the things that our great power competitors are working on. And that doesn't mean that we need to match them thing for thing.

It doesn't mean that we need to copy their technologies. In my opinion, what we need to do is we need to be innovative, find what their weaknesses are, identify theirs, and build on our strengths.

And so how are we going to do that? And again, it's going to have to be through investment. It's going to have to be through working very closely with corporations and those cutting-edge companies that are working on these cutting-edge technologies. And then, finally, maybe a more nimble acquisition system. One maybe that doesn't necessarily look at an item that we're going to purchase that something needs to last 10 or 30 years, but maybe an item that we're going to purchase that's going to work for now to give us that advantage. And maybe we purchase another indifferent system later.

How that's going to happen? Again, maybe it happens through an acquisition system that bypasses some of the existing methods of obtaining the newest stuff. And I would say that the NDS talks about it a little bit, and I know that the CNO has mentioned that we need to look at ways of acquiring those systems faster.

MS. PAK: Thank you. JB, what are your thoughts?

COL. VOWELL: I think that's a very good question. Strategically, why let's just say Russia and China is probably better postured currently in the future is because they can work those gaps and seams. That the air of competition below conflict and all those domains.

If you go to Eastern Europe right now, I was in Poland a couple of months ago, and when the maskirovka, and information operations from Russia is affecting the Baltics so much that stories get planted where U.S. soldiers were raping some of the civilian girls there in Estonia. And people are trying to determine fact or fiction.

That has an operational effect on the ground. We don't act that way, but the full gamut of capabilities and domains, at least at the operational level, and soon to be strategic in nature are advantages. The story of boiling the frog I think is what's been going on with both Russia and China right now.

If you look at the South China Seas, Spratly Islands, over time developing and integrating themselves in small little atolls and militarizing them like it's going out of style. So it becomes a very problematic venture in the future for an anti-access air denial problem. If you look at what Russia did in Ukraine, and what they've done in other places, they were slowly able to just foment opposition and work with people inside, went in Crimea, went into Donbas, and it's a fait accompli, very quickly. And now you have a frozen conflict in Ukraine, so Ukraine can never be a NATO member, by our own definitions.

Very good at working underneath the spectrum of conflict, and obfuscating the facts on the ground, we don't do that. So for the United States Army, what we have to do is to be able to compete the narrative in a lot of those information operation spaces, I would say.

Not only the lethality portion of combat on land, we have to be very good at that. That's not going to go away. But the character of warfare is changing. The National Defense Strategy acknowledges that the character of warfare, not the nature itself, but the character is abruptly changing now in the future.

So the Army has developed, in the last 18 months or so, this multi-domain battle

concept that discusses and articulates the different domains that are out there with all the joint services, and beyond, to where we are much more competitive. We can deter. We can defeat, degrade, diffuse, deny in those domains.

The Army has particular strengths in all those areas. And multi-domain battle is an opportunity for the Army to fire anti-ship missiles from land systems in support of the Navy, for example, in the South China Seas. There are operations beyond joint that the Army can provide in support of maritime, air, and land operations.

So that's where the Army has an advantage in our people, our leadership, and our capabilities to tackle this problem now and in the future.

MS. PAK: Thank you. Jesse?

COL. FRIEDEL: So from the Air Force perspective, in my opinion, as we talk about the advantages of competition given the equipment that we have is we're focusing on the eroding piece. We don't feel like we are sideways or behind what our competitors have. But the two focus areas that really were proposed in the FY19 budget that was a bold move or shift from what we were initial planning was accelerating the defensive space capability, and also the multi-domain operations as we see ourselves in the responsibility of the command and control piece.

So our Chief of Staff of the Air Force, one of his big rocks, or focus areas is that multi-domain command and control. And to be able to get out there to assure that all of our space, air, and hopefully ground manned, unmanned are completely connected to get that common operating picture to everyone out in the joint area. And additionally, out into the coalition, whatever coalition we might be working with with any future conflicts.

So strengthening our allies, and our partners, to also have that key piece of information so that they can do what they are able to with the technology or capabilities they have at their fingertips to affect the battlefield. The other piece that I think that we, because of the budget rollbacks, the amount of money we had available, and a little bit that we can't support internally anymore in creating things that we need, is we increased our RDT&E proposed in FY19 by 19 percent to focus on getting back into the labs, getting industry and academia completely

connected, looking out there with what is in the civilian sector, and seeing how we can modify that or take it commercial off the shelf, and influence our overall capability in the joint force so that we can more quickly have something that continues to keep us at an advantage, competitive advantage versus those great power competitors that we're discussing about.

MS. PAK: All right, thank you. All of you have mentioned, in some way or other, the workforce and training as a critical component of how we prepare and increase that competitive space. Dan, I know you've written about this. Would you like to talk about how the NDS' focus on agility, education, and training, and talent management, and how we can improve in that space?

CDR. STRAUB: I'll be brief so everyone gets a chance to talk, but when I joined in 1983, the slogan for the Navy was it's not just a job, it's an adventure. Well, I'll say that the talent piece has become more and more difficult. Guys like me got out of high school, joined the Navy, and it was a fairly easy process. I needed a high school diploma, but not everyone did. There were guys on my first ship that had said that they had -- it was either jail or the military for them.

And so that was then. This is now. At least, from my perspective, the sailors we're bringing in to the Navy now are highly educated, highly capable, very easily trained sailors. But that competition is very fierce. The just the thought of the adventure piece is not necessarily enough. They need to know that they're going to have a mission, a job, a role, and they're going to be counted on.

And so we have to, I think we have to fight for that talent. Now I know that the Navy is putting, and I got the number here, an additional $1.5 billion into personnel. And we are looking to gain 7,500 more Navy people. Right now we have a force of about 328,000, and we're looking to move to 335,000 next year. That's a big increase. But again, I think I heard recently only 26 percent of the eligible people in America, or people in America, are eligible to join the military. That 26 percent is also going to be looking to go to colleges and universities and into the workforce. They're not necessarily jumping to join the military.

So we have a big job there in working on that piece. But I will say I have to reinforce, the sailors that are in the Navy today are the best that I've seen. I've been in for 34 years, and I've been at all levels, and they are the best sailors that I've seen. They're smart. They're capable. They're able to do the jobs, but we have to keep getting those sailors, so that they can not only learn these new systems, but also learn how to repair and work on our older systems, and then lead and manage in the Navy.

MS. PAK: Others want to jump in with anything? Jesse?

COL. FRIEDEL: Absolutely. This last year was actually a focus area of mine on optimized air crew retention. So I wrote a research paper on it, did some crowd sourcing pulses throughout our Air Force on our air crew. Everyone's probably aware that we have a pilot crisis. We are down about 2,000 pilots which is about 10 percent of our overall pilot force.

And what Dan alluded to is part of that challenge of being able to keep our talent. But additionally, as you roll that back from my view is there's a couple of root causes that got us to where we're at right now. And the one root cause is that we got too small. And we're asking our, from my perspective, airmen or our overall troops to do more than we've ever asked them to do.

For the air crew's perspective, given a lot of the feedback from our air crew is they're doing two jobs, and each job is a full-time job. And, in fact, it's kind of been a little bit of a twist perception that their job at their desk doing additional duties has become their primary job, and they just -- the nation expects them to go do their air job, or that is the biggest risk for them is they go into combat, and they want to be more proficient at that. And most air crew enter the Air Force becoming air crew, and they want to be air crew. They don't want to be out there doing the additional duties.

So there's a lot of effort within the Air Force to try to right-size that. First one, obviously, being in strength, increasing that in strength so that we get more support personnel. We get more maintainers. And then we get a few more in the officer corps pilots so that we have some more retention numbers to be able to battle against.

The second thing that is the root cause, in my opinion, is our ops tempo. We've asked our airman to be gone away from their families, not just every once in a while, but continually, year after year, and you can only ask your troops to do so much to be away from their family. There are opportunities in the workforce that are willing to take these critical skillsets that, especially that immediate pilots get, but all air crew, and I'm not even focusing on air crew, because all of these lessons or recommendations can fold into our cyber force, our intel force, all the way down because the training that we get in the service is very marketable out there in the civilian sector up to the point of cliché in the realms of we're the training force for the civilian sector.

Our airlines are taking our pilots, and they're all the way down to taking helicopter pilots who have no jet time, and training them to have jet time because we're so low, not just even across the nation, across the world. So this critical skillset is marketable. And the work-life balance, or quality of life versus the quality of service, all those things have kind of became out of balance that it's tough to go home to Mom and say I'm going to be gone another six months when they serve their nation and just don't want to go through that battle rhythm through the rest of their life. They've served honorably so there is no challenge to them to try to stay more, but we need to make sure that we build an environment that is able to retain them a longer period of time.

So we have over 60 initiatives out there to increase our quality of life, work-life balance, and quality of service, all the way from trying to manage our choices, or options that the millennials want to have so that they feel like they're in more control of what they want to do to looking at having a technical force, and not everyone having to go up the pyramid, going to schools, going to staffs, but actually being technical in an aviation job through the rest -- or their whole career. That's being looked at.

All the way down to looking at where we have our bases, and assuring that we have opportunities for our families, that we're not putting our kids in school systems that are at the lower end of our nation's school systems. That we have opportunities for our spouses, so

that they can be employed crossing the borders from state to state because they have a vote when we decide that we went to stay in. We also have some value in the fact that a purpose.

The reason why we initially came in is the purpose to help our nation in defending our nation. And we take pride in that, but we're not willing to lose our families over that. So we're trying to right-size that working with Congress, and academia, and industry to assure that we have those opportunities to make is easier for our families to transition as we move so often and we're taking a look at do we need to be moving so often, too. So that we have more of a stability for our families, and we have options, or choices that our troops have readily available so that they feel like they have more control.

MS. PAK: Great. Do you have any comments?

COL. VOWELL: Just a quick update. For the Army's perspective, if you ask the Secretary of the Army, this is one of the most important parts about the National Defense Strategy, talent management. That's a great buzz word. What he's talking about is how do I take each one of us, look at our knowledge, skills, abilities, and behaviors like an HR professional would, and look at the broadening experience, broadening assignments, and put him or her in the right job at the right time at the right place.

That's a hard, hard science. It always has been. We're trying to transition from that industrial age production of mass quality and quantity of officers and senior enlisted into a qualitative environment where we really look at the individual and everything that my colleague just mentioned about the family and the other focus factors are all part of that discussion to include input from the soldier or the officer.

That is going to be part and parcel to the future battlefield where it's going to be up close, personal, brutal, lethally rapid, and fast. We have to put the best people in all parts of combat arms, sustainment functions, whatever, to be able to think and act faster than the enemy. That's going to require a different approach to managing our people, the key element to what the Army provides.

MS. PAK: Thank you.

CDR. HIGGINS-BLOOM: If I could just, I mean, if I say our strength is our people, I have to say something. But I strongly associate myself with everything that the rest of the panel has said, but, you know, the rubber's really going to hit the road soon with the blended retirement system. We're going to start to see folks who, at the 10-year mark, may have considered staying in who now have the option of leaving with a retirement account.

Personally, I think it's a phenomenal upgrade, and it's actually the right thing to do by our folks, but it is really going to put the onus on us to create services that people want to stay in. And part of that is going to be programs like this, we're all fellows here. Our services have invested in us to really build the technical skills of our folks, not just in cyber, but in engineering. The Coast Guard has a big regulatory role, and so things like energy, science, ship design, where industry is sometimes generations ahead of us.

We need a way to continue to upgrade their skills, because training money is often the first thing to go, so really looking at that as part of our strategic advantage and our workforce development.

MS. PAK: Thank you. I have many more questions, but I wanted to give the audience a chance to ask your questions. So we'll take two questions at a time, and then we'll throw those at the panel. So raise your hand, and I would ask you to introduce yourself, and keep your questions very brief.

COL. FRIEDEL: We answered everything.

MS. PAK: We have a question up here.

MS. FAZEL: Hi, there, I'm Marina Fazel, an Afghan-American journalist. Thank you for this very interesting talk. The question is about you've all touched on allies as part of your future strategy better defining, and obviously, the focus of this talk is about the shift to competitive strategies rather than security-oriented in the post-911 atmosphere that has continued to this day.

But you see the Cold War is what was in the recesses of what led to what eventually percolated to be the causes of 911, and though the Afghan War might be considered to be going more successfully, last year there were more bombs dropped in Afghanistan. There

were more casualties in Afghanistan than ever before. So on the one hand it seems that this is all along been about competition, and it continues to be about competition. And yet, this is the only planet that we know that we have to share, whether our fancies shift from one decade to the next.

So who are your future allies as you shift to your next stage of being more competitive with one another? Who are the people that you will -- what are -- can you narrow down in what ways will you work more on partnerships, because at the moment, it looks like we're getting into round two of the Cold War?

And also if you could please comment about the Arctic area and your competitive strategies there, thank you.

MS. PAK: So the questions are on allies, and who are our allies, and certainly the NDS does focus on allies and partnership, and creating new networks. So and the other question, the second question was on the Arctic and what that -- what kind of impact that has on the NDS and our national security. So I'll put it -- JB, please?

COL. VOWELL: I'll defer the Arctic. I think it's a cold place. No experience, no (inaudible) there. So give me a pass on that, but the first question is a very question. What's different from the Cold War alliances/partnerships?

Well, if you look at Eastern Europe's framework right now, we were not partners with the Baltic States. We are right now. We have forces and multinational battle groups on the ground, interagency development on the ground in places we've never been, expanding the reach, and the international order to places post-Cold War 1991. That's one aspect.

Two, I would look at Africa, and the nations in Africa as a developing opportunity that has been growing and emerging for years. China is in that space right now. United States and other allies are in that space. It's going to be a competitive space, but it could be a jointly competitive space, increasing those new allies and partnerships in that area.

The third one I'll mention is a specific country example, I'll defer to my maritime friends, is Vietnam. My father spent two years fighting in that country, in Laos and Cambodia as

well. We are now an effective partner with that nation in many ways. We're talking about multi-basing opportunities in that region. Who would have thought of that 30, 40 years ago?

So those are new and emerging opportunities for increasing capacity and alliances and partnerships. The United States will never go it alone. To help support the international order from Bretton Woods into today, the United States will continue to need allies and partners in new and creative ways.

MS. PAK: All right, thank you.

COL. FRIEDEL: So I will also say I'll shift the Arctic as all I know it's very cold and we are taking a look at it definitely within the Air Force too, but that is in the initial stages. But in regards to the alliances and the partners, I don't say that it's a shift.

I would say that it's a strength. And how can we strengthen those that we are working with, and expand even more so that we have a webbed alliance for every part of the region. Things I'm thinking about specifically is the Afghans are flying the A-29. What we're about to do in our light attack aircraft is accomplish another experiment. And in that experiment, we're not only looking at what we need so that we can have a lower cost capability to do close-air support, but to bring it into a price point where we can have allies and partners involved being able to afford those kind of aircraft versus our fifth gen aircraft, or our stealth aircraft. And being able to help our overall efforts and trying to get violent extremism controlled.

So all of those opportunities that we're raising to bring the allies and partners in, it's giving some of those capabilities that we maybe didn't start from the beginning. We generated something, and then we looked out there and said where is the form military cells opportunity? We're bringing them in from the initial stages, which I think is very huge in communicating how important it is for us to have our allies and partners.

Because as alluded to, we do not, at all, want to go at anything alone, and we want to have our allies and partners working with us, having the same picture as us as we are potentially, if we're led down that route on the battlefield.

CDR. HIGGINS-BLOOM: So the Coast Guard has been banging the Arctic drum

for over 10 years. So it's finally the issue showing up in the news so we're really excited. I think it's a really -- it's a timely question. It actually came up a lot not only during the Coast Guard Commandant's confirmation hearing, but both PaCOM and NORTHCOM got asked questions about what we're doing to sort of meet one of our major strategic competitors in the Arctic.

The United States has one operational heavy icebreaker. Russia has six, two of which are nuclear-powered. So we're obviously behind, really, in capacity there. But when we look at the Arctic, from the Coast Guard's perspective, there's really a whole spectrum. On the very high end there is the NDS component of being able to operate as an armed service there.

But before you get to that point, there is just human activity, economic opportunity there that we want to protect. So as the Coast Guard, we are the United States' representative to the Arctic Counsel, which all of the Arctic nations, as well as China, China is an observer member now, participate in to try to keep the Arctic as open as possible for human development and activity in a way that's consistent with international norms.

So in addition to just icebreakers, what we really looked at is infrastructure in the Arctic, being able to base and operate out of there in the summer months as the ice retreats. That's really where you see the opportunities for human activity. It's actually the most dangerous time of year because the water isn't completely open and it isn't completely frozen.

But doing all of this really takes partners, and when we look at places for our partners to engage, and to do some of that burden-sharing, the Arctic actually seems like a great place for that to happen because there is so much expertise in our allied nations, particularly Norway, things like that. So as far as our national strategy is definitely to move on concert with our Arctic allies, and to look at the whole spectrum of activity not just defense.

MS. PAK: Thank you. A question?

QUESTIONER: Hi, my name is Dmitri. Thank you very much. I'm wondering if you could talk about the fiscal aspects of this, of -- I know defense is extremely important, but we're running huge budget deficits, and financial can be a national security threat as well. So I'm wondering how much -- what is being done with DOD to make sure the money is used efficiently

and burden-sharing maybe we can pass out some of our responsibility and share them with other people. Thank you.

CDR. STRAUB: So I'll take a stab at this initially in the realms of we are going through an audit. And as we go through that audit, the first time we've done it for at least as long as I have ever heard, we are assuring that we are understanding exactly where each one of those dollars are going. And we're not going to get it right the first time.

It's going to take a couple of years to make sure that we can tell that whole story. But ultimately, when we get those dollars and we are a little bit challenged as we go through sequestration and continued resolutions where we get it all, when we only have a half year left or whatnot. We have the plans, and we know where we need to modernize.

And we know what programs that we need to push for and installations that we need to work on. And then as we look at places that maybe we don't need as much anymore, we're working with outside agencies to be able to utilize those facilities so that they're not sitting dormant, and just eating up a bunch of money.

So we're looking across the board. Now it's very tough to get specific on each individual program and say whether it is completely efficient or not, but as you've seen, as we did go through sequestration, that we didn't have parts available. We didn't -- we weren't able to keep the manning efficient, and that has caused a lot of backlog in things, and depots to keep our aircraft available at the rates that we need them.

So we are definitely being asked to look at it more aggressively. And as you know, the DEPSECDEF is CEO by trade. So he's put that extra challenge inside of the Department of Defense to assure that he can understand the books, a perspective that we maybe not have not always had, and he will help us in assuring that we're able to tell that story.

COL. VOWELL: If I can piggyback on that? That's a very good question, and my Secretary would tell us everybody that we have an obligation to use the taxpayers' dollars wisely, A. That's a moral obligation. But specifically, let me give you some examples of what we're trying to do.

The Secretary is already looking at all the research labs that we have. We have numerous research labs that work in the billions for research development, science, technology investments, 10, 15, 20 years down the road. A lot of overlapping work going on there.

So consolidating, streamlining that, working with industry that invests heavily into science and technology, and leaning on that rather than duplicate efforts inside the department. We're already doing that. Three, donating more help. Congress has already given us authorities to modernize acquisition management and reform.

So the Army's moving out and creating an Army's Futures Command which will potentially be a new four-star command that's going to streamline the requirements through production, and the acquisition process saving billions. It's going to take 7 to 10 years off the acquisition for major programs. That's a huge deal. That is managing money and investments wisely.

Dr. Esper is really on the warpath to try to support that, and we're in the process right now. And the last thing I'll leave you with is the biggest threat, not original thought here, just echoing from the DOD's leadership, the biggest threat to all of this is unpredictable funding. The time/value of money and being able to invest in those things and major development programs, every time we have a continuing resolution, every time we don't have a predictable budget, we end up wasting taxpayer dollars, flat out. That is a problem.

MS. PAK: We have two questions here, the gentleman in the front, and then in the middle.

MR. CRAIG: I'm Joe Craig from Association of the United States Army. Colonel Vowell, you mentioned multi-domain battle, and in many of the domains it's clear who's going to be primarily addressing the challenges. So Coast Guard and the Navy is going to take care of the maritime by building a bigger and stronger fleet. The Air Force is taking care of the skies with programs like the F-35.

On land the cross-functional teams addressing soldier lethality or long-range fires, but who's taking care of cyber? Whether it's hacking attacks on the electrical grid, or social

media engineering like the Baltic story you told, who's going to take the lead there?

MS. PAK: Okay, and then we'll take the question from the gentleman in the front.

QUESTIONER: Is global warming also prohibited term in the Coast Guard?

CDR. HIGGINS-BLOOM: I'm sorry I --

QUESTIONER: Is global warming also a prohibited term in the U.S. Coast Guard?

MS. PAK: So we have two questions on cyber, what's going on with cyber, and then we'll take one final question in the -- on the other side? Thanks.

QUESTIONER: Let's say, for example, that when Brookings did or is doing its budget scrub this year, that it discovers an extra billion dollars. Where would each of you recommend to your service that they spend that? And don't tell me five things. Tell me the one thing that you would recommend spending that extra billion dollars on.

MS. PAK: So these are all one phrase answers. So we have a question on cyber. Who's taking care of cyber? On climate change, and if you had one thing that you would spend a billion dollars on, what would it be? So I'll leave those questions to you, and you can pick and choose as you please.

COL. VOWELL: People, that would buy 7,500 extra people and develop soldiers and capabilities, it fills gaps in our operational force easily. For your question, that's a very good one. So there's a philosophical discussion that's been going on for years about space and cyber domains and who owns it.

And there is some camps that think that space should be its own service, cyber its own service. That may be the future. Right now I think every department, interagency departments as well, have their own cyber capabilities depending on what they are. There's offensive, defensive, and intrusion capabilities, but without going into the specifics, everybody here on the panel, and all the services representatives have equities in those domains.

I could give you an opinion on should the Army own cyber or should the Navy own the space domain versus the Air Force. Those are going to be evolutionary as we develop

the operational concepts for multi-domain and where that goes. I think the more we create an executive agent versus a proponent with specific service function is probably the right answer. That's my opinion.

We have executive agency for different functions right now. I think there's 75 plus executive agencies that the military departments have. But that's a tough one. Who would own the domain? I'm not sure anybody needs to. I think the Department owns it.

COL. FRIEDEL: So I'll start with the cyber piece, too. The cyber mission force that exists out there to be utilized by the combat commanders are populated by every service. So any one service that might end up being an executive agent at the end will still have a population involved with the services. They're not going to get out of that business.

In regards to the $1 billion, I also agree with people, but taking a little bit of a spin on that is we've already planned to increase our in strength by 4,300 this year and 3,000 over the next few years through the FYDP, is that the IT systems that we have are antiquated, unable to do, as Dan alluded to, give us the adequate measures for our people, providing the feedback, constructive feedback expeditiously, real time.

Companies out there would have someone back in the back room ready to type so as soon as I sit down, they're -- I already have feedback on what I spoke about and how I didn't adequately speak about something, or how I misspoke about something. And that's feedback that the millennials are looking at. Additionally, to manage talent and to assure they have choice, and options, you have to have an IT system that allows given the amount of people we have to have an input, the provider or the person that owns the position that needs filled, provide what they need, do some gonculation to assure that we can get most people to one of their top five choices, and the people get to vote on which ones they would prefer before that gonculation happens.

We are going through that process right now and putting some money. I think if we put a lot more money we would get to the point of people wouldn't be so glass half empty, and become more glass half full, because they don't have to worry about that piece because they

know they're being taken care of. The system builds the art, or sorry, the science, and then we can have our limited amount of personnel, HR people, actually work on the art around the edges so that more people are happy given the inputs from them and their families.

MS. PAK: Okay, great.

CDR. HIGGINS-BLOOM: So for the cyber piece, you know, you've kind of tapped into one of the big questions which is what is the line between Homeland Security and defense. Ensuring the safety of the power grid, which is largely privately owned falls largely under Homeland Security, and that's an interagency public-private partnership that continues to evolve.

So it's, you know, in football it's always offense or defense. Cyber is more like soccer. All the players are on the field at the same time, and so there is really no single department or agency that owns all of cyber, at least right now. But we do all have a big part of that.

As far as the billion dollars for the Coast Guard, we have a $10 billion dollar budget so that would be a pretty big deal. I think fundamentally we all want to invest in our people, but the IT and C4IT, really command and control for the Coast Guard is something that we could definitely spend a billion dollars on to ensure our interoperability with our DOD partners, and also just to better support our mission, and to empower our already too small workforce to get all the things done that we're asking them to do.

CDR. STRAUB: And to answer your question, I think unmanned systems, AI, and autonomy. That's where that billion dollars should go. And to those other questions, I think they've amply answered them, and we're out of time.

MS. PAK: Thank you so much. Thank you to our panelists for the stimulating discussion, and for you, the audience, for engaging with us today. So thank you.

MR. O'HANLON: Let’s thank Colonel Gerald Graham for getting things going with an excellent summary of the NDS.

And we'd like to continue the conversation now, and try to get a little bit more

specific on some of the broad themes and questions that were in the NDS, and they were discussed so well in the first panel, and we have an excellent group here to do so.

I was thrilled when I saw the lineup, which I had nothing to do with assembling, and just the kind of talent that was brought in today, because these are really the movers and shakers, maybe one step below the big headline-makers in terms of who is on TV, but the brains behind what you're seeing on TV, and the brains behind a lot of what is in the National Defense Strategy, we have here on the panel today. And then we also have some outstanding talent on the outside that has experience in these issues as well.

Before I go through person-by-person, let me just say there's some common themes and threads in terms of the talent up here. Basically, everyone has worked big-picture strategy, but everyone has also worked specific issues, specific countries and regions in their careers.

And I like that combination, because it's easy to just get up here and say, we are going to worry about Russia, or China, or the Martians or, you know, extraterrestrials, or asteroid strikes, and just have a lot of big, fancy words that talk about these new priorities, which always sounds great and important, but it's when you have to start trading off capabilities that you want for new threats against concerns that you have in today's world, and specific problems that are still there and are nagging, whether we like it or not, that I think some of the interesting choices get made; and so the panel today is very well suited to that choice.

Just to my left Todd Harvey, who is, first and foremost in his career, a soldier, but since that time has been at the Pentagon, and doing many jobs, including the Iraq desk, the NATO desk, worked on various issues in Asia policy, and is now holding one of the most important and crucial jobs in the entire Pentagon, which is the chief of staff for J-5 at the Joint Staff, the strategy part of the --

RADM O'CONNOR: I'm the Joint Staff.

MR. O'HANLON: I'm sorry.

RADM O'CONNOR: We are very close though, we are really good, but you can

(crosstalk) competitions.

MR. O'HANLON: Acting assistant secretary for strategy, plans and capabilities, and you can see why, in addition to just being aging, and a little distracted, why I can confuse the two, but (crosstalk) (laughter) the portfolios are in fact very similar. And now we've gotten two introductions.

SPEAKER: Thank you.

MR. O'HANLON: And as I say, Todd is in fact, by background a soldier. And Admiral O'Connor is by background, a Hoosier from the great state of Indiana, but he went to University of Virginia. He studied English, has sort of done it all, in addition to different parts of the world, in different parts of the Navy. He has really covered the landscape in his background and education.

And just to his left, hailing from the great state of North Carolina, and previously in government at the NSC, the State Department and the Pentagon, is Kelley Magsamen, who is now vice president for national security and international policy at the Center for American Progress, and has also thought about Asia-Pacific policy in her last major job in the Pentagon, which of course we've all been told now, for six, or seven, or eight years, is supposed to be the big new thing.

And one question I hope she'll be able to get at, is to what extent is the rebalance concept of the Obama administration still evidence in the great-power competition framework of the Trump administration. Do we see continuity or do we see change?

And finally, all the way down to the left, a man I call the “ragin’ Cajun,” he hails from the great state of Louisiana, he's one of the more soft-spoken and yet intellectually-powerful people, so the ragin’ Cajun thing, I'm hoping will catch, as a little bit of -- and he's also in our academic rehabilitation and remediation program here at Brookings, because his background is at Stanford, Oxford and Harvard.

And so we've taken pity on his inability to land a good education, and hope to restore a little bit of credentials to his CV here at Brookings. Tarun Chhabra, who worked in the

Obama administration on the National Security Council Staff, and also had been a speechwriter at the Pentagon for two secretaries of defense prior to that, so has also thought big-picture, but is very good on issues like artificial intelligence.

So, we have people who know countries well, and big strategy, who know technology, who know English, who have done it all. (Laughter) And I almost, hopefully, made you forget about how I confuse the first two panelists at the end of this.

So, without further ado, let me now work down the panel. And I just want to begin with a simple opening, question, which is really: what specifically is changing? And maybe if you can give one, or two, or three examples, as a result of this National Defense Strategy, which came out in January, and it's a very compelling document.

As Jung Pak said earlier, it has some very compelling prose, catchy and powerful commentary on how we need to think differently about strategy, use our advantages differently, it all sounds great, it all sounds very Mattis like, and that tends to make me want to applaud it. But what does it mean in the real world, in real planning?

And Secretary Harvey, if I could begin with you for that question, please?

MR. HARVEY: Thank you, Mike. And I appreciate the introduction, and the promotion, head of the Joint Staff. And I want to thank you and Brookings for hosting this type of forum, and having these types of critical exchanges. It's important for us on the inside, who are very close to the policies we develop to hear outside commentary and critique, not that we will be able to adjust, and get it exactly right, because I don't think, given the frailties of human perception and cognition, we are able to do that, but at least not get it catastrophically wrong.

And so, you know, with the strategy we have now, the NDS came out in January. First I would say that, you know, I've been in the Defense Department for 25 years working in OSD, and more than at any other time with a National Defense Strategy, you had a leadership that is absolutely focused on implementing this seriously, following through, and ensuring that the strategy gets injected into the bloodstream, through all of the various lines of effort of the Department.

And so it has complete buy-in of the of the Secretary and the Deputy Secretary, indeed the Secretary has periodic meetings on a very regular basis with the Service Secretaries and the Service Chiefs, where they have to basically bring their homework and sort of present how are they implementing the National Defense Strategy.

But I think from our standpoint, you know, the Secretary is very big on problem definition, as a starting point. And so what we see in the case of China and Russia, the great power competitors is, over the course of the past, you know, 10 or 15 years at least, a focus on the way that the U.S. influences and projects power.

And the development, very consciously, very specifically, of ways to counter our ability, to give them a freer hand to operate in their theaters of greatest concern, you know, their neighborhoods.

The Chinese, they call it sort of counter-intervention approach, and so that's the development of all these capabilities that we've seen in terms of any satellite, cyber capabilities, integrated air and missile defenses, long-range precision fires, stealth capabilities, all those are designed to limit our maneuver room, and to give them a freer hand to operate in those.

So, that poses a challenge to the Defense Department, how do we respond to that? And the strategy sort of lays out in very broad terms, as Mike said, but in specific terms you have to look at this in different timeframes. In the near term, you know, the levers that we have to pull really are how we exercise and circulate our Forces through these particular theaters of action. And I'll steal a little bit of thunder --

RADM O'CONNOR: Oh, please.

MR. HARVEY: -- from Cat, in terms of a concept that was alluded to in the strategy in terms of Dynamic Force Employment. This is a way that we will operate that strategic predictable, but operationally unpredictable. So, employ our Forces in a way that creates challenges and dilemmas, for our potential adversaries.

So, we don't simply do things the way we've always done, sort of have this stock schedule, or we have this exercise, with this amount of force, with this partner, at this point on the

calendar every year, so it sort of becomes background noise. Look at ways to mix it up a little bit, and that's still -- you know, we are still fresh in the implementation phase of the strategy so, this is a concept that's still evolving and being developed.

But employing our Force in a more unpredictable way, I think is sort of the near-term step. Then you can look sort of near to mid-term, how do we, potentially, change our posture, the Chinese in Asia, and the Russians in Europe, hold at risk our bases in critical assets that we have with cruise missiles and ballistic missiles. And developing is very consciously to hold those.

So, how do we build greater resilience through the way we posture our Forces? That's a little bit longer-term effort, because it requires working closely with our allies and partners to determine whether we want to reposition certain Forces, or whether we want to develop sort of alternative basing arrangements in the midst of a crisis. So, that again, that we complicate the calculus of a potential adversary.

And then we need to look sort of mid to longer-term, in sort of, how do we adjust our Force structure? What do we build new with, say, proven technologies? Whether that's electronic warfare capabilities, whether that's stealth capabilities, whether that's air missile defense capabilities, whether that's precision-fire capabilities, all of those sort of are on the table, and we are looking at investments, and if you look at the budget that was released this year, there are investments placed against each one of those capabilities and missionaries.

And then, more futuristically looking at it in the long term, what are the technologies that are still not fully developed, fully matured yet, that we can invest in on an accelerated basis to test out what they can do for us, and then look at what systems we can develop, whether that's artificial intelligence, whether that's hypersonics, whether that's robotics, there's a whole list of those.

And the Deputy Secretary really has made that his mission, is to place an increased focus on those advanced futuristic capabilities to develop them quickly, and then translate them into systems that we can deploy and field against the challenge. Sorry, that was

very long-winded. I'm sorry.

MR. O'HANLON: That's very good. That's very good.

RADM O'CONNOR: Thank you, that was (crosstalk)

MR. O'HANLON: Before we go on to the Admiral, I do want to -- that was really good -- but I want to ask one question which has been on my mind ever since I first heard about the NDS and read it, and heard Secretary Mattis give a speech on it across the street back in January unveiling it. And of course, by talking a lot about great power competition, you're saying we're going to focus a little less, or at least relatively less, on other things including North Korea, which is in the news.

Now, it seems to be a little bit more of a hopeful situation, and no one ever wanted or expected war, but war seemed an increasing possibility at the very time in 2017 when DoD was writing a document saying, we're not going to worry as much about the North Koreas of the world.

So, how do I understand that contradiction, that apparent contradiction? Is it that DoD is sort of, to quote Secretary Rumsfeld, "If we have to fight North Korea we are going to go with the Army we've got already." And therefore, future planning is what the NDS is about, and near-term crisis management is not so much what it's about? Or, is there some other way in which North Korea is subsumed within this great power emphasis of the NDS?

MR. HARVEY: No, it's a great question, and this is the dilemma that DoD faces, has faced for the better part of the post-World War II Era is that, you know, we have to be able to, you know, walk and chew bubblegum at the same time, right. There's more than one challenge we face. I think with the Great-Power Competitor Focus, I think what the Secretary intended to do was to give us an anchor point that we can always sort of look to, to orient ourselves, but not necessarily devote every last resource.

We can't over-optimize for one threat or one challenge, because then you open yourself up to risk. You're really gambling with the future of the nation.

So, I can tell you, internal to the Department there's a very strong focus, and the

Chairman has led this in his role of as global integrator. Looking across sort of all the key players, you know, obviously in PACOM, SOCOM, TRANSCOM, pulling them together and saying, where do we potentially have gaps in our ability to respond in a sort of what we call Fight Tonight scenario?

And what gaps do we need to fill, where do we need to invest resources, very near-term to, you know, increase capability with chem-bio capabilities? The real focus in the near term with the Korea scenario, is the readiness of our Forces, and ensuring that we fill the gaps and readiness that we've had the degradation eroding of that readiness over, you know, 15 years of -- 17 years now of combat in Iraq and Afghanistan.

So, that's a real concern, is being able to build, and being able to assure that we have the capacity, and capability to deploy the Forces that we need. I think we have the Forces we need; it's really a time-distance equation, to be able to ensure we can get them there, and be able to respond if something happens fairly quickly in a worst-case scenario.

MR. O'HANLON: Fantastic! Admiral the same questions to you, but let me also just give a slight twist, which is that we know that your boss, of course, you both work for Secretary Mattis, but also you work for General Dunford through the Joint Staff and in, I believe, 2016 the second year of his chairmanship, he put out a National Military Strategy which is classified. And I think it's still on the books, but I'd like, if you could explain how the National Military Strategy relates to the National Defense Strategy.

RADM O'CONNOR: Sure.

MR. O'HANLON: Because the National Military Strategy of course talked about four-plus-one.

RADM O'CONNOR: Right.

MR. O'HANLON: And implicitly, the NDS is talking about just two of those five threats, as the primary emphases for future planning. So, is there consistency? Is there a slight tension between these two documents?

RADM O'CONNOR: So, thanks. And thank you all. So, the National Military

Strategy is directed every two years, Title 10, so it's a requirement. So, what do you do as you're working your way through a transition? So, you need to put something out there. And so at the time four-plus-one, right. So, you know, China, Russia, North Korea, Iran and counter-violent extremist organizations, pretty straightforward.

And what the Secretary has done is, first you have a National Security Strategy. Okay, you've the whole of government, and the National Defense Strategy is, as we both know, or all four of us know from our backgrounds, just one small portion of it, and any strategic Great-Power Competition is going to be a whole-of-government, right.

And so, you know, to riff off what Todd was just talking about, the NMS is in review, right? And then they'll go off and they'll decide what portions are releasable, and what are not. But what the Secretary has done is say, okay got it, for 16 -- and this these are my words clearly not his -- 16, 17 years you've been focused on a violent extremist fight. Got it!

When you focus on something, and when you do it iteratively, you get better and better at doing that. The question is, have you gone off, and we'll just talk to the Navy for a second, you're really good at power projection. Got it!

You're really good at short notice, I need you to go in and get this, or I need you to strike that. We saw that, you know, a week ago or so. But have you manned, trained, equipped, certified and deployed, you know, Forces capable of doing sea control, capable of maintaining it and controlling access and ensuring access to the global commons, because you're not just talking about sea, air, electromagnetic spectrum, space, cyber, simultaneously?

And that's really what he's done, is say, okay, I got it, and that's still part of that, that's part of the three, but I need you to take the strategic long view which is kind of what you'd expect from any reading or being around Secretary Mattis, it's, okay, and then what? Or to what end? And so that's kind of where he's taking us.

And so, on any given day, any Service, any Secretary, is looking at three budgets, right? The one they're in execution of, the one that's on The Hill, and the one that's being submitted, okay. And so it is a way of focusing the, this is what I have to get after today,

okay I can talk in execution to varying Forces, we want you to focus at this. This is the concept for joint operations; this is the way I want the Joint Force to prepare themselves to be able to go ahead and to do a near-peer competitor type of fight, right. And I want you to look at this not as a one-off, but I need this to be a strategic, a long term. Does that make sense?

MR. O'HANLON: Yes.

RADM O'CONNOR: Then it's a question of the, okay, you've always bought these because you've always bought these. Now what? What's the next thing, and how does that fit into? Because it goes to what he was just talking about of the, hey, if we have to do something tonight, not just in a one-off but in a campaign type, or in a crisis, do you have what you need?

And so, you know, because of the way the NSS and then the NDSS, and after this the NMS and then the various Service will come up with their own perspectives, of this is how I fall under, and this is how I support.

You are able to turn around, and the Secretary and the Chairman very clearly and very successfully went to Congress and said, this is the challenge I have: I'll talk a little bit about it in open testimony, but I'd really like to go into closed testimony so I can get you into the "eaches". And so that has come back and Congress, to our eternal gratitude, has done some incredible amounts of moving of money around, right, which we now owe them in execution; right? You can even see those starting to show up in some of the articles over the last 24 hours. What's your execution? How auditable is it, and all that?

All stuff that we know that we owe back to Congress and to the American people, in terms of, how we train, certify, and get these Forces out the door, how we employ them because, you know, being strategically consistent, is the idea -- or predictable, is the idea that, yes, we are going to be a global Force.

MR. O'HANLON: Right.

RADM O'CONNOR: We are going to be there, we are there to deter aggression, and we are there to assure our allies. Got it! But just because geographic combatant

commander A B or C has always had, you know, three of these, two of those, and one of those, doesn't mean they get it anymore.

MR. O'HANLON: So, let ask a follow-up before I go to Kelly, if I could? And I want to -- you used the Navy example, I realize you're not here representing the Navy.

RADM O'CONNOR: Sure.

MR. O'HANLON: But I want to stick with a Navy example. When I think of this new concept, which dates back to the Obama period, of envisioning and aspiring to a 355-ship Navy; and I'll be a little provocative here. It strikes me as a little bit like old think, because the way that number was calculated, as I understand it, was what combatant commanders had been requesting, or have been doing, and if we were going to properly resource that at a sustainable, long-term level, 355 ships is the number, which doesn't sound very futuristically oriented to me.

It doesn't sound like it's all that technologically supple. I realize, as you said, there's a tension between needing to have a plan, and needing to get on with it, and have some framework to do that. So, I sympathize why that number is there. But I can't quite believe that it's going to still be the right number in five or ten years, which of course is well before we would have gotten to the 355-ship Navy.

And I realize, Mr. Secretary, you may want to comment too, but for but for the Admiral, could you explain, how do we think of that 355-ship number? Just as one example of what seems to be a legacy number or construct, but now we are supposed to be taking off all these shackles, and thinking about future competition, with great powers, and new technology domains, is that a number we are going to have to potentially rethink along the way?

RADM O'CONNOR: Well, I think what you would see is that it is continuously being reevaluated, that any number that any of the Services come in, whether it's BCTs, whether it's submarines, whether it's fighters, whether it's unmanned vehicles, it's the, okay, in order to do what? Okay and then as, you know, Todd was saying, how are you going to posture these Forces?

I mean, because putting folks overseas has costs, but it also saves you in terms

of deployment time, it builds access, and relationships, and interoperability with host nations, and so it is, it is a continually iterating thing, because it's an ongoing conversation, right? It's an ongoing conversation between us on the second decks, the folks on the third deck in OSD Policy, the services, and it just becomes iterative.

And then you go outside the building, and then you get the folks at the NSC going, okay, I got it. Now, show me this, and then you have the conversation with The Hill, which then interjects. So, it is a continually iterating number, the fact that it bounces around various number, okay, got it. There are force generation constraints, there is lay-down, there are those answer challenges.

But, let me just give you an idea. You mentioned the Secretary Rumsfeld, "You fight with the Force you have." You do, but you're not constrained by the way you fought it, okay. So, when a crisis occurs, you have the opportunity to look down and say, what do I have, that's in the vicinity, okay, if that's the target what weapons do I have, what platforms are there, and then based upon the access, the relationships, and the National caveats of our allies, partners and friends, what can I use? Okay.

Then using all of the intelligence that is available, okay, from the National down to the tactical level, across all of the interagency, how then can I take that information, and in a timely manner refine it, which goes to some of the AI stuff that we talked about before we walked in here. You can sense the globe. That's great. What are you going to do with it?

And then can you put it in such a format that I can easily transit for it from this collection of intelligence into a format that gets it, to where it needs to be in a timely and actionable manner, and that speaks a lot to some of the things that you place upon the services, that you place upon us in terms of training, so that the Army, the Navy, the Air Force, the Marine Corps, the Coast Guard, got it.

I got it that each one of you has a system that does this particularly well for you, but can you make it so that it speaks in the same fourth grade English? So that this system, this system and this system can all use it and flow back and forth.

MR. O'HANLON: So, Kelly and Tarun, you're being very patient. Thank you. But I'm going to give Mr. Harvey one chance, since I get to tap one of the central pillars of current Pentagon planning. If there's anything you want to say on that question before we go?

MR. HARVEY: I'm mindful we had the brilliant folks at the end there. And I know -- and I learned from Kelly for a number of years. We worked together in the last administration. But the short answer is, yes, that there is no fixed magical number, right, it's all about the capabilities you have invested in those. I mean as an example, we have littoral combat ship which we'll transition you out of.

Great for presence operations, not great for high-end fighting because it doesn't have the weapon system, and it doesn't have the protection; so, we are moving toward a more capable frigate design. So, if you're not careful, you're right, you build capacity, and then they just become targets, right, and you're not going to have staying power.

So, it's building the right capability, you know, is it BMD-capable? Does it have electronic warfare suite? Does it have other capabilities?

There is a physics issue and, again, I don't know what the right number is, but the trend lines that we have within the Defense Department is, because of the sophistication and the cost of new systems that we are buying, we are buying two new systems or every three retiring Legacy systems.

So, our Force structure has been shrinking, as a matter of fact, over the past 10 or 15 years. And what happens when you're a global power, there's a physics factor that's involved, that you want to have Forces that are able to respond to crises on fairly short notice, and if you have too small a Force structures, too small base, you're not going to be able to get there in time.

So, you need to have a certain size Force, and naturally that's a policy and political decision about what do you want to be able to respond to, what is your Force sizing construct. And we've modified that, frankly, in this current strategy about what we -- what the level of ambition for the Force is, and it's changed because of the way we've recharacterized the

nature of the threat. Not to be able to necessarily respond to multiple regional challengers at one time, but to be prepared for a major near-peer competitor challenge, and deter elsewhere.

So, the size is a variable. We want to have capable capacity, but it's probably more than we have now if we want to sort of meet our obligations worldwide.

MR. O'HANLON: Super! So, Kelly, there's a lot on the table, I probably don't need to reach (crosstalk) the questions for you, but I am certainly interested in how you see the legacy of the rebalance, among and the other thoughts you want to offer? And thank you for being here.

MS. MAGSAMEN: Yeah, sure. Well, first of all, thank you for having me, and thank you to my colleagues to the right, for such a great NDS. I would like to congratulate you guys on that, I thought that was quite good.

You know, in terms of the rebalance, the Obama administration sort of pivot to Asia, or rebalance, or whatever you want to call it, I think the NDS is actually kind of a natural evolution of that in the context of China.

SPEAKER: Yes, yes.

MS. MAGSAMEN: And it's a sharpening of the challenge ahead of us, so I think in that sense, that there's a lot of continuity in it.

I think going forward, there's, a couple of big things I'd like to highlight. One is, in Great-Power Competition, the center of gravity is going to be our allies and our partners. And so what I'm going to be looking for as you guys implement the NDS, is really how you approach working with our allies and partners, and whether that's, you know, additional Force posture initiatives in the Pacific, or in Europe, or whether it's, you know, access agreements, some of the things that we started to do at the end of the Obama administration, especially in Southeast Asia, to build strategic depth in the Pacific for us.

Those are the kinds of things I'm going to be looking for. I think the challenge that the NDS is going to present, and I know that the Secretary was on The Hill today just talking about the importance of lethality, and the importance of investing in actual war-fighting capability,

as opposed to sort of things that we used to do in the sort of early years of post-Cold War.

There is a tension between war fighting investments, capability investments, and ally reassurance. So, I'll give you an example. So, you know, an aircraft carrier strike group rolling through the South China Sea provides a lot of ally reassurance. It is not necessarily the way we are going to win a war fight with China.

So, you know, that's going to come in undersea warfare, it's going to come in hypersonics, artificial intelligence, et cetera, all the things we are all talking about today. So, I think when you're looking for in investments, whether it's 355 ships or more, I think there potentially could be a need for more, personally. I think the maritime domain is going to be the preeminent domain of competition for the United States.

So, you're going to have to make choices and accept risk in certain places, and if our allies and our partners are the center of gravity to our strategy, I think a lot of thought needs to be put into, where we push more in the war fighting space, whether or not we can manage the downstream impact of what that means for our partners, in terms of capacity-building initiatives, et cetera, all the things that are kind of being de-prioritized.

So, that's sort of one piece. I totally agree with the dynamic Force deployment, the importance of operational concepts, because people tend to focus on systems and capabilities, but it's really actually how we fight that really needs to change, and how we think about the adversary, and how they're going to fight us.

You know, I use Russian meddling in the U.S. elections as kind of an example of this. For me that's a Sputnik moment for the United States. The Russians engaged in a kind of conflict and warfare that we don't engage in, and you guys talked about this in the last panel, we need to be thinking -- I'm not saying we should go meddling in the Russian elections -- (laughter) but I'm saying we need to be thinking differently about how we perceive conflict, how we perceive the adversary, how they perceive us, how they engage us and our allies.

How they work consistently to undermine confidence of our allies in the United States, I mean the Chinese are quite effective at using economic coercion in the Pacific to

undermine our security alliances. I mean I remember, you know, going around Southeast Asia working on access agreements, and then like two days later, you know, the Chinese would show up with, you know, barrels of money for infrastructure investments in the Philippines, or in Vietnam, et cetera.

And so they use economic, their economic power to try to dilute our security primacy. And so we also need to be thinking in economic terms, we tend to focus -- I mean obviously NDS is focused on the Military aspects of competition, but I think that the real fight is going to be in the economic domain, especially vis-à-vis China. Russia is a different story, and I think it's important to make a distinction there.

MR. O'HANLON: That's excellent. And that's a great transition or segue to Tarun, because he's been involved in writing national security strategies, and wrestling with the dilemma that China is a rival and a potential adversary, and yet also a friend and a partner. And how does one reconcile all this,

DoD, maybe doesn't face quite the conundrum that you did at the White House, when you were working there, because DoD can talk about China as a -- from its point of view -- a potential adversary, and therefore it has to plan accordingly. But you didn't quite have that luxury of simplifying China in quite such a straightforward term. So that's one question I would have for you, in addition to anything else you want to comment on at this point the conversation.

MR. CHHABRA: Well, I think Kelly and I actually agree on a lot more than you suspect. And I'll talk about that a minute. I mean, that we've talked a lot about capability, and just to remind everyone, you know, the version of the National Defense Strategy that we've all seen as a summary of it that's public, what's behind it is classified, and that really lays out what's going on in terms of Force posture, investments, so on and so forth.

And so only two people on this stage really know what's going on there. But Kelly has laid out what we -- (laughter) -- what we hope is in it.

But I will say, just in terms of the framing of the National Defense Strategy, what I really appreciate about the framing is that there is always multiple audiences for a document like

this, right, one is obviously the Department itself, and directing the services, laying out the Secretary's priorities, so on and so forth.

But also our adversaries and our allies, right. And I think that we had previously leaned too far in directing the rhetoric to China, and less to our allies, and so I appreciate the way in which I think the language of the NDS really projects reassurance and result, to borrow a title from my -- two other allies. I think that's a really important development.

Kelly and I, probably about four years ago now, well, we were flying together with Secretary Hagel to the Shangri-La Dialogue, and I was working on the speech that he was going to give there, going back and forth with the White House on what language exactly he would use to talk about what China was doing in the South China Sea at the time.

And there was a lot of back-and-forth at the time, but my takeaway, really, from a lot of that was that there were two voices really. The White House largely at the time I think, you know, wanted to -- let me say, the caricature would be, and this is not totally fair, the White House was still projecting a message of, what our relationship with China could be, whereas, I think, the Defense Department was more focused on, what we think it really is right now.

Now, to be more fair, I think it's the Defense Department was focused on China's regional ambitions, what it was actually doing in Asia, and the White House was focused on what China was doing globally, which in many ways, was more benign, right, at least for now. And so I think now, that focusing more on what China is actually doing in the region to our allies is actually very important.

And another corrective I think is, that I think we often suggested to China, and to our allies, that de-escalation or short-term stability was an end unto itself, rather than projecting that long-term stability was our objective, but in order to do that we would reinforce our allies, and we would stand by our allies, and we would not submit to Chinese Grand Strategy, over the long-run, wants to break our alliance system in Asia.

So, all that I like. My worries I think have been laid out, by Kelly pretty well. We don't have a coherent economic strategy, right, and that is what is driving so much of what's

going on there, and a very related concern is political interference, the Chinese political interference in Asia.

You know, we have a lot of news about Australia, about New Zealand these days, but Australia and New Zealand, they're more open, they have a free press, more free academics, you know, I don't think we've seen the tip of the iceberg in terms of what's been happening in Southeast Asia when it comes to corruption, covert tactics, coercive tactics.

So, I think that that's where we need to be investing a lot more time and effort in understanding what's happening in those realms, and having a coherent strategy to counter that.

MR. O'HANLON: Outstanding! Let me go with one more round of questions through the panel, and then we'll go to you. And we'll have until about 11:50. We hope you all can stay for the 12:00 o'clock interview by President John Allen, the Head of Brookings, of one of his Fellow Marine four-stars, who is currently the Commandant, General Neller, so that will be the final event. But we've got a lot of time for discussion with you before that.

And I just want to put one broad question on the table to follow up on where we've already been, and then to ask each person to comment as they wish, briefly, and don't feel the need to respond comprehensively. I want to ask about specific technologies and specific scenarios that concern you the most, and I'm guessing that we may hear more about scenarios at the end of the panel, and more about technologies at the beginning, given people's sensitivities, and relative areas of expertise, although all four could speak to all of this, I'm sure.

But I guess I'd like to know, you've mentioned some of the ideas already, in terms of directed energy and hypersonics, we've heard it from the previous panel, undersea, warfare, stealth. So, you've ticked things off, but if you could maybe delve into a little bit more detail, just in a couple of minutes, on areas of Technology over the next 10 to 20 years, where you see particular promise for us, an opportunity, or particular peril? Because we currently have vulnerabilities like in cyber, or somebody could beat us to the punch, like an AI.

And so, you know, some of the basic ideas are already out there in the public discussion, so I'm hoping to hear more your personal take on those sorts of things. And then as

we work down the panel, especially for Kelly and Tarun, if you have certain kinds of geographic settings you're most worried about. Baltic States scenarios, South China Sea scenarios, a Taiwan contingency are there certain places where you think it's most likely for great-power competition to come to a head, and actually risk or, potentially, lead to a risk of war?

But we'll just work our way down, and start with Secretary Harvey, please?

MR. HARVEY: Yes. Thanks. This is still, in some ways, a nascent area within the Department, it's sort of defiant. It's almost a little bit like venture capital where you identify promising technologies that you haven't been able to sort of determine exactly what their potential is, and whether they are translatable into viable systems, but they do have promise, and so we are -- we feel bound to explore these.

Hypersonics is one that gets a lot of attention these days, and it's one that we are focused on, you talk about the peril piece. Certainly, in terms of great-power competition, the Chinese and Russians are investing a lot of money in hypersonic capabilities, and it's not a surprise to understand why, in terms of, you're talking systems that travel at more than Mach-5, and so can overcome most defenses, can hold at risk at long distance just about any type of Forces that you put in the field.

And so this is an area that we are exploring fairly heavily, artificial intelligence is another one in terms of its potential to allow us to process the myriad channels of information that come in, in the modern battlefield and, you know, sort of hyper-war potential. Things are moving so fast that it's hard for human cognition to absorb, and process, and react to all those. So, how does AI give us the ability, potentially, to stay ahead of that curve?

Mentioned directed energy in terms of particular application, in terms of missile defense capabilities, and we have the Missile Defense Review that is still ongoing in the Department, but I mean I think one thing we've looked at, and the White House has actually talked about is, holding at risk potential missiles that could be shot at us, or our Forces through the whole lifecycle of a potential launch.

So, right now that early stage of launch where we could apply direct energy when

it's most vulnerable, is an area we want to explore by looking at applications of directed-energy, rather than just trying to use the catcher's mitt, you know, with a ground-based interceptor when it's, you know, exoatmospheric, and going thousands of miles an hour. I mean the most demanding piece of that interception process in its cycle.

So, those are some of the technologies we are looking at. The challenge, I think Kelly alluded to this, it's not just, you know, the Buck Rogers technology, it's how do you translate that into a usable system? And then how do you, from a concept of operations, how do you apply it? That's where I think the Secretary, has said we need to really focus attention.

So, there's going to be parallel efforts as we invest in these technologies. How do we apply them? And how does that change our investment streams? As an example, do you need as many aircraft carriers as you have now, if you have hypersonic and standoff capabilities where you can hold your potential adversaries at risk from long distance? Do you need to have as many carriers in a particular, you know, threat scenario? Just one example.

So, we are working through all that, the CONOPS is going to be just as important as the system. It reminded of World War I, you know, the first development of tanks, there was a sense at the outset that you just distributed your tanks all along the frontline, just to parcel them out to all your units, rather than the notion that was hit on, I think first by the Brits where you concentrated and used it as a spear head. It's all about how you use the technology and apply it, not just the technology the technology itself.

In terms scenarios, I think we are worried about a range of the ones you mentioned. As much for the potential miscalculation that's involved, especially when you have the Russians, but also the Chinese sort of playing a game of chicken sometimes, the South China Sea particularly, the East China Sea with the Japanese and the Senkaku.

Certainly the, you know, buzzing of our ships by Russian aircrafts and others, there is a risk of miscalculation that could spiral there, and so we are very mindful of trying to warn off adversaries to -- potential adversaries to not take those types of risk, and not sort of send us into some sort of spiral.

But that that's all ongoing in the Department, and I think we are mindful of posturing ourselves in a way where we don't sort of contribute to the potential for those. But also, you know, asserting our interest as strongly as we need to. But let me let me stop there, and turn this to --

RADM O'CONNOR: I'll just riff off of each one of those. So, working backwards; so, when the Donald Cook had the fly by at 500 knots and at 10 meters in the Baltic, what subsequently followed was the annual incidents at sea. So, that is a means of deconflicting, you know, the U.S., previously Soviet, now Russian interactions in the air and on the seas.

I had the privilege of actually going to Moscow and sitting down and having those conversations, pretty blunt, pretty direct, and pretty clear-cut in terms of: I don't care how skilled the pilot is, if you're at 10 knots and 500 knots today, I know pilots, I've worked for a few, next they're going to come back, they're going to show somebody a picture, and the next one is going to be 600 knots 8 meters.

At which point it really doesn't matter you're talking about the twitch of a wrist, these same kinds of things in the South China Sea when we look at the features, when we look at the wholesale destruction of large coral reefs, the almost silence from the folks who would raise a ruckus if that happened off the coast of the United States, the complete and utter silence while that occurs in the South China Sea, that should give you all pause, and to go back to the economic conversations that we've been having.

When you look at the statements that were made that these will not be militarized and when you look at what has transpired since then. So, those are things that we think about, when you look at the capabilities that you buy, you know, there is a saying in one of the old biographies of a Navy Admiral, "The Navy never uses a ship for what it was purchased for," right? Aircraft carriers were initially developed to scout for battleships.

Well, a few things happened along the way and things changed, you know, the destroyers weren't necessarily for that purpose, and the PT boats weren't necessarily for the purpose that John F. Kennedy and his kin used them for.

So, it goes back to the, this is what we have today, but the Secretary has given us strategic guidance as to: this is what I want you to focus your efforts on, but it's not just buying the most impressive, new, bright, shiny object, it's the, show me how you intend to use it.

When we talk ballistic missile defense, whether you're talking about it either sea-based or land-based, whether overseas or whether in the United States, the cost exchange ratio, you know, one just needs to lob up and over and fall, right, and if you give it a bad enough warhead on it, precision is not necessarily important.

If, however, you're trying to hit it, you are shooting a bullet at a bullet, right? So, it is inordinately more expensive to be on the defense side than it is on the other. If you can get to the directed-energy portion where, either in the electromagnetic spectrum, whether it is, you know, visible, whether it's lasers or whatever, you're able to interrupt that at a significantly lower cost per shot.

Okay. I can afford to do 10 shots. Now, I will tell you that the flip side of that is the fact that, if I have a kinetic I know gravity will eventually cause it to bend and it will fall back to the earth. Unfortunately, if I shoot a laser and it keeps on going, and going, and going, I have second, third, fourth and fifth order effects as it moves its way through the atmosphere.

So, I have to really have a global view of our earth, and the surrounding atmosphere, and everything in space before we start. And that's going to be part of the CONOPS, right? And so it's the: okay I could buy this really cool umpteen-megawatt laser, I could put it on this, now give me the CONOPS in the de-confliction and the processes that pulls that all together. Does that make sense?

MR. O'HANLON: Yes, it does. I want to follow up with, I'm glad you talked about lasers.

RADM O'CONNOR: Lasers.

MR. O'HANLON: Because and I'm also glad we heard the spirit of defense of the littoral combat ship in the earlier session, but I'm nonetheless going to, I'm going to rip off of danger, in talking about innovation and making it, you know, an even higher priority than it

normally is. Is that we Americans love our technology, and if you look at the history of our defense debates, we often think we can do things with technology that we used to need people for, and we usually wind up getting it wrong about every 20 or 30 years.

RADM O'CONNOR: Thank you.

MR. O'HANLON: And I can think of, you know, ways in which, whether it is the airborne laser that the Air Force was developing until Secretary Gates decided it wasn't really a viable system, or whether it's the littoral combat ship, that not everyone defends as elegantly and eloquently, as we just heard, or the Army's future combat systems.

RADM O'CONNOR: Sure.

MR. O'HANLON: So 20 years ago we had this big debate about the revolution of Military affairs that was supposedly underway, and the Army said, we're going to dance like a butterfly and sting like a bee, and we don't need 70-ton tanks anymore, we are going to build these 20-ton Future Combat Systems that know when they're getting shot at, and can evade, or defend or deflect, and it turned out to be a big mistake, to be blunt.

The technology wasn't ready to deliver on what all of us think tank people and other visionaries were saying we should be trying to do. How do we avoid that risk in this current phase of innovation?

RADM O'CONNOR: Sure. So, you got to be able and willing to fail, right? You have to be straightforward with your customers, right; us to the third deck, to the services, to The Hill, and everybody else. So, the revolution that occurred, you know, and we'll just take one portion of it, is the idea that, you know, from World War II to today, you know, you had to send swarms of B-20, whatever version you want, with 16 people on board to drop hundreds of guided bombs to hopefully, hit the target.

And today you have one or two with long-range, low-observable, precision-guided, day, night, good weather, bad weather, straight to the target, and you have two people. And so the challenge of the unmanned is the footprint that it buys you back at home; right? The problem is, you're putting so much -- the alternative is, you're putting so much money into training

your pilot and aircrew for a limited lifespan. Okay, than what is the survivability of that aircrew in terms of putting it up against double-digit, triple-digit SAMs, and those kinds of things?

So, there is a tension there of the, maybe there's a mix, right, of unmanned and manned. Maybe there's an opportunity to not just do large 2,000-pound bombs, but small diameter bombs, but precise, and be able to send in numbers of those. And then there's a question of standoff. And so the experimentation which you're going to have to; and you're going to fail. And that's good because, I mean, Edison is the best example of that; right?

And then you turn around and you say, well, what's the concept? But each iteration, it's kind of like when you said, what's the right number of ships, what's the right -- well, okay, number meaning these particular specific platforms with these specific capabilities. But as you experiment you say, well, wait a minute, that's good but if I change this, it changes the capabilities, the strengths and the weaknesses. Does that make sense?

MR. O'HANLON: Yes. That's great, yes.

MR. HARVEY: Can I just add just one point?

MR. O'HANLON: Please.

MR. HARVEY: First, I didn't mean to denigrate the LCS, if I'm stepping on. It has very useful applications, it's just not (laughter) -- it's just not going to necessarily be the frontline defender in a, you know, in a high-end fight. But I would say what works, I think we are trying to do and look at in terms of the acquisition process, and it's not my area of expertise, but we've had some reorganization in the Department.

And so we have a Research and Engineering Under Secretary now, whereas that used to be bundled under our Acquisition Head before; and so you've got someone, Mike Griffin, who is absolutely focused on identifying those potentially winning technologies, and moving forward quickly with them.

And I think what we want to try and do is do rapid prototyping and testing to see, sort of, whether we have something that is applicable to the types of challenges. So you don't have these sorts of long, drawn-out cycles of development and, you know, get 10 or 15 years

down the road, and then realize that you've hit a dead end.

So, move as quickly as possible, and give incentives, and drive industry to help us meet our partners in the quick evolution of that so we can decide whether something is going to be useful or not on a much tighter timeline than we have in the past.

MR. O'HANLON: Excellent! Kelly, over to you; on any and all of the above issues. (Laughter)

MS. MAGSAMEN: So, I worry about a lot of scenarios. I have a very long list here. It's probably why I'm in the business. So, the first, yes, I agree with the Admiral, the potential for miscalculation I think is pretty high, both with the Russians and the Chinese, whether it's in Syria, or whether it's flying over the South China Sea, and the air incidents that could potentially occur, and we know the Chinese pilots get a little sporty on occasion.

So, I do really worry about accidents. I do worry that a P3 incident today would look very different than a P3 incident in 2001. And so it's really important for the United States and China, and the United States and Russia to have channels of communication and coordination in certain respects to avoid some of these accidents.

We've put a lot of emphasis in the Obama administration on confidence-building measures in the maritime and air domains in about 2016, I think 2015-2016, it would be good to see those extended and deepened. Because I do think, you know, as the Chinese become more capable, and there are more ships, and there are more planes in the space, that's a pretty crowded airspace, pretty crowded on the seas, and so accidents could really, potentially, happen.

So, that's one piece I worry about. But I really worry more about strategic miscalculation, either by us or by our adversaries. And in that sense, you know, like North Korea, I think, you know, a preventive war in North Korea would potentially lead to a U.S.-China conflict. We've seen this movie before. And that worries me. So if we make a calculation, and then don't think about the potential follow-on consequences; that is something that concerns me.

I worry about Taiwan, still. The Chinese still view Taiwan as it's sort of the organizing principle for their war plans, and how they plan, and so we need to be thinking in those

terms. Taiwan is very tough for us, distance is not our friend in this scenario, and so it's really important that we work with our Taiwan friends to ensure that they have the right capabilities, the asymmetric capabilities, and ability to defend the island for as long as possible.

The Chinese are also going to try to smother Taiwan with economic power, so that's another place, again back to the use of Chinese economic power. And I also worry about strategic stability especially increasingly between the United States and China. We've never had a really good dialogue with China on these issues, despite multiple attempts to establish one and, you know, as we look at -- you know, investments in missile defense, integrated missile defense, for example, I think we need to be having strategic stability conversations with China.

We need to better understand their nuclear program in deterrent; they have been very reluctant to engage in any kind of transparent conversation on those issues with us. And so that is an area, for me, we are looking over the horizon, I worry a lot about down the road.

And I think, you know, the NPR, and sort of the investments in that, I think we've got to be conscious of that, especially also vis-à-vis Russians. So, those are some of the big ones from my perspective that I am concerned about.

To the technology point, just real quick, you know, the question of the previous panel was: if you had a billion dollars, of any of the services, where would you invest it? It's a good thing you probably weren't here for that question. (Laughter)

RADM O'CONNOR: We were outside. (Laughter)

MS. MAGSAMEN: Yeah. If I had an extra billion dollars to give to the Department of Defense or any of the services, I would actually give it to the State Department, or the research and development -- National Research and Development which has been cut dramatically actually.

So, if we are going to compete with the Chinese, especially in the long term, you know, National Research and Development, investment in education, and science, and math, that's how we are going to compete. We're going to compete through our human capital more so than, I think, even our defense; so, just to add (crosstalk).

MR. HARVEY: So then a billion doesn't go as far as it used to, you know.

(Laughter)

MS. MAGSAMEN: Thank you.

MR. O'HANLON: Tarun?

MR. CHHABRA: So, interestingly, you know, during the transition to the Trump administration one of the things that the office I worked in did, was generate a bunch of nightmare scenarios that we thought they, not only ought to think about, but ought to know how various departments would respond.

So, that if they didn't like any of it they could start thinking about that sooner rather than later. So, since I've willfully forgotten all of those now, just personally I would just add to what, you know, Kelly said on accidents, I totally agree, I had written down P3 as well, the Donald Cook incident which Cat mentioned.

I'd also, I would add to that pile a cyber incident in which, you know, it's just gone the operation has gone wrong and then really destroys critical civilian infrastructure, and that's one that I really worry about. Misunderstandings, Kelly mentioned the strategic stability, you know, a colleague the other day was saying, you know, a Track II discussion with the Chinese, they were talking about escalation scenarios, and his Chinese counterpart said, well, you know, to deescalate the situation we would just immediately shoot down your satellites; right?

And he suggested that might not be the best idea. But that kind of conversation is what we mean specifically when we are talking about --

SPEAKER: Do it yourself.

MR. CHHABRA: -- the capability conversations. And then another one I worry about is playing out the political interference scenario, where we have the destabilization of the U.S. ally where, in particular, we have a lot of U.S. troops, personnel and strategic assets, that kind of scenario.

On the technology point, I think that, you know, as Todd was mentioning, you know, there's a lot of uncertainty about where these new technologies are going to go, how

they're going to be applied, whether they are going to favor the offense or the defense, and we know that when that happens, especially where it's ambiguous, that that accentuates a security dilemma.

And my view is that we are already in a security dilemma with China, and that this is going to make it even harder. And I don't see any way around that, you know, I don't think that there is any discussions that we can have at this point with Beijing, or anyone else, about norms and when it comes to developing artificial intelligence, on the technology development or application itself.

Where I think that -- so what I think that means is that we need to be as clear as possible about our red lines and what our ends are and what we can and cannot accept, so that we are separating, to some degree, this question of capabilities from what they're going to be used to do. And I think that's where we, I think, should be investing most of our time in those discussions.

MR. O'HANLON: Well, before we go to the audience that leads me to one final question for you, red lines; a fraught topic. And if we think back to the confirmation hearings of soon-to-be Secretary of State Tillerson a-year-and-a-half ago, he proposed that a red line should be, that we not allow China even to keep the reclaimed islands that it had built, or certainly not to access them, and certainly not to build anymore.

That was by a guy I think of, you know, whatever his legacy proves to be, as a pretty cool experienced man in international affairs, but he said something that could have led to war over the destruction of coral reefs, which is unfortunate, but otherwise, frankly, by the standards of history, and when great powers rise, this is a relatively benign action compared to a lot of what great powers have done historically.

So, how do you avoid getting into a red line that you tie your own hands and you actually provoke a crisis rather than deter it? It's for you, Tarun. (Laughter)

MR. CHHABRA: Thanks.

MR. HARVEY: Go, go Tarun!

MR. CHHABRA: Look, I mean there's always a tension obviously between, there's a trade-off between their benefits, and to some degrees, through which you get ambiguity, and also from having red lines. We all know that very well. And I don't think there's any way to do this other than iteratively, where we are having an ongoing conversation with our adversaries about this problem. I don't think there's a -- I haven't found it, and maybe our colleagues here have a one-sentence solution to this problem.

RADM O'CONNOR: Okay, I'll jump on that one. So, I had the privilege of spending an hour with Secretary Shultz in San Francisco at the San Francisco Fleet Week, and he and I discussed it, and because it is one of those things, where, if you set one you must, absolutely must follow through on it, because of what it does internally, what it does externally across your allies, your partners, your friends, the folks who are sitting on the (inaudible), your competitors, and then those who are preparing to conduct actions against you in the violent extremist organizations.

It is an extremely strong message. So, to go to what you said, which is the: there are times for strategic ambiguity, because that is helpful, you know, and that's why you have the Track I, the Track II, those kinds of conversations so that it's not necessarily on the record, it isn't being quoted, and it certainly is an authoritative voice.

But there are also times when it's the: don't do that, and I meant it. And then you start to get this, oh, okay, got it. And then it goes back to what Kelly was saying earlier, coordination, not necessarily; de-confliction, absolutely, and the ability to be able to have a conversation to say, this is not helpful, and this is inherently dangerous, and you need to understand what these actions can and will lead to.

Those lay the groundwork for: if you progress down that road then you're in a position where you are able to have that conversation, and where somebody in a decision-making role, because none of us are, right, we support the decision makers. Are then able to say, okay, don't go any farther, said privately; and then, if it continues, then publicly, that's a red line, don't do that. Does that make sense?

It is a continuum, it is not just a, if you say it without all of that prep work ahead of time you, kind of, put yourself in a corner.

MR. O'HANLON: Excellent! Thank you. I'd like to go to you all now. We have microphones, so please wait for one after I call on you, and please keep your question relatively short. Let's take two at a time, and then we'll come back to the panel, at least for round one. So, why don't we begin here in the sixth row with the gentlemen, yes, right here, and then we'll come up to the second row for round one, and then come back.

QUESTIONER: Hi. Thank you very much for the panel. My name is Dmitry. And my question is for Mr. Chhabra, as you worked at a very high level at the United Nations. It seems to me like in after World War II we created the United Nations to manage great power interactions and security. Is that still the goal or the paradigm, or is it something else? And if it is, what should we be doing to reform the U.N., or going in another direction? Thank you very much.

MR. O'HANLON: And then we'll come up here to Dan in the second row, for the final question of round one.

COMMANDER KEELER: Thanks, Mike. Commander Dan Keeler, I'm the Navy Fellow here at Brookings. So, it was alluded to on some of the answers, the underlying economics of our nation, going forward, you know, not as promising as somewhat like Brookings had a study came out this week, that just outlines the fiscal outlook, and it's not good. Everything we discuss costs money.

So, is it a strategic communication thing? Do we need to start talking more openly than maybe in closed sessions with Congress about, what we are going to ask the American people to pay for, to execute the National Defense Strategy? Is it a problem or is that out of our lane, so to speak, in the Department? Is that the President's job, or Congress? Thanks.

MR. O'HANLON: Great! So, let me start with Tarun, because I think question one was primarily to you, and then we'll just -- not everybody needs to answer both questions, but we'll just work down the panel.

MR. CHHABRA: Yes. It's a great question on the U.N., and we have colleagues here, the Director of our Program, Bruce Jones, is working on this question about U.N. Reform. You know, I mean you can take a look at how things are working if you look at, you know, the response to the use of chemical weapons in Syria; right? And the ways in which I think Russia is using even information gathering, right, as a weapon to prevent it from happening.

And so, you know, what's interesting is, if you go back, you know, to the 2004 or '05 period when Kofi Annan was the Secretary-General, there was a lot of discussion about reforming the Security Council to make it larger, to include emerging powers, to include India, maybe Germany and Japan. But the challenge has always been that there is a trade-off between representation, and then the agility of the Council on the other hand.

And I think that the reason you are now seeing less of that discussion, is that even if you ask many of those aspiring powers through the Council, they see -- they are concerned about what, even that their presence in a larger Council would look like in terms of its effectiveness, and its ability to manage tension between the powers.

MR. O'HANLON: Great! Kelly, for that or the other question, as you wish?

MS. MAGSAMEN: Sure. I'll take on the underlying economics question. You know, before, in quainter times, whenever I would travel in Asia the first thing that Asians would raise with me was: two things, our political dysfunction at home, seriously. The fact that we couldn't, you know, pass budgets, tons of government shutdowns, debt ceiling drama, like that was, like, number one talking point, about worrying about American decline. They talked about political dysfunction, they talked about economic solvency.

So, I agree with you, I it is time for these conversations to be had, and I think, alluding to my earlier point about economic competition, we have to be thinking about national security in much broader terms than we currently think about it.

We have to figure out how to restore the basic economic compact that we have with the middle class in America. We have to figure out how to invest in education so that our high school students when they get to college can actually, you know, perform. That's a real --

there's a huge gap in high school education.

Infrastructure, I mean the President himself has talked about this. I mean our crumbling infrastructure at home, income disparity, I mean I think essentially, if you're looking at, in the competition terms, you know, the U.S. model versus the China model, we've got to make our model compelling if we're going to compete.

And we have to help improve the ability of democracies to remain democracies, globally. So, figure out, you know, incentive structures to keep, you know, countries from going the direction of Hungary or Poland. So, these are -- and it's a bit of a broader answer to your question, but I think you've hit the nail on the head in terms of, like it's time for these kinds of big conversations in the context of national security.

MR. O'HANLON: Do you care to comment on either of these, or should we go to another round?

MR. HARVEY: I would just say the Secretary, Secretary Mattis has said, we can afford survival. And so we need to -- you're right, we need to have that dialogue with Congress, and I think we have, and the Secretary has reached out, and the Chairman has reached out, and that's why I think you saw the Defense Budget that you did for this next two-year period.

But I think there are the underlying dynamics of sort of how do we do this in the future, because we've had, I think, continuing resolutions, 10 out of 12 years, and it's just not a way to budget for an operation, where you have to have predictability to plot your trajectory over multi-year programs.

And so, we would urge Congress to fix the way they work that piece, and ensure that we have the resources that we need to, and recognize this, because there's going to be a fairly high price tag associated with it, given the types of systems and the sophistication, both of what we need to buy, and what our adversaries, potential adversaries are buying.

MR. O'HANLON: A quick follow up on that, because Dan has also written about this, and I think you just hinted at a similar argument. Historically, The Pentagon would complain that Congress funded its own pet projects, its parochial interests. These days, I hear more

commonly, I think what I heard you just say, which is predictability is almost the main thing you need now.

MR. HARVEY: Absolutely, absolutely.

MR. O'HANLON: And on-time budgeting.

MR. HARVEY: Absolutely, absolutely indispensable right now. It's the biggest drain on our ability to sort of project out what we can buy, and keep us on track.

RADM O'CONNOR: Because you're not allowed to start anything, right? Once you go into a continuing resolution the law is very specific, you're not allowed to start new buys, new contracts or anything else.

MR. HARVEY: And we have this perverse practice where, because we've had constraints on our base budget we move things over to the overseas contingency camp, which is one, your money, so that's not a way to program over multiple years when you have to, sort of, bargain for that every year, you have to negotiate, and you don't know what level that's going to be at, so.

MR. O'HANLON: Great. Let's go to another round. We'll start over here in the second row, and then I'll stay on this side, the woman in the, about eighth row would be my second for this round.

MR. HARVEY: I'm impressed you can count rows.

MR. O'HANLON: I'm guessing, yeah. Let's see, how did I do? Five, six, nine --

MR. HARVEY: Close. (Laughter)

MR. O'HANLON: -- I was one off, folks; yeah, but closer than I was with your identities at the beginning. (Laughter)

RADM O'CONNOR: (Inaudible), we are like this.

MR. O'HANLON: That's right. That was the problem.

MR. CONNORS: My name is Jim Connors, and my question for the panel is, given America's open and anonymous Internet, do each of you consider that a competitive advantage, or a competitive weakness?

MR. O'HANLON: Great! Thank you. And then my friend in the ninth row, on the aisle; yes, the woman and the blonde hair, do see where I mean? There you go. Thank you.

MS. VAN ANNE: Thank you. I wanted to ask --

MR. O'HANLON: Please identify yourself, if you could?

MS. VAN ANN: Yes, Alexa Van Anne, with Spitzberg Partners in New York. I wanted to ask the panel to discuss the state of the conversation about militarization of the Internet similar to the first question. And then also to comment on how we are using cyber as a tool of state power, and basically kind of how we're signaling to our allies and our enemies what we are doing with that?

MR. O'HANLON: There are some pretty big-picture cyber questions. Don't feel obliged to address all dimensions, but would you like to start, Mr. Secretary?

MR. HARVEY: Sure. The cyber challenge is one that is multi-dimensional, and I don't think we have hit on, no surprise, hit on the solution and what the dimensions of our investments should be, ought to be for this. We have, I think, in a pretty significant way over the past sort of five years, started investing resources in, and it may be counterintuitive, but cyber activities are actually very labor intensive, and so one of the first tasks have been to hire enough people so that we can sort of man these cyber teams.

And there are different categories, and so I think we have about 113 cyber teams overall, some sort of focused at the, what we call the National Mission Level, and then some to protect DoD Networks, some to help develop tools that we can use with our combatant commands against potential adversaries.

So, there are different categories we've begun to focus on, but I think we still have a long way to go to develop the right response. And a big piece of this is developing the authorities that we need. You know, we are vulnerable now, both from a DoD standpoint, and from a sort of national cyber infrastructure standpoint.

And so we are, I think, very much aware that, so any action we take can engender a reaction, and so we need to make sure we have the protections in place, even as we

develop sort of offensive capabilities, but understanding sort of what decision space and what latitude you give to your combatant commanders to use tools, and when to use those tools, distinctions between sort of offensive action and intelligence gathering, is obviously a dividing line.

You may not necessarily want to take action even when you have opportunities, because it burns your access, it exposes you, from an intelligence standpoint, where you're collecting information. So, there's a whole bundle of issues here that we are beginning to tackle and, I think, you know, having Cyber Command stood up on its own I think is a good starting point, but there's a lot of work to do there.

MR. O'HANLON: A quick question before you go on. Where does Cyber Command stand exactly? Is it still -- it's supposed to be a completely separate Combatant Command, and it will get there, but it's still sort of being born, right?

MR. HARVEY: It is.

MR. O'HANLON: And there's still a dual heading of NSA.

MR. HARVEY: NSA, yeah. And that certainly would be the next step as sort of the separation of NSA, and Cyber Command.

MR. O'HANLON: And that will take roughly another year?

MR. HARVEY: I would say within the year.

MR. O'HANLON: Within the year?

MR. HARVEY: Yeah.

MR. O'HANLON: Thank you.

RADM O'CONNOR: And so, General Nakasone has been confirmed, he will eventually relieve Admiral Rogers, and he then owes a report back that basically says, okay, this is my way ahead, in order to, in accordance with the Secretary's guidance, right?

MR. HARVEY: Correct.

RADM O'CONNOR: But, I mean, for a moment to appreciate what Admiral Rogers has to do, right, so it turns here, he has the Title 10 folks saying, hi, we have this, this is a

legitimate target, this is in accordance with the rules of engagement, this enables us to do the following things. Got it!

Turns over here, and he's still talking to himself, Title 50, right? (Laughter)

MR. HARVEY: Title 50, yeah, the intelligence community.

RADM O'CONNOR: The entire intelligence community is saying, you can't do that, right. And when I explained it to my folks it has to be in, you know, fourth grade English on class, so it's the: I want to climb up the tree in Kelly's yard, drop onto the roof, go over, lift up the skylight, reach down, grab the diary off the bedside table, and do this.

And then the Title 50 folks come on and say, no, no, no, no. What you can do is you can stand in the yard across the street, and if they happen to open their windows, and they happen to have the book open, you can read it. Other than that if you go anywhere near that house you'll break up this access, which enables us to do this, which enables us to do all these things.

And so that is kind of the conversation he has been having 24/7 for his entire time as NSA/CYBERCOM, and it's an incredibly challenging one. And so what will eventually happen is you'll be able to have two personalities going back and having that conversation. So, just an appreciation of the proliferation of stuff that's on the Internet.

Your question was, is it an advantage? Absolutely! I mean look at how much bad press Facebook received in the last, right, and look at their numbers for the first quarter. It is a huge economic engine. All of us have benefited from it; right?

I mean, maybe not Toys R Us, but all of us have benefited from it, right? It has dramatically changed the way we do business. It has dramatically changed the ability for folks to share information. None of the big data, AI stuff would have come along a fraction as quickly as it has if there wasn't a profit motive behind it; right?

And so that has brought us, and so we are now looking and going, wow, well, we're not in the making of dollars-and-cents kind of business but it could help us with: I've collected this enormous amount of information, how can I then sift through it and be able to parse

that out?

So, I think, yes, it's a tremendous advantage, it's a huge economic engine, it's going to change the way, to go to what Kelly said, you train, teach and educate, in generations, not only what and how. And then further on, it's an enormous weakness; right?

MR. HARVEY: Mm-hmm. Yeah.

RADM O'CONNOR: Because it is based upon the idea that we'll go with a physical example. Doors are open, kids roam the streets free, nobody drives too fast down the street, kids can play, throw, there's no bad people, there's no crime. Okay, to a point, right.

And then there's the reality of what the Internet is; right? There is the dark Web, there is people X filling data, there are people stealing identities; there are people intercepting stuff as attachments, modifying and sending it on. That's in banking, that's in everywhere. Okay? So, yes, to both of your questions; it's a huge opportunity, and also a huge vulnerability.

The challenge that we have is, to go to your question, is we are in the job of protecting our networks, and when the rest of the country looks around, and says, that's really cool, there are some civil libertarian issues to be had, and a conversation that the nation has. And it ain't our job to be blunt, right?

It's Homeland Security, FBI, a whole host of other folks whose job is to protect everything other than the dot-mil. Now, do we ride on the same backbone networks and switches, to a large extent, that everybody else does? Sure, you couldn't recreate a duplicate one if you wanted to, but our stuff, encrypted, lots of protections, reduce number of points of presence, that kind of stuff, the cost for that, across the dot-com, across the dot-gov, that's a different conversation and the American people have to have that.

Can we help? Yes. Do we help DHS? Since the beginning, right; but it's different. We own ours, we don't own dot-com, and we certainly don't -gov, but we certainly help them. Does that make sense? Does that kind of get at both your questions?

MR. O'HANLON: Great! Kelly?

MS. MAGSAMEN: I'll just real quick. Is our openness an advantage or a

disadvantage? It's both, I agree. It's an advantage for all the reasons the Admiral laid out, but it's also a disadvantage. And I think if we are looking at competition with China and Russia, we've got to be designing strategies to address the fact that they do try to exploit our openness to their gain.

Whether that's the Internet, or whether it's the WTO, they're trying to find ways to draft off of our openness here, but also the openness of the international systems. So, that's point one.

On the cyber as a tool of state power, I leave it to these guys on sort of the command authorities, et cetera. I think that the National Command Authority level, though, there is not a very good understanding, or set of protocols around, you know, cyber conflict, and cyber competition.

So, you know, what is a cyber act of war? Like I, you know, I don't think that there is a very good answer to that question. Is it like pornography, you know it when you see it? Is there a set of protocols that you initiate when you see certain thresholds reached? It is when it's an attack on civilian infrastructure, is it when somebody dies? You know, that kind of strategy conversation, and set of understandings is not yet, I think, established in the U.S. Government.

So, I think that is, potentially, a very big challenge for us going forward, especially given the investments that the Chinese are making, and the Russians, in cyberspaces as a tool war.

MR. O'HANLON: And Tarun, any thoughts?

MR. CHHABRA: I would just say on the openness question, I think we need to remind ourselves that, you know, we can think about, and we should think about the vulnerabilities of openness and so on, but openness is also who we are, and it's what we are trying to secure in the first place.

And so we have to recommit ourselves to that and I think the hardest place for this is often in the business world, where the Chinese are often using coercive tactics, requiring certain things to be done in order to -- in order to provide market access in China.

And, yes, many American companies are global, but there has to be a conversation with them, which is about whether they are American companies, or at a minimum, whether we share certain values, right. And that's our -- that's our, to me, our biggest point of vulnerability and the conversation that we are not yet having.

MR. O'HANLON: Great! We have time for one more round of questions, and I think maybe since there are still quite a few hands I'll take -- I may take, to test your memories, four.

SPEAKER: Ooh!

MR. O'HANLON: And then my hope is that they'll sort of be a perfect, natural alignment of one question per respondent. And then we'll just finish off with that.

MS. MAGSAMEN: All four for you.

MR. HARVEY: That's a heck of a synchronization.

MR. O'HANLON: That's a big, big hope. So, why don't we, we'll start over here on this side, and we'll take the gentleman in the light-blue shirt, and then the gentleman in the purple shirt, the gentleman in the fourth row, and then the woman here in the front row, and that will be it, with apologies to the others.

QUESTIONER: Thank you. My name is Jake Sweely. I'm a graduate student at the Elliott School of International Affairs. And my question is, so Russia and China have obvious political advantages when it comes to executing a long-term, whole-of-government strategy. So, my question is, what is the United States doing right now, or what should it be doing to implement its own grand strategy for the 21st Century that is whole-of-government, consistent across region, and most importantly, consistent between administration?

MS. MAGSAMEN: Easy. Tarun is going to take that one.

SPEAKER: Yea, yeah. (Laughter)

MR. O'HANLON: Excellent! Okay.

MR. HARVEY: I think it's your turn to start too.

MR. O'HANLON: Purple shirt, here, in the fifth row, please.

QUESTIONER: Hi. My name is Ben. We talked a lot about the Chinese kind of economic interests in developing countries, and how they're kind of using that to maybe promote their own interests. Well, we haven't really talked about a lot what seems to be the kind of theme, is America's kind of retreat in terms of maybe aid, or diplomacy, or even free trade. Generally speaking, I think China doesn't have the same human rights concerns that America has, and I think, in a broad sense, maybe human rights violations might be the root causes of a lot of conflicts.

So, is there any concern that -- what China's engagement and America has -- maybe retreat in certain regions that we are allowing the seeds of future conflicts to emerge there, at the same time that we seem to be pivoting towards major power conflict, and away from those civil wars, or extremism, or wherever you want to call it.

MR. O'HANLON: Thank you. And then the gentlemen here right in front.

MR. HARRIS: Robbie Harris, a Former Naval person.

RADM O'CONNOR: Hey, Robbie.

MR. HARRIS: I'm tempted to ask a billion-dollar question again, but I won't, since Kelly has already answered it. During the previous administration, the Corridor Work Regime, a lot of emphasis was placed on the SCO Office, the Strategic Capabilities Office, (inaudible). The current strategy emphasizes innovation given that emphasis on innovation, why is it that -- why is it that SCO is no longer a direct report to the Deputy Secretary?

MR. O'HANLON: Okay. And then finally, here in the front row?

MS. ARCHER. Hi. Mary Archer, Department of State. Thank you for a wonderful panel, so far. And thank you, in particular to Kelly --

MS. MAGSAMEN: For the billion dollars?

MS. ARCHER: -- for the extra billion dollars. (Laughter) My question is, basically we enjoy a fantastic working relationship with DoD, and other agencies on these issues, from planning sort of on down. My question for you all would be, what would be the one additional thing that we could all think about to make that collaboration more seamless across all

of our elements of national power in this context? Thank you.

MR. O'HANLON: Great! So, I think Mr. Secretary, we'll start with you. And you can really take whichever, feel free to just take one, or if you want, maybe two at most, then we'll just work down the panel.

MR. HARVEY: I'm at a disadvantage, because I didn't bring pen and paper, so I'll start with, and (crosstalk) work them off, so good to see you agree. So, I think, given where you sit the Secretary -- our Secretary is very mindful, as Kelly, mentioned right on the mark in terms of the importance of allies and partners, and that one of the, you know, main pillars of Secretary Mattis' approach to how we engage with the world, and how we sort of protect our security interests.

So, so we have a finite pool of resources that we use from a security standpoint, to sort of build capacity capabilities for our partners. So, how do we better latch together what you do with FMF, Foreign Military Financing funds, with what we do on our side with Title 10 funds that we have, which is not an insignificant amount of money; that The Hill earmarks probably about 85, 90 percent of your formal advice, so we don't have a lot of flexibility there.

But are there ways that we can better tie our efforts together, and apply those resources, not in a peanut butter spread, not based on sort of political calculation, but where we think we get the most benefit, from a security standpoint, in terms of bolstering partners and allies, who are going to be standing with us in meeting some of these challenges at the, you know, with the great power competition? So, I think that's one.

There is, to the question of how do we come with a whole-of-government, you know, I've heard some commentators inside and outside the government say that China and Russia don't have a whole-of-government approach, they have a whole-of-society approach, and that's a benefit when you have an authoritarian regime with a strong man at the top who can basically direct the resources of society, whether that's, you know, biker gangs that drive across Eastern Europe, you know, Church assets, all sorts of, you know, putatively nongovernmental assets and organizations.

I think we would sort of be very satisfied with a very well integrated whole-of-government approach, and certainly in Asia, and to a certain extent on Europe, the NSC is taking the lead on sort of pulling together, particularly folks right now, on an Indo-Pacific strategy that ties together based on the guidance from the National Security Strategy, the National Defense Strategy, and ultimately the reworked National Military Strategy.

Sort of what are the priorities that we see, and how do we synchronize or work across all government agencies, because, I think as you alluded to there is a very real prospect of us going in our own directions, but having that lineup of strategic documents come out, sort of in the sequence that you typically would like it but we never seem to achieve, but now that we have that lineup: how does it translate into action?

And coming up with an implementation plan for that across the government is the real high bar for us right now? But we are mindful of that, and I think we are focused to make that happen.

MR. O'HANLON: Excellent!

MR. HARVEY: I'll stop there and give others --

MR. O'HANLON: Perfect. Admiral, one or two for you, as you wish.

RADM O'CONNOR: Sure. You know, what did Churchill say? It's the worst form of government except everything else. What happened when we changed governments, al-Qaeda assumed that the United States was monolithic. Surprise! The reactions you saw from a previous administration to an attack on an embassy -- two embassies simultaneously is not the reaction you'll get when a different group of people is running the same country.

And that's good. I mean it goes back to, you know, it's messy but it's realistic. But what you will also see with the -- and getting to work for a guy who reads tons of history, is when you look backwards with the clarity of 20/20 hindsight, right, because at the time all you know is, it's kind of like the Battle of Gettysburg, we know more about the Battle of Gettysburg than the people who went through it.

We know what everybody thought, we know what everybody was thinking, we've

read their letters, we've walked the battlegrounds. At the time all they knew was, oh, crap, here they come again.

But the neat thing about being able to look back, and to read the history particularly the Cold War, of deterrence, of the grand strategies, is that you get to see that geography hasn't changed, people by and large don't change, Maslow's hierarchy of needs doesn't change; right?

The motivating Force is for, and authoritarian regimes come and go. And so when you take that, then you can start to look and say, okay, what are the key things that we want to do, and then given where the NSS puts us, then to the NDS. Got it! But the reality is, is that if you take just North Korea, yes, we are busy doing a whole bunch of: hey, what-if kind of stuff, right? That's what we get paid to do, it's in Title 10. We are required to plan for every possible contingency and occasionally somebody writes an article and says, oh, my, god, the sky is falling.

But the reality is, the vast majority of stuff that has been done in this pressure campaign is financial; right, it's economic, it is truly a whole-of-government, and the neat part about our jobs is that if it's not happening this very second, its strategy and policy, right.

And so everything that is going across in the world in the military frame, and to a large extent across the other pillars of government crosses our desks.

And so, you know, as I tell my wife and kids, I am a mile wide and a millimeter thick, and so when, you know, somebody comes in to me and says, okay, I need you to look at this staff action, I get a 20-minute education in that kind of stuff. But that's really what's happening across state, across the intelligence agencies, across Treasury, across Commerce, all of those.

MR. O'HANLON: Let me just do one more, because I'm cognizant. I'm not afraid of General Neller, but I am afraid of John Allen. (Laughter)

SPEAKER: Yeah?

MR. O'HANLON: And he'll be coming soon, but please? That was a great

answer. There's the innovation question you may want to touch on (crosstalk).

RADM O'CONNOR: So, I don't know why SCO isn't a direct report. Each different group comes in and puts it there. I can tell you that it is exactly the kind of stuff we are trying to get after. It is the kind of stuff that in my previous, you know, tour in the Pentagon, this is my sixth job there, I got to see stuff going, hey, we have this, how could we use it in a completely different way?

And I think it's an -- and that's part of the way that I talked about it, which is, you have what you have, how can you wire them together today. Instead of saying, I need to buy a new box that does the -- No. I need you to all talk in fourth-grade English. Now, if we get you all talking in the fourth grade English, I can put in anything here, and I can shoot it, and hit the target with anything on this side, and now it's just a question of: is it an Army person talking to a Marine aircraft? Talking to a Navy ship? Talking to somebody ashore? And does that make sense? So, I don't know why it moved, but --

MR. O'HANLON: Thank you. Kelly, over to you?

MS. MAGSAMEN: I'll leave, again, the grand strategy question to Tarun, who will answer it ably. But I will say one thing, I think there is a mistake to think that just because China is authoritarian and can marshal resources, and direct them to whatever they want, that they have some sort of advantage in grand strategy. I don't think that's true, first of all.

Second, I think, you know, the good thing about the American model and system is that we can make mistakes and correct, we tend to correct our mistakes. We admit our mistakes and we correct them. That is not necessarily the case in the authoritarian model.

SPEAKER: Mm-hmm-mm-hmm.

MS. MAGSAMEN: And so grand strategy, if you make a big blunder like, you know, the Iraq war, you know, I'm just putting it out there. (Laughter) You know, but look at where we are today, we are talking about, you know, strategic competition with Russia and China. And so our system is able to correct itself, and to improve itself. So, I think that is an advantage that we have, that authoritarians do not have.

I agree that you need to have an organizing theory of the case for how you interact in the world, I think we are getting closer to that in some of the conversations we had today, but I'll leave it, again, that to Tarun.

To your question about state and DoD planning. When I was running strategic planning at the NSC, I'd have these interagency planning meetings where the State Policy Planning folks and the J-5, and the Strategy Office in OSD would show up, and it was like space aliens talking to each other. (Laughter)

And it's because we just, (a) we plan differently, we plan on different budget timelines; (b) different cycles, there's, you know, FDIP there, we don't have that at the State Department, it's much more iterative.

So there's a cultural, just difference in how we approach planning, which I don't know that we'll ever truly solve, and maybe we probably shouldn't really solve. But the way to improve seamless planning, if we ever can get to seamless, is to have as much interaction as possible at every level, whether it's at the Cabinet level with weekly lunches between the Secretary of Defense, and the Secretary of State, and National Security Advisor, or it's at a tactical level.

So, you have desk officers, you know, doing rotations at OSD, Policy, vice versa. The Joint Staff sends folks over to the State Department, I mean that's where -- that sort of integration up and down the chain is how you get to a better planning process. You're never going to resolve, kind of, the cultural challenges, I think, of the institutions. But that's probably -- that's probably a good thing actually.

That friction and difference of thinking is actually a good thing, and you're going to get a better strategy.

RADM O'CONNOR: You don't want everybody looking like me, talking like me, I mean poll ads are worth their weight in gold; right?

MR. O'HANLON: And finally, Tarun?

MR. CHHABRA: Yes. So, I'll be quick. I mean, and since I still -- I do take

orders from Kelly, I'll try to take (crosstalk) (Laughter). I mean, I'll turn the question back to you, Jake, in the sense that, I mean I think it's going to require young thinkers, people like you to make sure that the next election is not -- has a major focus on foreign policy, and a major focus on competition with Russia, and especially China.

And so I think it means that the, you know, we need people saying that the next foreign policy debate, you know, or the next presidential debate, spends half its time on this question; right. Or, the foreign policy debate that's 90 minutes spends an hour of it on China.

And I think one thing we do need to be aware of is, you know, many of us in this room care a lot about national security issues, and often the first place where we go when we talk about needing to spend more on defense, or spend more on aid and diplomacy, is to say, and so we just need to cut back on (inaudible).

And I think we all need to have, you know, an honest conversation about possibly needing to do more abroad and more at home, along the lines that Kelly mentioned, investing in education, and innovation, and so on and so forth. And that's going to cost a lot more money, and that's going to scramble our politics. And I think we need to be ready and open to having that conversation.

MR. O'HANLON: A great note to finish on. Please join me in thanking the panel. But before you do, we have ten minutes, or so, for coffee break, you can please go ahead and nourish yourselves, and then come back. (Applause)

(Recess)

GENERAL ALLEN: Well, ladies and gentlemen, thank you very much for joining us today. And I want to thank our Federal Executive fellows from across the think tanks of Washington and elsewhere for joining us and being here today. This is important gathering. It's always an important opportunity for us to address some of the key issues that are motivating the decision-making in Washington. In this case, the key issues that are constantly being dealt with by our military services, our joint force and our senior military leadership. And in that context, we're really honored today to have with us the 37th Commandant of the Marine Corps, General

Robert Neller.

Now, I've known General Neller, I think since we were captains. Maybe even earlier than that and he is known throughout the Corps and has been known more broadly than the Corps, obviously, as one of our great operational commanders. And he has been at the center of so much of the operational challenge that we have faced as a nation for so many years. But beyond being a great operator and being respected for his operational credentials, he's also a great thinker. Not just a great thinker in being a problem solver of those problems from moment-to-moment, but also a visionary thinker and helping, not just to Corps, but our services in general in the country by extension to come to grips with the challenges we face today and the challenges we will face in the future.

We just take a second though to make a point that I want to make. Beyond the fact that our careers crossed on many occasions over the years, I had the occasion in 2006, 2007 for our careers to cross in a very particular place at a very particular time. General Neller was commanding the ground combat element of the First Marine Expeditionary force in a place called the Al Anbar province in Iraq. And for those of you that know the history of that war, the Al Anbar province in 2006 and 2007 was the most dangerous, most violent place in the entire Iraq War. And that's saying a lot because our army and Marine Corps brothers and sisters fought some pretty tough battles all across that country, but in the Al Anbar province in 2006, I will simply tell you that it was uncertain how this was going to go. And in many places around the country and in some newspapers, they had written off the Al Anbar province.

Well, I had the chance to watch this general officer, this young brigadier who had become a major general in that war. Through his personal courage, his understanding of the enemy, his capacity wield our forces, the advice he gave to his commander, the great Rick Zilmer, another great Marine, the activities of those forces, his forces in the Al Anbar province in 2006 turned the war around. It certainly turned the war around. The result of his efforts and many of the great Marines and soldiers who fought in that province was to defeat Al Qaeda and in so doing set the conditions for the theater commander, Dave Petraeus, to see that what the

Marines and the soldiers were doing a Al Anbar was going to work more broadly and the change and the surge ultimately turned the war around in its entirety.

I've always taken the opportunity when I'm with this friend and this great military leader to take point that out because I want history to reflect that it was on the broad shoulders of the Marines and the soldiers of Al Anbar in 2006 and with the leadership of an individual like Bob Neller, we turned around an entire war that was going south on us. And so, General Neller, commandant, it's great to have you here today, sir.

GENERAL NELLER: Thanks Ger --

GENERAL ALLEN: We have some questions, if I could ask. We'll go for about 20 so, or so minutes on the stage and it will come out you to for about 30 minutes and we'll wrap it up sharply at 1300. So, General Lee, we have seen that the challenge of the adoption of the new National Defense Strategy has created challenges and is, as is always the case, there is an equilibrium that we seek between strategy and capability and that equilibrium it is a function of a number of things. The threats that we envisage; the threats that we face, but also the resources that can procure the forces ultimately to match the strategy. Could you take a moment with us please, sir and tell us what are the threats that we currently face today, and how does that match up with a strategy, and how are you seeing resources coming to the core in order to fulfill your obligations as the commandant under the strategy, please?

GENERAL NELLER: Well, the strategy, I think, points out pretty clear who the potential adversaries are. Now, if you define a threat as someone who has capability and the intent, a number of the nations or organizations that are written about in that strategy, you'd have to say do they have capability and do they have intent. Most of them have capability, I'd say the violent extremist organizations have a lot of intent, I'm not so sure how much capability they have, but they're still dangerous because they have intent.

The others, you read what I read in open press about the intent or the actions of some of those potential adversaries. Their capability is significant. It's growing so we have to be wary of that. The thing the strategy does, I think, General Allen, is that it focuses the naval force

on a particular area, not at the exclusion of others. I mean, I think you have to be careful. You never just say, "Okay, I'm only going to worry about them or I'm only going to worry about them." I mean, we're a global force. We can operate -- the United States has to operate across the spectrum of conflict and across the world, so that it does give you a focus or a prioritization and there's a lot to do. I mean, I guess, somebody said, "What are you not going to do?" Well, probably not sleep. I think Secretary Mattis kind of wears that on his should, but there's a lot of concern out there, some are near-term and some are longer-term, but we want to -- the strategy says improve the lethality and readiness of the force. We want to create a more capable future force that will dominate the battlefield. We want to ensure that we have allies and friends because we know that we're not going to have enough capacity to do this by ourselves. And then obviously, there's changes in the processes of the building that need to be done because it is a business which leads to the resources.

So, in '17 there was an appropriation after SCR. I think we've had SCR, eight or nine last year's. It's not really effective way to run a business. It's difficult and restricts the things you can do. We have an appropriation for the rest of this year. It's a lot of money and we are committed to spend that money as effectively and efficiently as we can, even though there was an authorization bill for 19, there is not an appropriation yet. And our dealings with our Congress is they look, it would really be great to have 18 months of budget stability. The number's important, but the stability is as important for predictability; for planning. I mean, I got a note today from Lou Craparotta IMEF and one of the things Secretary Mattis has asked us to do, "Okay, if we get this money, we going to have to be able to show the American people and the Congress and the United States government, I gave you this, what changed?" I went from A to B and went from C to D, my readiness went from here to here and he gave me a whole list of things. Some things is, "Hey, the long lead time wait for a part went -- was cut by 75 percent. We had this many engines that were not available and it took this long to fix them. Now, we've got this many on the shelf and we're getting them to fixed in this many days." So, you know, I don't want to discount the value of resources. Money isn't going to fix everything, but when you

have a sustained adequate resource stream and you want to fix readiness you want to create a modern force and you want to create a future force, you can't do that unless you can plan and do business, not just within the government within the commercial side because we know all the R&D -- not all, but a great majority of the R&D is done on the commercial side now and they have to pay their employees. They have to support their subcontractors because that's where we get our parts and so that's really, really important.

So, the strategy kind of lays all that all out and Secretary Mattis is having monthly meetings where we sit down and talk about where we are in the implementation of that strategy to make ourselves more ready; to make herself more lethal; to discuss where we are with the processes in the Pentagon. So, I think all in all, I think we're -- we had a lot of input to it. We're happy with it. We're moving on.

GENERAL ALLEN: I'll ask you in a moment some of your budget priorities specifically, but the challenge, I think that and, of course, being a service chief, he's also a member Joint Chiefs of Staff, so he's really at the center of all of the decision-making, but coming out of 14 plus years of war, where the Corps, alongside the Army fought a very particular threat and a very particular means of war, but to lead the Corps into an era where a different kind of war fighting, the traditional expeditionary Marine air-ground task force is the need for the day. Can you talk to us a bit about what you had to go through as a commandant of the Marine Corps to move us from that environment of 14 plus years of a particular kind of warfare to preparing us for the future in that regard?

GENERAL NELLER: Well, first, we don't want to lose the capabilities that we developed and the understanding, so you know, we train for the mission; you educate for the future. And you have to remember what you've done in the past and we were tactically very successful and counterinsurgency. It was tough, but the adversary that we fought was although very determined and very willing to sacrifice themselves for their cause, they weren't very sophisticated. And so we had to have an idea so we have written a document called Expeditionary Force 21 and we revised and we named it the Marine Operational Concept and the

problem statement that it attempts to solve is, the Marine Corps is currently not trained, organized, or equipped to fight up your adversary in the year 2025.

GENERAL ALLEN: Mm-hmm.

GENERAL NELLER: And so, we then, from that fall out a whole bunch of things whether it be people, modernization, whether it be equipment, whether it be capabilities, whether it be simulation, whether it be all the different things that we needed to how we're going to organize the force. And so, we've been on a path to do that to include the training that we. So, we don't -- we still do some stability, but now, we want to -- we're doing more force-on-force. We're trying to replicate an adversary that is more of a peer, like when you and I grew up with when we were facing the Soviet Union --

GENERAL ALLEN: Right.

GENERAL NELLER: And you and I could recite verbatim what vehicles were in the combat reconnaissance patrol and the distance (inaudible) and the advanced guard and the main body and where this guy was, that guy -- we have to get to that point against our potential adversaries and that's happening. We have to be able to defend against an air threat. We haven't had an air threat. Even ISIS now is an air threat. So, there's an entire process going on. We've changing the Meth Headquarters to the Meth Information Group because we see there's a need for electronic warfare, for cyber operations, for information operations base has always been important. But right now, we want to give the Meth Commander our Corps level headquarters the ability to do that.

So, what are our priorities? Resilient command and control across the joint voice. What's dependable because we're not assuming that the network's going to be there and for you and I, the last 14 years when we went to where we went, we kind of assumed that we're the radio and that was going to be there. We're going to have SIPR, we're going to MERC JET, that we're going to have streaming video, that we're were going to have uninterrupted coms and from a fixed site. That's not going to be the case. So, resilient command and control; the ability to do information warfare to include electronic warfare and cyber; long-range precision fires. We

need a long stick, both from air-to-ground, ground-to-ground, and from surface-to-air. We need air defense and when I say air defense, I mean, ballistic missile defense, counter AV -- swarming UAV defense. How are we going to do that? How are we going to function? And then, just protect them in uber. How are maneuver? Not just on the land, but in the air and on the sea. So, those are our priorities as far as big categories of things that we're working on. And there's a bunch of subcategories of specific capabilities that fall out from there.

GENERLA ALLEN: General, you've taken some real initiative within the service on issues associated with defending our own networks, et cetera, the cyber threat. Could you talk a bit about how the Marine Corps views that threat and the actions you've taken to defend the network?

GENERAL NELLER: Well, I think the whole Joint Force recognized several years ago with CYBERCOM that we were not investing in this capability. And we realize that what was going on in our networks and we needed to harden our networks and make them more resilient. So, there's a component, a service component to CYBERCOM and they support different geographical or functional combatant commands. The Marine Corps for components to CYBERCOM, we support SILCOM.

GENERAL ALLEN: Mm-hmm.

GENERAL NELLER: So, there's the defense part and there's another part, an offensive one. So, we have to have cyber protection teams and so, you have to find people that have the skills or the talent and you got to train and they have to go through a very rigorous process, which has a high attrition and then you've got to get them in the business and then you've got to keep them because they're smart, talented people and the same types of things that we're looking for are being sought in the commercial side.

I was at a town hall with the Marine Cyber Force Audit for me and a sergeant in the back stood up and said, "Hey general, how are you going to afford to keep me?" I said, "I have no idea." Because I know that Marine can walk down the street and command easily six figures plus. So, what we've done is we've kind of decided that if you are a cyber-Marine and you

make it through all these wickets, we've got -- they have their MOS now. Very good 17XS and the deal I made with them is, "Okay, you're never leaving." (Laughs)

GENERAL ALLEN: That's a sort of Foreign Legion approach, isn't it?

GENERAL NELLER: Well, as long -- I mean, because the one thing I -- when I talk to these Marines, the thing, they love what they do and it's not a good idea. Like, when you go SOCOM now, you go to -- if you're a special operator, once you're in, that's what you do. You're good at it and we're going to leave you alone and let you do your job, so I can't -- there's a pretty substantial bonus or proficiency pay for these folks. Still doesn't measure up as we could -- the commercial side can offer, but I think the one thing I can offer them is, if you really like what you do, okay, I'm going to let you do that. I'm going to let you get really good and then we're going to age that population, so they'll probably be -- this is not a PFC lance business.

GENERAL ALLEN: Mm-hmm.

GENERAL NELLER: So, senior enlisted, chief warrant officer, limited duty officer, major or lieutenant colonel business. So, those Marines cost more money and we're going to pay that because we need to have that capability. So, on the other services, I mean, we're even looking at the Marine Reserve Force to create a cyber capability because a lot of those Marines, that's what they do on their professional life, that's what they do in the business. So, we're looking for them. It's a big deal. I mean, I think we realize that there's a fight going on right now, as we speak. Everybody's network and I've talked to some commercial companies, big network companies, they're running their own cyber network operations center. A lot of people they hire come from us and -- because that's what they want to do. And so, we're in competition that, that's where we're going to go.

I think at some point, it'll be kind of like being a pilot. You'll come out of college and you want a cyber guarantee --

GENERAL ALLEN: Mm-hmm.

GENERAL NELLER: We'll give you a cyber guarantee --

GENERAL ALLEN: Great.

GENERAL NELLER: And then if you make it through the school then, you'll get called and that's what you'll go do. If you don't then we'll --

GENERAL ALLEN: Run them in the grass.

GENERAL NELLER: -- make you an infantry officer. (Laughs)

GENERAL ALLEN: Worked okay for you and me, so…

GENERAL NELLER: Of course, everyone knows the most intelligent, handsome people on the earth are infantry officers. (Laughs)

GENERAL ALLEN: As this would convey.

GENERAL NELLER: Exhibit A and B.

GENERAL ALLEN: That's right. Before and after.

GENERAL NELLER: Before --

GENERAL ALLEN: (Laughs) You choose. So, Commandant, you've -- your comments have been, I think, reinforce what all of us know about the Corps in any case and I think that's the most important part of the Corps is the Marine. Can you talk to us a little bit about how recruiting is going for the Corps today? And very importantly, how is the Corps doing on diversity?

GENERAL NELLER: Recruiting, we had a meeting today with some of the Marines that are members of Congress and our commander of recruiting command was there, Major General Paul Kennedy.

GENERAL ALLEN: Sure.

GENERAL NELLER: And we've already got all the people we need to recruit for this year. They're already in; they're already signed up and they'll ship this summer. And by 1 October, we'll have 50 percent of the people already signed up for next year.

GENERAL ALLEN: That's terrific.

GENERAL NELLER: So, 99.9 percent of high school grads, highest medal, you know, percentage -- 70 percent of the high (inaudible) medal categories. So, we're fortunate and when that doesn't happen, people don't just walk in the door, our recruiters are out there looking;

talking to coaches; teachers; fellow Marines; anybody who can go out there and find a young man or woman who wants to serve their nation as a United States Marine. A lot of opportunity there, but most importantly, the ability to say for the rest of your life, you're a United States Marine.

So, we don't take that for granted and I'm in a similar place with officers. We probably got three or four young men or women for every spot we have to be a Marine officer. So, that takes a lot of work and we'll continue to drive on that.

So, as far as diversity, you know, we -- the number of women and when I assumed this office, I think the number one in the Marine Corps, I think I said we were going to have a goal of about 10 percent. We're about 9.2. And the last four years for officer's sessions, 23, 24, 25 this year 32 percent of officers coming into the Marine Corps were men of color and ethnicity are women. So, with that -- and the standard is the standard and where our quality is as high as it's ever been. So, are we where we want to be there? You know, we are predominantly male -- we are 91 percent men and I'm not sure where after 10 percent, we'll get the 10 percent where we go after that, but I think if you look in every possible category of diversity, whether it be gender; whether it be ethnicity or anything else, I think we are a complete different Marine Corps when we were give, 5 certainly 10 years ago. And so, we know that the demographics of the nation are changing --

GENERAL ALLEN: That's right.

GENERAL NELLER: -- the largest growing diversity category United States is Hispanic, which is also the largest growing category of Marines.

GENERAL ALLEN: That's right.

GENERAL NELLER: So, we're continuing to go out there -- you know, it's about being a Marine. We're looking for people that want to be Marines and those people, young men and women who want to lead Marines and at the end of the day, when you look across and then there's a bunch of Marines out there.

GENERAL ALLEN: For all the interns in here, we'll just take you, get in the line as soon as we're done outside the door if you're not inspired. So, you talked about the strategy;

you've talked a bit of the force; you've talked about your budget priorities; you've talked about the people where we are today. Ten to 15 years from now, how do you see the Corps?

GENERAL NELLER: Well, that's a tough one. I, you know, you and I have had this conversation. We used to say that the nature of war is changing, but the character of war is still one opponent trying to impose their will on the other and I think that's true, but I think all the things that are going on now with the automation and artificial intelligence, I don't know what war's going to look like.

GENERAL ALLEN: Yeah.

GENERAL NELLER: And it's, I think, you're going to see a lot more of electronic cyber affecting systems and I think you're going to see a lot more use of machines. What's the role of a human being in the role of that machine? I think things that fly in the sky, the great majority of them are going to become -- they will not be human being at the controls in that device. There will be a human being somewhere maybe directing that thing. So, it'll be very different, but in in lower areas -- what we would call low intensity conflict of things that lower spectrum, you're still going to need somebody down there on the ground saying, this is mine; you can't have it, come get it. And that's going to be somebody -- some soldier, sailor, airman, Marine with a rifle or whatever we're carrying then, and they'll defend themselves. I mean we are human beings, we're not carbon life forms the human form; we're not androids; there's a human part of this and -- that's going to be the trick is, how do you leverage the technology that's there to reduce the risk to human life, but at the same time, know that there are going to be groups or nation-states or whomever out there who are going to contest, you know, the national interests of your nation or threaten your citizens and you have to be able to defend them. It would be nice if that wasn't the case and we all hope that it all ends out well, but I'm not in that business. My business is to make sure that American lives and property are protected and that the national interests of the United States are secured and that we can have a peaceful, prosperous country and live in peace around the world.

GENERAL ALLEN: We're glad you're in that business. Thank you. Just a quick

question before we go to the audience. You don't have to answer this, but there's an awful lot of unemployed Marine generals that have gotten jobs recently in Washington. And we know that at some point, sadly for the country, you may leave active duty. Is there some department in this administration you got your eye on right now, perhaps to (laughs) -- you don't have to answer that general. It's just --

GENERAL NELLER: I'm going to Texas. (Laughs). I'm going to build me a house and I'll going to ref high school football and work on my golf game.

GENERAL ALLEN: And we know they'll be well recruited and they'll be very capable. Okay, we've got about a half hour to go to the audience and I'll if you would identify yourselves when you ask the question and the question be relatively short, or I'll intervene and we'll go from there. Yes, sir, in the front row -- third row.

GENERAL FREEDBERG: Sir, Sydney Freedberg from Breaking Defense, to pull on some of the modernization priorities you mentioned, the Army has its big six they're putting out a very ambitious program of field testing and prototyping (inaudible) fires, missile, like you mentioned, upgrades to the current High Mars, rockets or robotic ground combat vehicle, optionally manned vehicles, (inaudible) manned aircraft, I know you -- the Corps is working with the Army and at least observing all those things, but are those potentially systems that you might end up buying or are you still in a wait-and-see mode or are you thinking probably not?

GENERAL NELLER: Well, you're correct, you know, we're kind of the smallest child at the dinner table within the Department of Defense --

GENERAL FREEDBERG: (Laughs) but the meanest.

GENERAL NELLER: And so, but we're pretty strappy, so, we have a lot of things, capabilities that we're looking at that are similar to the capability sets the Army's looking at and so, we are following a lot of those things and what we'll do, is we'll follow them, whether it be long-range precision munitions or armored vehicles and we have a board where we meet monthly at general officer level and we talk about those things and we want to get the most scaled cost-effective program that we can and so we're very transparent with what we're doing and what

they're doing. And so, right now, we're watching, we're following. They're making a lot of progress in certain areas and then as those things mature, we'll invest in them as long as they can meet our requirement. And we do the same thing I with our shipmates in the Navy and with the Air Force, so in a -- we're kind of -- we're part of the Department of Navy; we're a separate service, I don't need to remind everybody that there's four services and three departments and so we work together and I think all four of the service chiefs, the places that General Allen was talking about, we've all been there together. So, we all know each other and we're all trying to work the same effect to make sure that we get the most capable lethal ready force we can with the best effective use of the resources are available. So, this money is here, I'm going to take advantage of it because we're not sure what's going to happen in the future. But to answer your question, we're following and tracking all these things.

GENERAL ALLEN: Good question. Thank you. Yes, sir. Third row on the (inaudible).

MR. KRIESLER: Good morning, General, Aud Kreisler, C Powder Magazine. You talked about your recruiting, how well you're doing in recruiting, but you also had mentioned earlier your need to build up your cyber and information warfare guys. Are you getting on the kind of people you need to feel billets and have you changed, have your recruiters changed their targeting to find those kind of people you need? The latest budget doesn't increase the Corps, so you're going to have to work within the numbers you have. You going to reshape the manpower in your Corps, but are you going to get those skilled, talented people you need to do information warfare and cyber?

GENERAL NELLER: I think we're going to find out. We've had a very effective program over many, many years that goes back to even in the prior to Vietnam when we had people involved in what we call our radio battalions --

GENERAL ALLEN: That's right.

GENERAL NELLER: -- and they did electronic warfare and those were very skilled, capable Marines and we've drawn from a number of them to go into this cyber business.

And so -- and we've also like, if you want to go try out for Green Berets or NABSPEC war or MARSOC, it doesn't matter what your MOS is. So, we're out there recruiting for any Marine and we even have a kind of an assessment test that we give them and then we bring them in and see how they do. But Marines that are primarily that are in the communications field, they get into cyber defense; they get into certain MOS of cyber protection and then we figure out who can move on into the other thing. So, the officer thing is going to be different and thus far, we've made our timeline to build these teams. It's not going to happen quickly which is why it's important that we keep them and we're going to have to pay for that. And one of the reasons people say, "Why didn't you increase your end strength," even though you may have gotten more money for manpower, so, well, because the Marines we want to keep are not lance corporals. They're going to cost more money. So, that's why this year, the growth in the Marine Corps you're going to see is a hundred because the ones that we want inside the 186, they're going to cost more money. So, the general -- I said, what's the Marine Corps going to look like? The Marine Corps is going to get older. It's going to get older, not a lot older, I mean, we're far and away the youngest service. Sixty-two percent of the Marine Corps is 25 years old or less. Welcome to my morning brief. (Laughs)

GENERAL ALLEN: What could go wrong with that?

GENERAL NELLER: But -- well and to their credit, 99.X percent of them are out there doing exactly what you expect to be doing, but on occasion, I'm sure all of us were perfect when we were 18 to 25-years old, but that's something we have to keep a constant eye on, but I do think it's going to become more senior and I think as more and more people go to the university and they go into this type of field where there computer programming or mathematics, or they just have a propensity for this. I'm not one of those people that, you know, we go out there and say, "You could come in the Marine Corps and do this." And what do you think?

GENERAL ALLEN: In the back, please, on the left-hand side. Again, please identify yourselves.

MR. HESSICK: Oh sure, I'm Jim Hessick, I'm a professor at the National

Defense University. I noted a moment ago, sir, you said, "Yes, yes. We have four military services. I was myself, once in the Navy. And I drove you all around -- amphibious sleep, so, I learned to appreciate the Marine Corps. There's been some discussion in this town of late that maybe we could have three military departments, but five military services. I'm speaking about the Space Corp business. As service chief, what advice might you have to -- I'm just postulating here -- a future commandant of the Space Corps about running the smaller of two military services within an already-established Military Department?

GENERAL NELLER: I think within the Department of the Navy, the Secretary of the Navy is de facto, the Secretary of the Marine Corps. So, we have a separate budget line and there always tension between when we're building ship, how many ships because obviously one of our readiness issues is we need more have more amphib ships and not just more amphib ships, but we need to have more capable amphib ships. So, I think if there were -- if you were to take any department and subdivide it, you have to be sure that there is a separate funding line and you understand how the training -- there's a lot of overhead to that. I mean, you run your own entry level training. Are you going to do that or not? What are you going to do for schools? And so, I think that's the concern I think most people have when you going to create another service in addition to the bureaucracy and the number of generals or admirals or whatever it is, you know, what are you going to do for entry-level training and where's the schooling going on? General Goldfein, is the chief of staff for the Air Force and the secretary of the Air Force. I mean, they are working through -- they've got space capabilities. They all come operationally under General Hyten at STRATCOM. We're consumers and users of space. We've probably got a few Marines assigned to STRYNO. I know we have a few Marines assigned to Stratton and the people that do the space business. More and more I think people are concerned about space. You know, 20 years ago if you told me I was going to be interested in what's going on in space, I would have asked you why would I possibly interested in that. Today, I'm fascinated and because a lot of things that we do are dependent upon that.

So, as far as advice to somebody, you just got to make sure you got your own

funding and budget line and that the service secretary is going to be there to adjudicate any issues. I'm not advocating on one, one way or the other, that will be decided by the Secretary of Defense and then probably with some discussion with the Congress of the United States, but space is a critical area and as long as we're functioning effectively there, which I believe we are today, I'm good to go.

GENERAL ALLEN: Yes, sir, in the back.

MR. DEAN: William Dean, Bridge Institution. So, the budgeteers are posting charts that show trillion dollar deficits projected now into the indefinite future. So, from now until 2030, 2040. The problem is that when the financial markets anticipate those future budgets in the impact on our economy, they tend to make trades and decisions now that bring that future to the present in the form of financial crises. My question for you, sir, is are there folks in the Marine staff that do budget trades for really significant, deep budget cuts that would have to take place immediately? Say 30 to 50 percent immediate across the board cuts and how the Marine Corps would position itself to be able to survive that scale or magnitude of a cut?

GENERAL ALLEN: Identify yourself, please. Who are you?

MR. DEAN: Yes, William Dean.

GENERAL ALLEN: Associated with?

MR. DEAN: I started my own think tank, that's --

GENERAL ALLEN: Okay, good, thank you.

MR. DEAN: Yes, sir.

GENERAL NELLER: You know, we're always -- you're always worse casing it. I mean we did not believe a couple years ago, we were looking at the force was going to get smaller and so we had built a home number of force models. I mean, we are the biggest single fiscal obligation we have as people, so the fastest way if you had to take a big cut would be to cut people and/or structure and then, the question is do you cut -- do you make the units you have smaller; do we keep the number of units hoping you're going to be able to grow them back; or you cut whole units or whole capabilities? A, we don't really need to do this, we can do this. Have we

done a budget drill to address the magnitude of a cut that you describe? No. Are there people that work for us that have models and things have we considered having to do that? We did a couple of years ago. We never throw that stuff away because who knows what, you know, I think all of us -- that's a lot of money $700 billion is a lot of money. I don't do policy. I don't do fiscal policy. I establish requirements and I try to articulate risks and so, this budget that we have for this year and hopefully, for next year, I am -- beyond that, we could be back to budget control BCA levels because that's what the law is. And so, are we looking at what's going to happen when that happens? Yes.

Nobody expects this to go on. I don't expect it to go on indefinitely and we clearly have sat down as a as a uniform military members and then this and the civilian leadership of the department and looked at, you know, we know what the trend lines are as far as deficits and all that. We're not -- we don't have our head in the sand.

GENERAL ALLEN: Other questions. Yes, sir, please, in the middle on the left.

MR. HUTCHINS: Hello gentlemen, thank you for being here. My name is David Hutchins, I'm here on behalf of the Turkish Heritage Organization. As a Marine myself, it's an honor to have you both here. RAH, I'm a grunt myself. I served from 2009 to 2013 --

GENERAL NELLER: Another handsome man.

MR. HUTCHINS: (Laughs)

GENERAL ALLEN: I was just thinking that.

MR. HUTCHINS: So, my question is grunt related. Where do you see the future of the US Marine Corps infantry going in the next 10 years? How's going to change? Thank you, gentlemen.

GENERAL NELLER: Well, I think it's changing right now. I think, you know, there -- if you believe that there's always going to be a requirement for some sort of ground maneuver force that has to close within control battled space or controlled terrain and/or populations or provide secure -- security for others to do other things, I think the lethality and the range of the infantry is going to get much, much longer. I think the accuracy of their weapons

because of autonomy and different things is going to get much, much greater. I think the protection of the individual soldier or Marine or special operator is going to go up because of changes in technology. I think communications, the battlefield awareness of that individual unit -- I'm going to give you an example, so when I was a -- when General Allen and I were company commanders back when there were still horse-drawn artillery --

GENERAL ALLEN: Right after the Civil War I.

GENERAL NELLER: I was the company commander and I had radios. I had eight radios and then if we're out on a battalion operation, I got another radio that had encryption. The rest of them are unencrypted and when we stopped at night we ran wire to telephones that ran on D cell batteries and that's how we talked, which was actually pretty good because your signature was really, really low and you got off the radio we were afraid the Russians were -- the Soviets were going to find us and shoot artillery at us. And the only people that had a radio on were those on patrol and they usually turned it off until they got to a checkpoint and then they called in or they had a problem.

Now, everybody's got a radio. Now, they've got a tablet. Now, a rifle squad in the Marine Corps has their own UAV. They got a guy in the squad flying a quadcopter. He's going to see over the other side of the hill. I'm not going to have to say, "Hey, go see what's on the other side of the hill?" No, put it in the air and go see what's on the other side of the hill. I mean, the gear is better; it's lighter; it's more durable; the people are fitter, but the information flow that's available to the squad leader, the platoon commander, the company commander is to the point I have some concerns about it. You can have too much information, so we're making some organizational changes to look at that. We've used autonomous vehicles. We've had -- I mean, right now, I can give you a vehicle to carry a lot of heavy stuff that just kind of follows you like a pack meal and you don't have to -- you just got to make sure it's got gas. It doesn't need, you know, you don't have to find forage for it. Although animals do work, so I think at some point, I think, I remember DEP SEC DEPTH used to say, the day is here -- is coming, if not here. When you and I enter a room -- to clear a room, the first thing in the room is not a human being, but a

robot. Because I don't want you to be the first. I don't want a human being to be the first one in the room. So, now we get into autonomy; we get into robotics; and now, how do I how do I move this stuff; how do I carry it; if I'm going, the terrain -- I mean it works great in a building or on a flat surface, but the one advantage of a human being and being an the infantry is, you know, ain't no mountain high enough; ain't no valley low enough; ain't river wide enough to keep me from getting to you. (Laughs) And because I got my feet, now, I can go exoskeletal. You know, I can get a lighter weight. I'm amphibious because I swim. So, I mean, human being still is the preeminent force on the battlefield for at least the near future.

GENERAL ALLEN: Yes, sir. And we'll come to the lady in the second row.

MR. STEELE: Michael Steele, University of Pittsburgh. How is strategy for relation changed in the Marine Corps between the previous administration and current administration?

GENERAL NELLER: You know, the previous strategy was based on the quadrennial defense review that came up with the four plus one construct. People's Republic of China, Russia, Iran and North Korea and then violent extremists, it didn't -- it actually, I think, as I recall, it made the VEO threat was the main effort and the others were mentioned, but not as is clearly articulated as what capabilities they had. So, this Administration, this Department of Defense and I'm not being critical in the strategy, but it many of the things are the same. I think the thing about this strategy in my mind for the Marine Corps, it very clearly says, "Okay, I want you to focus on this and then it also talks about all the competition -- the renewal of competition of great powers and the idea and the acceptance that it many areas of modernization and future capabilities, the United States has got to get themselves back in the game. There are certain capabilities where we are, I think, we have an edge, a competitive edge that we want to retain. There are other areas where it may be even and there's other areas where we think we are no longer -- we're not -- we're no longer the peer. And so it lays some of those out and then that's where we going to focus on our investment and so, I think that's the difference between the two.

GENERAL ALLEN: Yes, ma'am. You had a question in the second row.

MS. FAZEL: Thank you so much. Thanks for taking my question. I'm Marina Fazel, an Afghan American journalist. Thank you for your service. I can see that being a soldier and being a general obviously, has you focused on the threat and everything that has been said here has been focused on developing more lethal and long-term and weaponry for the future, but at the same time, it's fascinating to listen to you speak as a human being. Describe the values of being a human being. Just a minute ago, you spoke about our capacity to be amphibian and change and still be ahead of machinery, and yet, here we are in the digital era where we are facing entirely new threats.

On a layman level, what is -- and as a strategist, what is your advice for future leaders. I know that you've always been focused on developing the most lethal systems to protect, but isn't the way forward for human beings, for the species -- something other than war? Thank you.

GENERAL NELLER: Well, I would hope so. I would hope that -- I mean, look at your country. I mean, you would think at some point, not just in Afghanistan, but I mean, don't we get tired of this? There's other things to do. So, -- but I don't deal in aspirations. I deal in reality. And, you know, we're -- unlike General Allen, I've never served in Afghanistan. I visited there many times, so I don't feel I'm self-qualified. Until you've lived in a place and really see the people and find out what's going on, you don't -- I don't think you can say you really understand. You can try and understand, but at some point you ask yourself in this, how does this end, or is this just the normal way things are? I think we all have aspirations that if that there is a better way to do this. But in the meantime, there are groups of people out there ISAS Al-Qaeda -- I'm not so sure there's a way to negotiate with them. I don't think that we're going to convince them that we're right in they're wrong. They're certainly not going to convince us that they're right and we're wrong. And so there's going to be conflict and we have to deal with that. So, just like President Macron yesterday in front of the US Congress talked about I believe that freedom-loving Democratic people are willing to stand up and sacrifice for what they think is important. You know, that's what I get paid to do.

GENERAL ALLEN: Let me just add to that because I think it's really important. The general, of course, lives those values and in societies like ours, the United States and similar societies, my own experience in the last several years and dealing with the precious young soldiers and sailors and airmen, coastguardsmen, has been that while the outcome of their profession may be the taking of life, that's not why they went in the service. In fact, most of them I would say, have come into the service prepared to give their lives for higher principal then that they came into the service to take life. And I think there's a profound difference between the two and that is certainly at the heart of our US services and I can't speak for the other nations at maybe in here. I've served with at least 49 other nations' services I've always felt very comfortable. But who we are as a people and what we are as military force is much more about our preparation to sacrifice on behalf of greater principles than necessarily being organized, trained and equipped simply to go out and take life, which I think is an important point that he made. It's about protecting Americans and American property and that of our allies. Not solely organized to go out and take life and I think that's an important --

GENERAL NELLER: I can remember in Iraq in 2006 when I was with General Allen (inaudible) and I was meeting with some local sheiks and I was like, "Hey, what do you want?" They said, "We want new roads." I said, "I want new roads." They said, "We want electricity." I said, "I want electricity." They said, "We want hospitals and schools." I said, "I want hospitals and schools." "We want you to leave." I said, "We agree on everything." (Laughs) Why are you fighting me?

GENERAL ALLEN: Aren't we're glad he's the 37th commandant? (Laughs) Yes, sir.

MR. HARRISON: Robbie Harrison, as a formal Navy person. I'm hearing (inaudible). I want to follow-up on two points. I think I heard you say that in 15 years, there may not be any manned aircraft. Point number one. And I think I heard you say that the budget largest that we have this year and next year won't last. Did I hear those two points correctly?

GENERAL NELLER: Yes. And maybe to clarify the first one, there's no reason, I

mean, we can fly darn near everything we got now without having a human being in the cockpit. I mean, in Vietnam, we could fly the -- remember the old hazrat, we could fly A-4s around there was somebody in there, but the guy on the ground could dial you around and take you where you wanted to go. I mean, the capability is much more sophisticated. I mean, there is -- any vehicle we have, any airplane we have almost could be flown. Now, where it could be functioned and the weapons systems and all that sort of -- but to fly that thing, I'm not sure we need a human being.

Now, the budget, to the point made in the back, I mean, that's a lot of money and the fiscal health of a nation is part of their national security. So, I never assume anything. You know, we're -- in the military, you know, you plan for the worst and you hope for something better, that way never disappointed, all right. I'm a Marine. I expect nothing and I get less. (Laughs) Okay, so that way I'm always happy. It's always can get better, but I think that it's a lot of money and we understand that and that's why if there is an appropriation for '19 based on what the authorization bill is, I mean, we are working as soon -- working to make that as much benefit out of that money as we possibly can and account for every single dollar we spend and ring every bit of readiness, lethality and modernization of future capability of that as we can. Absolutely, and the Secretary of Defense has been absolutely crystal clear on that and I do not want to be standing up in front of his desk on the 1st of October explaining why we didn't spend all our money. I will not be standing in front of his desk. I will not because I'm going to say, "Yeah, we spent it all and here's what we did and we went from A to B."

MR. O'HANLON: Before you wrap up, I've been asked to, as a matter of protocol, once you do wrap up and we thank the commandant. We should all just stay in our seats since he's (inaudible) --

GENERAL ALLEN: Very good, thank you, Mike. We have a couple of questions left. Let's go to both questions very quickly because we have about three minutes. The lady against the back wall, please and then the gentleman right in front of her.

SPEAKER: Thank you. I wouldn't have spoken had Ms. Fazal not made her statement earlier. I am a cross-border Pashtun, from Afghanistan-Pakistan. My family was

divided by the Durand Line and I have served with the Marine Corps in Iraq and Afghanistan specifically in the country insurgencies. The things are as you mentioned, ISIS, and Al-Qaeda, they were born among civilians which is why under General Nicholson I have to start the female engagement teams. Please remember, women are not bombing us; women are not shooting at us, for the most aren't. We need to start reaching out and I used to emphasize this to the Marines, apart from knowing how to shoot a gun, they should know how to talk to people wherever they happen and they will win so much more. Thank you.

GENERAL ALLEN: Yes, sir, please. And I think we had one final question over here. This will be the last one.

MR. WINTES: Steve Winters, independent consultant. General, do you -- you mentioned Robert Work do you get the sense that the change in focus from the four plus one which you mentioned with the quad, report to the current sort of big two and NDS is being driven by an increasing appreciation of the technological challenges posed by the big two. I was struck recently with Mr. Griffin over at Defense Department, said something, "We're not going to be focusing on the Mideast. That's not our priority right now. That might have come across as a very shocking statement, but from the standpoint of the technological challenge, it's sort of an obvious necessity.

GENERAL NELLER: No, I think that's a fair statement. Although, you know, we may, you know, as much as we might like to divert attention from the Mideast, they continue to be fascinated with us. And so, and as long as there's risk to ore friends and allies there; and we don't want to play home game and so -- but I do believe that the two in the two plus three because of their large investment and continued development in all these future technologies that's driving a lot of the stuff as far as investments and in things that were doing and so -- and they both are, you know, they are peer competitors potentially, if they choose -- if they choose and we all have choices. So, I just respond to her comment. You know, I agree with you, I mean, but for the same reason, that the Marine Corps developed female engagement teams; for the same reason that the Marine Corps put advisors and enhancing the number of advisors with Iraqi

and Afghan forces; for the same reason we drove miles and miles and miles and went to all sorts of suras and town halls and had KOEs and met with sheiks and leaders and mukhtars and business people for the very reason you said, to talk to people talk -- to people. So, I agree with you. I'm not sure that like I got the sense that you didn't think that we were willing to do that. I assure you, at least my experience, has been that, that is really -- and General Allen maybe in his own time, maybe the best example of that. Him and a guy named Dave Reese, spent hours drinking tea, trying to convince people that, yeah we all want the same thing. Why can't we just figure out, you know, kind of the Rodney King philosophy of life, can't we just all get along. I'm not being facetious.

GENERAL ALLEN: Final question here. We're slightly over, so --

MR. CONNORS: My name is Jim Connors. I thank you both for your service. General, can you tell us what your wristband is for?

GENERAL NELLER: Oh, this? So, it was April 2006 and we had just gotten there and we were beginning to field an electronic jammer to defeat remotely control IADs that we were pretty confident was going to work really, really well. So, then, we realized, okay, so what's left. If they can't use a remote control, a phone or a garage door opener, or something, what are they -- well they have two choices. They can either put it in the middle of the road and put some sort of pressure device and then you got to drive over it, or they're going to have to sit there and wait for you to drive by and then touch the batteries together, so okay. So, I can handle that so, I'm going to drive -- if they want to do that. And the TGP had been to drive really fast because to try to beat the guy pushing the button. So, we had to retrain everybody, so like, look, you got to go slow because slow, so you got to see what the ground looks like in slow because if there's a guy out there out -- a guy, not a woman, a guy out there trying to blow you up, you want him to think that you can see him and at least then we have a fight. So, we started to think about it. I said, well, what if we put something in front of the truck? Let's push something in front of the truck, a roller or farm tool and then, we could do that so I started -- that's a resource -- that's not a new idea. I mean, there were people who had done it and so I posed this. We had a working

group with the EOD guys and the explosives ordinance disposal people, they're all kind of old crusty limited duty officer and they're like, "Oh, you know, General, it's not a good idea, you know, to blow up -- they would offset the charge; the gunner's going to get frag. What if it doesn't work?" And I went, "Oh, yeah, you know, maybe you're right. So, I went -- it was April 22nd and I went in and I got all the casualty reports on my computer and this young man name, Eric Lincoln in 3rd Battalion, 3rd Marines up Haditha, he came across as KIA and he was driving a humvee and he ran over a pressure IED and he was basically consumed by the blast and read that and I started thinking about my idea and then I got angry with myself because I was doubting myself. You're a general, right, you're supposed to make decisions; you're supposed to force people to do what you think is right; you're supposed to keep these guys alive. So, we had a meeting the next day, I walked in and I go, "Okay, we're going to build rollers and all the -- I'm not asking your opinion anymore. So, we did and in a matter of months, we had a roller fabricated and then industry found out about it. And now, you see all these things on the front of all these trucks. I mean, there was stuff already out, we just weren't using it. And so, that was kind of my -- so I finally -- I bought -- it took me 10 years to buy this bracelet. I was at a PX and they're having you know memorial bracelets and I had a picture of the kid in my in my car and then I -- so I got a bracelet and it was kind of like, this is my, Dear General, do your job bracelet. And then battalion commander, Brigadier General Norman Cooling 3rd Battalion 3rd Marines, he said, "Here let me take a picture of you battalion newsletter because (inaudible) and so I took a picture like this and then I got a text from a guy, who goes, "Hey, my name is John Smith, Jake Lincoln wants to know why you're wearing his son's name on your wrist. He wants to talk to you," so you aren't you glad you asked me this question? (Laughs) Anyway so I call the guy and I go, you know, they live in Dubois, Indiana, southern Indiana in a very rural area and he goes, "Hey," so I told him the story. I just told you. Well, Jake want to talk to you. So, I, do I really want to talk to his dad. I don't do well at memorial services. Don't ever ask me to do your eulogy because it'll be all sloppy and nasty so, some people are really good at that. I'm not. So, finally, after about two weeks, I say, okay, I got to call the guy. So, I called him up. Very nice man, we had nice chat and eventually, I

had flown out and I met him. I've been to his grave, went back out the crane Indiana and they have a weapons station at Crane, Indiana the Lincolns came there. They had everybody from their county we had a big who-ya and took pictures and they names a building, a crane after him. So, that's the story. That's why I wear it. (Applause)

GENERAL ALLEN: So, ladies and gentlemen, we were honored to have the 37th Commandant of the Marine Corps with us today. He's obviously a great strategic thinker and a visionary. My first combat patrol in Iraq was dawn of September 11, 2006 and you led that patrol if you recall and I had just come in on my advance party and from that moment to this, it was clear to me that you were going to be one of the great leaders of the Corps and Bob, I can't thank you enough for sharing this today. For all of your great service to the nation and certainly for your leadership to the Corps and to the Joint Force today. Thank you very much. (Applause).

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CERTIFICATE OF NOTARY PUBLIC

I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

Carleton J. Anderson, III

(Signature and Seal on File)

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