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Featured Speaker:

ADMIRAL JONATHAN W. GREENERT
Chief of Naval Operations
United States Navy

Moderator:

MICHAEL O'HANLON
Senior Fellow and Co-Director
Center for 21st Century Security and Intelligence
Director of Research, Foreign Policy
The Brookings Institution

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P R O C E E D I N G S

MR. O'HANLON: Good morning, everyone. Welcome to Brookings. I'm Mike O'Hanlon with the Defense Center here, the Center on 21st Century Security and Intelligence. And we're honored today to have Admiral Jonathan Greenert, the 30th Chief of Naval Operations of the United States, the Navy's top leader. And he will be speaking this morning for a few minutes about trends in the Navy and strategic thinking, all of what he's up to around the world, including, of course, the rebalance to the Asia-Pacific, and other topics of interest. And after that we'll have a bit of a conversation up here before going to you.

I just wanted to say a couple of words of appreciation and biography about Admiral Greenert. He's a native of Pennsylvania, I believe quarterback country, as they say, so maybe we should get you into the mix on saving the Redskins, as well as all the other things you're doing around the world. A 1975 graduate of Annapolis. A submariner by profession; has commanded attack submarines as well as ballistic missile submarines. Was commander of the U.S. 7th Fleet, among various other jobs.

Was a major part of the planning in the so-called N8 shop of the Navy, as well, prior to his current position as the Chief of Naval Operations. He's been in that position now about three years, which makes him part of a remarkable class of Joint Chiefs who came into office in that year. Admiral Greenert is joined by General Odierno and General Dempsey, among others, as now three-year veterans of the Joint Chiefs. And so I would like to begin the speculation or at least the recommendation process that I hope he may be considered for yet another four-star job when General Dempsey steps down next year, but I don't mean to do the admiral a disservice by interjecting that too much in today's conversation.

I would just like to say that in the three years that he's been at the helm

of the Navy, he has been associated with a number of major initiatives, including, of course, the so-called rebalance to the Asia-Pacific and much of the thinking around Air-Sea Battle, a topic that I'm sure will also come up today.

So without further ado, please join me in welcoming Admiral Greenert to Brookings. (Applause)

ADMIRAL GREENERT: Thanks, Michael. Thank you very much. Thank you, you're very kind.

In fact, I was in Pennsylvania yesterday. We were talking about -- I visited a high school and it was called Moon Township and it was enormous, a big school, had the intermediate school there. And we were talking to the high school students about pretty much what we're going to talk about today, and their interest and their in-depth knowledge of world affairs totally stunned me. I was taken aback by it. I figured they'd want to talk about local stuff or this or that, you know, why the Navy and all this business. Boom, they were way out there and they said how do we get information beyond just the headlines? We would like to understand our world today.

We talked a little bit about; of course, our world today is not going to be their world, as we've seen that remarkable evolution. And they had a partner online that we were VTC'ing with in Taiwan, a partner high school and so we got worldwide very quickly. And we had a Q&A session and they were very remarkably involved. So it is an amazing world as we get out there how connected we are.

I'd like to talk briefly about our maritime strategy and why we are redoing that, the Asia-Pacific rebalance, as Michael said, how we're moving on in that and our relations with, in this case, the Chinese Navy. It's kind of an update on things we've had at the International Sea Power Symposium, which is now about six weeks ago, and we are continuing. The evolution is directed by the president and in accordance with our

rebalance to the Asia-Pacific.

But our maritime strategy, I hope and expect that by the end of this calendar year we'll be publishing this. A relatively new commandant of the Coast Guard, a relative -- a new commandant of the Marine Corps, General Dunford, and I need to give them time to digest what we have put together and make sure that we're in sync because this is a sea services document: Navy, Marine Corps, and Coast Guard.

The compelling reasons for the revision, and it pretty much is a revision, is that obviously the security and fiscal changes since 2007, they've been extraordinary. The Indian Ocean-Asia region, the changes; the anti-access area of denial and the need for access; energy, the challenge for energy and the need for energy; antiterrorism; maritime disputes. All of these have dramatically evolved since 2007.

We have a new strategy since then: the Defense Strategic Guidance of 2012, a QDR. And Homeland Security, where the Coast Guard resides, has had a Homeland Security review. So all of these really compel us and dictate a change to our strategy.

Our principles will be the same, the value of presence, to be where it matters, when it matters, as a sea service, the three of us and how we fit into that. And the value of maritime networks as the leverage and the strength that you get out of maritime networks will come out of that. We'll address the sea services functions of deterrence, power projection, sea control, maritime security, and the importance of access.

But, you know, if you could put up the graphic here, the slide. And if you wonder, the evolving world, compare this to 2007. And I ask you, there's only a few photos up here, you'd say, yeah, yeah, I remember that. The same situation in 2007.

It's different, you know. In 2007, the mortgage bubble, whish, way

beyond. We had a surge going on in Iraq and the evolving war-fighting challenges since then in cyber, electronic warfare, electronic attack, the electromagnetic spectrum, if you will; weapons of mass destruction; and, of course, in the case of Syria, chemical weapons that have evolved since then in counterterrorism. So, again, our objective is by the end of the year we'll complete and have this thing published.

So a little bit on the Asia-Pacific rebalance. Some folks say, well, is that thing really going to happen? I mean, you're still going to do that? And I say, yes, despite current events, the long-range interests of your Navy and really of your security posture, the Department of Defense, is in the Asia-Pacific.

To review, over 50 percent of the world's shipping tonnage pass through the Straits of Malacca, Sunda, Lombok. That's just down there in the Indonesian area, in Southeast Asia. A third of the global crude oil and half of the liquid natural gas moves through the South China Sea. Five of our top 15 trading partner are in the region, Asia-Pacific. Five of our seven treaties, security treaties, are in the region.

And also to refresh, we have been engaged over 70 years in the Asia-Pacific region and with presence, with significant presence in that area. We will continue with this rebalance. And that rebalance means, to refresh, for us, four properly postured forward forces. And we are on track with destroyers to Japan, forward-deployed naval force; littoral combat ships to Singapore; a submarine to Guam; the Triton, which is our broad area maritime surveillance, to deploy that out of Guam and Okinawa; our P-8A, our maritime patrol aircraft, we are now in our third deployment out there, that will continue to evolve.

Most of you saw yesterday the landing on the *Nimitz* of the F-35C, the Joint Strike Fighter. So as bringing that in evolves, we will also forward deploy that first to the Western Pacific. So its forces, its capabilities, advanced capabilities. And the

Pacific area of responsibility is our benchmark and retains that.

But it's also understanding, and that means -- you can call it intellectual capacity, you can call it increased engagement with allies, partners, and potential partners, such as China and India. The rebalance is not single-dimensional; it's not just about China, but China's certainly one part of it and a very important part of it.

China and our country are the world's largest economies and we are, frankly, intertwined. You know that. The number two trading partner, the number three export market, and our number one import source is China. The mutual prosperity of both of us is in our collective best interests. Our presidents met in Sunnylands about 18 months ago and recognized and told us we've got to get the relationship right, and we are continuing on that track.

In the Navy, it was about finding out and working out what are the differences and how do we increase cooperation. We acknowledge the growing influence and size of the Chinese Navy, but we agree and we have a consistent application of the international laws and norms, that we act responsibly both locally and globally, and that involves CUES, which many of you are familiar with, and a Rules of Behavior Working Group, which has been progress, meeting periodically, about monthly now. These are folks made up of our defense and the Ministry of Defense in China and, of course, our naval officers and their naval officers working on rules of behavior in a working group.

And to contribute to the international order. In other words, to be a leader. And we talked about that, we would be -- Admiral Wu Shengli and myself here in Newport, about six weeks ago, with his party and we talked about it with the heads of Navy. How do we continue the useful dialogue that we need to make sure we have a governance on the high seas?

So both our presidents directed the strengthening for military ties and to build the understanding. And as President Obama said, we should institutionalize and regularize our discussions that take place.

The navies are well suited to the task. We are frequently encountering each other in an international domain: the high seas. We encounter each other routinely out there in the global commons. And in a vast area we are often called together to cooperate on areas of shared challenges: humanitarian assistance, disaster relief, typhoons, tsunamis, volcanoes -- that Ring of Fire in the Asia-Pacific region -- counter-piracy all around the world, you're familiar with that, and it wasn't all that long ago we met to search for that Malaysian Airlines aircraft, Flight 370.

So a little update on our relationship. How are things coming together? Well, we're working from the top down, that's myself and Admiral Wu Shengli, but also from the bottom up as we've encouraged and set up our folks to get together at kind of mid-grade officer level and senior officer. But to start from the top, I've met with Admiral Wu five times in the last year and we're working on counterpart visits here in 2015. We will put our input into -- I will provide my input to the folks down in the policy and the Office of the Secretary of Defense, and I'll talk a little bit more on the junior interactions here in just a minute.

But the fact is, with this rising navy in China, we have, in my view, opportunity. The challenges to get rid of needless, unfounded, unprofessional cases in this interaction that we are ultimately and inevitably going to have at sea: I'm talking about unsafe operations. You're familiar with many of them, both at sea and then recently in our sensitive reconnaissance operation intercepts. We've had nothing recent, no unsafe or untoward incidents since August, when we had this last SRO intercept that we viewed as unsafe and we demarched and we talked about that. Admiral Wu and I

talked about this at length and where we might go ahead when we met back six weeks ago in Newport.

So there's a concern for both, from myself, Admiral Wu, and all the heads of Navy, that when we go to sea, as we meet at sea, that we have deliberate governance with proper protocols and really decrease the potential for miscalculation. History is full of cases of miscalculation causing nations to put -- putting them in a situation that they don't want to be in and leaving them no recourse.

We need the clear standards of behavior to make sure we have consistent and professional operations in international waters and in international airspace. And, again, this was embraced by all the heads of navy at the International Sea Power Symposium not long ago.

We started down this road in I think a pretty robust manner back in April of this year, in Qingdao, at the Western Pacific Naval Symposium, when we got together voluntarily, 22 navies, embraced the CUES for professional behavior and clear communications. We exercised CUES at RIMPAC, where we had 25 navies there, 42 ships, and we worked on that at RIMPAC, a lot of different nations, a lot of different navies. But this will be a long, deliberate process, needing constant attention. We're bringing new officers in all the time. In some cases, for some navies, it's very different to have an engagement, to be open, and to be conversing out there at sea.

In the July counterpart visit that I had, where I went to China at the invitation of Admiral Wu, I visited what's called the State Oceanic Administration. I would call that sort of analogous to our Department of Homeland Security, where we talked -- that's where their Coast Guard, if you will, is located. And we talked about introducing the CUES option to -- or the protocol to the Coast Guard, and it was taken in as something that was viable. Our Coast Guard is very interested in it and we're making

that connection now to continue to expand CUES.

In Newport, we discussed CUES expansion across the globe with all of the nations, and it was pretty much embraced by all of the Coast Guards and navies around the world as something that has value, maybe not in its current precise format, but the concept of a code, a known protocol, at sea was embraced globally.

The conversation doesn't stop. We need a sustained dialogue and we had our Sea Power Symposium, as I've mentioned over and over again here, six weeks ago. These symposia will continue. We have the next larger one in Singapore next May, and we'll continue the discussion on both cyber at sea and the impact there and, of course, how do we continue to expand CUES and go beyond that.

Bilaterally, Admiral Wu and I agreed to continue on. We kind of synchronized on where we are on the six initiatives that we started actually almost 15 months ago, whenever he was here in the United States. And they are to continue fleets training in and the promotion of CUES. Between the two of us we both agree it's a good initiative. To increase port visits, and I'll bring, again, to my boss, next year's proposals later this month for next year. I'll bring those proposals' report visits.

We agreed to establish regular service chief communications and the means to do that. We agreed to increase our academic exchanges; both at our Naval War College and our naval academies, and those are in progress. Admiral Wu brought prospective commanding officers up to Newport, where they went into our prospective commanding officer course, talked to our teachers. Admiral Wu attended and synchronized that and we did that. They're coming over here to the United States. We're working through the visas and bringing that up where some of his PCOs will come over and we'll continue that exchange.

We agreed to put together a working group for human resources as he is

moving to build his navy of the future and we're building our Navy of the future to go over those challenges.

And then lastly, to work on preapproved exercises. My Pacific fleet commander is working with his requisite counterpart to find out how do we put modules together so that when we meet at sea and we have that opportunity, whether we're doing counter-piracy operations down in the South China Sea, working in the East China Sea, how can we do exercises, simple exercises, that we can get preapproved? So it's about building confidence and understanding throughout the ranks, to continue on that road.

So let me close now and then we'll get into your questions and answers, and Michael will have a conversation. We're committed to the security of the Asia-Pacific. The alliances are strong and we will honor our treaties. The engagement is increasing, both bilaterally and multilaterally, and it's really part of that rebalance. But the relationships that I spoke to, both with the People's Republic of China, their navy, and India, which is becoming an increasing opportunity, will not be at the expense of our allies. It's not zero-sum. International norms and standards will benefit the region and we need to continue on that way ahead.

So thanks a lot and I look forward to your questions. (Applause)

MR. O'HANLON: Thank you, Admiral, for those great remarks and for what you're doing operationally and planning the future Navy and working with allies and with the Chinese. I wanted to begin with the Chinese Navy and ask you to give us a little bit of your assessment, an update as to their quality.

I remember Admiral Willard, when he was running Pacific Command a few years ago, made this statement, a very pithy statement, that everything we thought the Chinese might do, they're actually doing it even faster and better than we once thought. And, of course, the flipside of everything you discussed in terms of trying to

build engagement is our concern about their rise and their potential capability. How do you assess their overall capacity and quality at this juncture?

ADMIRAL GREENERT: Well, I'd put it into two categories maybe. One, the three-dimensional, the construction, the technology, and all that. I think Admiral Willard has it about right. I don't know that they're continuing that speed that he mentioned before. I would call it apace with what we might consider both in the weapon development architecture, if you will, naval architecture, and the building therein.

I would say that what we find in RIMPAC, they've operated in among themselves, but not internationally. So I think they have a pretty good learning curve to take on. We saw it in RIMPAC. They started out sort of rudimentary exercises, had some problems maybe here and there, not unexpected for somebody entering into a multilateral engagement, but they ramped up reasonably well.

So it's kind of like almost an Olympic grading scheme on some of the exercises we have. How did we do on the gun shoot? How did we do on the this and that? And some said, well, they were average to high average. And I said, well, okay, I don't know what judges decided that.

But I would say they're coming along well, especially their interest in humanitarian assistance and disaster relief, and to take on the responsible role that, you know, a growing navy would take on.

MR. O'HANLON: Are you overly concerned about the pace at which they're getting better? I mean, the last thing you said, obviously, seems, you know, fairly apple pie if they're helping more with humanitarian operations and so forth. But, of course, I know that our navies have sometimes come into close proximity. There have been some dangerous encounters. They're not entirely comfortable with our presence in the Western Pacific. There's a lot of thinking they want to push us back.

I guess a twofold question. Are you particularly worried about that? And then secondly, do we need some new rules of the road for how the navies interact, some of the safety measures and, you know, hotline measures that the U.S. and Soviets had in the Cold War? Will we be well served by introducing more of those into the U.S.-China relationship?

ADMIRAL GREENERT: Let me answer your last part first. I think it would be of great interest. We've started a dialogue. It is relatively routine right now. Periodic, perhaps predictable. I think it follows suit that we have a means to discuss -- both continue our deliberate processes, but also when we have these untoward incidents, to get on the line and say we should talk about this as opposed to reading it in the media or diplomatic channels as to what happened, both maybe, quote, your side and my side. Two professionals mariners saying -- especially if it's contrary to things that we agreed on. Say what's the story on this?

To me, that's how you find out if you can trust someone else, how much confidence do you have in them? Are you willing to take more risk in them? And how much authority do they have through the chain of command and just how tight is it? And it's also a way to evaluate, you know, that other navy or that other entity when it goes.

This is not apple pie, and if I gave you that impression that would be the wrong impression. It is encouraging, but, at the same time, it warrants vigilance. So who is -- this is an opportunity and so who are they going to be? If they're going to be large, they're technologically advanced, what are the intentions and how do we manage this growing entity that we're going to share the South China Sea and the East China Sea? Because we're going to be there and they acknowledge that.

MR. O'HANLON: And this brings me back to the rebalance, if I could ask a couple more questions on that. You itemized some of the specific things you're doing

with more destroyer capacity in Japan and the four littoral combat ships going towards Singapore, I think another submarine at Guam, et cetera, a number of specific changes and initiatives. But I wanted to ask you also about sort of the big umbrella change, which is this notion that 60 percent of the Navy is supposed to be focused on or based in the Asia-Pacific, at least by 2020, and that's a change from the 50 percent norm that we had for much of the Cold War. How are we doing with that?

And my next question is, of course, going to be about the budget and sequestration. Because even if we're moving towards 60 percent of our Navy in the Asia-Pacific, if budget pressures are pushing your fleet size downward, at some point 60 percent of that smaller Navy is no greater than 50 percent of the old, but I'll come to that next.

How are we doing at approaching that 60 percent goal and what does it really mean? Is that the 60 percent of the fleet that's going to be operating in the Western Pacific or more generally throughout the Asia-Pacific region, including the Indian Ocean.

ADMIRAL GREENERT: That number of 60 percent represents the percentage of our Navy that is home-ported West. The idea is it's easier to rotationally deploy or to react, if you have to, if you're home-ported where you believe your focus of attention should be. We're on track for that. As we build ships, we look toward home-porting them to the West and keeping, again, that process going because it's not just numbers; it's also the numbers with the most capability.

The two destroyers to Japan is a part of that. The littoral combat ships to Singapore; they're not a part of that in that they're not home-ported there. The sailors don't move there. They will go out and operate, we call them forward station, and we'll rotate the crews. But the ships themselves are literally -- it's kind of like where your

family and where your home is. In that case, it'll be San Diego. Still West, but not as far West.

So, yeah, my point would be we certainly -- we have a target number. We need, you know, 306, our number of ships, in order to accomplish the defense strategic guidance. But doing the best that we can with the ships that we have is also important.

So to put it another way, Michael, we could have a lot of ships, but if they're all here home-based in the United States and we're not operating forward, then we're not nearly as effective. And if we try to respond, then it's three weeks from just about any place in the United States to any hot spot around the world.

MR. O'HANLON: So that's a very helpful clarifying answer on the 60 percent. Now I wanted to ask you about fleet size.

I know that today's fleet, well, I'll let you correct me in a second, but it's in the vicinity of 285 ships. You're aiming for 306, as you just mentioned. But, of course, that's based on your hopes of where the budget will go and what's reflected in the administration's long-term budget plan, but we also know two things that complicate your life. I'm sure there are a lot more than two, but two things.

One is, of course, the potential return of sequestration in next year's budget, a sequestration level defense spending, which is lower than the administration wants or has planned on, lower than you've planned on. And yet, at the moment, it would be the law of the land that we'd return to those levels unless Congress is able to act in the meantime. If we do wind up at a sequestration level of defense spending and we stay there, can you give us a rough sense of what that does to your plans and how big the Navy would become? So instead of being 306, what's a rough approximately benchmark?

Of course, the other complicating factor is that a lot of times technology, like F-35 aircraft, winds up costing more than we hope, and so you could have additional pressure reducing your numbers of purchases of ships and airplanes because of that. So can you give us a little sense, you're at about 285, I think, you're hoping for 306, but what could happen and how much could you fall short if you don't get the funds you need?

ADMIRAL GREENERT: We're at I think it's 289 is the number today. You know, I don't want to quibble so much, but there's a point to be made. We're growing and we're growing because we've had a stable shipbuilding plan now for about five, six, seven years, I would say. That has produced ships and ship projects, shipbuilding projects, that are coming in on time and under budget because we have a competitive situation and a multiyear procurement situation. So the value of that has started to show itself and we will continue to grow.

Under the current budget that we have today, I'll start with that, the Fiscal Year '15, if you extrapolate that out, what we submitted to the Hill, we would have 308 ships by 2020. And if you go out to 2025, we'd grow to 317. So that's a decent scenario.

If we went to the Budget Control Act, and there's two parts of that, you go to the Budget control Act in a very -- how do I say this -- a predictable manner. So you sort of know what your budget is and you make those plans. And then you can go about it where you get sequestered, where there's just no decision every year. You get to the beginning of that year and then you get sequestered. We have this algorithm which kicks in, and that's Fiscal Year '13 all over again. That is a bad situation for two reasons.

You haven't planned for any of it because you haven't been told to. And then you suddenly have all of your programs, you know, reduced by 10 percent. So you scramble for months to reprogram money and get the important monies where they need

to be, like the Ohio replacement. You lose months of work, months of hiring perhaps if you're trying to get engineers, so it's very disruptive and that adds up if you do that year after year. That is worse than just going to, you know, a long-term Budget Control Act. And it doesn't help with your people, who are the most important aspect of it.

But to your point, I'd say the -- I worry about the shipbuilding industrial base. I worry about that scenario which would cause us to have to reduce our shipbuilding account. This would take years to manifest itself in numbers, depending on how many ships we had to retire to meet the budget requirements.

But, more importantly, if we lose a builder here and there -- and there's some likelihood we'd lose one or two builders and we only have five -- then we lose that competition that I mentioned earlier, which gets you a much more effective and efficient shipbuilding base and it gets you the situation where if you need to reconstitute your ship account, if you will, you can put money in, but you only have so many builders. You lose your mid-grade vendors, if you will, people that build specialized valves, circuits, and other specialized items, especially in the nuclear arena. And that would be a tough call and that would be a very tough recovery.

MR. O'HANLON: By the way, quick follow-up, just for the general viewer and observer here, those five shipyards, could you just remind us of where they are right now?

ADMIRAL GREENERT: Sure. If I start it'd be Bath, up in the Northwest, in Maine; Electric Boat in Connecticut; down in the Newport News area, you have Huntington; and then you have Ingalls down in Gulfport, Mississippi; and then you have NASSCO out on the West Coast, in the San Diego arena. So those are the big ones. There are other shipbuilders, but those are the big ones that provide, if you will, our capital ships.

The little combat shipbuilders are up in the Northwest, in the Wisconsin area, and down in the Gulf in Mobile, Alabama.

MR. O'HANLON: I just have two more questions. One's going to be on missile defense and then one on Air-Sea Battle.

And on missile defense, of course, this is an important priority for not only your service, but all the services, and you've got the standard missiles as well as the Aegis radar that would provide information and guidance. But, of course, we also know that China in particular is modernizing its missiles very fast. And as I look at this from just sort of a military technology point of view, it's always been tough for a defender in the missile age to deal with the potential threat from missiles, whether it's ICBMs and the nuclear threat or whether it's the tactical threat, which is probably of greater concern to the 7th Fleet, for example.

How do you feel about the overall trend in missile defense technology? And I guess to put right to a point, do we really need a breakthrough in directed energy weapon defense before we're ever going to be able to change the balance and really have the defense in a potentially strong position vis-à-vis the office.

ADMIRAL GREENERT: My view is there are two areas that we are doing some very good exploratory work, some demonstrations. And they are directed energy. I think that is a longer range, effective weapons system that we need to look at.

As we speak here, we have a directed weapon -- in fact, if you have it, Tim, if you'd put it up -- out on the *Ponce*. And there it is right there out on a ship in the Arabian Gulf. And in just a few days, we're going to demonstrate this thing. We already have, and you can see the results up here behind. That's a low-energy weapon, directed energy weapon, and you can see the results with the small boat there and the drone that is, you know, flaming coming down. So that's at a lesser energy.

The key is how do you increase the energy of this and what kind of power source is required for that? I think, you know, we're on a path to do that.

How does it perform? Some people say, well, if it rains, the water will absorb the energy and say, well, really, let's take a look at this. And so we said put it out in the most difficult or an austere environment. I can't think of one more than the Arabian Gulf in late August through this fall. So that's what we're doing and I think that's an important weapons system.

The second piece is we've been sort of obsessed with bullet-on-bullet: we'll shoot down a ballistic missile or a cruise missile with another missile, and that's a pricey view. By the way, one of these, that costs you about a dollar, so once you're on target and you lay something, you lay 10, 15 seconds, whatever it is, it's about a dollar. A missile costs almost a million dollars from some of our high performers. So you see the payback once you get that thing started.

The other side of it is to spoof it, deceive it, and jam it, and rather than just trying to shoot it down. So that's what I call electromagnetic maneuver warfare. Know the spectrum, understand it, expand your ability to detect both low energy, if you will, seekers and then to -- and, you know, the broad spectrum that we have out there; to move in that spectrum, to be agile in that electromagnetic spectrum and we need to expand that and we're working on that hard.

MR. O'HANLON: And my last question's about Air-Sea Battle, which, of course, is an innovative and big idea that came out of the think tank world, a think tank known as CSBA, I think, to a large extent, but also the Navy and the Air Force in particular have promoted it on your watch. There's now a concept, official concept, on the Pentagon website that people can read about what it means to the military.

And Jim Steinberg and I wrote a book in which we talked about this

concept. We had some concerns, but saw a lot of the military logic behind it. But I want to express in summary form what some of the stronger critics have said and ask you to respond and explain to the audience what Air-Sea Battle means to you at this juncture in late 2014. Because it's now been around long enough as an idea that different people have taken it in different directions, not so much within the military, but outside.

And some people have argued that what Air-Sea Battle really should mean is long-range strike, where we don't have as many assets forward-deployed in the Asia-Pacific region. We have more at Guam, Hawaii, the Continental United States. Get ready for, you know, a bigger war in which our assets are not so tactically vulnerable.

And also, that if we wind up in a war, specifically against China, that some interpretations of Air-Sea Battle would say we ought to preempt some of their launchers fairly early, even on the Chinese homeland, some of their missile launchers, some of their submarine yards, for example. Obviously there's some logic to those ideas if you get deeply into a war and you have to really think about going to the limit to win, but some people have said the proposal for an early preemption could be dangerous in a crisis.

So I just wanted to give you a chance to explain in the terms that you see most appropriate. What does Air-Sea Battle mean today in terms of your modernization strategy and war-fighting strategy?

ADMIRAL GREENERT: So let me back out of the war plan for China that you just described, if you don't mind.

MR. O'HANLON: That's fair enough. (Laughter)

ADMIRAL GREENERT: And we'll talk about Air-Sea Battle. It is a concept of thinking about how to get assured access to wherever it is your need to go. And this could involve, and it really could involve, humanitarian assistance and disaster

relief. How are you going to get into a particular site? How do you get access to delivery comfort when you have things that are going so much against you? We saw it very much in Operation Tomodachi. We had radiation issues, we have contamination issues. How are we going to go in and measure that so that we can then get in and deliver it and the logic that is behind working together to do that?

So let me leave that for what it may. This can involved operations across the spectrum. A lot of people feel it is, think kinetically in that approach. Okay, you need to get access, how are you going to do this to deliver this kinetic weapon? I would say there may be an unkinetic way to do that. Maybe it involves electromagnetic features. Maybe it involves cyber, the undersea, the surface, the air, space. There's a whole host. And the idea is you've got to think across the spectrum of the domains, number one.

Two, it may be -- well, like I said, it could be a kinetic effect or a non-kinetic. Which his best and will get us the access and get us that answer?

Number three, if you are under the sea, is it only an undersea effect that you deliver, be it a weapon, be it whatever the heck it is or can you deliver across domain? Is the undersea solution to something on the land better or is the air solution to an undersea problem the better way? So it's getting people to think across domain, kinetic and non-kinetic, across the spectrum of challenges that we have.

Step one is to get our officers, you know, and those coming up to embrace this and stand back. And instead of waiting until you're in an operation and say, okay, have we got and how do we do the best with that? That's great joint operations. But as we plan our campaigns in that, how are you thinking in the manner that I just described, all those features. And then how do you build your programs accordingly?

If the best solution is from an aircraft delivered by an Air Force program there, then why am I building that? If in the joint force we are better served to invest in

that and then, similarly, I should have that on my aircraft if it's a good effect, am I putting that on my aircraft? So it builds an interdependence element of that.

So if you want to fast forward and say, okay, well, I want to talk about how you're going to take on Country X, I would say, well, let's start at the beginning there. You know, where do we have opposed access? What asymmetric approach may we have here? Kinetic, non-kinetic, you get my point. What's the best way cross-domain to do that? And then work our way forward to that. That is the logic that I think we need to build.

Our most recent discussions with the Air Force and all of the services, because we've expanded this across all the services, we have a service chief meeting quarterly that we get together to describe, we get reports on how we're doing. And as we build our POMs and our budgets, are we doing duplicative effort here in this regard? Is there a gap? And if there is a gap, who's best served to take on this gap?

MR. O'HANLON: Thank you, very helpful.

Okay, I'm going to take questions now from the audience. We have about 20 minutes. We'll start with Harlan Ullman in the second row here. Please, even though I've just identified Harlan, please identify yourself and wait for the microphone.

MR. ULLMAN: Thank you, Admiral. Good to see you. Thank you for your comments and especially what you're doing with China. I'd like to broaden the aperture to ask you about your role in the Joint Chiefs and balancing the long term and the short term.

Clearly, there's a rebalance. The White House likes to call it a strategic pivot. But yesterday, for example, General Phil Breedlove, SACEUR, was in town saying, hey, do we really want to reduce forces more in Europe given what's happened in Ukraine? You take a look what's happening in Syria, Iran, Iraq, Afghanistan, Pakistan.

There's a tremendous argument that we're going to be engaged in there.

What sort of advice do you give or would you give in terms of how you balance these short-term issues, which actually could be quite long-term against a larger pivot, especially if we find ourselves more engaged in the Middle East region?

ADMIRAL GREENERT: I think for us we can -- I use the term often -- operate forward and use the forces that we have forward as effectively as possible. So if I look at Europe, folks say, well, wait a minute, you know, what are you doing about Europe? Well, we're putting four destroyers in Rota. I mean, we are home-porting them, we call it forward-deployed naval force. We are building ships today which have great persistence and we could move them there, if you will, and it's about capacity, it's about deck space, if you will, and then bring in the kind of aircraft that you need to that resonates with the -- put up the mobile landing platform and afloat forward staging base. And it's taking what we have and making sure that we are making best use of it for the problems of today.

As I said in my opening remarks, the focus is still within the Department of Defense and within, you know, the National Command Authority to the Asia-Pacific. But obviously, we have today's problems today to deal with. And I think we have opportunities.

This is now -- goodness, this is 2-1/2 months old. This ship is far along. We're building three of these. You see the deck space over there. And these are the kinds of things we can use in and around your North Africa, the Levant, the Somalia, the Yemen, and put these out in and around the world and leave the big deck, amphib kind of issue to continue along the deliberate path for the high-end warfare piece.

So there's messages to be sent to the support, to NATO in there. And I think for us, we're distributing that fine.

On the ISSO operations and people wonder about that, we provide the carrier with air wing. And right now, talking with General Lloyd Austin, he's fine with that. We've got a lot of capacity on the ships that we have forward today.

So 104 ships are out and about around the world, Harlan, and they have a lot of capability. And we will continue to train and to expand that capability so the East can deliver that.

So I'll close with I'm fairly happy with where we're going and that the focus remains appropriately in the Asia-Pacific balance.

MR. O'HANLON: Let's go here to the front row, please.

MS. WERTHEIM: Admiral, nice to see you again. I'm Mitzi Wertheim with the Naval Postgraduate School.

The world has changed. What do you think are the changes that need to take place in the training and education and learning of our sailors and officers? I mean, it's just not about hitting the target. You used two important words to me. One was "understanding" and the other was "relationship." How does that get into our educational programs?

ADMIRAL GREENERT: Well, we mentioned earlier, you know, bringing people from the Chinese Navy over to interface with our folks to see who is this example, who is this department head today, who, in seven years, will be commanding officer of a frigate and a destroyer in the Chinese Navy. And accordingly, who are their pilots and who are our pilots? And making sure that they meet and understand who the other one is, find out can they trust each other, you know, on an international screen or agenda in that regard and how different are they? They're not 10 feet tall. They actually have many of the same concerns. That's helpful.

It's not "Kumbaya." We're not going to all have a Coke, as they say, you

know, and, okay, we can just work this all out. But it is understanding how do they think, what is important to them, what's their psyche. So that's one, continue those international programs at our War College and put more of them in our Naval Academy.

I spoke earlier, mentioned cyber. We have got to get a baseline. We've got to have cyber boot camp, you know, big time in our Naval Academy, ROTC. And then we have cyber warriors, but we are putting tablets and smartphones and the use of them back into our basic training. You say I didn't know you took it away. Yeah, we actually do.

Today, we bring them in and, you know, they've got their phones and their tablets. And we said, ah, take all that away. Write a letter to your mother. And that's like giving them a chisel and a hammer and saying here. (Laughter) And they go okay. And we start that and we say, well, actually we need to give those back. Send an email to your mother or text your mother; you know, as the case may be; that by the way, this is how you need to use this. These are the basics of password protection, of understanding virus protection. Don't charge this thing up on a computer on your ship. That's not a good idea. We don't want to share viruses, you know, across that. Cyber hygiene. So you got to get that down.

Then to say, you know, all the elements of what you're doing, it's a combat system. That network is a combat system. It exchanges information and the understanding of information dominance. You know, he or she who has the information upper hand, definitely has the upper hand and likely will lead to victory in some way. So there's the cyber education that needs to take place.

And then lastly, Bill Moran and I -- that's our chief of naval personnel -- we are working diligently on saying, okay, today we bring a kid into the Navy, they're all kids to me, and in two years, we have them about ready to go be something like an Aegis

tech, gas turbine tech. Two years. Well, you can get a master's degree in two years, right, at any program, most likely; certainly most of a college degree if you're starting there. Well, we're not even close to that. So what is it that we can do to be faster in that regard?

After those two years, it's about six more years before we send -- at least six years before we send them to a major upgrade in their education. That's too long because their equipment is rapidly changing over and over, you know, the loop that we're talking about. So how do we keep up with that in a manner that is sensible and reasonably -- well, we've got to evolve this. We just don't have -- we're trying to build this airplane as it's flying, okay, to put it another way.

So anyway, those are the things we need to change and those three, I think, for sure.

MR. O'HANLON: Thank you. Let's go over here to the side.

MR. FREEDBERG: Admiral, Sydney Freedberg, Breaking Defense. I just came from off Virginia, where your folks and a lot of the allies are starting off Bold Alligator. And it goes to a lot of the themes you mentioned, but also to some of the challenges you've mentioned in the past. I mean, we've got a lot of different countries operating there. We have a Danish admiral commanding U.S. ships, working, I understand, more than past exercise on the crisis response, humanitarian side, as opposed to just sort of the kinetic side.

But also, you know, they had to kludge an antenna onto the side of the LPD to be able to communicate with the allies. It looks like they're stealing cable in a Third World slum. It's just sort of strung up there.

And meanwhile, the Dutch ship, the flagship of this, you know, task force, is built to commercial damage control standards. Even the so-called low-threat

environment, somebody may get their hands on a cruise missile nowadays and do very bad things, especially with a lot of people aboard.

So, you know, with that, because I was using it as an example, how do we deal with these problems of interoperability with the allies, not just technically, but in terms of what they're able to survive in terms of threats?

ADMIRAL GREENERT: Well, if I had that answer as clearly as I'd like to have it, Sydney, we probably could have skipped Bold Alligator and said, well, we've got the answers. But I would tell you we're in a bit of discovery and I think you're discovering that. And you've outlined a few of things that come about.

What kind of equipment and capabilities do our allies have? We need to understand that and you don't really get into those details and find those issues until you bring them together. That's kind of one.

Two, we're still coming -- as the Marines come back to sea, we welcome them back and they have a capability as the moved ahead on ground operations and expeditionary operations over the years in Iraq and Afghanistan, we didn't move at the same equivalent pace and didn't stay as synchronized as we should have. So the discovery that you just described, you know, we're kind of putting an antenna on here that makes us compatible even with our ground forces. And we'll get that capability, understand it, put it into the programming system, and we'll build that. You know, we'll install that as a payload for command and control and, also, for coordination among ourselves.

What we need for allies is we build the next -- as I just described, let's say we'll use your antenna as an example. The antenna, the tracking processes, if you will, and capability and the planning capability, that'd be great for the Navy and the Marine Corps, but back to Air-Sea Battle, how do we use that with allies? Is it

compatible? Can we make it compatible? Do we get kind of step it up and have maybe two different modes? You know, one would be internal; one would be allied in that regard.

With regard to how do we, I guess I'd say baseline survivability, and all those elements, we have to figure that out right now. What kind of ships would we put into a joint forcible entry scenario? I quickly, you know, threw up here an afloat forward staging base. That ship is built to commercial standards in many of its elements. We wouldn't put that in as one of the first ships to do forcible entry. We'd use one of my gray hulls. That ship I showed up here is a $600 million ship. The *USS America* that we usually brought on is over $4 billion, so there's a scaling that we need to consider in all that.

But anyway, I summarize by saying that's why we do Bold Alligator and those are the lessons learned, we'll pull out of that and put into our programming and our budget in the future and our concept of operations.

MR. O'HANLON: Before I go back to the audience, one quick follow-up because we talked a lot about China and now the allies today. I wanted to just ask for any update on how the Russian Navy is behaving and to what extent are you continuing to see them seek to be provocative in this very difficult 2014 year we've had with them?

ADMIRAL GREENERT: Well, I'd say they're very busy in the undersea domain, and I'll leave it with that. They're not as busy on the surface domain. Out at sea, many of the ships that we see, surface ships, I recognize as something that I learned, you know, through my commanding days, and that's quite a while ago. They are building new frigates. They are building new destroyers. They're not out and about so much.

They're pretty active up in the air. Their long-range flights and

reconnaissance are probably more active than they've been in decade in that regard. So they have operating money clearly. They are out and about. They're operating professionally, as always. They've probed up in the Alaska area our -- what do I want to call it -- our ADIZ, if you will. We responded and they acted professionally in all regards.

So, so far, so good in that regard. But I would call them more busy, more operations. Their focus is on the undersea and then the surface and then the air. That's what I've seen.

MR. O'HANLON: Thank you. Okay, let's take two questions here in the fourth row. Take them together and then see if we can respond. And then we'll probably have time for one wrap-up round. So these two right here.

MR. QUINN: Admiral, James Quinn. I'm a retired naval officer. How are you doing with the tempo of operations and how are you managing that?

MR. O'HANLON: Thank you. And then if we could add this one.

SPEAKER: I am correspondent for the Central News Agency Taiwan. I'm just wondering how important or how less important role Taiwan plays in the States' rebalancing policy. And also, I know that Taiwan is expecting to get technical support or (inaudible) from state. What are the steps currently? Thank you.

ADMIRAL GREENERT: I think tempo; we have the *Vincent* on a deployment now. Her deployment will be close to nine months. That's not sustainable. We have -- right now, the Makin Island, that's an amphibious ready group, and they're kind of -- those are the two big -- kind of they're not -- I guess I'll call them anecdotes. They're fallouts from this sequestration issue, and I'll tell you what I mean in just a minute. She's on a deployment which is well over eight months.

When we had -- when sequestration hit us, remember, it was sudden? And when that occurred we, because of the sudden loss of operating money and

maintenance money, we stopped work on some of the projects in the shipyards. The *Vincent* we slowed down dramatically, the *Reagan*, and the *George Herbert Walker Bush*. The *Bush* just got back and she had a fairly long deployment: between eight and nine months.

When you stopped work, like you did then, those that were on deployment stood the watch. We finally got squared away and got the money going again and then we got the shipyards up again and people were out of the furloughs, the hiring freeze lifted, overtime restored. We're trying to catch these guys up, get them through the shipyards and out on deployment. They're out there on watch, longer deployments. They finally come home and now it's their turn to go on deployments. Theirs is longer while we bring these guys back and get them back in.

So this has taken about two years and that's the kind of impact that you have that has second and third order effects. It affects the big decks, the nuclear carriers. It affects the SSBNs and SSNs also. Those are the public shipyards. Those are the federal employees we hire. When you don't have a predictable budget, when you do negotiations for the big deck amphibs with the private shipyards, they're not going to, if you will, spool up to be ready in time. You don't have the work orders done. You get my point. This is just all slowed down.

So we've got another year. *Vincent* will be out there about 8-1/2 months of this longer deployments. When you get into the P3, P8, the submarine deployments, they're fairly notional, 6-1/2 months. My target is seven months. I think that is sustainable by all indications with our people, with our maintenance, with our training. What we can provide, which I think is reasonable and sensible, gives us that presence and the ability to react, to spool up and react, as necessary.

But we need a stable budget. We need the current budget that we've

requested. And we need time to bring the shipyard capacity up to where it needed to be before. So that's just, you know, how long this stuff takes in second or third order effects.

With regard to Taiwan, we have responsibilities with -- a treaty with them. We will honor those responsibilities. We have a process worked out with our Department of State as to how we interact, you know, both for human capital, if you will, intellectually, if you will, and in exercise, and then what we can provide for assistance. And we're living up to that. We're continuing with that and expect to do.

So fairly deliberately laid out, not really a whole lot of leeway one way or the other in this regard. So unless there's something specific, that's about the best I can tell you right now.

MR. O'HANLON: Could you just clarify on that point, what is the guiding document? Are you referring to the Taiwan Relations Act or what's the specific --?

ADMIRAL GREENERT: It's the Taiwan Relations Act. That is our commitment.

MR. O'HANLON: Yeah. Okay, let's take two more and see how we're doing on time. Maybe John Evans in the fifth row and then over here on the side. Take them together, if we could, and then ask the admiral to wrap up.

MR. EVANS: Hey, good morning, Admiral. I'm John Evans. I'm the Army fellow here at Brookings.

I wanted to ask you to put your Joint Chiefs hat on for a minute and talk a little bit about your level of comfort or discomfort with an Army that looks to be going well below 490, maybe 450 as the active force. I know your predecessor was pretty vocal about what his thoughts were on a smaller strategic land force. If you could just talk to us a little bit about that. Thanks.

MR. O'HANLON: If we could take this last question here, please.

MS. ROYALL: Hi. I'm Elizabeth Royall. I work with OSD International Armaments Cooperation.

You talked a lot about cooperation with China and I was hoping you could talk a little bit about the Navy's goals for cooperation and capabilities of our allied and our treaty partners in the Asia-Pacific.

ADMIRAL GREENERT: Okay, sure. I share General Odierno's concern with regard to the sizing of the Army because, you know, we are a supporting element of that in the joint force. And what I mean by that is, okay, if we're going to resize any of the services, really the centerpiece of the land force -- the Army -- then what's the construct behind that and what are we going to agree will be the limitations of our operations out there? And what is our tendency to do that? What has been -- in the past, you know, we've said, well, we are not interested in doing this, that, or the other thing. But then, as we say, the world gets a vote, and the size of stability operations. Because a clear indicator is, as we move anything from Army armor out to helos out to all of that, you know, we're the kind of fill-in behind all that, and we're seeing some of that right now with operations in Afghanistan and the ISSO operations.

And so I think we need to do this in a careful, deliberate manner. We did our own right-sizing of our personnel. It was 1 percent. We had 3 percent. We laid off 3 percent -- or, sorry, 1 percent, 3,000 folks. The effect on morale and the trust factor was huge.

So what we can expect collectively of any of our ground forces in any of our services to size the force, yet make sure we maintain that trust and confidence and the covenant that we have with them, I think is important, and it's a joint issue that we all need to understand. So the size, the readiness, the psyche, and the morale of the ground force is a joint issues and we all ought to be concerned with as we watch it, so

you've got to do it very carefully.

I think in the Asia-Pacific allies' interaction, I think in the nearer term the concept of a collective self-defense is a clear item that I'm watching, and this is with Japan. Where that can take us if it goes according to the plan set out by the Japanese government, then they can share with us and ballistic missile defense. It's defensive in nature. They have all of the sensors, weapons, command and control that we have, so that would be a big move and a foot.

Next would be countermine in locations like the Strait of Hormuz. Again, very defensive, collective in that regard. Required a little bit more coordination; we'd be operating with our carrier strike group and assuming one of those missions of defense of the carrier strike group, such as the anti-air defense, and, you know, all of the rules of engagement for that and the caveats associated. So that would be one area.

Korea, we'll see where we want to go in that regard. That's a matter of what Korea's comfortable with regarding coordinated operations, especially at sea. Right now it's very tentative as they're feeling their way through how much they would want to proceed in that regard.

So when it comes to missions, I would say ballistic missile defense, there is opportunities there. Countermine, there's opportunities there. We've demonstrated this in a good way, the deterrent effect of coalition operations for countermine about two years ago now, where we did the International Countermine Exercise -- pretty standard name -- and 20-some countries came and demonstrated their interest and their capability and their commitment to keeping the Strait of Hormuz open. And that deterrent effect in Iran, who was threatening, you know, at that point to mine the Strait of Hormuz, to focus our attention on countermine, not in Iran, but on countermine, had a great deterrent effect and changed really the behavior of the Iranian Navy.

MR. O'HANLON: Well, thank you, Admiral.

ADMIRAL GREENERT: You're welcome.

MR. O'HANLON: I'm afraid we have to leave it there. Please, everyone, join me in thanking Admiral Greenert.

ADMIRAL GREENERT: Thank you all very much. (Applause)

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