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HOW A MODERNIZED NAVY WILL COMPETE WITH CHINA AND RUSSIA

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THE HONORABLE THOMAS MODLY
Acting Secretary of the Navy

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P R O C E E D I N G S

MR. O'HANLON: Good morning, everyone, and welcome to Brookings. I'm Mike O'Hanlon and I'm honored to welcome the Under Secretary of the Navy and Acting Secretary Thomas Modly to Brookings for a conversation about today's and tomorrow's Navy and the future of great power competition and the United States national security.

We look forward to your questions in the second half of the hour. We'll begin though with a little bit of discussion up here. But first I wanted to say a couple of words about the Secretary. He is a graduate of Annapolis, as many of you know, also has degrees from Georgetown and Harvard. He's a businessman, he is a pilot, he's a sailor, he's been a private sector leader in business for many years before joining the government. And within the Navy in the last three years of his service he has been driving innovation in areas including information technology, new management methods, and a reform to Navy education and updating for today's modern world.

So thinking about a lot of things and most recently, of course, in his current job, thinking a lot about the future of the Navy and everything from whether the 355 ship goal is realistic and affordable and what it even means in terms of ship composition, to which technologies are promising and where we need to go with the future of competition with Russia and China.

So, with that as prelude and background, please join me in welcoming the Secretary to Brookings. (Applause)

My friend, over to you.

SECRETARY MODLY: Thanks. Well, Michael walked us through a room next door with all these chairs set up and there were no people in it (laughter), so I thought there may not be that much interest in what's going on in the Navy or in the world right now. But it's good to see a good turnout because every time I have an opportunity to talk about the challenges we face in the Navy, I think it's a tremendous opportunity and I really enjoy getting the message out beyond just Washington, D.C. but to the other parts of the country that our maritime presence and power is really important to sustaining. And it's interesting to learn as I do travel around, how little some people really understand about what maritime

power does for our country. So I really appreciate the opportunity to get that message out as far and as wide as possible.

So also a great pleasure to be here at Brookings. It's a great institution. In fact, one of my close friends, John Allen, is running the place now and he and I worked together for a number of years. You are in really good hands with him, I'm sure.

So I'm happy to let Michael ask questions and drive in any direction. I can also talk a little bit about -- why don't I start off just talking about what my priorities are, just at a high level, and then we can go from there and see where your questions lead.

I came into the Department about two years ago as the Under Secretary of the Navy and in that role my responsibility was really as a chief management officer for the Navy. So I started driving a lot of reform in the areas of business operations, information technology, and a heavy emphasis on education for the future force. You know, by surprise I was named the Acting Secretary back in November. I don't think anyone really anticipated that or planned for it, but I was fortunate to have been in the Department for the previous two years, so I had some pretty good ideas of what I would want to do in the seat. And I was also committed not to just keep the seat warm. And, you know, I've said before that I'm not the "pretending secretary", I'm the Acting Secretary, and so I'll act like it.

And so I've been trying to push reforms and I guess priorities in three areas. And I simplify it to something called gray holes, gray matter, and gray zones. The gray holes is really the overarching challenge that we have right now, and that's our force structure. What types of ships are we going to have, how are they going to operate, how do we invest in the future capabilities that we need as a Navy and a Nation. And a lot of this is anchored on the 355 ship goal, which was -- I can go into a lot more detail in terms of what that number means. I was at the HASC yesterday and there were a lot of questions about the 355 and what does it mean. It doesn't mean anything in and of itself until you start digging behind what the number is and how it was formulate and when it was formulated. That's all pretty important as well.

But the President made a commitment when he ran and the Congress also -- we should

be driving towards a 355 ship Navy and I just didn't feel like we were on a realistic path to that. And so I've asked the Navy to help us figure out how we get there in something that I call a strategically relevant timeframe. And for me that's 10 years. I think if you go much beyond that you're really not talking about anything of substance anymore.

So that then drives a lot of other investments underneath that. So we've been working very, very hard to figure out what that number is, what it should be, how we get there, how we manage it within the budget that we have and the constraints that we have.

The second one is probably even as important, if not more important, and that's gray matter. And that's an emphasis on the education and trying to transform the Department of the Navy into more of a learning organization. My experience in the private sector is that that's where the organizations that are going to survive in this new century of rapid change and unpredictability, those organizations that can learn quickly and adapt quickly are the ones that are going to survive. So we all want our Navy to survive, and so we have to focus on that in terms of how we educate our people. And so I commissioned a study as the Under Secretary called "Education for Seapower" two years ago. John Allen was on that board actually. And they gave us some very good recommendations about what we should do is sort of change our approach to education. And we're starting to implement those, because ultimately it's that gray matter between the ears of our sailors and the Marines that are going to be the difference for us. They're going to be the differentiator for us.

Technology is becoming ubiquitous and the gap between technological advantages is getting smaller and tighter and tighter. Some of that is because our adversaries out there -- and I like to call them adversaries -- they are competitors too, but they steal a lot of stuff from us and it allows them to leapfrog us in ways that we haven't quite figured out how to deal with. That technology gap is going to get closer and closer. So I think our enduring capability, our enduring strategic advantage is going to be that gray matter between the ears of the people that we put out in these very dangerous situations.

And it's not just the dangerous situations, it's the day to day situations, the role that the Navy plays in the diplomatic mission of the United States is extremely profound. And every time I go out

to a ship and I talk to our young sailors or our Marines and I tell them, you know, you may be 19, you may be 20, but you're a frontline diplomat for the United States of America. Some of the people you come in contact with in these countries, you're the first American they've ever met, and that's a huge responsibility. And it's a really unique thing about our country and our Navy, when people walk off the ships, they all look different. Every other Navy I see you pretty much know what the people are going to look like when they walk off that ship. Our ships are so diverse; we have people from every single part of this country, from every single type of background. So they have an incredibly important role in terms of how they present themselves as representatives of our country. That's unique I think for many of the other services. So I tell them that and I tell them how important that is.

And so we have to invest in making sure that they're ready and prepared to do that, to perform that role. And that's what Education for Seapower is all about.

And then the last one is something I call gray zones. And gray zones is not sort of the traditional way you think about gray zones. When we hear about the Russians and they gray zone activity, the little green men, you know, running behind the lines and creating havoc in different areas. This is all the stuff that when I look at the Department of the Navy that people don't normally think about. There's a great line from -- I've never used this one before -- but there's a great line from the movie School of Rock where Jack Black says if you learn in singsong it's really good for the boring subjects. So this is what I would call sort of the boring subjects, that people consider the boring subjects, in the Department of the Navy, our IT infrastructure -- the IT guys are really going to come after me now for that -- the finance and accounting, the business operations. These are the things that are the lifeblood of keeping our fleet capable. And it's really hard work. And in a lot of ways we're still many, many years behind the private sector in terms of the way that's organized, the way it's executed, the IT that we use.

I put out a Vector a couple of weeks ago on IT, our information management strategy and -- I'm not exaggerating -- as I'm writing the Vector my computer went down. It crashed on me, you know, in the Pentagon, right. (Laughter) So I mean we have a lot of work to do to improve our infrastructure. And all those gray zone things that really, really -- they really matter. And we're putting a lot of attention

and a lot of emphasis on that. The audit is another great example of that. People say why does the audit matter, aren't you just blowing a lot of money to go out and count beans. And I said what we find in the first year that we did this -- and I use this example a lot -- we find a warehouse in Florida with $150 million worth of aircraft parts in it. We didn't know we had the warehouse, we didn't even know we had the parts in it. And after we found this and we entered all that stuff into our inventory system, within two weeks $20 million of requisitions for parts in a warehouse that we didn't even know we had, to fix aircraft that were down for parts that we didn't even now we owned, okay. That's the implication of the gray zone. If we don't get after that, we can't get our shifts and aircraft manned properly so that other people can be safe and do their jobs, the dangerous jobs we ask them to do.

So those have sort of been the three areas. If you pay attention to the Vectors -- and I talk a lot to the sailors and the Marines about the Vectors and they really like them. I'm not sure the flag room likes them so much because it's a lot of stuff coming at them, but really it's just a way to communicate to the fleet. But they sort of rotate through those three themes. Gray holes, you know, force structure type topics, gray matter, education, ethical development, and then the gray zones stuff, business systems, IT, things like that.

MR. O'HANLON: Fantastic.

SECRETARY MODLY: So that's sort of a highlight, so I'll just go from there.

MR. O'HANLON: That's great. Thank you.

Let me come back to technology and modernization and 355 ships in a minute, but let me first ask you about the state of readiness of the Navy, because, of course, it was only 3 and 4 years ago that we had a number of serious concerns about this with ships running aground and running into trouble in the Western Pacific and elsewhere. And obviously we were asking a lot of our Navy through some difficult budgetary periods. That's continued to be true even though the budget is now higher.

How would you assess the state of readiness of the Navy in terms of people and equipment today?

SECRETARY MODLY: Well, it's getting substantially better than it was several years

ago. And we're continuing to make trades, and we made a lot of trades in this budget cycle to focus on readiness. You know, principally for that reason, because we're just not -- I was not comfortable making decisions to trade force structure for readiness. We discovered in those horrible accidents that a lot of those problems were related to readiness gaps that had evolved over time, largely due to the budget uncertainty and sequestration and budget caps that we had to deal with. So trades were made that were not necessarily in the best interests of the safety of our sailors. And so I wasn't willing to compromise on that and neither was the CNO. And so that's some of the reasons why we made those trades.

Significant progress in a lot of areas. When I came into the Pentagon two years ago I think we were about 45 to 55 percent mission capable on our F-18s. That's not very good. We're now back up to 80 percent on that. A lot of work to do on that, a lot of integration of private sector best practices in terms of how to do that. We brought in expertise from Southwest Airlines and Delta to help us think about how we look at aircraft maintenance.

As far as the ship maintenance, also a big challenge for us. I think last -- or in 2018 we were like 1,700 days late in aggregate on all our ship maintenance. Last year we were down, it was about 900 in aggregate. So we're slowly moving those metrics back and that's really the story of this year's budget for us. That and then, of course, the Columbia recapitalization.

MR. O'HANLON: So Secretary Esper this week, I believe, in testimony talked about how the attack submarine fleet might not be big enough. I think he used the expression, “my gut tells me that we might need more attack subs.”

Without getting into too many classified operational details or too much psychoanalysis of Secretary Esper, what do you think he meant when he said that? Can you cast any light on what he was striving at when he said my gut tells me we need more attack submarines? I want to ask you about a few areas of ships and technology, and that's one that strikes me as pretty interesting.

SECRETARY MODLY: Well, I think it's threat based, it's principally threat based I think when he was talking about that. We see the Russians investing heavily in their submarine force, more so than we've seen in the last 10 years. Really in the last several years they're really heavily investing in it.

And they're developing submarines that are very, very quiet and hard for us to detect. So that's one challenge. And of course the Chinese navy is growing leaps and bounds. So that's a challenge.

I believe the Force Structure Assessment for 2016 said we needed in the end game about 66 fast attack submarines and the new one probably says something in that range as well. We're looking at that. But we're on a path right now within 10 years to only have about 50.

MR. O'HANLON: And that's about how many we have now, right?

SECRETARY MODLY: Right. And so that's -- these are the attack subs. So that's adding two a year, but you have to retire them as well. So there's a challenge there that we have to really, really look at. And they're expensive. The Virginia class submarines are going to cost about $3.5 billion a piece when it has the payload module in it. So it's an expensive asset.

MR. O'HANLON: Is this an example of an area of technology where we need to do more with unmanned systems and think about getting to 355 in a different way? Maybe a mix of traditional manned attack submarines, or sort of operating almost as the mother ship, if you will, and then smaller unmanned systems operating in proximity and coming back to report, provide intelligence. Is that the kind of concept that might help us get to 355 and deal with the unmet needs?

MR. O'HANLON: Well, I think to go back to the point about what 355 means, it's a number but it's pegged to a force structure. And that 2016 force structure is basically a 12 carrier Navy with all the things derivative of that, that support a 12 carrier Navy.

So, yes, we cannot build or sustain a Navy on the average cost of a ship that we have right now. So we have to start thinking about how we drive the cost curve down. Average cost per ship has to come down. In the Reagan buildup in the '80s, the average cost of real dollars of that 600 ship Navy when they finally hit it, I think they hit it at 597 or something like that. The average cost was $1 billion per ship. Real dollars today, the average cost of our 295 ship Navy is $2 billion a piece. That's inflation adjusted real dollars.

So you can tell just looking at that metric that we basically concentrated a lot more cost on a smaller number of platforms and we have to think about a way to reverse that trend. So unmanned

will play a big part of that. I'm not entirely convinced that unmanned is going to be that much cheaper. We're finding, for example, a lot of the unmanned platforms, aerial platforms, it requires a whole infrastructure behind the scenes to make that work. It's unmanned, but not really. There are people involved in running that.

The other thing is we are looking at smaller ships, particularly in this new force structure, which once the Secretary is comfortable with it, we'll be talking about it more publicly, but the -- a new class of amphib potentially, a new class of combat support ship. These are to be smaller ships, more lightly manned than traditionally that we have.

So, yeah, we have to drive that cost down, and that's part of the calculations that we're going through right now.

MR. O'HANLON: And that last point on amphibious ships gets to General Berger's vision, right, of thinking about being more flexible, more mobile, more survivable.

SECRETARY MODLY: Right, exactly. And everything about this, whether you're talking about the Navy or the Marine Corps, is about distributed maritime operations, complicating our adversaries targeting, complicating their calculations, making them think, you know, maybe this isn't such a good idea to try and attack this force. So that's really what it's all about. And right now the forces that we have, the ships that we have, do not necessarily support that in whole, in total. So that's what we're looking at in terms of how we would invest in some different types of platforms.

MR. O'HANLON: I had a couple of questions about aircraft carriers. Obviously there's the question of long-term survivability of a big platform like that, especially when missile defense is still, you know, shooting a missile with a missile and perhaps therefore at the advantage of the offense in some sense. So unless we can disrupt the sensor shooter system, we're probably going to be in a difficult place protecting our carriers when they're close to adversary shores. That's sort of a premise I'm beginning with. You may want to comment on that, but the question I have is are we being creative enough, innovative enough in how we deploy carriers? We still find ourselves getting tied in knots. Secretary Mattis decided to send a carrier up to the Baltic Sea to put some pressure on Russia. Then it

turned out General McKenzie at Central Command wanted to have the carrier back because of Iran. And yet we have a lot of land-based places to put assets and platforms around Iran. Maybe we need to be concentrating the carriers more in places where we don't have land bases and feel less whetted to the traditional deployment patterns that center so much on the Persian Gulf. Is that something we should consider or reconsider?

SECRETARY MODLY: Well, yeah, my personal opinion on this is that I'm much less concerned about the survivability of the carrier from a warfighting perspective than I am about it from a fiscal perspective, and from a political perspective frankly, because it's really expensive and, you know, we can only afford so many of these. I think we're thinking about all those things you said, Michael. We're thinking about given the fact that now the Chinese are developing long range hypersonic weapons, what does that do to the carrier, how do we adjust to that. But the carrier does provide incredible flexibility to adjust to it. And the Ford-class especially given the innovations and the new techniques that we have for that ship. It really provides a much broader range of flexibility than the old Nimitz-class and, again, back to my theme, with about 30 percent less people to manage it. I've been working -- Ford has been a big focus for me because it's developed a bit of a harsh reputation in the last several years because of some of the problems we've had in getting it delivered and the problems with the elevators and other things that become high profile. And it obviously got the President's attention. But it is an amazing platform. And when it's finally working, it's going to provide us with a capability that's going to be very, very valuable for the future.

MR. O'HANLON: Should we be developing also more unmanned systems off of carriers, more long-range reconnaissance strike platforms, aircraft that would operate off carriers? Is that a trend we should accelerate?

SECRETARY MODLY: Yes.

MR. O'HANLON: And --

SECRETARY MODLY: And that's all I'll say about that.

MR. O'HANLON: Yes, because you've got (laughter) -- but we may find more soon.

SECRETARY MODLY: Yeah. I mean that's the great thing about the Ford, the ability to launch with these electromagnetic launching systems, the ability to adjust the weight of the aircraft you're launching is instantaneous. So you can go from launching an F-18 to an F-35 to an unmanned system immediately without having to do major adjustments, and the ability to do that quickly. And the arresting gears is also the same, you know, modern force. I was on the Ford a couple of weeks ago, rode back in with them after they did some aircraft compatibility testing. And you go down into these engine rooms where the arresting gear is, and I've been on a carrier before, Nimitz-class carrier, it took like eight to ten people in that engine room for every time you did carrier operations in each one, and there's four of them. Now it takes one person to do that. And that's where the revolution and evolution of this technology is going to be so critical for the force going forward.

MR. O'HANLON: Do you feel that when all is said and done we're going to be able to sustain a 10 carrier fleet, a 12 carrier fleet? Is that 12 carrier goal realistic or are we going to hve to think about it differently? Maybe consider more -- you now, we actually have two separate 12 carrier fleets, right -- or two separate 10-11 carrier fleets, the big flat decks and the amphibious ships. Do we need to think more about those amphibious ships, which are about a third the size but carry a couple of dozen airplanes each, as essentially more interchangeable with the big flat decks?

SECRETARY MODLY: Well, we're clearly looking at that. You know, the requirement in the Force Structure assessments -- the one we just did and the one we did four years ago -- is still pegged to 12 carriers as a requirement, but when you look at our shipbuilding plans, you don't see us having 12 carriers I don't think 1 single time in the next 30 years. It's basically -- goes from 11 down to 10 down to 9 for a couple of years and back up. And it's based on the shipbuilding schedule and the retirement schedule and when those nuclear cores have to be replaced or retired.

So it's just a question -- it's a matter of risk. Your question is a really good one because we're in a situation right now where we just did a two carrier buy last year in order to save $4 billion on the cost of the next two carriers, which are the Enterprise and the Miller. And it gives us some breathing room right now. We don't have to make another decision on the next carrier for another six to seven

years because of that decision last year. And I think that's great, because it gives us an opportunity to work with the shipbuilder, work with industry, work with our War College to think about how we answer that question. There will always be a role for a carrier in the Navy fleet. How that transforms, how it changes over time, those are the things that we're working on right now.

MR. O'HANLON: So your budget now for the Department of the Navy looks pretty healthy at one level. It's more than $200 billion a year for this year and then the request for next year about the same. But the bad news of course, as we're all hearing from the DoD in general, is that given the country's fiscal situation, we're not likely to see even keeping up with inflation -- probably negative real growth in the five year defense plan. Now, it all depends on a lot of things, the economy, the outcome of the presidential election, many internal deliberations with a second Trump or Democratic team. Nonetheless, how should we think about the Navy's budget trajectory? You've been alluding to the fact that there's not enough money to get to 355 as fast as you would like, but is that $200, $205, $210 billion level more or less what you think we're likely to sustain as a Nation, or are you planning for potential variation up and down?

SECRETARY MODLY: Well, we can only plan for what we know and so what we know right now and what's being projected is a pretty much flat line budget for the Navy, and a flat line budget for DoD going forward. Secretary Esper made it clear that he doesn't think that's acceptable. He would like a 3 to 5 percent increase in the top line. If that 3 to 5 percent increase in top line were equally spread across the services, that would go a long way for us to be able to adjust our trajectory back up to 355 and get there in 10 years.

But at the same time, I also know that there are things that we do within the Department that we probably shouldn't be doing and so I've started a stem to stern look at this over the last two weeks, because I don't think I have a lot of credibility going to Secretary Esper and saying, hey, we need more top line until we've really scrubbed our own internal numbers. And if we can free up -- and I put a target out there of $8 billion a year. It sounds like a huge number, but it's 4 percent of our top line. If we can figure out a way to redirect that, reinvest it into this shipbuilding strategy, that will get us going on the

path.

Ultimately, we're going to need help with a higher top line. But, you know, we can't just ask for it, you have to make the case for it, you have to -- it's a national discussion. It's not just a discussion that I can have in the halls of the Pentagon. The Congress has to be brought in -- they're the ones that appropriate the money, the President has to be forceful in his support for it. And that has to be ultimately because the American people believe in it.

MR. O'HANLON: So just one question from me on China and then one on Russia and then I'll bring on other folks and look forward to their thoughts and questions as well.

You mentioned already Russia's increased pace of submarine construction, but I wondered if you could tell us, recognizing that, you now, you've got a lot to worry about and this is at least as much a question for (inaudible) or somebody living close to Russia, but how is Russia acting towards the U.S. Navy now in international waters? We've heard a lot of reports of aircraft buzzing U.S. ships. This was a lot of what came up in the 2014, '15, '16 period when things first got really tense in the post Crimea period. And I just wondered if you've seen any trend line in terms of how Russia is behaving essentially towards U.S. and other allied warships and other assets and interests around the world, but especially in the European theater and maybe in some parts of the Asian theater.

SECRETARY MODLY: I think if you looked at the trends on that there have been more aggressive actions by them, but it's very episodic. I don't think it's sort of on a straight line. So you have -- you know, we'll have incidents where we will say that was not a safe encounter, and then you'll have many others that are safe encounters that we don't think are problems. So my former senior military aide was a destroyer commander in the Med and she said that, you know, it was frequent that things were happening out there where she was getting buzzed or other things like that. That was three or four years ago. I don't see a lot of intel that it's happening a lot right now.

MR. O'HANLON: So a related question about China, but with a specific focus, if I could, on the South China Sea. And we know that this has really -- I don't know if you would agree with my assessment, but from my point of view, China's growing ambitions towards the South China Sea have

been as much as anything what's really worried us about their behavior strategically in the last five-six years, the militarization of some of the islands that they created, the clear ambition they have to more or less turn that into a Chinese lake, the idea that other countries should only enter with permission, the 9-dash line. All of this not only in terms of their military deployments, but their ambitions. When I talk to Chinese friends, I say this is one of the reasons you're sort of creating a problem in the relationship, because we understand you want Taiwan, we hope we can find a solution peacefully over time that you and the Taiwanese will find a solution. But the South China Sea ambitions are sort of new and sort of scary, given how much of the world's trade goes through and how much the world order since 1945 depends on the idea of open oceans, free oceans, free trade.

So we know that a lot of what's gone on in the South China Sea the last five or six years is the Chinese trying to put pressure on our ships, trying to get in their way, trying to make them feel unwelcome, hoping that we'll back off. And obviously they're putting pressure on our friends and allies in the region as well. But I wondered again if you see any trend lines there. Do you feel like we're sort of at a new normal of sort of tense but semi stable interaction with China in the South China Sea? Or are there still occasionally new surprises or new trends that worry you and make you think things are getting worse?

SECRETARY MODLY: Well, I think if you look at the -- I mean you made a very good point about the amount of traffic in the South China Sea. I mean the amount of trade that goes through there is amazing. And I've seen some maps recently that sort of plot all the ships, the commercial ships that are out there at any one given point in time. You know, it's staggering to see how much commerce is going through there. So we're heavily dependent upon this part of the world and are friends are and our allies are as well. So of course we're very alarmed by them becoming more aggressive there and I think ultimately no one should have any illusions about what their long-term objectives are. I mean I think they want to displace us as the global power.

So that creates immense challenges for us, particularly in that region. It's a lot of distance from the United States to that area. So that requires some very hard thinking about how do we

actually influence? It's alarming with respect to the growth of their Navy, the growth of their missile programs, et cetera. But sort of what's more alarming to me is I've spent some time traveling around some of these smaller islands in the Pacific, and their presence sort of from an economic perspective is pretty aggressive there too. And those are the things I think we should be worrying about, because it's a little bit less expensive to try and address those things. We should do it with diplomacy, we should do it with investment, et cetera.

And so it's really pretty amazing. When you go out there you realize where they are and where they're trying to influence.

MR. O'HANLON: Great.

SECRETARY MODLY: So that concerns me quite a bit.

MR. O'HANLON: Thank you. Let's bring in other thoughts form the audience. Maybe we'll start here in the front row. Please wait for a microphone and identify yourself if you could when you pose a question to the Secretary.

MR. GORDON: I'm Michael Gordon from the Wall Street Journal.

To implement the NDS the services tried to do a lot of innovative things. They're making some difficult tradeoffs. Why shouldn't unmanned ships count toward the 355 ship goal given that we're in an environment in which the services need to think about undertaking their mission, perhaps in new and innovative ways?

And you said that to get to 355 you're going to require a high top line, which would engender a national debate. What is the case for -- presumably this would mean the Navy gets more at the expense of other services, just to be realistic about it, and perhaps the nuclear weapons systems. What's the case for giving the Navy more and giving some of the other services less? What's the case you would make to the Nation on that?

SECRETARY MODLY: Well, we're the coolest service. (Laughter) I mean that's -- I'm just kidding.

MR. GORDON: But you need the Army for Eurpoe and the Air Force can sure get

around the Pacific a lot faster than a ship.

SECRETARY MODLY: You know, I close every Vector with a beat Army thing. It's just been drilled into my head over a long time. It's a good question. Let me see if I can get the right answer. When you go back to the 355 number, I think at some point it's not so much what 355 is, it's a number, it's the capability that 355 delivers to the fleet.

As we looked at this process this year, as I mentioned, I think the number is bigger than that in terms of the capability we need and the number of platforms that we need and how they would operate. Unmanned is part of that, that force mix, whether we count it as part of how we traditionally counted 355 or not, I kind of think it's irrelevant. I've been calling it 355+ since I was sworn in as the Under Secretary.

MR. GORDON: So you're counting unmanned as part of the 355?

SECRETARY MODLY: I've called it 355+ since I was sworn in as Under Secretary. So it would be part of the future mix, but I'm not sure 355 is the right number anymore. So our force structure is probably, if you include unmanned, the one that we just did, the number is like 435 with unmanned in there and it's like 390 without unmanned in there. So if we want to -- to me, I just think that gets into a debate about a number that's not really that relevant.

So we are talking about capability. Unmanned systems will be a critical part of our future maritime capability for sure. We are investing that, it's in our budget. We are going to buy two new large unmanned surface vessels.

But, that being said, we have to prove this -- not only do we have to prove the technology, we have to prove and understand how we would operate with it. We've never done anything like this before. We have to figure out how that's actually going to work, how it will be integrated into an entire joint concept for how we would have to fight if we have to fight.

MR. O'HANLON: We'll stay towards the front in the second row here.

MR. BARNETT: Thank you. Jackson Barnett with FedScoop.

A question on the gray zones. So how do you balance modernizing technology of

yesterday with technology of the future? You mentioned how China is trying to leapfrog U.S. technological advantage. Part of their strategy is developing AI. Does the Navy have a vision for how AI is going to play into your force?

And then also you mentioned that the Navy has technology that, you know, the private sector had 15 years ago. I mean they are 15 years behind. Where do you want to push to make sure that the IT infrastructure is going to be able to support technology of the future?

SECRETARY MODLY: So let me talk to that in two different ways. One is we published our Information Management Strategy last week. I suggest you look at that. There's a lot of information in there that explains what we're doing.

Organizationally, about a year or so ago we elevated information management as a key strategic priority for the Department of the Navy and we brought in a CIO from the private sector, a new Navy CIO. I had been the CIO for two years because we didn't have one and I just felt like it was more of an enterprise problem than a focused technology problem. So I assumed that job. It was the worst decision of my life (laughter), because I had to go to a lot of meetings that I -- you now -- without anymore than that. But I knew ultimately I needed to understand that space better before I could recommend to Secretary Spencer what we should do. And we brought in a CIO and we organized around information management, not just information. So it's the entire sort of span from data strategy to chief technology to digital strategy, which includes artificial intelligence. And then our big vulnerability, which is cyber. These things are all related to each other and our CIO, Aaron Weis, he's a really, really smart guy, very experienced guy, his first observation coming in is like the technology that we -- the tools that we provide our people are 10-12 years old just to do their daily jobs. And so we are putting a heavy emphasis on how do we retool that for the future.

Ultimately it should cost less, because when you look around the Department, we're spending -- I believe the number is something like $10.2 or $9.2 billion a year on information technology, IT. And I guarantee you there's a lot of redundancy going on that we can get after if we can have the authority at the Department-wide level to make that happen.

MR. O'HANLON: I'll go here to the gentleman in the second row please.

MR. HARRIS: Thank you very much. I'm Robby Harris, a former naval person.

Thank you for your comments this morning and thank you for your very active role as the Acting Secretary.

I have a non-355 question for you. Earlier this week a friend of mine compared your weekly Vectors to Admiral Zumwalt's Z-grams when Zumwalt was the CNO. Is that a fair comparison to compare your Vectors to Admiral Zumwalt's Z-grams, which you probably remember were -- you may remember were not very well received at the senior levels of the Navy? (Laughter)

SECRETARY MODLY: I would never flatter myself that way. All I'm trying to do with those, Robby, is to communicate to the fleet about my priorities and make sure they understand what's important to me. I get really, really good reaction from the sailors, frankly, and the Marines. And they're probably the ones I care about the most in that.

So I know at the senior levels -- they seem supportive, they smile when I see them, so I don't (laughter) -- no one likes to be challenged to think about things differently, but, hey. I think they agree mostly and I know it's maybe perceived a throwing a lot at them, but I frankly don't get that so much because I did hear some feedback that someone said well, you know, one week you write about sexual assault prevention and then the next week you talk about information management. What are we supposed to focus on? I don't really know how to answer that question. You know, these are just things that we all should be thinking about and doing as part of our jobs and so I -- yeah, I wouldn't compare them to -- you know, Admiral Zumwalt was the CNO, he's the military leader for the Navy, I'm a senior civilian. I'm just trying to impart some thinking, some new thinking on the Department to think about the challenges that I think the Department's going to face 10 years from now.

MR. HARRIS: For the record, how many more Vectors will there be?

SECRETARY MODLY: That's up to one person, and it's not me.

MR. O'HANLON: My friend here, please, the second row still, and then we'll work back.

MR. NICHOLSON: Sir, George Nicholson with the Global Special Operations Forces

Foundation.

I think it was last year shortly before he retired, General Dunford spoke here. And one of the key things he says, I want to make a point about the difference between capacity and capability. He says I think sometimes we focus too much on capacity without looking at capability. He says it's fine to say that you need X number of assets, but if you've only got a 50 percent mission capable rate, you now, what's the point of that. We need to take a hard long look at maybe we don't need that many assets if we can only field 50 percent.

In terms of what the Navy is doing, how are you looking at that?

SECRETARY MODLY: Well, that's exactly -- I mean it's a very good point. That's one of the reasons why we made the trades we made in this year's budget, because we did not feel comfortable having ships that were not maintained properly or that we could not maintain properly, that were unsafe, that were not manned properly. This destroyer question is at the heart of this. At the point at which we had some of these horrible accidents we were manning our DDGs with about 240 people and 6-7 years prior to that we were manning them with almost 300. These were cost cutting moves that were made, that we thought the ships would be easier to man, and this is what happens.

So we're slowly ticking that number back up to the 280-290 range per ship. That costs money, that costs -- that's a trade where I can't buy a new ship, but I'd rather have a new ship out there that's safe for our sailors, that can fight if it needs to. And that's the trade we made there.

So it's a good question and that's really -- but I would also say that for a Navy capacity also matters because we have to be in so many different places around the world and that whole diplomatic mission, that whole -- the ability to project force and to have people know that you're there is what the surface Navy does for us. And it's really important. It helps us build relationships, it helps us work with other navies that are perhaps smaller size. I say this all the time about the Frigate Program. This is why the Frigate Program is going to be so great for us, because it's going to give us an opportunity to go and operate with other navies that operate ships of that similar size. It's difficult sometimes for them to come into the carrier task force and -- it's just a different dynamic. And so it helps us meet them where

they are, helps them train with them, and I'm really excited about that program.

MR. O'HANLON: I've only called on men so far and I only see hands from men so far. I'm going to wait a second longer before I got to the fifth man. Okay, but, women, keep thinking of questions because yours are going to be even better, I know, if we can persuade you to get into the mix.

Meanwhile, the gentleman here in the fourth row. And we'll keep working back a little bit as well.

MR. WU: Thank you very much, Michael.

This talk was advertised as --

MR. O'HANLON: Who are you?

MR. WU: Oh, David Wu, former member of Congress from the State of Oregon.

SECRETARY MODLY: Good to meet you.

MR. WU: Nice to meet you, Mr. Secretary.

Since this was billed as something about the U.S. Navy vis a vis the Russians and the Chinese, could you spend some more time talking about our naval capability vis a vis those two countries?

SECRETARY MODLY: Well, I think the biggest challenge -- I'll just talk a couple of aspects -- so the biggest challenge with respect to the Russian threat I think for us right now is the undersea threat. They took a pause for many years in terms of the development of new technologies for submarines, and for obvious reasons, you know, they retreated after the Cold War. And they are much more aggressively pursuing those technologies in development of submarines and being much more active in what they're doing with the submarines. So that requires us to think hard about how do we counter that, how do we work with allies, particularly up in the North Sea and those areas, and investing in new P-8 aircraft, et cetera. So that's sort of the thrust there.

And then also their aggressive and their movement into the Arctic as well. As the Arctic becomes more navigable it has become a contested area. And they are becoming very aggressive there as well in terms of the activities that they have there. We are thinking about this hard. In fact, Secretary

of the Air Force and the Secretary of the Army and I decided a couple of weeks ago that we're going to sit down together and come up with a coordinated look at Arctic strategy, how that might impact Alaska and what we can think about with respect to joint basing and so on. And we're starting that work right now.

So that's one of the key focus areas for us with respect to Russia.

China, they are expanding their surface fleet substantially. I believe they're already up beyond 300 ships now. Now, it's a different mix of ships. So when we say the Chinese have more ships than we do in their fleet, it's true. They would not do well against us right now. But I'm less concerned about right now than I am about 10 years from now, where they might be. They not only built a bigger fleet than ours, a lot of those ships are smaller ships, they do a lot of coastal patrols, that core of that type size ships, but they're investing in bigger and bigger ships. And their shipbuilding capacity is off the charts in terms of what they've invested in with respect to shipyards and the ability to build and to ramp up quickly. And that is going to be a significant challenge for us.

But let me also say one thing, there is a focus on that as part of the National Defense Strategy, great power competition, and so on. But we have to be mindful of the fact that in reality all these other things aren't going away. The range of adversaries we have to deal with, some of them are not even state adversaries, not even individual adversaries, they're nonhuman adversaries, like we're dealing with right now with Coronavirus, right. The security challenges for a complex society that we're in right now are going to continue to be broad and they'll get broader and broader and broader over time.

And that's why what I've emphasized consistently is that we need forces -- and my responsibility is for naval forces that are as agile as possible, that can respond to that broad range of threats. And that's what I've been focusing on, that's what I've been pushing for the last two years.

MR. O'HANLON: Okay. We'll go to the gentleman in the gold tie and then stay in that row. I'll take maybe two questions together from that row please.

MR. COPPERSMITH: Thank you, Mr. Secretary. The Vectors are extremely popular at the rank and file level, I can assure you.

My name is Brian Coppersmith; I work for Whitney Bradley & Brown as a consultant.

In September the Commandant of the Marine Corps and the Chief of Naval Operations sent a joint letter, a memo, to your office that stated an unprecedented collusion and integration of their efforts for the future. A new integrated Navy force structure assessment in imminent we understand. And we also understand from indicators that the Marine Corps' mission may shift radically to support sea control in the littoral operations, in the contested environment, and expeditionary advanced basing operations.

Could you discuss that -- whatever you can reveal, given the SecDef's recent limits on publishing the FSA, I understand, but very anxious to hear your thoughts about the extended future.

SECRETARY MODLY: Sure. Well, I'm very excited about the fact that the Commandant and the CNO have worked on this force structure together. It's something that Secretary Spencer and I talked about dong. Very interesting confluence of events last fall where we got a new Commandant and new CNO at the same time. And CNO Berger, General Berger, is a very, very innovative guy and he's been thinking about this for years. And so he and the CNO have worked hand in hand. They both assigned a three star to run this process for them and they developed this integrated force structure assessment together, they did campaign analysis with it together. We all agreed that at a point in time that it's a good starting point for the future force structure.

What we want to do now is take it out of the realm of being something that we do every four years. This is consistent with our views about continuous learning, continuous iteration, this is how we have to start thinking as a Department. And so we are developing a process now to take that stake in the ground and iterate constantly, continually, so that it can form our budget process in more of a real time manner.

There are some inflection points in that force structure that are different from the last ones. I think one of the more significant things is de-emphasis on large surface combatants. You'll see that number come down in the mix in favor more highly capable small surface combatants, like the Frigate, some of the things that we're thinking about doing with the LCS.

The next line that you'll see that will be different in this in terms of what we're proposing is

the unmanned piece. There's large discussion about unmanned and how unmanned would work. The numbers at the end state of that are still in flux, and I'm totally comfortable with that being flux, because frankly we don't have any right now. So whether we end up with 45 of something that we don't know, or 50 or 75 of what we don't know, it's sort of irrelevant.

We know we have to start going down the path towards unmanned and understand how that's going to work. And that's both underwater and above water, both large, medium, small, et cetera. So they've been working that through.

The other piece of it is two new classes of ships that they're looking at. A smaller, lighter amphib, more lightly manned amphib, that can provide the distributed maritime operations and the expeditionary advanced based operations as part of the Commandant's vision, and support ships, combat support ships, that can support that. We currently don't have either one of those types of ships in the fleet right now, nor on the drawing board. So you'll see, even in this budget, in the '21 budget, we have dollars assigned to start research and development around those things.

So those are the major things. CAPE did its own analysis. There are some departures between our analysis and CAPE's analysis that the Secretary of Defense wants to look at more closely. I don't think they're that significant when you're talking about a plan that's going to evolve over 10 years, but the Secretary -- you know, it's is prerogative and so we're supporting him in taking a look at that. And hopefully I think in the next couple of months we'll probably tighten up some of those differences. But generally speaking, we need to move out, we need to move out in a bunch of these areas, regardless of how that thing tightens.

So we've got to invest in a new amphib, we've got to invest in a new combat support vehicle, we've got to invest in the Frigate, we've got to think about how we accelerate the pace at which we're going to acquire the Frigate, we've got to think about unmanned. So all these things are part of the process here.

MR. O'HANLON: Please.

QUESTIONER: Under Secretary, Jeff Gage with the Harvard Veterans Alumni

Organization.

I'd like to hear a little bit more about gray matter. Give us an update, per your Vector 7, on the status of the naval education strategy.

And then in light of the tradeoffs we're having to make, every dollar we spend has got to come from somewhere else. How are you going to measure the value in terms of readiness, current or future readiness of these education initiatives? Presumably the dollars that go toward that are going to come from gray hulls or gray zones.

So how are you expressing the value of the education in terms of readiness? Thanks.

SECRETARY MODLY: Well, okay, so I didn't plant this question, but today's Vector is about this. So we're releasing our education strategy on Monday. So we brought in a chief learning office from the private sector, a guy named John Kroger. A really, really smart guy and very committed. Former enlisted Marine. And he was the former president of Reed College. He's also got a degree from Yale and Harvard and was a federal prosecutor. He comes to this with a very different perspective, but a tremendous commitment to how we do this, how we do these investments.

I'll get to your ROI question in a second, but some of the elements of the strategy are -- and I think the most exciting one is we're developing a naval community college for our enlisted sailors and Marines to give them an opportunity to work on a degree, preferably starting out with an associate's degree and then working on a bachelor's degree. And the way you make that possible is you create a universal transcript that they can take with them wherever they get, wherever they get transferred. And we're building partnerships with various colleges and universities around the country who want to participate in that. And this is where we need to take advantage of this incredible revolution in educational content delivery that we have now. Just the ability to have access to online courses and then feed that into a system that can award a degree. And that's what we're doing.

We submitted legislation to Congress that will allow us to actually award the degree to the naval community college, we're about to hire a provost and a president for the community college. So that's one of the big keys of this thing.

The investment question -- but we're also putting some things into the promotion dictates for our officers that they have to have a series of gates that they need to meet with respect to education in order to be promoted. And, again, the pushback from the uniformed side is obvious. And the Navy has not been good at this in the last several years because they've always opted for operational experience rather than education. And the Marine Corps figured this out 10 or so years ago, if not more -- General Krulak really pushed it. And it's developed a level of I believe critical thinking that we need to develop for all of our officer corps and our enlisted people.

So measuring that, I don't know how we're going to measure that. It's not really that much money, to be honest with you when you look at a $207 billion a year budget. I put in the mandate this year to fully fund all the educational requirements that were not funded last year. It was a delta of like $100 million, okay, to do these things. I know it's going to increase, it's going to escalate over time as we get more serious about this, but I just think it's a mandate, we have to do it. And ultimately we'll see it in the quality of the people that we have out there.

I was at the postgraduate school about two or three months ago and I was talking about E4S with a group of students and they're like well, sir, how is this going to sustain itself after you're gone. And I said well, it's not, if you guys don't care. And these are the O-3s and the O-4s who are going to be the Captains and Admirals and Generals in the future. And if they don't care about it, it's not going to go anywhere.

But I think education is an opportunity really light a fuse of additional intellectual curiosity among our people. And once they see it and start experiencing it, it will light that fuse and it will sustain itself. We just have to make sure that the senior levels recognize how important it is.

When we went into World War II -- I'm going to reference -- I'm going to ask Steve, what's the number again?

QUESTIONER: Eighty-two of eight-four.

SECRETARY MODLY: Yeah, 82 of 84 flag officers in the United States Navy have been to the Naval War College. And right now how many?

QUESTIONER: Lower than 20 percent.

SECRETARY MODLY: Lower than 20 percent. Okay. We have more Army officers at the Naval War College than -- think about how that hurts me, all right -- there's more Army officers at the Naval War College than Navy officers. And so we have to reverse that trend.

MR. O'HANLON: Time for one more?

SECRETARY MODLY: Sure.

MR. O'HANLON: So, let's see, yes, ma'am. Thank you, Derrick.

QUESTIONER: Thank you very much for taking my question. So my name is (inaudible) and I'm with Hong Kong Phoenix Television.

So my question is, besides -- you mentioned readiness and allies and technology -- what are the other sectors that you're working on, that you're emphasizing and promoting?

Thank you.

SECRETARY MODLY: I'm not sure if I understood the -- other than readiness and education and technology?

QUESTIONER: Yeah, right. Other than emphasizing like readiness, technology, and allies that are the main emphasis of the strategy right now, what are the other sectors that you are focusing on in promoting the Navy's readiness?

SECRETARY MODLY: Well, okay, I think that those are a lot. I don't know. Should there be more? (Laughter)

I can answer that. Let me do answer that question, because there is something else that's taken heavy emphasis and that's the issue of sexual assault and sexual harassment in the service. It's a high, high priority for us. The Navy has actually been leading this, particularly at the Naval Academy. We established something about a year ago called the National Dialogue on Sexual Assault and Harassment Prevention with major universities around the country to help figure out how owe get after this problem. It's a societal problem; it's a long-term arc in terms of being able to address this. And we're very proud as the Navy to be taking the lead on this and trying to address this problem.

We've seen, you know, a little bit of disturbing trends at the Naval Academy in some of the data that we've seen in the last couple of years in terms of how the trends on reporting of sexual assault has sort of ticked up in the last couple of years. We're trying to understand why that is. There is some argument that because we've become more open about it and more willing to protect people who come forward with it, that the reporting has gone up because people feel more comfortable reporting it. But that's a hard bridge -- it doesn't really -- to some extent that doesn't matter so much. You know, one problem like that, one sexual assault is one too many in our service. And so we're trying to really get after that and understand there's the social aspects of this, societal aspects of this.

And I was out in New Mexico a couple of weeks ago at the University of New Mexico on a forum on this and it was really interesting to hear private sector perspectives on this. There was a woman from New York who had been studying sex crimes for her entire career and she likened this to what it was like in the '60s when we first discovered what heart disease was all about. And it just takes constant attention to the problem and eventually like no one understood that well, smoking could contribute to heart disease. But when they start figuring that out, then you could start addressing these things.

A lot of these issues we don't really quite understand why they exist, how to address them. Part of the ways we're trying to do it is to teach young people -- because our demographic is really young -- the people that are in the service are really young. A lot of them don't come from good families, good role models on these types of issues. Try to explain to them rather than the punitive side of what they shouldn't do, give them more here's what a healthy relationship is like, here's how you should interact with someone from the opposite sex when you're in a work environment. Some of them have never been taught that.

So I think we have to give ourselves a little bit of a break here, but understand that it's a long-term process, it's a long arc. And I'm confident there's a lot of attention on this, that this will get better over time.

MR. O'HANLON: Everyone, please join me in thanking the Secretary. (Applause)

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