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ON

NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2021

AND

OVERSIGHT OF PREVIOUSLY AUTHORIZED PROGRAMS

BEFORE THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES

ONE HUNDRED SIXTEENTH CONGRESS

SECOND SESSION

SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES

MEETING JOINTLY WITH

SUBCOMMITTEE ON READINESS

OF THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES

ON

SEALIFT AND MOBILITY REQUIREMENTS IN SUPPORT OF THE NATIONAL DEFENSE STRATEGY

HEARING HELD
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SEALIFT AND MOBILITY REQUIREMENTS IN SUPPORT OF THE NATIONAL DEFENSE STRATEGY

HOUSE OF REPRESENTATIVES, COMMITTEE ON ARMED SERVICES, SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES, MEETING JOINTLY WITH THE SUBCOMMITTEE ON READINESS, *Washington, DC, Wednesday, March 11, 2020.*

The subcommittees met, pursuant to call, at 2:30 p.m., in room 2118, Rayburn House Office Building, Hon. Joe Courtney (chairman of the Subcommittee on Seapower and Projection Forces) presiding.

OPENING STATEMENT OF HON. JOE COURTNEY, A REPRESENTATIVE FROM CONNECTICUT, CHAIRMAN, SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES

Mr. COURTNEY. [Mic off.] 2:30 because, again, we have got votes coming in about an hour and 15 to an hour and a half and we want to, obviously, make sure we get a chance to hear from the witnesses and ask questions.

So, good afternoon. Today's Seapower and Projection Forces Subcommittee and the Readiness Subcommittee are meeting to examine sealift and air mobility capabilities, two critical elements of our Nation's defense strategy.

Before I introduce our witnesses, I want to note that this year marks the 100th anniversary of the Jones Act. For a century, the Jones Act has helped promote a robust domestic maritime industry while preserving our Nation's security.

We are a maritime nation and the Jones Act is one of the foundation pillars of a strong maritime policy now and in the future.

In beginning here today, I just want to—it is also the 75th anniversary fast approaching for the end of World War II and Winston Churchill was quoted right after that conflict by saying, "Victory is the beautiful bright flower. Transport is the stem without which it could never have blossomed." And right now, I think the stem is—for a lot of us is we are concerned about and that is really, obviously, the focus of today's hearing.

Again, because of the time issue, I am going to submit my remarks in writing to the record and, again, we want to, obviously, give members a chance to ask a lot of questions. The briefing we had a couple months ago I think shows that there is, certainly, high interest.

And with that, I would now yield to Mr. Wittman, the ranking member of the Seapower Committee.

[The prepared statement of Mr. Courtney can be found in the Appendix on page 35.]

STATEMENT OF HON. ROBERT J. WITTMAN, A REPRESENTATIVE FROM VIRGINIA, RANKING MEMBER, SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES

Mr. WITTMAN. All right. Thank you, Mr. Chairman. I appreciate you yielding. I especially want to thank Chairman Garamendi and Ranking Member Lamborn for this enduring interest in our Nation's logistics capabilities. We know how extraordinarily important this is and I can think of no better panel to discuss sealift and airlift than the folks we have before us today.

As I assess the state of our Nation's military logistics, there are many areas that allow us to rapidly project power to include our tanker and airlift forces.

These capabilities are foundational to a great power and I believe that we have done a good job of providing this force. However, it is essential that our subcommittees take aggressive action to staunch the bleeding occurring in our logistics forces today.

For example, our lack of strategic vision in our Nation's sealift forces is particularly wanting. I think that this lack of vision is a relic to years of strategic hubris and complacency.

My friends, sometimes we are not aware of what is rapidly changing around us. We continue to support legacy sealift force that is designed for regional conflict and presumes sea control. Both of these assumptions have been invalidated with our new National Defense Strategy.

Yet, it is almost as if the Navy forgot to read the strategy when they put together their budget plan or, worse, I think that we have a strategic seam between the Army and the Navy.

For me, I think that the Navy's budget is overtaxed with support for the $110 billion *Columbia* ballistic missile submarine program. I believe it is time for the Army to pick up the budget responsibility for the surge sealift forces that uniquely support the Army's ability to go to war.

As to our subcommittee's response to our surge sealift plight, I am opposed with the administration's legislative proposal that would solely rely on procuring used foreign-built vessels to recapitalize our surge sealift.

I continue to support a combination of procuring used vessels through the National Defense Sealift Fund and procuring new sealift vessels. At the same time, I do not believe that we can sustain a new construction option to support the administration's $550 million per hull assessment and look forward to pursuing other options that reduce this $25 billion new construction recapitalization effort.

As for our air logistics component, while I am satisfied with our current aviation refueling capacity, I think that we need to tailor the response to mitigate KC–46A deficiencies. There are some that believe that we should cancel the KC–46A aircraft contract in its entirety. I do not believe this is a prudent strategy. However, until we can deliver a capable KC–46A aircraft, I think that we should slow both the ordering and delivery of KC–46A aircraft and we need to retain legacy tankers to cover these shortfalls and we need to ensure that we have adequate competition at the conclusion of the current KC–46A contract.

And while I could sit here and pontificate about the shortfalls of this program, simply put, I think we need to now look at making the best move in a bad situation and one that is, sadly, of our own making.

In conclusion, I am reminded of a quote from Alexander the Great when reflecting on his extensive logistics train required to resupply his battle lines where he indicated, "My logisticians are a humorous lot. They know if my campaign fails they are the first ones I will slay."

While I don't espouse the slaying of our logisticians, I think this clearly paints an indomitable reality that a failed logistical plan will allow potential adversaries to dictate the circumstances of future warfare, a future which our great United States of America can ill afford.

I believe it is essential that we take aggressive steps in the National Defense Authorization Act to staunch the bleeding and address these substantial logistic issues.

Again, I appreciate Chairman Courtney and Chairman Garamendi's support for having this important hearing and I yield back the balance of my time.

[The prepared statement of Mr. Wittman can be found in the Appendix on page 37.]

Mr. COURTNEY. Thank you, Rob, and we will now have to call you Wittman the Great.

[Laughter.]

Mr. WITTMAN. No. No. No. No. No. No, absolutely not.

[Laughter.]

Mr. COURTNEY. And I yield to my colleague, the chairman of the Readiness Subcommittee, John Garamendi.

STATEMENT OF HON. JOHN GARAMENDI, A REPRESENTATIVE FROM CALIFORNIA, CHAIRMAN, SUBCOMMITTEE ON READINESS

Mr. GARAMENDI. Thank you, Mr. Chairman.

I was watching our witnesses as Alexander the Great was speaking, something about slaying, which I find it fully understandable.

[Laughter.]

Mr. GARAMENDI. But we do have a problem. I am going to shorten this. I ask that my testimony or my opening statement be put into the record.

KC–36—excuse me, KC–135, KC–10s, and the 46 [KC–46]—what is going on here? We need to get this squared away. General Lyons, you think we need more. The Air Force thinks we don't. We are going to have to sort that out. The reality is it is a very, very serious problem and I could probably echo most of what Mr. Wittman said but I won't right now.

But that has got to be addressed. The sealift is an ongoing problem. I don't think the Navy is going to be able to afford the sealift capacity necessary to meet the new National Defense Strategy.

I am not even sure they can meet the old one. Some very useful work had been done by the Center for Strategic and Budget Assessments. Draw it to your attention, I think I deliver this to all of you. It basically calls for the rebuilding of our merchant marine, using that with military useful ships to address what we will never be

able to accomplish or not likely to accomplish with the Navy budget, even if we are to raid the KC–46 budget to do it.

So, I think there is a strategy, a national fleet strategy that we can employ. I will be asking questions about that and we can continue with what we presently have but even that is woefully inadequate.

So, we need to build those ships and if we do it on the private sector side, guaranteeing that they have cargo, which I think we can do, and provide the necessary support, we can, I believe, quickly within the next decade, provide the necessary sealift capacity.

I guess I am going to have to deal with something that—it is called luggage, personal property. Ongoing issue. General Lyons, it is your turf and that will be my last question.

If I run out of time, I will get you personally later and we will go through it as this is the annual whipping of the—of the problem. Excuse me, the semiannual whipping. I will let it go at that and we will get on with it.

[The prepared statement of Mr. Garamendi can be found in the Appendix on page 39.]

Mr. COURTNEY. Thank you, Mr. Garamendi.

I now recognize the ranking member of the Readiness Subcommittee, Congressman Lamborn.

STATEMENT OF HON. DOUG LAMBORN, A REPRESENTATIVE FROM COLORADO, RANKING MEMBER, SUBCOMMITTEE ON READINESS

Mr. LAMBORN. Thank you, Chairman Courtney. I truly appreciate the collaboration that you and Ranking Member Wittman continue to show Chairman Garamendi and myself on these issues that are critical to both of our subcommittees.

There is an old saying. Amateurs talk about tactics, but professionals study logistics. An examination of the issues before us reveals the wisdom of this statement. Our witnesses today are at the very heart of projecting and sustaining the joint force.

General Lyons, I really appreciate your recent visit and the opportunity to discuss the major issues facing USTRANSCOM [U.S. Transportation Command]. As you highlighted in your opening statement, which will be presented here soon, the world is changing and we need TRANSCOM to focus on great power competition.

I am particularly concerned about the cyber threats posed to our distribution networks by Russia and China and their ongoing efforts to erode access to the U.S. and our allies. We must assume that logistics support for future operations will take place in highly contested environments.

Given how central these two—the two issues dominating today's hearings are to our overall military readiness, I want to add my concerns to those of my colleagues. With 85 percent of the joint force based within the United States, our military readiness risks being irrelevant without the capability and capacity to project those forces to the fight.

During the turbo activation exercise in September 2019, only 60 percent of the organic surge fleet was considered ready and only 40 percent of those were able to get underway in the time allotted.

As General Lyons stated in his written statement, by the mid-2030s over half of the sealift fleet will be unusable. Congress had provided the Navy with authority to begin recapitalization through a combination of buying used vessels and some new ship construction.

But to date, we have seen very little action. The fiscal year 2021 budget would provide funding to purchase two.

The KC–46 program, as has already been discussed, is yet another example where poor contractor performance is severely degrading warfighter capability and requiring the government to underwrite the cost of retaining legacy aircraft longer than planned.

Given the unsafe conditions created by the biggest Category One deficiency on the KC–46, the remote vision system, it would be irresponsible for us to allow the U.S. Air Force to proceed with its planned tanker retirements.

According to Air Force Chief of Staff General Goldfein, we are close to a way ahead with Boeing on the KC–46, but it will take two to—excuse me, 3 to 4 years to implement.

I am not one who is calling to cancel this program but if we don't see progress this year the Department may need to reconsider recompeting the program.

Finally, I am encouraged by the progress that TRANSCOM has made regarding the Defense Personal Property Program. The business case analysis [BCA] for the Global Household Goods Contract was delivered on time to the committee and it appears to demonstrate a significant increase in performance and capability.

My understanding is that GAO [Government Accountability Office] will complete its review of the BCA shortly and I want to commend TRANSCOM's efforts to address industry concerns.

Thank you to our witnesses for your testimony, for what you do for our country, and I yield back.

[The prepared statement of Mr. Lamborn can be found in the Appendix on page 40.]

Mr. COURTNEY. Thank you, Mr. Lamborn.

Now we will start with General Lyons and just go right down the table, and the floor is yours, General.

STATEMENT OF GEN STEPHEN R. LYONS, USA, COMMANDER, U.S. TRANSPORTATION COMMAND

General LYONS. Thank you. Thank you, Chairman.

Chairman Courtney, Chairman Garamendi, Ranking Members Wittman and Lamborn, distinguished members of the committee, it is my honor to represent the men and women of the United States Transportation Command who, at this very moment, are employed around the globe conducting mobility operations 24 hours a day, 7 days a week, 365 days a year.

Our mission at TRANSCOM is enduring and that is to project and sustain the joint force globally at our time and place of choosing, thereby representing multiple options for our national leadership and multiple dilemmas for potential adversaries.

With 85 percent of the force element stationed in the United States, as you mentioned, it is TRANSCOM's job to move forces

and materiel in support of the Secretary of Defense's strategic priorities.

Our National Defense Strategy underscores the importance of advancing our national security interests, deterring potential adversaries and, should deterrence fail, responding with overwhelming force to win.

Power projections are a distinct U.S. comparative advantage, but we are not alone in this effort. Our vast global logistics network are underpinned by a deep bench of allies and like-minded partners that facilitate critical access basing and overflight activities.

Our world is changing and the defense strategy describes a future in which TRANSCOM must be able to project the force under all-domain persistent attack. We acknowledge that our success today does not guarantee success tomorrow and we are actively preparing to meet tomorrow's challenges.

Today, I am confident in our ability to successfully execute our mission but the risk, as noted, is increasing. Our aerial refueling and sealift forces require immediate attention to meet current and future challenges. We are actively exploring the feasibility of a specified sealift appropriation to mirror DOD [Department of Defense] and congressional efforts to recapitalize the Ready Reserve Force in the 1990s.

Before I close, I do want to highlight the Department's ongoing work to improve the Defense Personal Property Program, an area of great interest for Congress.

The Department, we acknowledge, can no longer afford to operate a disparate confederation of government activities supervising a similarly disparate collection of hundreds of transportation providers.

My message for DOD families: We have heard your call for improved accountability, transparency, and quality capacity and we are committed to deliver.

My message for industry providers: If you provide quality service today for our military members you have a place in the future program.

It is an exciting time to be the commander of USTRANSCOM and I could not be more proud of the team of professionals that create the strategic comparative advantage called the Joint Deployment and Distribution Enterprise.

I look forward to your questions. Thank you.

[The prepared statement of General Lyons can be found in the Appendix on page 42.]

Mr. COURTNEY. Thank you, General.

Now, I will move to Admiral Buzby who is joined here this afternoon by his wife. Thank you. You are welcome to join us here today and, again, the floor is yours.

STATEMENT OF RADM MARK H. BUZBY, USN (RET.), ADMINISTRATOR, U.S. MARITIME ADMINISTRATION

Admiral BUZBY. Thank you, Mr. Chairman, and good afternoon to you, sir, and to Chairman Garamendi, Ranking Members Wittman and Lamborn, and members of the subcommittee. Thank you for the opportunity to discuss the Maritime Administration's role in supporting strategic sealift.

As the members well know, America's strategic sealift capability is comprised of government-owned ships, assured access to a fleet of U.S.-flagged commercial vessels under civilian mariners, and intermodal systems.

While this is an efficient and effective force for moving cargoes worldwide during peacetime, I am concerned about its ability to reliably project and sustain power globally in a contested environment.

To address this, we must strengthen our sealift capability and reverse declines in U.S.-flagged commercial fleet and U.S. shipbuilding repair industry.

The top of our priority list is the recapitalization of the Ready Reserve Force, or RRF. Along with the 15 Military Sealift Command surge sealift's ships, the 46-ship Ready Reserve Force provide the initial surge of ready sealift.

These vessels' average age is 45 years old and, consequently, we have struggled to maintain readiness. The results of the September 2019 turbo activation are reflective of the current readiness of these ships despite focused and valiant efforts by their crews to maintain them.

We continue to work with the Navy on a recapitalization strategy that includes a combination of targeted service life extensions which have begun; by acquiring and converting used vessels, which is also now in progress; and eventually building new vessels in U.S. shipyards.

MARAD [U.S. Maritime Administration] has recently released a request for proposal for a vessel acquisition manager who will identify, purchase, modify, and after purchase potentially operate these new vessels.

The decline in our domestic capacity to build and repair large commercial ships is a major concern. Of the seven large shipyards involved in the last major effort to construct or convert large commercial-type ships for sealift several decades ago, three of those are now closed, one no longer does commercial work, and two perform conversion work only. Of that original seven, only one retains its expertise to build large commercial-type sealift ships.

Last year, I reported 81 ships in our international commercial fleet. Today, we are 87 but still down from the 106 in 2010. The overall decline in the size of the U.S.-flagged fleet makes the Maritime Security Program essential.

Maritime Security Program ensures access to a fleet of 60 commercial vessels to meet DOD contingency requirements. MSP operators also support the employment of 2,400 of the trained, skilled U.S. merchant mariners that our country depends upon to crew surge sealift ships.

I thank the committee for its reauthorization of MSP through fiscal year 2035. The Maritime Administration is also ensuring compliance with cargo preference requirements. We are significantly expanding our outreach and engagement to maximize the use of U.S.-flagged vessels. More cargo means more U.S.-flagged vessel operators employing U.S. citizen mariners, many of whom will be needed for sealift.

We also remain committed to our domestic Jones Act fleet. Jones Act requirements support U.S. shipyards and repair facilities, sus-

tain supply chains that produce and repair American-built ships, and the employment of U.S. citizen mariners. It is the indispensable foundation of the U.S. maritime industry and our economic and national security.

Due to declines in the U.S.-flagged fleet, I am concerned about our access to enough qualified mariners. We are working to better track our pool of available mariners who could be available for sealift and are exploring a range of options to ensure that a sufficient number of mariners are trained and available to meet potential contingency operations.

The Maritime Administration continues to support mariner education and training through the U.S. Merchant Marine Academy and the six State maritime academies. Congress's funding of the National Security Multi-Mission Vessel [NSMV] program will help provide our State academies with modern training vessels to prepare future mariners.

The President's budget requests $300 million for a fourth ship designated for Texas A&M [Agricultural and Mechanical] Maritime Academy. We expect that our vessel construction manager, TOTE Services, will have a shipyard under contract shortly in order to deliver the first NSMV in fiscal year 2023.

Thank you again for the opportunity to address this committee on the state of American sealift. I look forward to your questions and ask that my testimony be entered into the record, sir.

[The prepared statement of Admiral Buzby can be found in the Appendix on page 54.]

Mr. COURTNEY. Thank you. So, ordered.

Admiral Williamson.

Could you push the button on that? Yes.

STATEMENT OF VADM RICKY L. WILLIAMSON, USN, DEPUTY CHIEF OF NAVAL OPERATIONS, FLEET READINESS AND LOGISTICS (N4), OFFICE OF THE CHIEF OF NAVAL OPERATIONS, DEPARTMENT OF THE NAVY

Admiral WILLIAMSON. [Inaudible.] Sorry, sir. [continuing] And distinguished guests of the House Armed Service Subcommittee on Seapower and Projection Forces and Readiness. I am honored to be here today to provide a Navy perspective on the sealift and support of the National Defense Strategy.

One of my primary responsibilities as Navy's logistics champion is making sure that the strategic sealift fleet has a strong resourcing advocate on the Navy staff. I can tell you from my personal experience this issue of sealift readiness has the attention of my entire chain of command.

Since assuming my role 7 months ago, I have spoken personally with the CNO [Chief of Naval Operations] several times, the Secretary of the Navy, and Secretary of Defense as we worked hard to balance the needs of the sealift fleet with those of the combatants that enable ships to deliver their cargo.

As the CNO said in his testimony a few weeks ago, we are beginning to make investments in strategic sealift where we haven't made significant investments in a while.

We expect that investing now will yield returns of increased long-term readiness as we work to recapitalize the sealift ships using

the multi-pronged approach delivered in the March 2018 "Sealift That the Nation Needs" report to Congress.

We continue to demand analytic rigor that provides actionable data to guard our investments in maintenance and repair to return the fleet to our agreed readiness goal of 85 percent.

Finally, I see no barriers to our plans to recapitalize the sealift fleet. I will continue to work alongside General Lyons and Admiral Buzby to provide the sealift readiness our Nation needs.

I look forward to answering your questions. Thank you.

[The prepared statement of Admiral Williamson can be found in the Appendix on page 59.]

Mr. COURTNEY. Thank you, Admiral.

And lastly, but not least, because he is a native of the State of Connecticut, Lieutenant General Nahom.

STATEMENT OF LT GEN DAVID S. NAHOM, USAF, DEPUTY CHIEF OF STAFF FOR PLANS AND PROGRAMS, DEPARTMENT OF THE AIR FORCE

General NAHOM. Thank you, sir.

Chairman Courtney, Chairman Garamendi, Ranking Members Wittman and Lamborn, distinguished members of the subcommittee, thank you for having us here today with U.S. Transportation Command and Maritime Administration to discuss the state of the mobility enterprise and provide testimony on Air Force's role in supporting the Department of Defense's air mobility capabilities.

The Air Force provides capabilities, crews, fleets essential to mobilize global support. The mobility fleet faces many challenges providing the force and fleet readiness needed to meet ever-increasing demands our Nation relies upon.

Our most significant challenge today is the move to a two-tanker fleet as we must stretch our resources to meet demands while balancing the appropriate risk by divesting the legacy aircraft to move toward the future force.

As we modernize to counter growing threats, we must also ensure that forces remain ready and able to offer options to our Nation's leaders and combatant commands.

There is no doubt the demand for mobility capabilities remains high. With the support of Congress, we have made major improvements to mobility readiness and hope to continue increasing our ready forces.

I am looking forward to the discussion today and to continue to work with this committee for a more ready and capable mobility force in the future.

Thank you.

[The prepared statement of General Nahom can be found in the Appendix on page 69.]

Mr. COURTNEY. Great. Thank you, General.

So, we are going to go into questions. Again, we are going to apply the 5-minute rule to everyone, including folks near the microphones here and, hopefully, we will at least get through one cycle and if there is extra time then we will keep going, depending on next votes.

So, Admiral Buzby, thank you for at least recognizing we got a couple things right last year in terms of restoring the funding for

the National Security Multi-Mission Vehicle. Great to hear things are on track with that program, and also the extension and reauthorization of the Maritime Security Program.

We also backed a three-pronged approach which, again, was mentioned earlier about extending current sealift ships, buying used vessels, and requiring the start of a domestic new-build ship and gave some additional authorities to build these new ships using alternative contracting approaches.

Again, that alternative contracting approach I would like to focus on just here for a moment, again, is being deployed in the case of the multi-mission vehicle.

Can you talk about what, you know, knock on wood, you know, how that is proceeding and then whether or not that we could use that model again as a way of getting more sealift ships built and with a little more flexibility.

Admiral BUZBY. Yes, sir. Thank you for the question.

As I mentioned in my testimony, we are about that close to actually having our vessel construction manager TOTE Services get to contract with the shipyard.

The process has been a learning process for all involved, both the government, us in Maritime Administration, TOTE Services, our contractor, and the potential shipyard.

I think that it offers great promise because what we are going to be doing is using a commercial practice to deliver a ship at a fixed price and a fixed timeline and contract, and I think that it offers—I think we are going to see a great savings from it.

I mean, the proof will be in the pudding. I know we have been talking with the Navy, with Naval Sea Systems Command on this. They have been watching it very closely, and I think they have gotten more comfortable as time goes on.

I don't want to speak for them but, you know, as we have matured it and gotten through it and worked through the bumps, I think—I think it definitely offers great promise and needs to be seriously looked at if we go forward to procuring more sealift ships.

Mr. COURTNEY. Thank you. I don't know if, Admiral Williamson, you want to comment at all. But, again, as you said, the committee sort of expressed its, you know, support for this approach that he just described in terms of just what is the Navy's take on it.

Admiral WILLIAMSON. Yes, sir. As the CNO testified earlier, you know, we are working really hard to close these gaps from our—us not investing in the past 15, 20 years.

You know, we see this as an opportunity. We will partner with MARAD and do the analytical rigor necessary to ensure that, you know we can find executionable solutions within the constraints of our budget, sir.

Mr. COURTNEY. Well, thank you, and we will be, you know, again, really anxious to see how this unfolds again because we have got to get sort of a different approach here if we are going to really start getting some momentum in terms of filling some of the gaps here.

Admiral Buzby, our subcommittee also for a number of years has been sort of tracking the progress about getting a national maritime strategy sort of on the books, which have been decades since we have done that as a nation, and I know it is a challenge because

there is a lot of different Federal offices and agencies that touch the maritime realm. But maybe you could just give us an update in terms of how that is proceeding.

Admiral BUZBY. Yes, sir. I am very happy to report to the committees that our report back to Congress as was directed in the 2014 NDAA [National Defense Authorization Act], actually the Coble Act, is complete and has been submitted. It is entitled "Goals and Objectives for a Stronger Maritime Nation," our report to Congress.

It lists 4 goals and about 39 objectives to get to a stronger merchant marine. It is not a global maritime strategy, one that encompasses the Navy and the Coast Guard and all the—all of the facets of maritime America.

It really is kind of focused on the commercial side and those things that we in the Department of Transportation could, clearly, focus on. But I enjoin everyone to take a good look at it and, you know, it is a starting point. It is a place where I think we and industry can all stack our hands together and move forward from.

Mr. COURTNEY. Well, we are, you know, glad to hear that is happening. Again, if we can sort of get progress in the commercial sector that will spill over and benefit, obviously——

Admiral BUZBY. I would agree.

Mr. COURTNEY [continuing]. Other parts of shipbuilding, whether it is Navy, Coast Guard, or, you know, sealift and, you know, if you look at the aerospace sector, you know, the fact that they are able to sort of balance their industrial base with commercial work in addition to military work, I mean, that has really been the missing sort of ingredient in the shipbuilding area and your description of the shipyard decline that is happening, you know, that is just—we have to turn that around——

Admiral BUZBY. Yes, sir.

Mr. COURTNEY [continuing]. And really glad you finished that report. So, thank you.

I recognize Mr. Wittman for 5 minutes.

Mr. WITTMAN. Well, thank you, Mr. Chairman. I would like to thank our witnesses for joining us.

Admiral Buzby and Vice Admiral Williamson, I want to go to you to begin with. As we look at the fiscal year 2021 budget request for recapitalizing the logistics fleet—the Ready Reserve Fleet as it is formally called—we look at a $550 million per ship cost in constructing new ships.

I am not confident that we can afford ships at that price and build the fleet back at the pace that we need to build it back. But I do think there are a lot of different ways that we can think about how we can make those things happen.

Chairman Courtney talked about several. I think we have to engage the industry. But I want to get your perspective. I think, looking at U.S. shipbuilding companies, looking at their potentially partnering with other companies across the globe that are in the shipbuilding business and how we can make sure we have critical U.S. systems on board those ships here, make sure they are designed specifically for the purpose of the military, looking too at the idea of the use of those ships by the private sector and then contracting for those ships to be made available for the United States

military and then at a certain point maybe the sealift—our Maritime Administration purchasing those ships as kind of a reverse of the MSP program.

I think all those things are efforts that should be on the table. I want to get your perspective about how do we, as quickly as possible, rebuild that capacity, much like Secretary Lehman did back in the 1980s. Time is not in our—in our favor now and we have to be able to do this quickly.

Admiral Buzby, I want to get your perspective. And then, Admiral Williamson, I want to get your perspective, because it really doesn't seem that the Navy is really serious about this.

It seems like the Navy is saying, you know what, doesn't make a big difference to us. We don't need ships to get to the fight. We got them. And if the Army wants to get to the fight, we will let them worry about it.

So, it seems to me it is pretty doggone parochial and it seems like to me we are not making any progress in getting where we need to be. So, I would like to get both of your perspectives on that.

Admiral BUZBY. Thank you, sir. Thanks for the question.

I absolutely agree, we need to get on with this. You know, we have to kind of approach it kind of two ways right now.

We have to—we have to fix and get as ready as we can the ships that we have for the very near term and we have to do some of the replacement using the authorities that Congress has granted us to get us moving. You know, some of the things that we are discussing here is going to be, you know, kind of a mid-term sort of set of actions.

We have to, I think, kind of make a fundamental set of decisions here on where these ships are going to come from. The current Ready Reserve Force now is virtually all foreign built.

There are a few U.S.-built ships in there. But for the most part they are in fact foreign-built ships. Ships that we will be talking about bringing in near term are foreign-built ships.

So, you know, we are going to need to, you know, have a real serious policy discussion on how critical is it that those ships be built in the United States and there is some criticality to that, and, you know, it goes to the comments that I made earlier about our industrial base.

That is something to be taken into account and something we don't want to, I think, just throw away. So, I think that seriously needs to be taken into account against the need to get ships quickly, very quickly.

But, you know, we are going to be working really closely with the Navy and, obviously, with TRANSCOM setting the requirement on what that mix—proper mix should be.

Mr. WITTMAN. Very good.

Admiral Williamson.

Admiral WILLIAMSON. Yes, sir. Thank you for the question.

As I said in my opening remarks, my leadership is taking this very seriously, is closing this gap as quickly as we can, and I think that is representative in our 2021 budget proposal.

You know, the funding of the two used ships at $60 million I think helps, to Admiral Buzby's point, get us added capacity and readiness now. I also believe that as far as the costs of building

new, we are committed to building new that is also represented in our submittal of $37 million to do a design of a ship to be built in—start build in 2023 and delivered in 2026.

Additionally, we are working with your staff right now to address this, to find solutions that are affordable but also at the same time, to echo what Admiral Buzby said, working very closely with him and TRANSCOM how do I get after the divot that was about 10 years out, as identified in the CBSA [Center for Strategic and Budgetary Assessments] study.

And I believe through a combination of the service life extension program, additionally with the used ship buy, two planned in 2021—we have an additional one in planning for 2022—I think that helps us lessen the impact of the—of the shortfall identified in the CBSA study. So, we will continue to partner with US-TRANSCOM and MARAD to get after this, sir.

Mr. WITTMAN. Thank you, Mr. Chairman. I yield back.

Mr. COURTNEY. Thank you. Thank you, Mr. Wittman.

Chairman Garamendi.

Mr. GARAMENDI. Thank you.

Reality. A little reality check here. With regard to this sealift capacity, it isn't going to be done in the traditional way. It is not going to happen. There is not money in the naval budget to build the sealift capacity. There is no money to rebuild the Ready Reserve Fleet. It just isn't there.

So, we need to think differently. Fortunately, there is a proposal—a plan, if you will—that has been proposed to us and we need to get real about this.

We either say this plan laid out in these documents is not worth our effort to even think about or it is, and I would suggest that this year we make a decision to pursue a different strategy than the one that we know will not work, and that strategy is something along the line that was laid out by the Center for Strategic and Budget Assessments in this document "Sustaining the Fight" and then in its followup document.

It basically calls for the rebuilding of the American merchant marines system using things that are already in place such as the Jones Act, celebrating its 100th birthday, as Joe told us earlier, and utilizing stipends, subsidies, and other programs that have been on the books for more than 50 years but not used in the last 25 years.

Essentially, building a fleet that is militarily useful, and we can do this. The United States is now one of the largest exporters of oil and natural gas, none of which is on American-built ships. Keep in mind that Russia is requiring that its LNG [liquid natural gas] from its northern Siberian area be on Russian-built ships and Russian-flagged ships.

Why are they doing that? Because they see it as an opportunity to build their merchant fleet, useful for their purposes.

Similarly, we could, using legislation that we proposed called the Energizing the American Shipbuilding Industry, requiring that a small percentage of that oil and gas that we ship overseas be on American-built ships with American mariners, solving two problems simultaneously.

And if those ships are built appropriately, for example, with a center—what do you call this, Mr. Buzby?

Admiral BUZBY. A construction differential subsidy.

Mr. GARAMENDI. That is it. That is one of the subsidies. But also built so that that ship can be used for resupplying the Navy fuel at sea with a center post, I think you called it.

Admiral BUZBY. King post. Yes, sir.

Mr. GARAMENDI. King post. And also some sort of a reel of pipe at the back?

Admiral BUZBY. Stern refueling capability.

Mr. GARAMENDI. There you go. Good words all the way around. We could do this, and in the process reenergize and build in our shipyards and all the things that we have been talking about here.

So, we need an overarching strategy that is in place. Hopefully, Admiral Buzby, your new maritime strategy, should it ever emerge from OMB [Office of Management and Budget]—where I understand it is still stuck.

Admiral BUZBY. It is out, sir. The Secretary has signed it out. It is——

Mr. GARAMENDI. Oh, my.

Admiral BUZBY. It is for real.

Mr. GARAMENDI. Oh, my, my. At last.

Admiral BUZBY. Yes, sir.

Mr. GARAMENDI. In any case, better now than never.

What I am—what I basically want to get into a deep discussion on is in this year, in this year's NDAA, build upon what we have—what we already have in place and stretch it further so that we can do two things—leading the national security requirements of this Nation.

So, let it go. I talked to all of you about this. Your comments? Let us begin with Admiral Buzby and then go both different directions.

Admiral BUZBY. Sir, I would concur that we definitely need a bit of a more bold approach if we want to get ahead of the bow wave of obsolescence that we know that is coming, it's well-documented, of our—of our sealift forces.

So, taking the outlay that is laid out in the CSBA report is one way to do it. We have to just find the right mix, the affordable mix, that still meets the capability requirements that General Lyons lays out to meet the OPLAN [operations plan] square footage and dry fuel—and wet fuel movement.

Mr. GARAMENDI. Admiral Williamson.

Admiral WILLIAMSON. Yes, sir. As I said, my leadership—we are absolutely committed to closing this gap in the near term.

Mr. GARAMENDI. Are you willing to think outside the box?

Admiral WILLIAMSON. Sir, we are willing to partner with anyone to be able to close that gap sooner, and we will work shoulder to shoulder with Admiral Buzby, TRANSCOM, industry, and your staff.

Mr. GARAMENDI. I yield back.

Mr. COURTNEY. Thank you. Thank you, Mr. Chairman.

Mr. Lamborn.

Mr. LAMBORN. Thanks.

Boeing's performance issues with the KC–46—and by the way, I am going to ask about refueling and tankers because I share concern on the sealift capability but I think we have been addressing that really well so far.

But on the KC–46, it puts everyone in a bind. It is hard—it seems like it is going to be hard to even support day-to-day combatant commander requirements not to mention the surge required in case of major contingencies.

So, given the safety issue of the boom operators not being able to see that last 18 inches, and I am not sure that it is an acceptable risk to say they are still ready to go into a major conflict.

So, General Lyons, could TRANSCOM meet its refueling requirements if the Air Force was permitted to retire its KC–10s but Congress were to direct it to retain additional KC–35s so as to have 23 or so additional craft?

General LYONS. Sir, as you know, we have been working with the Air Force and the delay in the KC–46 does in fact cause about a 30 percent reduction in outputs and day-to-day competition space. So, we are talking about non-mobilized enterprise.

We would like to remediate that down to about 10 percent reduction and that is where the delayed retirement for the legacy fleet KC–10s and the KC–135s come into play. And I know the Air Force—I know Dr. Roper and so forth has talked to you and they are working very, very hard with Boeing, and Boeing has got to come through and deliver a technical solution.

I want to talk to the Air Force on the programmatic piece. But for an operational piece, we are approaching a high window of risk if we continue to retire those jets.

Mr. LAMBORN. And, General Nahom, is contract refueling a viable option to bridge the gap as one way to meet this need in case of further—either a contingency or the need of a surge?

General NAHOM. Sir, we are looking at contract refueling, and that wouldn't really be for so much contingency. That would be some of the CONUS [contiguous United States] requirements.

Mr. LAMBORN. For day-to-day?

General NAHOM. Some of your training, your tests.

Mr. LAMBORN. Okay. Okay.

General NAHOM. Things that you do here at CONUS, not more of your day-to-day overseas.

Mr. LAMBORN. Okay. I understand. I understand.

So, if so, would TRANSCOM or the Air Force be the more appropriate party to manage the contracting process?

General NAHOM. Sir, I don't want to speak for TRANSCOM here but I believe—I believe that would fall under the Air Force as we—you know, it is our duty to supply the air refueling that is needed for the joint force and we take that seriously right now.

The KC–46 is giving us—it is quite a challenge and we have 31 of them sitting on the ramps right now and, as you said, day-to-day usage—the risk is just too great to use those in a day-to-day usage.

The chief did say recently that we would use these in time of a national emergency. We would use the airplane to whatever capability we would—we could get out of it. But we are not willing to use it day-to-day.

This is where our partnership with TRANSCOM is critical right now, to make sure that we do retain enough legacy refueling that we have for day-to-day operations. But we are going to have to accept some risk in the near term so we can correctly modernize too our two-tanker fleet, which is our 135 and our KC–46, and I think this is going to be the balance that we are going to look to—obviously, the guidance from this committee and working with TRANSCOM to make sure we get that balance correct.

Mr. LAMBORN. And, General Lyons, any last thoughts before I turn back my time?

General LYONS. No, sir. The air component—the Air Mobility Command is in fact at the direction of Congress as well, looking at the feasibility, the business case, of outsourcing some level of commercial aerial refueling options, much like we do in the CRAF [Civil Reserve Air Fleet] program for commercial augmentation.

And my commitment to General Miller is to support her in any way that she requires support and we will take a look at that, sir.

Mr. LAMBORN. Okay. Thank you.

Mr. Chairman, I yield back.

Mr. COURTNEY. Thank you, Mr. Lamborn.

Congresswoman Luria, the floor is yours.

Mrs. LURIA. Thank you.

General Lyons, in your statement you noted that the readiness of sealift today is 59 percent against the stated goal of 85 percent. That 85 percent goal, is that against the 10.5 million square feet of sealift that we currently have?

General LYONS. That is correct, ma'am. Nineteen——

Mrs. LURIA. But is 10.5 the requirement or is that requirement actually significantly higher?

General LYONS. Well, the requirement is 19.2 million square feet of roll on/roll off space.

Mrs. LURIA. So, 19.2. So, if we have 60 percent of the 10.5 million that is about 6.3 million square feet currently, and if you actually find the percentage of that 19.2 million it is only about 30 percent that we currently have.

So, I am just looking at this number and I am confused because if we are only meeting 30 percent of that requirement, it seems like this would have been a much higher priority over the preceding year.

And when I asked this question last year about our ability to meet sealift demand, both you and your deputy stated that we could meet that demand but just not in the time required was what was said this year.

So, I kind of see one of two things is either true. Either you don't need the 19.7 million square feet or the combatant commanders' timeline in their TPFDD [Time Phased Force Deployment Data] doesn't matter.

So, which is it if you are saying that you can meet the requirement but you don't have the square footage or you can't do it in the amount of time? Which one is the answer?

General LYONS. No, I think that is quite a reasonable question. The 19.2 million square feet requirement has been really consistent throughout multiple strategies over the years. We do the force sizing work on that, as you know.

And so, when you don't have that, and we don't have that today, there is direct implications on the arrival of the forces relating to the TPFDD, relating to the global [inaudible] war plan.

And so, to your point, that is the requirement and we are unable to meet that today. That is the bottom line.

Mrs. LURIA. Thank you.

And in this budget year, I understand that Military Sealift Command—MSC—has allocated $50 million towards building a new headquarters building and I also understand that this is not coming from MILCON [military construction] construction. It is coming from their O&M [operation and maintenance] account so actually money that would go towards fuel, maintenance.

So why, if you are at 59 percent readiness on sealift, why is the MSC spending $50 million of that money that could be going towards maintenance and these other upgrades for these sealift ships on the new headquarters?

General LYONS. Well, I won't talk to the—from the Navy's position on headquarters on the title 10 requirements. But I will say this. When the MSC headquarters got BRAC'd [base realignment and closure] from the Navy Yard down to Norfolk, it is currently in probably two dozen or more different facilities.

This is the headquarters that, over time, has migrated to an administrative headquarters. We are trying to migrate that back to a warfighting headquarters consistent with the strategy.

So command and control is a very important part of the warfighting function and it really is important that Admiral Wettlaufer has a command and control capacity that is facilitated by a facility down there at Norfolk and I think that is what they are working on.

To be honest with you, I don't exactly know the costs associated with that. But there is a lot of work to be done in that area.

Mrs. LURIA. But do you agree with that funding for that facility coming directly out of the operations and maintenance funding that could be going to fix the problem with sealift rather than a military construction project, which would be the normal means for funding a building and a headquarters?

General LYONS. Well, to build a new headquarters would be military construction, as you know. There are other ways to improve and modernize your facilities within SRM [sustainment, restoration, and modernization] and other accounts.

It is not an either/or trade, right. You must have mission command capacity to command and control your fleet that is a global fleet. So, we have to address the command and control construct for the maritime component. We also have to address the readiness issues on the fleet.

Mrs. LURIA. So, I understand that that is being prioritized this year over fuel for our MPSRON [Maritime Prepositioning Ship Squadron] forces, over maintenance on these sealift ships. That has become a priority this year is this $50 million towards the headquarters over those urgent needs for the sealift fleet?

General LYONS. Again, Congresswoman, this is—we are not talking about—you know, we are not talking about plush headquarters here. We are talking about a warfighting apparatus to command

and control a global fleet that we must employ in combat operations. It is a warfighting function.

Mrs. LURIA. Thank you. I yield back my time.

Mr. COURTNEY. Thank you.

Mr. Kelly.

Mr. KELLY. Thank you, Chairman, and thank each of you for being here today and thank you for your service to our great Nation.

I want to talk a little bit, General Lyons, about—we just recently did an EDRI [Emergency Deployment Readiness Exercise]. I guess about a year ago out at Gulfport where we're exercising alternate and contingency ports. I think that is great.

Tying that in, how much are you working with AMC [Air Mobility Command] to make sure that what we lack currently in sealift capacity or air capacity to make sure that we have preposition stocks that are not too much at risk but are in where we think the next fights may be?

Because there is one way—you either get them there after the conflict starts or either you have to have them there, which puts them at a little bit at risk, so that we make sure we can go.

Everybody has a plan—do you get hit in the mouth, and so you want to make—you have enough. We don't want another Korea where we almost get pushed off the peninsula by the time we get forces there.

So how much do you work with AMC to do that?

General LYONS. Sir, we work very closely with the services who are responsible to determine their preposition requirements. In this case, I think you are talking about Army—Army Materiel Command. So, we work very, very closely with them both in maritime prepositioning as well as supporting their preposition ashore programs.

Mr. KELLY. I think that is real important. And General Nahom, if you can kind of—the same way with the Air Force, either through staging, basing, or prepositioned planes or stocks or munitions, what are you doing to make sure that we have the right stuff forward quickly enough. Are you working with the—I guess the AMC of the Air Force to do the same thing?

General NAHOM. Sir, I don't want—I would say there is a lot of prepositioning forward that happens through our overseas combatant commands and, certainly, our major commands that support that in the Air Force and we work very closely to make sure they have the necessary—the necessary, you know, tools.

In terms of the equipment we would need to get to the fight, obviously, we work very closely with TRANSCOM to make sure we have the appropriate capacity in which to defeat the fight as necessary.

Mr. KELLY. Because I think while we wait on the sealift or airlift to get to where we need to be, we are much leaner everywhere around the world than we were when I was a young guy.

You know, we were doing Defender 2020 which is kind of like the old Reforgers but we had 300,000 troops forward then. We had all kind of airbases forward then. We don't have those same things.

But we also have better allies probably who are more prepared today, but a combination—I just want to make sure that we are—

until we get the sealift gap closed we need to make sure that we are ready to fight tonight.

General Lyons, I am concerned about the future of the C–17 Globemaster sustainment. The current PBL [Performance Based Logistics] contract between Boeing and the Air Force seems to be a model program which has delivered 80 percent-plus mission-capable rates every year for more than 20 years, a readiness rate that makes the C–17 have the highest OR [operational readiness] rate in the Air Force.

I understand the Air Force is considering a change to the sustainment strategy for the C–17 and concluded a business case analysis last year. Is that accurate?

General LYONS. Sir, I am not familiar with that. I will take that for the record.

[The information referred to can be found in the Appendix on page 83.]

Mr. KELLY. I guess that answers my next question. Was TRANSCOM consulted in the business case analysis? General Nahom, do you have an answer to that?

General NAHOM. Sir, the change to the PBL, I don't have that information at hand. I am going to have to get back to you for the record, sir.

[The information referred to can be found in the Appendix on page 83.]

Mr. KELLY. Okay. And which goes to my next question, which I know you can't answer but I am going to ask it for the record. And would this change to the sustainment strategy affect the Air Force Reserve and Air National Guard, which have C–17s?

[The information referred to can be found in the Appendix on page 83.]

Mr. KELLY. Finally, I guess I just want to talk about the—a little bit—we have talked a little bit about the tankers—the refueling tankers. And, guys, we just got to get this right and it goes back to we got to think outside the box if we have to do something differently in the interim.

But I don't think we can ever again put ourselves in a position like we did in Korea or like we did at the early stages of World War II or World War I where we don't have enough to go toe to toe, because what that means is we are fighting for footholds or ports or airbases.

Soldiers, sailors, airmen, and Marines die. And so, we have got to get the long-term solution. But in the interim I just ask that you guys think outside the box to use every tool in the box that we have to be able to close and fight tonight.

And with that, Mr. Chairman, I yield back.

Mr. COURTNEY. Thank you, sir.

Mr. Norcross, you are recognized.

Mr. NORCROSS. Thank you, Chairman. I would like to thank the witnesses for being here today. I want to focus on three quick issues: aerial refueling assets, the strategic sealift, and if I have time, the CMV–22.

First one. Three major issues left on the tanker—the tie-downs, which has been addressed and is being fixed; the boom stiffness,

which was actually on us; and the remote visual system, which is absolutely a critical problem.

But one thing we have to remember is that cost is on Boeing. This is a fixed contract which needs to be looked at the way we do it because the requirements has been an issue on this piece, literally, going back years.

So, when we look at that, and I have great respect for my colleagues on the other side of the aisle, but the idea of halting this contract to me would be an absolute critical mistake. Ninety-five percent of the time of building that plane doesn't involve the remote vision system.

We can build those, continue its mission while it is being fixed. We are too far behind and we are talking about great power competition, I don't want to send an F–35 up when we are in a major fight, especially if some other rather negative things happen. They are not going to be able to fly. The KC–46 can still fly.

So, the idea of stopping a contract because of Category One—we wouldn't have aircraft carriers, we wouldn't have an F–35, we wouldn't even have submarines. We need to go at this. Boeing's on the hook here. They need to perform. There is no question about it.

But the idea of delay, I think, would be an absolute critical mistake and something that we shouldn't go into.

But shifting over to the sealift, corona [coronavirus] has taught us something in a lesson that we should take—that when our supply chain is outside the United States, we are at risk. First suppliers that are coming in from China, we are seeing things delayed and that also goes with human capital.

So, those mariners that I have heard Mr. Buzby talk about time after time, you don't grow them overnight. This is a focus and we can only do it with an American fleet.

So, I echo the comments of my colleagues here that this is a critical component that we don't fix overnight. Training takes a tremendous amount of time and we need to make sure that in our budget that the money is where it needs to be to supply that next generation.

So, to Admiral Williamson, talk to me about the next generation of supply chain going to our aircraft carriers, the CMV–22. What is the transition that will take place when that comes in? I think it is 2020, 2021 when your first one gets delivered for the *Carl Vinson.*

Admiral WILLIAMSON. I am sorry, sir. I didn't hear the first part of your question.

Mr. NORCROSS. The CMV. The Osprey.

Admiral WILLIAMSON. Yes.

Mr. NORCROSS. Is that next chain of supplies for our carriers that is coming on in 2021. Talk to us how that support mechanism is going to transition from what we presently have with the CODs [carrier onboard delivery] and others.

Admiral WILLIAMSON. Sir, I am not familiar with that in my portfolio. I would love to take that for the record and get back with you. I can speak to how we have incorporated the 22 onto other platforms and how we are using that to look at distributed maritime ops.

[The information referred to can be found in the Appendix on page 83.]

Admiral WILLIAMSON. For example, EPF [Expeditionary Fast Transport], which is an auxiliary platform, we are building small, fast, light auxiliary. Looking at the next phases of that with the VS–22 gives it about a 350-mile nautical range capability. In addition to that, we have incorporated it into our refits of our hospital ships, offering that an additional 350-mile capability as well.

And so when you look at the distributing—the supply chain across the Log [Logistics] Continuum from the inter to intra, the last tactical mile, obviously, I think the—and looking at the distance of which we have to do in distributed maritime ops, the VS–22 provides us some extremely good capability to ensure that our sailors and Marines keep supplied.

Mr. NORCROSS. So, we will follow up on the carriers' supply ship and I yield back the balance of my time.

Mr. COURTNEY. Thank you, Mr. Norcross.

Mr. Bergman.

Mr. BERGMAN. Thank you, Mr. Chairman.

Admiral Buzby, you mentioned about building ships on time, on budget. Did I get that right?

Admiral BUZBY. Yes, sir.

Mr. BERGMAN. Okay. Vice Admiral Williamson, I have never heard that from the Navy. On time and on budget for ships. We have had hearings over the last couple of weeks and many members of the committee here have expressed concern about the Navy shipbuilding plan. Okay.

I just wanted to—I am not expecting you to answer. I am not asking you a question. So, Admiral Buzby, back to you. What is it that is unique to the maritime industry that allows you to be able to make that statement? What plans, planning, whatever you want to call it—P2s, P3s—have been put into place to allow you to make that statement?

Admiral BUZBY. Excellent question, sir.

The key point to commercial contracting for new-build construction is a couple of very key points. You go in with a very mature design that is well understood, with the requirement is well laid out and that the shipyard fully understands what they are going to have to build. So, the requirement is crystal clear, and right up front before they sign the contract all of the risks are negotiated out.

You know, you are—you know, the risk is either retired through understanding of the requirement or it is retired through costs that is added in by the shipyard to take care of any fluctuation in the design as they are building it.

So right up front, that is, you know, agreed to rather than having it sort of float along and be a surprise as the ship is being built. That is really the beauty of it.

Mr. BERGMAN. As you are—as you are working with industry to work out to see where the risk is, these ships are going to sail across the seas. There is no guarantee that they won't face some level of enemy threat, if you will.

As part of the risk mitigation, is that part of the discussion to some level of extent as to what kind of risk we are assuming if this ship was to take a hit?

Admiral BUZBY. The risk primarily that we are talking about is really design risk——

Mr. BERGMAN. Okay.

Admiral BUZBY [continuing]. And construction risk. The risk that the ship faces once it is in the custody of the government and off—or the commercial entity doing its thing, that is operational risk, which is separate than this construction risk.

Mr. BERGMAN. Okay. Well, I guess, again—again, this is more of a statement, Vice Admiral Williamson, about I would really—I think a lot of us would like to see the Navy at least consider at what level can we use this industry model and then as we got our warfighting ships—you know, it takes on a different character but still be able to get as close to a budget, if you will, a business proposal that makes sense that this committee can look at and say it is—you know, this is—we can fund this because it makes sense.

Back to you, Mr. Buzby. While the maintenance of the Ready Reserve Force is important, so too is the development and training of the mariners to command the vessels and to crew the vessels.

How are you leveraging modeling and simulation and other emerging training technologies to better prepare our merchant mariners?

Admiral BUZBY. Sir, that—using simulation is basically mainline now in the training of today's mariners both on the unlicensed side and on the licensed side. Matter of fact, I visited all the State maritime academies, all six of them, plus Kings Point on a regular basis.

All of them have fairly sophisticated simulation capability. The Coast Guard recognizes 30 days of sea time in exchange for simulator time as it stands right now and probably more going forward. At Kings Point we are rededicating an entire building and rehabbing it just to be a simulation center, going forth, with the most modern simulators.

So absolutely critical to the training of a modern—to do it efficiently, to do things in the simulator that you can't do without very high risk of failure and potential calamity if you try and do it for real at sea.

Mr. BERGMAN. As a veteran of simulation in my flying career, the whole object of simulation is to be able to scare, if you will, the pilots or the mariners to the point where they learn, and you don't hurt anybody or destroy any equipment in the process.

Because if you are not in their minds when they get into the real thing, they are not as prepared as they could have been and we—through the failure to leverage the simulation.

So, with that, Mr. Chairman, I yield back.

Mr. COURTNEY. Thank you, Mr. Bergman.

Mr. Golden.

Mr. GOLDEN. Thank you.

Just a question for the panel. Anyone can field this one. I imagine that USTRANSCOM is looking to remain on the cutting edge of technological innovation as part of this discussion as well.

Just as an example, back home in Maine at the University of Maine Composite Center it is also the advanced additive manufacturing facility that they have up there for research and development.

They have the largest 3D printer in the world where they recently did a 25-foot 5,000-pound boat in about 72 hours; if you think about that in regards to potential for just design, testing, research, and development. They've got a big basin up there for testing these types of things out as well.

But I don't think they believe they are going to continue to have the largest 3D printer in the world for long. They are going to go bigger and they are thinking about unmanned and things of that nature as well.

They also have made composite shipping containers, as an example, where you can, first of all, think about the fuel savings to the Navy, potentially, with shipping containers that are half as heavy as steel, the kind of logistics potential that comes with something that is stronger than steel but also able to collapse in upon itself and stack in case you are not using it all, but also fiber in the composite material so now you are attached to the grid so you can do inventory scans. You can do security scanning. It doesn't block GPS [Global Positioning System] and transmission signals and things of that nature. You know, they are working hard for the future.

So, I just wanted to give you all the opportunity to discuss ways in which TRANSCOM is partnering with industry in general to adapt and innovate to meet the sealift requirements that the joint force needs in the future.

General LYONS. Congressman, I will start and I will defer to the—particularly to the services.

But I think you are right, it is absolutely amazing the technology and innovation that we see across all of our universities and campuses.

At TRANSCOM, specifically at the headquarters, we are really focused on decision support systems and command and control systems, big time into enterprise data environment, enabling machine learning, thinking about artificial intelligence, and these kinds of things.

And then at the weapons systems level, I mean, the services, largely, work the weapons systems level and those kinds of things. So, I will defer to the services if they have additional thoughts on this.

But I agree, the rate of change is impressive.

Admiral WILLIAMSON. Sir, thank you for the opportunity to comment. Additive manufacturing, we have already started to experiment with that on our ships. *Stennis* used this on her last deployment.

And to your point, being able to get a part that is necessary to continue combat operations in a short period of time, we think there is some incredible opportunities there. When we look at—you know, earlier we talked about the supply chains and being able to get those things done.

Additionally, digitalization of our supply chains, being able to take, obviously, various different systems, bringing that together to give not only at the tactical level but the operational level and stra-

tegic level the commanders real-time information to make real-time decisions I think is a road we are exploring and already making some progress.

Thank you.

General NAHOM. And, sir, obviously, no ship examples. But I would say for the Air Force if you look at where we are going with digital design it is going to really revolutionize how we—how we build aircraft in the future.

The perfect example that doesn't apply to the portfolio here but our new trainer, the T–7, which is the first aircraft 100 percent digitally designed, and you look at how we are manufacturing it is not about a different aircraft. It is about building an aircraft differently, and that is going to lead into the future as we go beyond some of the current mobility assets we currently fly right now.

Mr. GOLDEN. I thank you all for that, and let me extend an invitation up to the University of Maine on their behalf, if you are interested, you know, from the perspective of additive manufacturing.

I know they are looking at potential jet fuel, you know, composite and additive manufacturing. Makes sense in Maine. We've got the largest contiguous forest—working forest in North America. So, we are the wood basket, so to speak, and you can do an awful lot with it. So, thank you.

Mr. COURTNEY. Thank you, Mr. Golden.

Mr. Conaway.

Mr. CONAWAY. Thank you, Mr. Chair.

A couple of real quick questions. It won't take long.

General Nahom, KC–46A is not qualified for tanker missions but it can do other things—air ambulances, other things. Have we actually used any of those aircraft in a mission of anything other than training yet?

General NAHOM. Sir, right now, it is—the use of the aircraft is currently in a beddown in the testing. We are looking for the other capabilities, the cargo and, certainly, our medical evacuation, and we are looking to certify those capabilities very quickly.

You know, unfortunately, those will be certified before the air refueling but we will be able to get to those kind of missions very quickly.

Mr. CONAWAY. I am sorry. Did you say they should have been certified for that before the air——

General NAHOM. No, but for—I mean, we would have—in a perfect world we would have air refueling before those capabilities.

Mr. CONAWAY. Okay.

General NAHOM. But it looks like, based on the remote visual system, we are going to have the other capabilities first.

Mr. CONAWAY. For those capabilities, I mean, they are obviously planned for ahead of time. I have been on board one of those—the planes and there is a lot of room.

General NAHOM. Yes, sir. And that is—we are just bedding down the first airplanes. You know, they are at McConnell now, soon to be at Pease down in North Carolina, and we are—right now, we are working on those missions to get those certified and out to the fields.

Mr. CONAWAY. Okay.

A little more mundane. General Lyons, you have got a—gone to a single-move manager for movements. I guess the idea was to be more efficient and customer friendly.

How are you going to make sure that it doesn't devolve into just the big guys getting the moves and the smaller movers get weeded out or pushed out of the way and customer service deteriorates rather than improve?

General LYONS. Congressman, it is a great question. I will tell you, the way we started this is we recognized that the current program we have was never going to deliver the level of accountability, transparency, and incentivize the level of capacity we needed for peak.

So, the restructure in our relationship with industry through the single-move manager construct was really about making sure that our relationship with industry was clearly delineated with key performance parameters.

As I always say to the moving companies that are out there today, the same moving companies if you are performing well you will still be performing well in the future program. So, the single-move manager will absorb the global network as it exists today.

We will measure the level of performance and incentives that will incentivize growth over a longer period of time in a contractual relationship.

And let me—I guess to be more clear, Congressman, I will give you a couple of examples. So, if I—if I asked—if you asked a question what company, and I won't name the company publicly but what company has the most suspensions and warnings?

I can tell you that company has got over a thousand suspensions and warnings, and under the current program they did $26 million of business in the Department of Defense last year.

So, we think that is unacceptable. We think it is unacceptable that the 950th company of 950 still show up at your curbside.

So, what we are really trying to do is keep the good companies, incentivize the growth of the good companies, push out the bad companies and incentivize the performance inside that relationship and hold industry accountable inside the Department. The Department can hold me accountable.

Mr. CONAWAY. So there is a recommendation, though, that there could be new companies come into the scheme that would have some sort of a fair shot at getting to be able to build a reputation that they are either good or bad, and you are looking at making sure that new folks can come in, because there will be companies that go out of business, especially ones you push out of the—out of the system if they are not functioning.

But you are looking at the whole package, not just allowing some single-source—single-move manager to create a fiefdom of good friends who get all the business.

General LYONS. No. No, sir, you are exactly right and we want to incentivize new players that come into the market that are not incentivized to come in today.

Mr. CONAWAY. All right. Thank you.

General LYONS. We actually want that. Thank you.

Mr. CONAWAY. Thank you. I appreciate it.

Yield back.

Mr. COURTNEY. Thank you, Mr. Conaway.

Mr. Brindisi.

Pass. Okay.

So, all right. We have done one run-through of the committee. It looks like that votes are still a little ways off. So, I think we, again, have an opportunity for a second round of questions and, again, I will just lead off.

I just have, actually, just one question for General Lyons, which is, again, last Congress, you know, we definitely dug into the issue of, again, our shortfall in terms of maritime tanker support and during the NDAA [National Defense Authorization Act] we established a tanker security program modeled off the successful Maritime Security Program, which Admiral Buzby referred to earlier.

This program would have helped maintain a fleet of 10 U.S.-flagged tankers to augment our fleet during contingencies. Unfortunately, that mark fell out during the conference process. But, again, we are very interested in moving forward on it.

Again, I just, for the record, can you state whether or not you favor a program like this and can you speak to—if so, can you speak to the benefit of a program like this in helping TRANSCOM?

General LYONS. Chairman, thank you, and thanks for the language in this—last year's bill. As you know, we will conduct the study for the Department to really assess our accessibility to the—to the market—to the global market in time of crisis.

And so, I think you are alluding to, as you well know, we have a high dependency on foreign-flagged tankers in crisis in the maritime tanker area, and so we are looking at this. We are ready to report back in about the middle of the year, June timeframe.

We are working with Admiral Buzby. I acknowledge I think there is value in a Maritime Security-like program for tankers. We just need to take a look at the economics of it. Yes, sir.

Mr. COURTNEY. Thank you, and, again, I think our subcommittee is definitely serious in terms of taking another run at this. So, thank you.

Mr. Wittman.

Let us see. Mr. Lamborn.

Mr. LAMBORN. Thank you. Just a quick question for General Lyons or Lieutenant General Nahom.

On global fuel distribution, just to think a little bit toward the future here, given the challenges associated with fuel distribution in a contested environment, I am wondering if DOD needs to designate an organization to manage this for the joint force.

While the Defense Logistics Agency does an effective job of procuring and distributing fuel for day-to-day operations, I am not sure that they are equipped to manage distribution during a major conflict with a near-peer adversary.

And I guess, General Lyons, I will start with you. Have we reached a point where the Nation needs to become the global fuel distribution integrator and would TRANSCOM be an effective choice for that?

General LYONS. Sir, we—you know, in the fall up at Newport with the Joint Chiefs and the combatant commanders, we looked at a war game and that red team looked at the end-to-end liquid energy value chain.

I agree with your assessment. I think inside the Department we need to take a look at end-to-end global integration role to make sure that in global posture, not just in the procurement that DLA [Defense Logistics Agency] does, but in global posture, in maritime transport, in air transport, the entire end-to-end view needs to belong to somebody.

I have mentioned to the Department—I think at least to the vice chairman—that I believe TRANSCOM is the right place to do that in the future if they so desire for us to take on that mission, much like we do for global mobility. And so, we are working with the Department on that, sir.

But I think as we move forward and to great power competition in contested environments, this is something we have to look at. Yes, sir.

Mr. LAMBORN. Anything to add to that, sir?

General NAHOM. No, sir. Nothing to add to that.

Mr. LAMBORN. Okay. Thank you.

Mr. Chairman, I yield back.

Mr. COURTNEY. Thank you, Mr. Lamborn.

Chairman Garamendi.

Mr. GARAMENDI. Thank you. Gentlemen, the Congressional Budget Office and the Center for Strategic and Budgetary Assessment have both recently identified phased replacement of the National Defense Reserve Fleet assets with a fleet of privately owned militarily useful commercial sealift and tankers as the most cost-effective approach to rebuilding our strategic sealift fleet.

The CBO recommends a phased replacement plan of five ships per year, while the CSBA goes further by recommending completely replacing the government-owned MSC [Military Sealift Command] prepositioned fleet with MARAD-chartered commercial ships and expanding the Maritime Security Program to replace today's MARAD Ready Reserve Forces.

So, the question, Admiral Buzby, should the U.S. Government transition to a unified national fleet approach that leverages the best attributes of the U.S.-flagged commercial industry to meet our strategic sealift requirements?

Admiral BUZBY. Thank you for the question, sir.

I could—I can't give you an absolute right now. I think, you know, the proposals that CSBA has made are very attractive. I think they need to be more fully teased out.

The right balance of where our capability lies on the commercial side and the government-owned side I think it is worthy of further pulling apart and making sure that whatever we decide upon meets the requirements of General Lyons and the combatant commanders.

So, there is a—there is a couple pieces to it. There is the absolute square footage piece of it. There is the timeliness piece of it and when it is required; the reliability of both of those forces and how much we pay for those forces.

All those factors, I think, need to be put together in a calculus to come up with what is the right mix. That is an option. It makes sense on its surface. I think before we pull the trigger on anything like that, we need to kind of make sure we are marching down the right road.

Mr. GARAMENDI. So, we will pursue it.

General Lyons, your thoughts on it and also, perhaps, first what about the cargo? What about requirements that all military cargo, including fuel, be on American-flagged ships, and then on to the question that I just asked Admiral Buzby?

General LYONS. Chairman, as you know, cargo preference rules require cargo—general cargo—to move on U.S.-flagged ships. For petroleum, there are not sufficient U.S.-flagged ships in the inventory, to your point, to move all petroleum needs on a U.S.-flagged——

Mr. GARAMENDI. And there never will be until the only place you could use it is American ships.

General LYONS. That is correct.

Mr. GARAMENDI. Yes.

General LYONS. That is correct.

Mr. GARAMENDI. So therein lies a solution, doesn't it?

General LYONS. Potentially. Chairman, I am open to solutions. Many different ways to approach this. I am really wedded to the outcomes.

I do think, to your point, though, sir, on the—whether you could completely outsource the organic sealift fleet for the Nation, for the Department, I don't see us ever going there. I think we will need a DOD-owned fleet at least for the first traunch out.

But the linkages to the commercial industry are inextricable, both in terms of mariners, in terms of additional capacity, and in terms of global networks.

What the report didn't specifically address is how you would generate the cargo required to move under the U.S. flag that would then generate the ships and then generate the crews.

I think cargo is king. If we have the cargo, to your point, moving under the U.S. flag, we have got—we have got a viable U.S.-flagged fleet.

Mr. GARAMENDI. The report does recommend several strategies to develop the cargo, one of which is you use American ships when you are moving military equipment—Coast Guard, on and on and on.

So that is one way the cargo can be generated. The rest of it is we are going to have to find some way to make these ships available and that is either going to be done with the Navy budget or, as Mr. Wittman suggests, the Army budget.

Either way, it is coming from the DOD or a strategy that would leverage the commercial side of it with militarily useful ships with king's post or—is that it? Thank you.

General Williamson, or Admiral Williamson, your thoughts in the next round of questions.

I yield back.

Mr. COURTNEY. Thank you.

Ms. Luria.

Mrs. LURIA. Thank you, and Admiral Williamson, I wanted to turn to you on the buy used that we have talked about a few times during this hearing and about the authority that was given to buy seven ships used, and we talked a little bit about the timeline of why it has been so slow to purchase these ships.

But can you confirm what you are on track to move forward for now within this year?

Admiral WILLIAMSON. Yes, ma'am. Thank you for the question.

We are on track right now, provided we get the funding in our request to purchase two ships in 2021 and we are planning for an additional ship in 2022. Obviously, this is tied to a commitment by the SECNAV [Secretary of the Navy] to demonstrate to the committee and to Congress that we are going to buy new, and that is reflected in the $37 million RDT&E [research, development, test, and evaluation] for the purchase—the purchase of the design for the ship to start build in 2023, delivery in 2026.

Additionally, we put forward a legislative proposal that decouples the procurement of the used ships from the mandate to acquire the used ship—to get away from the mandate to buy the new ships.

That does not mean that we are walking away from the construction of new ships. But what it does is allow us to procure used ships at a faster rate to get after the gap identified in the CSBA.

Mrs. LURIA. So, I understand that the approximate costs estimated to purchase a used ship that would have military utility is approximately $30 million per hull.

But do you in—anywhere in the budget take into account the costs that it would take to upgrade these ships both to make them meet ABS [American Bureau of Shipping] standards—which I have heard approximately up to $30 million to take a foreign-flagged ship to meet ABS standards—and then any additional upgrades to ramps, cranes, equipment for the type of cargo that they would carry plus anything that would make them militarily compatible such as comms [communications] and other electronics? What is the total price tag and have you included that in the request?

Admiral WILLIAMSON. Ma'am, obviously, that is a very detailed question. I would love to get back to you with the details on that if that is okay to work with you and your staff.

[The information referred to can be found in the Appendix on page 83.]

Mrs. LURIA. Thank you, but that is very important. That is very important for the committee, because if it is a $30 million price tag to buy the ship but then you need to come back and ask for $30 million more to make it useful for its purpose, we need to know that going into this process.

Admiral WILLIAMSON. Yes, ma'am.

Mrs. LURIA. So, thank you, and I yield back.

Mr. COURTNEY. Thank you. Mr. Golden. Okay.

Actually, I did mean to ask one more question to General Lyons, and as long as we've got a few more minutes before the next vote series, again, the last time this country recapitalized the Ready Reserve Fleet, Congress created the National Defense Sealift [NDS] Fund as the mechanism for doing so in an affordable and nondisruptive way which, again, sort of spread the costs throughout the Department of Defense, as we heard earlier.

Again, I just want to just ask you for the record, General, do you support and see value in this fund as we begin a new recapitalization effort?

General LYONS. Chairman, I absolutely do. I think we are going to have to have an appropriation that is NDS-like to move forward.

I think that is a—and when I met with Secretary Spencer back in the September timeframe he mentioned the same kind of approach and the CNO, I believe, is on board as well.

Mr. COURTNEY. Great. Thank you. I appreciate that. It is helpful as, again, we move more towards the mark.

Chairman Garamendi.

Mr. GARAMENDI. Where to go here?

The—perhaps I will just let it go at this point. My colleagues have asked most of the questions that are out there. What I am going to do is my last series of questions indicated that there was a path that we ought to explore and that we should thoroughly analyze a different strategy than the one we have been on.

So, General Lyons, Admiral Buzby, and Admiral Williamson, I would like to do that with you and with the Air Force.

Oh, there is one thing on the KC—excuse me, on the C–17s. They really cannot get into a contested environment and survive. There is an upgrade that we ought to be looking at for the C–17s. I will leave that to another question.

But back to the sealift capacity here. Looking forward to a robust discussion about a different way of accomplishing our goal and where we presently are. We can do the oil piece of it. That is just a small part of the 86 oilers that are said to be necessary. How do we get the rest of them?

So, let us spend some time working our way through that and use this year to get us on a new charted path.

Thank you. I yield.

Mr. COURTNEY. Thank you, Chairman.

Again, thank you to all the—thank you to all the witnesses. You know, your testimony was really helpful and I am sure the dialogue will continue as we get closer to the April markup.

Thank you very much, and with that we close out the hearing.

[Whereupon, at 3:56 p.m., the committee was adjourned.]

A P P E N D I X

MARCH 11, 2020

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

MARCH 11, 2020

Chairman Joe Courtney Opening Statement
Seapower and Projection Forces Subcommittee Hearing on
"Sealift and Mobility Requirements in Support of the
National Defense Strategy"

March 11, 2020

The Seapower and Projection Forces subcommittee and the Readiness subcommittee meet this afternoon to examine sealift and air mobility capabilities, two critical elements of our nation's defense strategy.

Before I introduce our witnesses, I want to note that this year marks the 100th anniversary of the Jones Act. For a century, the Jones Act has helped promote a robust domestic maritime industry while preserving our nation's security. We are a maritime nation, and the Jones Act is the foundation of a strong maritime policy, now and in the future.

With us today are, General Steve Lyons, Commander of United States Transportation Command; Mark H. Buzby, Administrator of MARAD; Vice Admiral Ricky Williamson, Deputy Chief of Naval Operations for Fleet Readiness and Logistics; and Lieutenant General David S. Nahom, Deputy Chief of Staff for Plans and Programs.

As our witnesses know all too well, the ships and aircraft that comprise our sealift and air mobility capabilities are increasingly challenged by advanced age, readiness shortfalls and obsolescence. The ability to quickly move goods, equipment and people at a moment's notice is a critical element of our defense operations and plans.

Earlier this year, our subcommittee had a briefing on the 2019 Turbo Activation exercise that saw just over 40 percent of the cargo space required by our combatant commanders available with no notice. That is a urgent alarm bell for all of us that we are at a crisis point, and we need to act.

As the Center for Strategic and Budgetary Analysis noted it its recent report on the state of our maritime industry, "failing to remedy this situation when adversaries have U.S. logistics networks in their crosshairs could cause the United States to lose a war and fail its allies and partners in their hour of need."

With the input of our witnesses, our subcommittees have been active partners in addressing the increasingly critical state of our sealift and mobility capabilities. For example, last year we reauthorized and strengthened the Maritime Security Program and rejected the President's budget request to cut funding for the new National Security Multi-mission Vessel (NSMV).

We have also backed the three-pronged approach of extending current sealift ships, buying used vessels and requiring the start of a domestic new build ship – and have added additional authorities to build these new ships using existing designs and alternative contracting approaches that can save time and money. And, we have continued to invest in the KC-46 aerial refueling tanker to replace the aging tanker fleet.

As we prepare to act on the 2021 defense authorization bill in the coming weeks, however, we are presented with proposals that send conflicting messages. Recently, our committee received a legislative proposal to de-couple new-build requirements for sealift ships from the authorities we have provided to purchase used vessels. This raises serious doubts about the department's commitment to this critical element of its sealift recapitalization plans.

At the same time, we just recently received testimony from the Air Force, in which they propose deep cuts to our tanker fleet of KC-135s and KC-10s even as we have major issues with our new refueler, the KC-46. Assistant Secretary Roper recently shared with us that we are nearing an agreement with Boeing regarding a fix to the Remote Vision System, which we are eager to see soon.

Even then, getting that work done may take several years, raising doubts about the risk that we assume by taking still-capable tanker aircraft out of service. Its noteworthy that, General Lyons, your unfunded priority list essentially requests to reverse the force structure cuts that the Air Force proposed. Your insight today will help us better understand the direction that we need to take in the NDAA this year.

I look forward to hearing and learning more about the progress and of your agencies towards these important issues and I yield to the Ranking Member, Congressman Rob Wittman for any additional comments.

Opening Remarks of the Honorable Robert J. Wittman
for the
Seapower and Projection Forces and Readiness Joint Hearing on
Sealift and Mobility Requirements in Support of the
National Defense Strategy

March 11, 2020

I want to thank Chairman Courtney for yielding and especially thank Chairman Garamendi and Ranking Member Lamborn for their enduring interest in our nation's logistics capabilities. I can think of no better panel to discuss sealift and airlift than what we have before us today.

As I assess the state of our nation's military logistics, there are many areas that allow us to rapidly project power to include our tanker and airlift forces. These capabilities are foundational to a great power, and I believe that we have done a good job of providing this force. However, it is essential that our subcommittees take aggressive action to staunch the bleeding occurring in our logistics forces today.

For example, our lack of strategic vision in our nation's sealift forces is particularly wanton. I think that this lack of vision is a relic to years of strategic hubris and complacency. My friends, times are rapidly changing. We continue to support a legacy sealift force that is designed for regional conflict and presumes sea control. Both of these assumptions have been invalidated with our new national defense strategy. Yet, it is almost as if the Navy forgot to read the strategy when they put together their budget plan. Or worse, I think that we have a strategic seam between the Army and the Navy. For me, I think that the Navy's budget is overtaxed with support for the $110 billion Columbia ballistic missile submarine program. I believe it is time for the Army to pick up the budget responsibility for the surge sealift forces that uniquely support the Army's ability to go to war.

As to our subcommittee's response to our surge sealift plight, I am opposed with the administration's legislative proposal that would solely rely on procuring used, foreign built vessels to recapitalize our surge sealift. I continue to support a combination of procuring used vessels through the National Defense Sealift Fund and procuring new sealift vessels. At the same time, I do not believe that we can sustain a new construction option to support the administration's $550 million per hull assessment and look forward to perusing other options that reduce this $25 billion new construction recapitalization effort.

As for our air logistics component, while I am satisfied with our current aviation refueling capacity, I think that we need to tailor a response to mitigate the KC-46A deficiencies. There are some that believe that we should cancel the KC-46A aircraft contract in its entirety. I do not believe that is a prudent strategy. However, until we can deliver a capable KC-46A aircraft, I think that we need to slow both the ordering and delivery of KC-46A aircraft, we need to retain legacy

tankers to cover the shortfalls, and we need to ensure that we have adequate competition at the conclusion of the current KC-46A contract. And, while I could sit here and pontificate about the shortfalls of this program, simply put, I think we need to now look to make the best of a bad situation, and one that is, sadly, of our own making.

In conclusion, I am reminded of a quote from Alexander the Great when reflecting on his extensive logistic trains required to resupply his battle lines he indicated, "My logisticians are a humorless lot … they know if my campaign fails, they are the first ones I will slay." While I don't espouse the slaying of our logisticians, I think it clearly paints an indomitable reality that a failed logistical plan will allow potential adversaries to dictate the circumstances of future warfare… a future which our great United States of America can ill afford. I believe it is essential that we take aggressive steps in the next National Defense Authorization Act to staunch the bleeding and address these substantial logistics issues.

Again, I appreciate the Chairman Courtney and Garamendi's support for having this important hearing and I yield back the balance of my time.

3/11/20 Chairman Garamendi Opening Statement

Thank you, Mr. Courtney, Mr. Wittman. And thank you to the witnesses for appearing before us today, to speak about the state of our sealift and mobility assets in support of the National Defense Strategy. As you know, this is an incredibly important subject, yet often under resourced in the Service's budget request – I fear that may be the case with this year's budget request as well. That said, it is especially important to have the Service witnesses here today, so that we can ask them hard questions about meeting TRANSCOM's requirements for out most demanding war-time scenarios.

In this year's budget request, the Air Force plans to retire 10 x KC-10 aircraft and 13 x KC-135 aircraft. General Lyons, in your unfunded priorities list, you asked Congress to provide funding to keep these aircraft in the active inventory. I hope that you will elaborate on that request in your testimony today and explain why these aircraft are needed to meet Combatant Commander requirements. Lieutenant General Nahom – please be prepared to explain why the Air Force desires to retire these aircraft, given TRANSCOM's requirements, and especially in the face of a potential 3-year delay before the replacement KC-46A tanker aircraft will be operational.

Regarding sealift, the average age of the Ready Reserve Fleet is 45-years old. The surge fleet averages 32-years old. We are quickly arriving at a point where it is not cost effective to sustain these aging sealift ships. Yet even more costly than that would be to recapitalize to the tune of $500 million per replacement ship. Gentlemen, we must change our way of thinking. We need a National Sealift Fleet of smaller, affordable, and more numerous ships, and we must start this effort now. If we do not start an affordable recapitalization effort now, the Army will face unacceptable risk in force projection capability beginning in 2024. I ask our witnesses today to explain how they intend to get after this problem, and please provide details about the best way to fund this effort.

Lastly, General Lyons, please provide an update on the Defense Personal Property Program contract. I understand that you are in source selection, and are therefore limited in what you can say; however, I am quite interested to hear how you intend to properly oversee this contract such that it does not turn into another version of Privatized Housing.

With that, I thank the witnesses for appearing today and I look forward to your testimony. I yield back.

HASC Readiness Subcommittee
Sealift and Mobility Requirements Opening Statement
Ranking Member Lamborn Statement

Thank you, Chairman Courtney. I truly appreciate the collaboration that you and Ranking Member Wittman continue to show Chairman Garamendi and myself on these issues that are critical to both of our subcommittees.

There is an old saying. Amateurs talk about tactics but professionals study logistics. An examination of the issues before us reveals the wisdom of this statement. Our witnesses today are at the very heart of projecting and sustaining the joint force.

General Lyons, I really appreciate your recent visit and the opportunity to discuss the major issues facing USTRANSCOM. As you highlighted in your opening statement, which will be presented here soon, the world is changing and we need TRANSCOM to focus on great power competition.

I am particularly concerned about the cyber threats posed to our distribution networks by Russia and China and their ongoing efforts to erode access to the U.S. and our allies. We must assume that logistics support for future operations will take place in highly contested environments.

Given how central these two -- the two issues dominating today's hearings are to our overall military readiness, I want to add my concerns to those of my colleagues. With 85 percent of the Joint Force based within the United States, our military readiness risks being irrelevant without the capability and capacity to project those forces to the fight.

During the turbo activation exercise in September 2019, only 60 percent of the organic surge fleet was considered ready and only 40 percent of those were able to get underway in the time allotted.

As General Lyons stated in his written statement, by the mid-2030s over half of the Sealift fleet will be unusable. Congress had provided the Navy with authority to begin recapitalization through a combination of buying used vessels and some new ship construction.

But to date, we have seen very little action. The fiscal year 2021 budget would providing funding to purchase two.

The KC-46 program, as has already been discussed, is yet another example where poor contractor performance is severely degrading warfighter capability and requiring the government to underwrite the cost of retaining legacy aircraft longer than planned.

Given the unsafe conditions created by the biggest category one deficiency on the KC-46, the remote vision system, it would be irresponsible for us to allow the U.S. Air Force to proceed with its planned tanker retirements.

According to Air Force Chief of Staff General Goldfein, we are close to a way ahead with Boeing on the KC-46 but it will take three to four years to implement.

I am not one who is calling to cancel this program but if we don't see progress this year the department may need to reconsider recompeting the program.

Finally, I am encouraged by the progress that TRANSCOM has made regarding the Defense Personal Property Program. The business case analysis for the Global Household Goods Contract was delivered on time to the committee and it appears to demonstrate a significant increase in performance and capability.

My understanding is that GAO will complete its review of the BCA shortly and I want to commend TRANSCOM's efforts to address industry concerns.

Thank you to our witnesses for your testimony, for what you do for our country and I yield back.

Statement of

General Stephen R. Lyons, United States Army

Commander, United States Transportation Command

Before the House Armed Services Committee

Readiness Subcommittee and the Seapower and Projection Forces Subcommittee

On the State of the Command

11 MARCH 2020

Delivering for our Nation

U.S. Transportation Command (USTRANSCOM) exists as a combatant command to project and sustain combat power at a time and place of the Nation's choosing. Powered by dedicated Active Duty, National Guard, Reserve and civilian men and women, we underwrite the lethality of the Joint Force, we advance American security interests around the globe, and we provide our Nation's leaders with strategic flexibility to select from a range of options while creating multiple dilemmas for our potential adversaries.

USTRANSCOM's mission is to conduct globally integrated mobility operations, lead the broader Joint Deployment and Distribution Enterprise, and provide enabling capabilities in order to project and sustain the Joint Force in support of national objectives. We accomplish this by balancing strategic mobility requirements for the Secretary of Defense and executing the Unified Command Plan roles and responsibilities assigned by the President. USTRANSCOM's mission is executed through three component commands and one subordinate command: the U.S. Army's Military Surface Deployment and Distribution Command, the U.S. Navy's Military Sealift Command, the U.S. Air Force's Air Mobility Command, and the Joint Enabling Capabilities Command.

The National Defense Strategy (NDS) calls on the Joint Force to be strategically predictable with allies and partners while being operationally unpredictable to competitors. USTRANSCOM was custom built for such a mission. We enable dynamic force employment and deliver options daily. In 2019, USTRANSCOM executed 43 brigade-sized overseas movements totaling over 26 million square feet of military cargo in support of all six Geographic Combatant Commands. In the air, USTRANSCOM operated from all seven continents. We transported 1.9 million passengers and 1.3 million tons of cargo, and during air-to-air refueling operations we

dispensed 956.6 million pounds of fuel. Our aerial evacuation crews executed 6,609 patient movements, including 84 with battle injuries. One evacuation in particular stands out as highlighting how USTRANSCOM integrates the incredible capabilities of our Joint Force to protect American interests globally. Last August, a U.S. soldier with life-threatening wounds required immediate evacuation from Afghanistan to a stateside hospital for complex trauma treatment. A team of 18 joint medical professionals—armed with key life-saving capabilities—made a 19-hr non-stop flight from Afghanistan to Texas aboard a USTRANSCOM aircraft. The soldier is alive today because of the U.S. values embodied in the Joint Force and enabled daily by USTRANSCOM.

As envisioned in the NDS, our operational focus has shifted from routine force rotations in Southwest Asia to posturing for Great Power Competition globally. Our accomplishments from 2019 underscore USTRANSCOM's ability to respond anywhere in the world at scale, in order to assure our allies, deter our adversaries, and ensure our national leaders always have options.

Strategic Environment

The world is changing. In the past, we were able to deploy our forces when we wanted, assemble them where we wanted, and employ them how we wanted. In the future, the NDS calls us to be able to project and sustain the Joint Force under persistent, all-domain attack. Our competitors, such as China and Russia, clearly recognize the United States' ability to rapidly scale and deliver the Joint Force globally as a strategic comparative advantage, and they seek to deny it. Today, adversaries are active in the cyber domain. They infiltrate contract value chains. They invest in critical global choke points. They attempt to erode geopolitical access. They develop increasingly potent anti-access and area-denial weapons. These are clear indicators of their intent and reflect the changing character of war. In the future, strategic mobility will remain critical to

delivering dynamic and credible response options to guarantee our national security interests. Strengthened by a historic past but with a critical eye towards the future, USTRANSCOM aims to remain ready to answer our nation's call.

USTRANSCOM's Warfighting Framework

The key to conducting globally-integrated mobility operations is the dynamic synchronization of our 1) global mobility posture, 2) global mobility transportation capacity, and 3) global command, control, and integration. These critical elements create USTRANSCOM's warfighting framework and allow USTRANSCOM to respond to strategic priorities in both time and space.

Global Mobility Posture

Global Mobility Posture is the foundation of power projection, starting in the Continental United States (CONUS) with Department of Defense (DOD) installations and the seaports, railways, and the highways that connect them. In close coordination with the Department of Transportation, the Strategic Seaport Program, Strategic Corridor Rail Network, and Strategic Highway Network provide 23 strategic seaports, 15 alternate seaports, 37,000 miles of strategic railways, and over 62,000 miles of interstate and major highways to project combat power from the fort, to the port, and on to the battlefield.

Beyond our nation's borders, USTRANSCOM relies on a deep bench of allies and like-minded partners that have stood with us for over 75 years in defense of freedom. These allies and partners provide access to key regions and support a substantial basing and logistics system which expands our nation's global reach. Through a flexible, redundant, and resilient global posture, USTRANSCOM enables the DOD to project and sustain a combat credible force that can deter adversaries, protect our national security interests, and when necessary, respond to win decisively.

Global Mobility Capacity

Global Mobility Capacity includes the transportation conveyances and platforms used to move troops, fuel, and equipment within global transportation networks, including rail, motor transport, sealift, aerial refueling, and airlift. 60-70% of USTRANSCOM's mobility capacity resides in the reserve component, underscoring the importance of a Total Force approach.

USTRANSCOM is inextricably linked to the commercial transportation industry which provides important augmentation in peace and war. Utilizing commercial partners expands USTRANSCOM's global reach as well as access to valuable commercial intermodal transportation systems and freight management capabilities, but carries with it vulnerabilities we will need to mitigate. Emergency preparedness programs like the Civil Reserve Air Fleet (CRAF), and Voluntary Intermodal Sealift Agreement (VISA) augment USTRANSCOM's global mobility capacity during contingency operations. Incentive programs like the Maritime Security Program offset costs incurred to maintain a US-flagged fleet, strengthening the American sealift industry for both economic trade and national defense. Currently, these programs are fully subscribed and funded. This year, on behalf of the Department, USTRANSCOM is leading a Congressionally-directed study on U.S.-flagged fuel tanker vessel capacity, evaluating accessibility to domestic and international tankers in order to satisfy the demands of the NDS in times of war.

With 85 percent of the Joint Force based in CONUS, Global Mobility Capacity is critical in projecting overwhelming military force at a time and place of our Nation's choosing, and it serves as a deterrent to conflict by demonstrating our ability to credibly defend our security commitments. Overall, we assess USTRANSCOM's global mobility capacity as adequate, but with elevated and increasing risk. NDS requirements in daily competition and in times of war place high demands on aging mobility capabilities. When coupled with adversaries that have the

capability and intent to contest our operations across all domains, it creates a daunting environment for future operations. Specifically, USTRANSCOM assesses elevated risk in our two highest priorities: Aerial Refueling and Sealift.

Aerial Refueling

The aerial refueling fleet is USTRANSCOM's most-stressed capability and number one readiness concern. The aerial refueling fleet continues to underpin the Joint Force's ability to deploy an immediate force across all NDS mission areas and is comprised of KC-135, KC-10, and KC-46 aircraft.

The KC-46 is an important aspect of tanker modernization as it will enable us to project and employ the force in a complex battlespace against a high-end adversary. However, delays in delivery of capable KC-46s combined with reductions of KC-10s and KC-135s create a critical and deepening gap in taskable aerial refueling aircraft and aircrews for the next 5-7 years. This combination of factors elevates risk to not only wartime missions, but also in day to day global operations across multiple combatant commands. Reduced capacity limits options and constrains decision space for senior leaders in crisis, as they are confronted with an earlier mobilization timeline to generate adequate capacity. For Combatant Commanders to compete daily, the Department must retain sufficient operational aerial refueling capacity to provide adequate support to the Joint Force during the transition to the KC-46. As the timeline to field taskable KC-46s continues to evolve, USTRANSCOM recommends re-evaluating aerial refueling force structure plans annually.

Sealift

USTRANSCOM's number two readiness concern is the Strategic Sealift Fleet. The sealift fleet is responsible for moving approximately 90% of wartime cargo. Sealift readiness rates have

declined to 59% compared against a goal of 85%, with vessel material condition and age as the primary factors. Most sealift ships are reaching the age where maintenance and repair costs are escalating and service-life extensions will not yield proportional increases in readiness. Starting in the mid-2020s, the sealift fleet will lose 1-2 million square feet of capacity each year as ships reach the end of their useful life. That's enough space to move two to four Brigade Combat Teams in a single voyage. By the mid-2030s, over half the sealift fleet will be unusable, placing an unacceptable risk on the Joint Force, especially the Army, to deliver large-scale combat power over the ocean. To prevent this detrimental loss of capacity, the Department needs to recapitalize the fleet with newer and more reliable vessels. USTRANSCOM continues to support the Navy's plan to acquire used vessels as the near-term solution that yields the greatest value. Currently, Congress has provided authority to purchase seven vessels, and the Navy has provided funding for two in FY 2021. This is an important first step to improve fleet reliability, but we have much work ahead to lay out a long-range plan.

In September the DOD conducted the largest no-notice sealift activation exercise in the command's history, assessing the entire fleet and activating over half the surge sealift vessels. The exercise validated known concerns regarding the degraded readiness of the Organic Surge Fleet. Simply put, the surge fleet is challenged today to be immediately available for large-scale inter-theater force deployment without delays or impacts to force closure. These findings reinforce the need for recapitalization, appropriate levels of resourcing for maintenance and repair, and continued emphasis on readiness improvements.

Global Command, Control, and Integration

Global Command, Control, and Integration is central to our ability to make decisions at echelon to create desired mobility outcomes. It creates shared understanding in order to align

scarce mobility resources consistent with the highest strategic priorities. Global Command, Control, and Integration is imperative to retain our strategic comparative advantage to project and sustain the Joint Force globally. As we prepare to confront the contested environments described in the NDS, we are working on several initiatives to strengthen mission assurance in the cyber domain, and advance decision making across the USTRANSCOM enterprise.

Cyber Domain Mission Assurance

Cyberspace is a warfighting domain, without sanctuary, in which capable adversaries continuously attempt to degrade our Nation's ability to project the Joint Force globally. We continually evaluate our large and complex attack surface, evolve key cyber terrain, secure our cyber area of operations, and actively defend our ability to conduct global command and control. USTRANSCOM maintains a strong relationship with U.S. Cyber Command (USCYBERCOM) and the Intelligence community, providing increased understanding of adversaries' intent. Several rigorous exercises matured our ability to request active defensive measures from USCYBERCOM, leveraging their unique authorities to assure our global command and control in a contested environment. In addition USTRANSCOM is pursuing numerous technical solutions to harden our key cyber terrain, to include a trusted transaction pilot with USCYBERCOM.

In Great Power Competition, we acknowledge our commercial partners are both a strength and a potential target. Since 2017, we've contractually required our CRAF, VISA, and Universal Services Contract providers to perform annual self-assessments based on National Institute of Standards and Technology (NIST) standards for cybersecurity, and we use these self-assessments to identify vulnerability trends and share best practices with industry. We continue to provide targeted recommendations to help our commercial partners improve their own cybersecurity. Lastly, we are reviewing data sharing requirements to limit our exposure to adversaries, and we're

strengthening cybersecurity language in our information technology and software development contracts. Overall, we assess our transportation providers are taking cybersecurity seriously, and the NIST standards will help them improve their security and resiliency – but commercial companies will always be challenged to keep out advanced persistent threat actors.

Advance Decision Making

Information technology and computational processing continues to advance rapidly as we approach game changing capabilities like artificial intelligence, machine learning, and advanced analytics, all of which have enormous potential to improve USTRANSCOM mission outcomes. As we evolve to meet tomorrow's challenges, we are enhancing our ability to understand the operational environment, improving our ability to develop options, and advancing our ability to make decisions at echelon. Cloud computing, balanced cybersecurity, information sharing, innovation at echelon and warfighting outcomes serve as our guiding principles as we modernize our digital portfolio.

The foundation for our success starts with data. USTRANSCOM fully endorses the DOD's Joint Enterprise Defense Infrastructure cloud capabilities and is an early adopter of cloud technology. We have migrated 14 programs to a commercial cloud environment. We are establishing an Enterprise Data Environment within the cloud, coupled with analytic technologies, to speed decision making, free up human capital, accelerate learning, reduce costs, and improve productivity.

DEFENDER-Europe 20

DEFENDER-Europe 20 exemplifies how USTRANSCOM employs this warfighting framework and addresses the contested environment described by the NDS to deliver national objectives. Over the next four months USTRANSCOM is executing the largest projection of force

to Europe in 25 years. 20,000 troops and 1.6 million square feet of military cargo will flow from 26 CONUS origins through a diverse network of ports, move across simulated contested waters under the watch of Second and Sixth Fleets, and arrive as a combat credible force in EUCOM. As we exercise the global posture, mobility capacity, and global command and control required to favorably shape Great Power Competition, DEFENDER-Europe 20 is a powerful opportunity to deter potential adversaries, strengthen alliances and partnerships, and evaluate future contested environments.

Defense Personal Property Program (DP3)

After assuming command in August 2018, I received letters from 15 members of Congress and more than 40 staff inquiries detailing service member concerns with the Defense Personal Property Program. Issues with industry accountability, a shortage of quality capacity in summer months, and a general lack of transparency within the Department were common--and accurate--criticisms. Since that time--and after personal consultation with Service leaders and industry executives--USTRANSCOM worked to fundamentally restructure our relationship with industry to generate the quality capacity to meet DOD's peak demand and enable the Department to affix the accountability and responsibility missing in today's program.

The FY2020 NDAA included several DP3-related provisions, including a requirement for a Business Case Analysis (BCA) on the Global Household Goods Contract (GHC) and a GAO report on the effects of this contract on DOD Families. The BCA underscored the value of restructuring DOD's relationship with industry, while GAO's draft report makes helpful recommendations on overall DP3 management but highlights no flaws in our approach with GHC. The source selection process is underway and our initial review of proposals is encouraging, with credible candidates offering solutions to benefit DOD families at costs in-line with spending on

today's program. We remain on track to award GHC to a single move manager this spring. Military Families have been our North Star throughout this process. Thank you for your continued support to improve the relocation experience for DOD families.

Executive Summary

In summary, USTRANSCOM provides the DOD with the ability to project and sustain the Joint Force, deploying combat power to the right place, at the right time, and in the necessary scale to be immediate, lethal, and decisive. Operating around the globe and around the clock, our ability to project military forces is a distinct advantage unmatched by any nation, and it serves as the cornerstone of the Joint Force's ability to meet national objectives.

Today, USTRANSCOM assesses our ability to execute the NDS as adequate, but with elevated and increasing risk, specifically in the areas of Aerial Refueling and Sealift. Improving mission assurance within the cyber domain remains a USTRANSCOM top priority. I thank Congress for their past and continued support of this organization as we work together to defend the nation and advance American interests.

Our purpose is enduring, but our success is not guaranteed. We must remain vigilant. Underwritten by the dedicated Soldiers, Sailors, Marines, Airmen, Coast Guardsmen, civilians, and commercial partners performing USTRANSCOM's mission, I am confident in our ability, and I'm proud to stand with them in our collective commitment to our nation's defense and dedication to America.

Together, We Deliver!

General Steve Lyons
Commander, U.S. Transportation Command

General Steve Lyons is the Commander, United States Transportation Command, Scott Air Force Base, Illinois, one of ten Combatant Commands under the Department of Defense. USTRANSCOM's mission is to project and sustain military power, enable global reach, and provide a full range of flexible and responsive options to national leadership while presenting multiple dilemmas for potential adversaries.

General Lyons has extensive leadership experience spanning 35 years of military service. He began his career in Germany during the Cold War and subsequently held a wide range of assignments to include command of troops at every level, multiple operational deployments, and over 6 years of experience in joint assignments. As a battalion commander in 2003, he led more than 1200 Soldiers as part of the 3d Infantry Division's ground assault to liberate Baghdad. Since 2003, he has spent more than 40 months deployed to the U.S. Central Command area of responsibility in support of Operation Iraqi Freedom and Operation Enduring Freedom (Afghanistan). He also served as the 14th USTRANSCOM deputy commander from 2015-2017.

A native of Rensselaer, New York, General Lyons graduated from the Rochester Institute of Technology (RIT) and was commissioned a second lieutenant in the US Army in 1983. He holds two master's degrees, one from the Naval Postgraduate School in logistics management (1993); and a second from the Industrial College of the Armed Forces in national resource strategy (2005). His awards include the Defense Distinguished Service Medal and the Master Parachutist Badge.

STATEMENT OF
MARK H. BUZBY
ADMINISTRATOR
MARITIME ADMINISTRATION
U.S. DEPARTMENT OF TRANSPORTATION

BEFORE THE
COMMITTEE ON ARMED SERVICES
SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES
AND SUBCOMMITTEE ON READINESS
U.S. HOUSE OF REPRESENTATIVES

HEARING ON SEALIFT AND MOBILITY REQUIREMENTS IN SUPPORT OF THE NATIONAL DEFENSE STRATEGY

March 11, 2020

Good afternoon, Chairman Courtney, Chairman Garamendi, Ranking Members Wittman and Lamborn, and members of the Subcommittees. Thank you for the opportunity to discuss the Maritime Administration's (MARAD) role in supporting the Department of Defense's (DOD) strategic sealift capabilities.

America's strategic sealift includes both Government-owned ships and assured access to a fleet of privately-owned, commercially operated, U.S.-flag vessels and intermodal systems, and the civilian U.S.-citizen Merchant Mariners who crew them. Together, these vessels, mariners, and networks share the mission of transporting equipment and supplies to deploy and sustain U.S. forces anytime and anywhere in support of national policy. While U.S. strategic sealift continues to be an efficient and effective force for moving cargoes worldwide during peacetime, concerns remain about the ability of our Nation to adequately project and sustain power globally while operating in a contested environment against a major adversary.

The U.S. Government-owned Ready Reserve Force (RRF) and Military Sealift Command (MSC) surge sealift fleets are aging and in need of recapitalization. The U.S. shipbuilding industry has largely lost the capacity to build, repair, and replace the large, commercial-type ships needed for sealift at a pace adequate to meet U.S. wartime needs. As of February 15, 2020, there were 86 large, privately-owned self-propelled U.S.-flag vessels operating exclusively in the U.S. international trades. The Department of Transportation recently released a report to Congress outlining goals and objectives to support military sealift, U.S.-flag vessels operating in domestic and international trade, the U.S. maritime workforce, port infrastructure, and U.S. shipbuilding capacity. In addition, MARAD is working in partnership with USTRANSCOM, the Navy, and MSC to begin recapitalizing the RRF. MARAD alone cannot solve the maritime challenges facing the Nation, but we will continue to be a strong advocate to help inform the public and promote strengthening our maritime capabilities.

Ready Reserve Force

The RRF is a fleet of Government-owned vessels used to transport DOD cargo during major contingencies. The 46 RRF vessels, along with 15 MSC vessels, provide sealift surge capability to deliver the initial movement of DOD equipment and supplies where needed during major contingencies. These vessels are then joined by commercial U.S.-flag vessels, which provide the bulk of follow-up sustainment sealift to support ongoing U.S. operations.

Vessels in the RRF have an average age of more than 45 years, and the fleet has struggled to maintain an adequate readiness level. To address these readiness challenges, MARAD is working closely with the Navy to implement its surge sealift recapitalization strategy. This strategy includes a combination of targeted service life extensions, acquiring and converting used vessels, and eventually building new vessels in U.S. shipyards.

These efforts require key industrial capabilities. A sustainable ship construction industrial base and sufficient marine repair facilities are necessary ingredients if we are to preserve our surge sealift capacity. However, even as China, a formidable potential threat, has become the world's leading shipbuilder, our domestic capacity to build and repair large commercial ships has dwindled. For example, Avondale Shipyard, which only a few years back was actively producing naval and commercial ships and employing thousands of Louisianans, is now being operated as a shipping terminal. Of the seven large shipyards involved in the last major effort to convert or construct large, commercial-type ships for sealift several decades ago, three are now closed, one no longer does large commercial work, and two do conversion work. Only one shipyard, General Dynamics NASSCO, retains its expertise to build large commercial type ships.

As authorized in the Fiscal Year (FY) 2018 National Defense Authorization Act (NDAA), MARAD is taking steps toward the acquisition and modification of second-hand ships from the open market for service in the RRF. MARAD released a Request for Proposal for Vessel Acquisition Manager (VAM) services on February 24, 2020. The selected VAM will identify, modernize, and after purchase, may operate these vessels. MARAD intends to select a VAM experienced in recapitalizing commercial fleets. The VAM will identify suitable Ro/Ro vessels that can be modified to meet DOD's needs for the organic sealift fleet. MARAD will continue to work closely with Navy, DOD, and USTRANSCOM to identify and procure vessels to meet sealift needs.

U.S.-Flag Commercial Fleet

The Government-owned strategic sealift fleet is augmented by U.S.-flag vessels that provide much of the sustainment sealift following surge operations. The MSP is the heart of sustainment sealift, maintaining a fleet of 60 commercially-viable, militarily-useful vessels, active in international trade, but available on-call to meet DOD contingency requirements. In return for a stipend, MSP operators provide DOD with assured access to not only ships, but also the multibillion-dollar global intermodal networks maintained by participating carriers. MSP operators also provide employment

on their vessels for 2,400 of the trained, skilled U.S. Merchant Mariners our country depends on to crew the RRF and MSC surge vessels if activated during a surge. Additionally, the MSP program supports more than 5,000 shore side maritime industry jobs each year.

I appreciate the work of the members of the Committee to reauthorize the MSP through FY 2035 in the recently enacted FY 2020 NDAA. The reauthorization of the Maritime Security Program (MSP) through FY 2035 ensures access to U.S.-flag commercial vessels to augment the U.S. Government fleet capability. The MSP fleet is at the highest capacity in the program's history. Recent MSP vessel replacements have added approximately 80,000 square feet of new roll-on/roll-off (RO/RO) capacity, and the President has requested full funding of the program for FY 2021.

This program will help keep vessels operating under the U.S.-flag. In addition, MARAD is committed to ensuring compliance with cargo preference requirements and that cargo preference requirements are met. We are expanding our outreach to Federal Government agencies and industry to cooperatively assist them in meeting these requirements and using U.S.-flag vessels to improve the Nation's overall sealift readiness of ships and mariners. These cargos help enable U.S.-flag vessel operators to remain operating under the U.S.-flag and employ U.S. citizen mariners.

MARAD is also committed to supporting our U.S.-flag fleet operating domestically. U.S. coastwise trade laws, commonly referred to as the Jones Act, contribute to sealift capability and capacity and help sustain the U.S-flag domestic trading fleet. Jones Act requirements support U.S. shipyards and repair facilities, and sustain supply chains that produce and repair American-built ships (including Navy and Coast Guard vessels). In addition, Jones Act vessels employ U.S. citizen mariners able to crew our surge fleets and ensure that vessels navigating within and between U.S. coastal ports and inland waterways operate with U.S. documentation and a majority citizen-crew, rather than under a foreign flag with foreign crew. Several U.S. flag self-propelled ocean-going vessels are also operating in Jones Act trade.

U.S. Mariner Workforce and Training

Access to a pool of qualified mariners from a robust, commercial maritime fleet is essential to maintaining enough sealift readiness capacity for contingencies. Due to the number of ships in the U.S.-flag, oceangoing fleet, I am concerned about our ability to quickly assemble an adequate number of qualified mariners to operate large ships (unlimited horsepower and unlimited tonnage) needed for surge and sustainment sealift operations during an extended mobilization. MARAD is working to better track licensed mariners who may no longer be sailing, but could serve if needed, and to develop tools to understand and analyze changes in the numbers of fully qualified mariners trained to meet the Nation's commercial and sealift requirements.

MARAD continues to support mariner education and training through the U.S. Merchant Marine Academy (USMMA), and facilitates mariner education through the support we provide to the six state maritime academies, which produce highly skilled licensed officers for the U.S. Merchant

Marine. As this committee is aware, aging vessels at the state maritime academies are used to train cadets who will become the fully-qualified mariners needed to crew Government and U.S.-flag commercial ships. Congress has recognized the need to replace these ships and has appropriated funding for National Security Multi-Mission Vessels (NSMV), $300 million in each of FYs 2018 through 2020. Additionally, the President's FY 2021 Budget requests an additional $300 million to continue to address critical recapitalization of the training school ships. Since first receiving funding in March 2018, MARAD has implemented the approved acquisition strategy, selected a Vessel Construction Manager, and is preparing to finalize the selection of a shipyard to construct the new ships. The first NSMV is expected to be delivered to DOT/MARAD in FY 2023.

Conclusion

Thank you for the opportunity to address this Committee on the state of American sealift. MARAD stands ready to support DOD sealift requirements against any challenge. However, we continue to work to mitigate any readiness and capacity risks that could limit our ability to move and sustain the force at an optimal level in a crisis. This risk mitigation requires careful planning and action now. MARAD remains committed to working with our Navy and USTRANSCOM partners to provide the sealift capabilities needed to meet our national security requirements.

Thank you for your support of the U.S. Merchant Marine. I look forward to your questions.

Rear Admiral Mark H. "Buz" Buzby, USN, Ret.
Administrator

Rear Adm. Mark H. Buzby was appointed by President Donald Trump and sworn in as Maritime Administrator on August 8, 2017. Prior to his appointment, Buzby served as president of the National Defense Transportation Association, a position he has held since retiring from the U.S. Navy in 2013 with over 34 years of service.

A 1979 graduate of the U.S. Merchant Marine Academy, Buzby earned his Bachelor of Science in Nautical Science and U.S. Coast Guard Third Mate License. He was commissioned in the US Navy in June 1979, is a graduate of the Joint Forces Staff College and holds master's degrees from the U.S. Naval War College and Salve Regina University in Strategic Studies and International Relations respectively.

Buzby commanded destroyer USS CARNEY (DDG 64), Destroyer Squadron THIRTY-ONE, Surface Warfare Officers School Command, and Joint Task Force GUANTANAMO BAY. As a junior officer, Buzby served in USS CONNOLE (FF1056), USS ARIES (PHM 5), USS YORKTOWN (CG 48), USS JOHN PAUL JONES (DDG 53) and USS SHILOH (CG 67) primarily in operations and combat systems billets. In 1985, he was the Atlantic Fleet Junior Officer Shiphandler of the Year.

Ashore, he served on staffs of SIXTH Fleet, US Fleet Forces Command, the Navy staff, and the Joint Staff. Buzby served as the Commander of the U.S. Navy's Military Sealift Command from October 2009 to March 2013.

Buzby's personal awards include the Defense Superior Service Medal, Legion of Merit (four awards), Bronze Star, Defense Meritorious Service Medal, Meritorious Service Medal (five awards) and various other unit and campaign awards.

NOT FOR PUBLICATION UNTIL
RELEASED BY THE HOUSE
ARMED SERVICES COMMITTEE

STATEMENT OF

VICE ADMIRAL RICKY L. WILLIAMSON,
DEPUTY CHIEF OF NAVAL OPERATIONS FOR
FLEET READINESS AND LOGISTICS, N4,
OFFICE OF THE CHIEF OF NAVAL OPERATIONS

ON THE
SEALIFT AND MOBILITY REQUIREMENTS
IN SUPPORT OF THE NATIONAL DEFENSE STRATEGY

BEFORE THE

HOUSE ARMED SERVICES COMMITTEE

SEAPOWER AND PROJECTION FORCES
AND
READINESS
SUBCOMMITTEES

March 11, 2020

NOT FOR PUBLICATION UNTIL
RELEASED BY THE HOUSE
ARMED SERVICES COMMITTEE

Chairmen Courtney and Garamendi, Ranking Members Wittman and Lamborn, and distinguished members of the House Armed Services Subcommittees on Seapower and Projection Forces and Readiness. As the Deputy Chief of Naval Operations for Fleet Readiness and Logistics, I appreciate the opportunity to provide you an update on the current state of readiness of the Combat Logistics and Strategic Sealift Forces. My testimony will describe the forces and the framework in which they operate. Additionally, it will touch on what has been accomplished over the past year, to include – continuing to meet operational requirements, while simultaneously driving successful, innovative, and non-traditional solutions to global maritime logistics.

Persistent and Predictive Logistics

Logistics is the delivery of all things necessary to REFUEL, REARM, RESUPPLY, REPAIR and REVIVE our Naval Forces. These five vectors are reliant upon foundational cross-cutting enablers (such as digital Information Technology (IT) or infrastructure) to ensure persistent logistics, which allows our forces to compete, deter and win in unpredictable operational environments. Logistics in support of Distributed Maritime Operations (DMO), Littoral Operations in a Contested Environment (LOCE) and Expeditionary Advanced Base Operations (EABO) concepts must be transformed to enable maneuverability, provide agile sustainment, and ensure rapid recovery and resiliency both ashore and afloat. The framework for guiding this transformation is the Logistics Continuum. The continuum includes acquisition and industrial base activities that precede naval actions, followed by three distinct phases that complete the end-to-end chain: inter-theater, intra-theater and the last tactical mile.

Mission

The Combat Logistics and Sealift operate under different mission sets accomplished by a combined force of 156 ships. The total force brings a variety of capabilities in direct support of numerous missions: from at-sea resupply of our naval combatants, to the maintenance and repair of surface and sub-surface vessels, to inter-theater, large cargo transport and prepositioning of critical cargo for Marine Corps, Army, and Air Force. Additional missions include afloat command and control, humanitarian assistance/disaster relief (HA/DR), diving and salvage operations, rapid intra-theater movement of cargo/personnel, towing, and afloat staging capabilities. This unique segment of the naval fleet provides and facilitates the scalable capability required by the combatant commander to execute their missions around the globe.

Combat Logistics Force (CLF)

Combat Logistics Forces (CLF) comprise 29 battle force ships that deploy and distribute commodities across the five vectors of sustainment. These ships are managed and operated by Military Sealift Command (MSC) and crewed by government-civilian mariners. These forces provide direct support to our combatant naval vessels operating independently or with our Carrier Strike Groups (CSG) and Amphibious Readiness Groups (ARG).

The Navy's mission is expeditionary and has long required the capability to conduct worldwide and sustained operations at sea. The Navy has been, and will always be, called upon to operate forward in areas where access to shore bases may be limited. Therefore, the ability to Refuel, Resupply, Rearm, Repair, and Revive our ships at sea, independent of any restrictions placed on it by a foreign country, is critical to the Navy's ability to project warfighting power from the sea.

As the lifeline of resupply to Navy operating forces underway, the ships of the Navy's CLF enable CSGs and ARGs to operate forward and remain on station during peacetime and war. The global peacetime CLF force structure supports continuous global Navy presence worldwide to include sustainment, training and deployment workup cycles close to home. For perspective, in fiscal year 2019 these ships delivered just over 490 million gallons of fuel (in 2,742 events), 22,901 pallets of ordnance (in 149 events), and 80,115 pallets of dry cargo (in 1,101 events).

The CLF consists of single and multi-mission ships. The single-mission ships, specifically the Fleet Replenishment Oilers (T-AO), provide one product, fuel, and have the ability to provide limited quantities of dry cargo. The Fast Combat Support Ships (T-AOE) provide multi-mission support by simultaneously replenishing ammunition, provisions and fuel. The Dry Cargo and Ammunition Ships (T-AKE) provide ammunition and provisions, and can also supply fuel at limited transfer rates and quantities, compared to the AOE or AO. Details about the ships of the Combat Logistics Force can be found on the MSC website: https://www.msc.navy.mil/publications/.

Service Support and Special Mission Ships

Another facet of naval logistics is provided by our Service Support and Special Mission Ships, which are crewed by hybrid USN/MSC teams. 24 Service Support platforms, 22 of which are battle force ships, provide capabilities which include afloat medical treatment facilities, towing, rescue and salvage, routine and emergent maintenance and repairs, re-arming and logistical support to our submarine and surface fleets. Many of these ships routinely participate in delivering humanitarian assistance across the globe and reinforcing efforts with our allies and partnering nations.

Our 18 Special Mission ships, 5 of which are battle force ships, bring unique capabilities for Joint and inter-agency use such as oceanographic and hydrographic surveys, underwater surveillance, missile tracking, acoustic surveys, cable laying and repair services and support to submarine and special warfare communities. Collectively, Service Support and Special Mission ships continue to prove their ability to support operations worldwide.

Strategic Sealift

Strategic sealift is a key enabler of the National Defense Strategy and U.S. power projection. Sealift ships transport approximately 90 percent of Army and Marine Corps combat unit equipment and supplies in support of major combat operations. Organic (U.S. government-owned) sealift capability is made up of a combination of Afloat Prepositioning and Surge Sealift vessels. Major ground combat operations require the capability to access a high volume of unit equipment and supplies – well over a million short-tons in some scenarios. Transportation of the heavy land-combat forces into the theater of operations requires multiple round-trip sailings by strategic sealift vessels, which comprise the Common User Sealift Pool (CUSP) under operational control of U.S. Transportation Command (USTRANSCOM). The strategic sealift CUSP program is comprised of a mix of government-owned and long-term-chartered, dry-cargo ships and tankers, as well as additional short-term or voyage-chartered ships, which provide our surge sealift capability in a range of various sizes and types of vessels.

Afloat Prepositioning

Of the 85 ships performing Sealift missions, 24 are designated as Afloat Prepositioning. The afloat prepositioning ships support Marine Corps, Army and Air Force requirements. Fifteen ships are assigned to the Maritime Prepositioning Force (MPF), seven are assigned in support of an Army Prepositioning Set Three (APS-3), and two support the Air Force. These ships are a combination of U.S. government-owned ships and long-term chartered U.S.-flagged

ships all of which are pre-loaded with Service equipment, supplies and ammunition. Navy funds the procurement of pre-positioned vessels. Funding for operations and sustainment is service-specific with Navy providing funds for MPF only. The afloat prepositioning vessels are strategically staged in key areas, such as Guam, Saipan and Diego Garcia, to reduce response time in a contingency.

Surge Sealift

The 61 ships not pre-positioned forward provide surge capacity that is held in reserve near U.S. strategic seaports. Unit equipment is transported from the U.S. to a theater of operation primarily using the Roll-On/Roll-Off (RO/RO) ships which facilitate the rapid on-load and off-load of rolling stock and service-unique, special-mission equipment. Of the 61 ships, 15 Surge Sealift vessels are operated by MSC and include ten large medium-speed roll-on roll-off vessels (LMSR's) and five RO/RO-Container ships. The remaining 46 Ready Reserve Force (RRF) ships, maintained by the Department of Transportation's Maritime Administration (MARAD), include 27 RO/ROs, eight Fast Sealift Ships, two heavy lift, two aviation support, six crane ships, and one offshore petroleum distribution ship (OPDS). Navy funds the procurement and maintenance costs for all surge sealift capability. The respective services fund the operating and sustainment costs when the surge vessels are activated.

These surge vessels are maintained in a 5-day Reduced Operating Status (ROS) in order to provide a rapid response in support of major ground-combat operations in time of war. While in ROS, these ships are crewed by small, commercially-contracted, teams whose responsibility it is to bring the ship online when activated. Upon activation, MARAD vessels are under MSC-operational control. Each year, some ships are provided no-notice activation orders to be "ready to sail" by the prescribed timeline, known as Turbo Activation, to test the ship's ability to

transition from reduced to fully operational status within 120 hours and get underway. Turbo Activation testing is a USTRANSCOM program resourced through Joint Staff exercise funding.

Sealift Readiness

Turbo Activation 19-plus (TA 19+), conducted September 16 -29, the largest and most comprehensive no-notice exercise for the MSC Surge and MARAD RRF since program inception, tested vessel and support structure readiness; validating the reported sealift readiness rate of 64%. The purpose of this exercise was to objectively evaluate the ability of as many Organic Surge Fleet vessels as possible to transition from ROS to Full Operating Status (FOS) within 120 hours; and to assess the vessel's performance. TA 19+ highlighted concerns regarding the readiness of the Organic Surge Fleet and reinforced the need for recapitalization, appropriate levels of resourcing to correct material deficiencies, and continued emphasis on readiness improvements to regain the fleet readiness goal of 85%. As a result, PB21 increased operations and sustainment funding by $131.4M in FY21. These funds will increase the level of annual sustainment per hull, and increase the amount of maintenance and repair across both MSC and MARAD fleets; enabling significant work to be done during repair periods. As a result of this complex work, longer maintenance periods are expected which has the foreseeable consequence of decreased readiness in the near-term as an investment toward improved long-term readiness.

Sealift Recapitalization

Over the next 25 years, ~60% of the sealift fleet will reach end of service life. In 2018, the Navy reported our recapitalization strategy in the Sealift that the Nation Needs report to Congress. It described a three-pronged strategy:

(1) procure a new class of inter-theater sealift ships, intended for the afloat prepositioning mission, building on the capabilities of the current T-AKR class.

(2) acquire used commercial RO/RO vessels to replace aging vessels in the surge sealift fleet; and

(3) execute service life extensions (SLEs) to extend the 50-year service life of select surge sealift vessels to 60 years in order to maintain the required lift capacity of the force in pace with the delivery of used and new vessels.

PB21 requests additional Research, Development, Test and Evaluation, Navy (RDTE,N) funding and Operations and Maintenance, Navy (O&M,N) funding to accelerate the Navy's sealift recapitalization strategy. The additional RDTE,N supports exploring cost effective procurement strategies for new construction sealift vessels. PB21 requests an additional $30M of O&M,N to accelerate used vessel procurement from FY21 to FY25 as a result of the readiness concerns identified over the previous two years.

Market analysis indicates that sufficient vessels exist to execute the budgeted profile for the procurement of used ships. Navy completed the used vessel requirements documentation in coordination with USTRANSCOM and MARAD in 2019 to support initial procurement in the first quarter of FY21.

In 2019, the Navy contracted with four shipyards to review Army/USMC design requirements, and provide cost and capability trade-off analysis.

Making Naval Logistics More Agile and Resilient

Leveraging the Power of the Integrated Fleet, Navy is introducing new intra-theater combat-credible maritime force capabilities to ensure warfighters remain in the fight. In support of USN/USMC Integrated Warfighting Concepts of Operations including DMO, LOCE and EABO, we are pursuing experimentation, exercises and war games to develop and test innovative concepts that complement Combat Logistics and Strategic Sealift capabilities; enhancing overall Naval combat force availability.

Supported by Congressional authority and appropriations in FY20, the Navy is developing the EPF Flight II which will expand the logistics capability of these vessels to embark enhanced medical capability in support of DMO, LOCE and EABO. EPF 14 will be the first EPF Flight II.

Further, PB21 includes RDTE,N to commence concept studies in FY21 to evaluate next-generation medium-lift, intra-theater, amphibious platforms, and logistics ships. These studies will focus on naval sustainment (Refuel, Resupply and Rearming), movement and maneuver for our integrated naval forces. These efforts can create cost effective opportunities for our fleet to expand support missions and sustain global presence to ensure warfighters remain in the fight. The Navy also welcomes outside analysis, and is considering elements of a recently completed Center for Strategic and Budgetary Assessment report on resilient maritime logistics, as the Navy pursues its overall logistics strategy.

Summary

Global operations continue to assume an increasingly maritime focus. As we look to the future, we see a continued need for naval forces on station to meet the mission requirements of the Joint Force and combatant commanders. We will continue to support forward presence and relieve stress on the rest of the force through traditional and innovative approaches. Combat Logistics Forces, Service Support Ships, Special Mission Ships and Strategic Sealift are foundational to the National Defense Strategy. I want to thank you for your continued support of our Force. Also, thank you again for the opportunity to appear before the Committee.

Vice Admiral Ricky L. Williamson
Deputy Chief of Naval Operations for Fleet Readiness and Logistics, N4,
Office of the Chief of Naval Operations

Vice Adm. Rick Williamson is a native of Jacksonville, Florida. He is a 1985 graduate of the U.S. Naval Academy, where he received a Bachelor of Science in Computer Science. He earned a Master of Business Administration from the Naval Postgraduate School in 1990 and is a graduate of the Armed Forces Staff College in Norfolk, Virginia.

His early sea assignments include tours onboard USS Dewey (DOG 45), USS Briscoe (DD 977), USS Enterprise (CVN 65) and executive officer of USS Rodney M. Davis (FFG 60). He commanded USS Simpson (FFG 56) during NATO's Standing Naval Forces Atlantic 2004 deployment to the United States, the first such visit by NATO to the United States after 9/11. Under his command, Simpson won two Battle "E" awards.

Ashore, his assignments include tours in the Washington, District of Columbia area as executive assistant to Commander, Navy Installations Command, and deputy director of Plans and Policy. Additionally, he served as a lead examiner of both the steam and gas turbine branches at the Propulsion Examination Board at Commander in Chief, U.S. Atlantic Fleet. In May 2006, he served as the executive officer of the Command Leadership School at Newport, Rhode Island. From 2008 to 2011, he served as commanding officer of Naval Base San Diego. During this tour, Naval Base San Diego was selected as the 2010 Presidential Installation Excellence Award and the 2011 Presidential Green Government Award.

Williamson assumed duties as deputy Chief of Naval Operations for Fleet Readiness and Logistics N4, Office of the Chief of Naval Operations June 27, 2019.

Williamson's decorations include the Legion of Merit, Defense Meritorious Service Medal, Meritorious Service Medal, Navy and Marine Corps Commendation Medal, Navy and Marine Corps Achievement Medal and various other unit and campaign awards.

Updated: 26 July 2019

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SUBCOMMITTEE SEAPOWER AND PROJECTION FORCES
UNITED STATES HOUSE OF REPRESENTATIVES

PRESENTATION TO THE
HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES
SUBCOMMITTEE ON READINESS
UNITED STATES HOUSE OF REPRESENTATIVES

HEARING DATE/TIME: March 11, 2020, 02:30 PM

SUBJECT: Sealift and Mobility Requirements in Support of the National Defense Strategy

STATEMENT OF:

Lt. Gen David S. Nahom, USAF
Deputy Chief of Staff
(Plans and Programs)

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SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES
UNITED STATES HOUSE OF REPRESENTATIVES

INTRODUCTION

Chairman Courtney, Chairman Garamendi, Ranking Members Wittman and Lamborn, distinguished members of the subcommittees, thank you for having us here today with U.S. Transportation Command and the Maritime Administration to discuss the "State of the Mobility Enterprise" and to provide testimony on Air Force role in supporting the Department of Defense's air mobility capabilities.

The Air Force provides capabilities, crews and fleets essential to mobilize global support. The mobility fleet faces challenges to provide the force and fleet readiness needed to meet the ever increasing demands our nation relies upon. As we move towards a two tanker fleet, we must stretch our resources to meet these demands, while balancing the appropriate risk by divesting legacy aircraft to move toward the future force. As we modernize to counter growing threats, we must also ensure that forces remain ready and able to offer options to our Nation's leaders. The demand for mobility capabilities remains high. For example, Air Force mobility forces conducted more than 27,000 airlift and refueling sorties across the U.S. Central Command area of responsibility, offloading more than 590 million pounds of fuel and moving more than 226 million pounds of cargo. With the support of Congress, we have made major improvements to mobility readiness and hope to continue increasing our ready forces. Looking forward to the discussion today to continue working towards a more ready and capable mobility force.

CURRENT CAPACITY AND CAPABILITY

The Department of the Air Force conducted an exhaustive review of our portfolios and made hard decisions to better align with the National Defense Strategy, which includes the acceptance of calculated short-term risk. Some difficult choices require the divestiture of legacy platforms in exchange for capability needed for the future. Our decisions are supported by

learning from multiple, complex wargame scenarios that assess alternative warfighting approaches against a peer adversary. Our modernization investments focused on connecting the Joint force, dominating in space, generating combat power, and conducting logistics under attack—reflect the new strategic reality.

Tanker Fleet

Tankers are the lifeblood of our Joint force's ability to respond to crises and contingencies quickly and are essential to keeping our Department of the Air Force fueled as a global force. At the end of fiscal year 2020, the tanker fleet will be comprised of 398 KC-135s, 56 KC-10s, and 52 KC-46s that provide the backbone of rapid U.S. global operations. We have accepted 31 KC-46s and will receive a total of 179 KC-46 Pegasus aircraft while we continue to divest the aging KC-10 and KC-135 fleets and look towards the next generation for tanker recapitalization options.

KC-46

While we continue to sustain the current tanker capability, building the future tanker fleet remains one of the Air Force's top acquisition priorities. The KC-46 will deliver greater operational readiness, flexibility, and survivability to the Global Reach mission. The Air Force awarded Lot 5 on 27 September 2019, increasing the number of production aircraft on contract to 67. The Lot 6 contract for 12 aircraft is projected to award in May 2020.

The first KC-46 aircraft was delivered to McConnell AFB, Kansas (Main Operating Base 1), on 25 January 2019. The Formal Training Unit at Altus AFB, Oklahoma, received its first KC-46 on 8 February 2019. The Department of the Air Force established Main Operating Base 2 at Pease Air National Guard Base, New Hampshire, on 8 August 2019. The Department of the Air Force will continue taking delivery of KC-46s at a rate of approximately three per month

through fiscal year 2020, at which point the delivery rate will reduce to approximately 1.25 per month. The Department of the Air Force began dedicated Operational Test and Evaluation on 14 May 2019, executed the first Operational Test flight on 4 June 2019, and formally transitioned into Initial Operational Test and Evaluation (IOT&E) on 23 October 2019.

In Partnership with Air Mobility Command, we have worked hard to accept the KC-46 while ensuring its major deficiencies—the Remote Visual System (RVS) and stiff air refueling boom—are properly addressed without undue burden on taxpayers or warfighters. We established a subject matter expert team that derived critical performance parameters for both the RVS and boom and codified these parameters in legally-binding agreements with Boeing. Due to the extensive nature of the fixes, especially the RVS, design solutions to both issues will take three to four years to develop, and additional time to fully retrofit across our fleet.

The Department of the Air Force remains committed to holding Boeing accountable to fix deficiencies identified in both developmental and operational test and evaluation of the KC-46's effectiveness, suitability, and mission capability. We remain concerned with Boeing's slow progress resolving issues limiting the KC-46's ability to accomplish all missions and will continue to work with Boeing to ensure the KC-46 meets all essential mission requirements. The Department of the Air Force is withholding up to $26.5 million per aircraft. If applied to all 67 aircraft on contract, withholds could be as bigh as $1.8 billion. The Department of the Air Force will not pay for capability not delivered.

Despite its current deficiencies, the KC-46 is safe to operate (adhering to flight manual cautions provided to our operators) and will be the Department of the Air Force's best tanker for contested environments due to enhanced situational awareness, battle management, and threat countermeasures. Accepting the KC-46 with known deficiencies permitted initiation of

familiarization and operational test activities while the Department of the Air Force works with Boeing on long-term efforts to correct deficiencies. Accepting the KC-46, and fixing deficiencies in parallel with operational test and evaluation, is the fastest way to achieve full operational capability to meet warfighter requirements.

The FY21 Budget requests $106.3 million in Research, Development Test and Evaluation (RDT&E) funding for ongoing KC-46 Engineering and Manufacturing Development and post production modification efforts, to include the boom telescope actuator redesign (BTAR) effort resolving the stiff boom deficiency. Additionally, the FY21 Budget requests $3.1 billion in procurement funding to award Lot 7 (15 aircraft plus associated spares, engines, support equipment, and wing air refueling pods).

KC-10 and KC-135

The average age of our KC-135 and KC-10 tankers is 58 and 35 years old, respectively. Both fleets are challenged by aircraft parts obsolescence and diminishing manufacturing source issues. We are able to maintain these platforms as effective and safe weapon systems for the warfighter with the help of organic Department of the Air Force depots and industry. We are executing several key modernization, safety, and compliance initiatives to ensure our KC-135 fleet remains viable through at least 2045.

The FY21 Budget requests $88.25 million to continue KC-135 modernization efforts. The Block 45 program addresses supportability, reliability, and maintainability issues with legacy flight and engine instruments by integrating a digital flight director, autopilot, radio altimeter, and electronic engine instrument display for our operators. Additionally, the Rudder Position Indicator program enhances safety of the KC-135 by providing the aircrew with situational awareness for the actual rudder position.

Furthermore, the FY21 Budget also requests $7.1 million through the FYDP to keep our KC-10 fleet operational through its planned retirement, and includes funding for service bulletins and low cost modifications to ensure Federal Aviation Administration certification.

The Department of the Air Force took measured risk in FY21 tanker capacity in order to resource the capability we need for the future fight. As we look to better align the Department of the Air Force with the National Defense Strategy, divestments were accelerated in both the KC-135 and KC-10 fleets. Specifically in FY21, the Department of the Air Force is divesting 16 KC-10s and 13 KC-135s from the Active Duty fleets.

Strategic Airlift

C-5

The C-5 Super Galaxy provides all-weather worldwide strategic airlift for combat forces, equipment, and supplies, exemplifying Rapid Global Mobility outlined in the National Defense Strategy. Current investment programs focus on fleet obsolescence, maintainability, and safety of flight.

The FY21 Budget requests $71.8 million in procurement funding, predominately for communications, navigation, surveillance/air traffic management (CNS/ATM) and C-5 core mission computer/weather radar (CMC/WxR) system equipment. CNS/ATM upgrades include Automatic Dependent Surveillance-Broadcast (ADS-B) Out modifications required for global airspace compliance. The CMC/WxR effort replaces an antiquated radar system with diminishing manufacturing sources and upgrades the core mission computer processor to meet the demands of future software modifications.

Additionally, the FY21 Budget requests $32.6 million in RDT&E funding to support replacement of the Multifunctional Control and Displays (RMCD). This comprehensive sustainment modification mitigates the obsolescence of the current control and display units and increases capacity for future technology integration into the cockpit.

C-17

The C-17 is the only aircraft in the Department of the Air Force inventory that combines tactical capability with strategic range to operate from austere airfields. The fleet of 222 aircraft provides our Nation unmatched flexibility to conduct theater and inter-theater direct delivery, airdrop, aeromedical, and special operations airlift missions. Agile and efficient software and hardware updates will ensure timely readiness, safety, and capability improvements as this premier airlift platform contributes to our national security objectives.

The FY21 Budget requests $107.4 million in procurement funding to continue critical modifications to the C-17 fleet. This includes Identify Friend or Foe for the identification and control of military aircraft, and Large Aircraft Infrared Countermeasures defensive systems. The sustainment modification effort of a replacement heads-up display will address obsolescence of the current C-17 heads-up display and improve the system's availability, reliability, and maintainability. Additionally, $10 million of FY21 RDT&E funding will address obsolescence and flight safety issues. The Beyond Line-of-Sight communication system effort modernizes multi-channel voice and data communication subsystems to ensure the C-17 keeps pace with changes in Department of Defense communication infrastructure.

Tactical Airlift

The C-130 fleet consists of legacy C-130H and newer C-130J aircraft, as well as special mission aircraft (AC/LC/EC/MC/HC/WC-130s). C-130Hs and C-130Js are medium-size

transport aircraft capable of completing a variety of tactical airlift operations across a broad range of missions. The fleet delivers air logistics support for all theater forces, including those involved in combat operations.

C-130H

The Department of the Air Force continues to modernize the C-130H legacy fleet through a four-pronged approach emphasizing aircraft safety, airspace compliance, modernization, and partial recapitalization. Our C-130H Center Wing Box replacement program breathes new life into some of our hardest flown aircraft, enabling them to continue to safely operate well into the future. The C-130H Avionics Modernization Program (AMP) Increment 1 ensures the legacy fleet is outfitted with modern communication equipment and complies with U.S. and international airspace transponder mandates. The Department of the Air Force is on track to complete these upgrades in FY21. The AMP Increment 2 program improves the C-130H fleet maintainability and reliability by providing a new digital avionics suite, and mitigating obsolescence and diminished manufacturing source challenges. The FY21 Budget requests $42 million in RDT&E and $5.9 million in procurement funding to support the legacy C-130H fleet.

As with other weapon systems, the Department of the Air Force is taking acceptable risk in the C-130 portfolio as it focuses resources toward the future force. Specifically, in FY21 the Department of the Air Force is divesting 13 C-130H from the Air National Guard (ANG) inventory. Also in FY21, aided by the decision to retain A-10s at the Maryland ANG base in Baltimore, the Department of the Air Force is able to execute the planned transfer of eight C-130Js from Active Duty to the ANG. Additionally, thanks to the support of Congress, the ANG will be receiving 11 new C-130Js from Lockheed Martin to recapitalize 11 C-130Hs.

C-130J

The Air Force is also partially recapitalizing the legacy C-130H fleet with C-130Js, which specifically supports our Special Operations missions by providing Special Forces with extra weight carrying capacity, longer range, and better fuel efficiency. These special mission variants of the C-130J conduct airborne psychological operations and offensive electronic warfare (EC-130J), weather reconnaissance (WC-130J), search and rescue (HC-130J), and special operations (MC-130J and AC-130J). In addition to purchasing new aircraft, the Department of the Air Force has multiple modification efforts for the C-130J, including Center Wing Box replacement, Large Aircraft Infrared Countermeasures, and an accelerated avionics upgrade to meet 2020 Federal Aviation Administration and international airspace mandates. The C-130J Block 8.1 modernization program, currently in production, delivers new communication and data link capabilities, a modern flight management system, and other key capabilities to the field. In addition, the Department of the Air Force plans to upgrade both our C-130H and C-130J fleets with a Mobile User Objective System (MUOS) satellite communication system to ensure we maintain key communication links anywhere in the world.

The FY21 Budget requests $10.7 million for C-130J RDT&E and $140 million for C-130J procurement and modification efforts. It also requests $24.7 million for HC/MC-130J RDT&E and $423.6 million for HC/MC-130J procurement and modification efforts.

FUTURE CAPABILITY

Competing against rising near-peer adversaries during this time of unprecedented technology change requires a competitive acquisition system: one that is faster and more agile than our rivals. Consequently, the Department of the Air Force is transforming what we buy, how we buy, and who we buy from to retain the battlefield dominance we currently enjoy.

The average aircraft flown by the Department of the Air Force is 23 years old, and systems like the C-5, KC-135, are older at 33, 58, and 58 respectively. These aging fleets face significant readiness challenges as approximately sixty percent of their supply chain is single-source or, increasingly, unsourced. To date, the Department of the Air Force has certified broad swaths of metal and plastic additively manufactured parts, cold spray repairs at our depots, and predictive maintenance for the Mobility fleet, saving costs while increasing readiness.

We ask for Congress' continued support for these difficult force structure and capability decisions that are critical for our future military superiority. Thank you again for the opportunity to testify before these subcommittees.

Lieutenant General David S. Nahom

Lt. Gen. David S. Nahom is the Deputy Chief of Staff for Plans and Programs, Headquarters U.S. Air Force, the Pentagon, Arlington, Virginia. In support of the Chief of Staff and Secretary of the Air Force, he leads the development and integration of the Air Force resource allocation plan. As the Air Force's senior programmer, he leads the development, integration, evaluation and analysis of the Air Force Program across the Future Years Defense Plan. He directs and coordinates activities ensuring the Air Force builds and employs effective air, space and cyber forces to achieve national defense objectives.

Lt. Gen. Nahom was commissioned through the Reserve Officer Training Corps at the University of Colorado and is a distinguished graduate of both undergraduate navigator training and Euro-NATO Joint Jet Pilot Training. During his 31-year active duty Air Force career, the general commanded at the squadron, group and wing level and is a command pilot with more than 3,400 hours in the F-22A,Raptor, F-15A/B/C/D Langley-Eustis, Va. Eagle and F-111F Aardvark.

In addition to his flying and command experience, Lt. Gen. Nahom is a graduate of the U.S. Army Command and General Staff College and the NATO Defense College. He has held headquarters-level assignments at NATO Combined Air Operations Center Six, U.S. Forces Korea, Pacific Air Forces, Headquarters Air Force and Air Forces Central Command. Prior to his current assignment, the general was the Director of Programs, Office of the Deputy Chief of Staff for Plans and Programs, Headquarters Air Force, the Pentagon, Arlington, Virginia.

EDUCATION
1988 Bachelor of Arts, Economics, University of Colorado, Boulder
1993 Squadron Officer School, Maxwell Air Force Base, Ala.
2001 Army Command and General Staff College, Fort Leavenworth, Kan.
2001 Master of Military Operational Arts and Science, Fort Leavenworth, Kan.
2006 Air War College, Maxwell AFB, Ala., by correspondence
2009 NATO Defense College, Rome, Italy

ASSIGNMENTS
November 1988-August 1989, Student, Specialized Undergraduate Navigator Training, Mather Air Force Base, Calif.
September 1989- October 1989, Student, AT-38 Fighter Lead-In Training, 436th Tactical Fighter Training Squadron, Holloman AFB, N.M.
November 1989- May 1990, Student, F-111 Replacement Training Unit, Mountain Home AFB, Idaho
June 1990- February 1993, F-111F Weapons Systems Officer, 492nd TFTS, RAF Lakenheath, United Kingdom
March 1993- July 1994, Student, Euro-NATO Joint Jet Pilot Training, Sheppard AFB, Texas
August 1994- October 1994, Student, Introduction to Fighter Fundamentals, Columbus AFB, Miss.
November 1994- June 1995, Student, F-15C Fighter Training Unit, Tyndall AFB, Fla.
July 1995-September 1997, Aircraft Commander, Mission Commander, 71st Fighter Squadron, Joint Base Langley-Eustis, Va.
September 1997-December 1999, Flight Lead, Chief Squadron Scheduler, Operations Support Squadron, JB Langley-Eustis, Va.
December 1999--June 2000, F-15C Instructor Pilot, Assistant Director of Operations, 95th FS, Tyndall AFB, Fla.
June 2000-July 2001, Student, Army Command and General Staff College, Fort Leavenworth, Kan.
September 2002--June 2003, Chief Wing Training, F-15C Instructor Pilot, 33rd Operations Support Squadron, Eglin AFB, Fla.
June 2003-August 2005, Assistant Director of Operations, Director of Operations, 60th FS, Eglin AFB, Fla.

August 2005-June 2006, Chief of Wing Safety, 33rd Fighter Wing, Eglin AFB, Fla.
June 2006-August 2008 Commander, Deputy Commander for Maintenance Group, 60th FS, Eglin AFB, Fla.
July 2008-January 2009, Student/Senior Course Member, NATO Defense College, Rome, Italy
June 2010-July 2012, Commander, 18th Operations Group, Kadena Air Base, Japan
July 2012-March 2013, Executive Officer to Commander Pacific Air Forces, JB Pearl Harbor-Hickam, Hawaii
March 2013-August 2014, Commander, 3rd Wing, JB Elmendorf-Richardson, Alaska
September 2014-October 2015, Director of Regional Affairs, Deputy Under Secretary of the Air Force, International Affairs, Headquarters Air Force, Arlington, Va.
November 2016-April 2017, Deputy Director of Plans, Programs and Requirements, JB Langley-Eustis, Va.
April 2017-May 2018, Deputy Commander, US Air Forces Central Command; Deputy, Combined Force Air Component Commander, US Central Command, Southwest Asia
May 2018-September 2019, Director of Programs, Office of the Deputy Chief of Staff for Plans and Programs, Headquarters Air Force, the Pentagon, Arlington, Va.
September 2019-present, Deputy Chief of Staff, Plans and Programs, Headquarters Air Force, the Pentagon, Arlington, Va.

SUMMARY OF JOINT ASSIGNMENTS
July 2001-July 2002, Chief of Fighter Operations, NATO Combined Air Operations Six, Eskisehir, Turkey, as a major
February 2009-June 2010, Chief J37 Training, Readiness, and Exercises Division, U.S. Pacific Command, Yong San, Seoul, South Korea, as a colonel

FLIGHT INFORMATION
Rating: command pilot
Flight hours: more than 3,400
Aircraft flown: F-22A, F-15 A-D, AT-38, T-38, T-37 and F-111A/F

MAJOR AWARDS AND DECORATIONS
Defense Superior Service Medal with oak leaf cluster
Legion of Merit with oak leaf cluster
Distinguished Flying Cross with oak leaf cluster
Defense Meritorious Service Medal
Meritorious Service Medal with three oak leaf clusters
Air Medal with four oak leaf clusters
Aerial Achievement Medal with three oak leaf cluster
Air Force Commendation Medal with oak leaf cluster
Air Force Achievement Medal with two oak leaf clusters

EFFECTIVE DATES OF PROMOTION
Second Lieutenant Aug. 13, 1988
First Lieutenant Aug. 13, 1990
Captain Aug. 13, 1992
Major Dec. 1, 1999
Lieutenant Colonel April 1, 2004
Colonel July 1, 2009
Brigadier General Oct. 17, 2014
Major General June 2, 2018
Lieutenant General Sept. 4, 2019

(Current as of October 2019)

WITNESS RESPONSES TO QUESTIONS ASKED DURING THE HEARING

MARCH 11, 2020

RESPONSE TO QUESTION SUBMITTED BY MR. NORCROSS

Admiral WILLIAMSON. There is no shift in the chain of supplies for our carrier moving from C–2A to CMV–22. In the Navy Aerial Logistics Concept of Operations, Navy-unique Fleet-essential airlift, composed of fleet logistics support squadrons operating the C–130T and C–40A aircraft, supports the forward logistics movement of critical wartime supplies and personnel from the aerial point of debarkation to the forward logistics site (FLS) or other fleet support location as dictated by the forward deployed nature of naval operations. Fleet logistics multi-mission (CMV–22B) detachments then provide the final link to finish the last leg of the logistics trail from the FLS to the Carrier Strike Group via the CVN. In great power competition, the goal is to ensure survivability of this logistics trail through unpredictability and use of dispersed/mobile logistics sites. [See page 21.]

RESPONSES TO QUESTIONS SUBMITTED BY MR. KELLY

General LYONS. Yes, the Air Force completed a C–17 Product Support Business Case Analysis in March 2019. Although I will defer to the Air Force to elaborate on the details of that BCA, I am confident knowing that Air Force senior leadership continues to assess options to improve C–17 sustainment in terms of cost, performance and risk—which, as you know, is critically important to our strategic airlift fleet. [See page 19.]

General LYONS. The Air Force's Air Mobility Command (AMC) represented the interests of all C–17 users throughout the Product Support Business Case Analysis effort. AMC is the air component of the U.S. Transportation Command and is responsible for a Total Force effort to execute Rapid Global Mobility and enable Global Reach missions. [See page 19.]

General NAHOM. The Air Force's Air Mobility Command (AMC) represented the interests of all C–17 users throughout the Product Support Business Case Analysis effort. AMC is the air component of the U.S. Transportation Command and is responsible for a Total Force effort to execute Rapid Global Mobility and enable Global Reach missions. [See page 19.]

RESPONSE TO QUESTION SUBMITTED BY MRS. LURIA

Admiral WILLIAMSON. The President's Budget for Fiscal Year (FY) 2021 requested $60 million in Operation and Maintenance, Navy funding to purchase two used, foreign built ships. In the March 2019 market survey, there were 58 vessel responses of which nine were roll-on/roll-off vessels that met or exceeded the minimum operational requirements. Of those nine, five vessels are enrolled in the Maritime Security Program, therefore, they are U.S.-flagged, deemed military useful by the U.S. Transportation Command (USTRANSCOM), and do not require major modifications or conversions. Three of these five vessels are between the ages of 20 and 25 years with an average estimated procurement cost, including reflagging and reclassification to meet ABS standards, of $30 million each. Vessel surveys scheduled to be conducted on proposed ships for purchase will be conducted in the 4th Quarter of FY 2020. Any additional upgrades required to make the used ships militarily compatible, such as communications and other electronic equipment, would be assessed and the total price tag for those additional upgrades would be included in a future budget submission. [See page 29.]

QUESTIONS SUBMITTED BY MEMBERS POST HEARING

MARCH 11, 2020

QUESTIONS SUBMITTED BY MR. WITTMAN

Mr. WITTMAN. In recent years, commercial ship owners and operators, and certain classification societies, have begun using digital analytic tools and artificial intelligence (AI) capabilities to aid in the overall maintenance and management of vessels. These tools also apply to the commercial offshore exploration and drilling industries. These tools can be particularly important for tracking the readiness of our nation's fleet, as highlighted in the recent turbo activation of sealift vessels. The material condition of many government vessels is a major issue affecting our nation's ability to go to war. These advanced analytic tools have been incorporated into a pilot program to determine their effectiveness at Military Sealift Command (MSC) within U.S. Navy. Ultimately these tools can and will be used with the classification societies in a condition-based maintenance approach versus the former time-based methods of periodic maintenance on ships. These tools, coupled with new classification methods, are expected to streamline maintenance planning and provide clarity into the readiness status of MSC's vessels. These tools can equally benefit the U.S. Navy surface and auxiliary fleet as well as the sealift fleet.

Since Navy already applies commercial classification rules for shipbuilding and lifecycle operations, the potential exists for these advanced digital classification and AI tools to assist Navy and MARAD with ship management and maintenance planning. To that end:

1. With the success demonstrated to date at MSC, is the U.S. Navy and MARAD considering incorporation of digital analytic tools and AI methods into other surface vessels?

2. If not, why not? If yes, when does Navy and MARAD plan to utilize these tools for maintenance planning and condition monitoring on its ships?

3. Has Navy considered a pilot program with these new tools similar to the pilot program MSC has underway? If no, why not?

Admiral BUZBY. The same challenges that exist for ensuring the readiness of our Nation's aging surge sealift fleet exist with respect to adopting new technologies. To that end, MARAD has always been open to incorporating new technologies into vessel management and maintenance when appropriate and resources are available to do so. For example, MARAD will evaluate technology to perform tank inspections and robotic hull cleaning, which could decrease resource requirements and increase availability of vessels. In addition, the American Bureau of Shipping (ABS) has introduced Image Recognition Technology that has received class approval. There are more than 20 approved providers that perform these surveys. It is anticipated that all these processes will become more available for the ship manager/owner; however, there is presently a long lead time to apply for these services.

It is difficult to make any type of gains for a fleet that exceeds 46-years of age; however, MARAD recognizes that improving maintenance means a reliance on data and effective maintenance protocols that don't simply focus on time. MARAD recently attended the ABS Special Committee for Ship Operations meeting in February 2020, and we continue to review emerging maintenance approaches proposed by the classification society.

In 2016, MARAD provided Chief of Naval Operations staff (OPNAV N2/N6E) with points of contact at MSC for development of a digital twin for the LMSR ships and fleet oilers (T–AO), however these digital twins are most relevant for new ships where automation, and instrumentation are included from new construction.

Additionally, MARAD operates and maintains the National Defense Reserve Fleet (NDRF), including both Ready Reserve Force (RRF) and the training ship fleet made available to state maritime academies, under memorandums of understanding (MOUs) with both the U.S. Coast Guard (USCG) and the ABS. These MOUs have defined requirements that MARAD must meet, which do not necessarily align with advances in AI and new conditions-based maintenance protocols. In short, advances in data analysis have exceeded legacy procedures, due to technology or regulatory requirements (e.g. 46 CFR Subchapter R for public nautical school ships). MARAD expects the National Security Multi-Mission Vessel (NSMV) Vessel Construction Manager to incorporate as many new capabilities as possible in constructing the NSMVs. The Navy and MARAD will do the same when acquiring used vessels to recapitalize the legacy RRF fleet.

MARAD's NDRF, including RRF vessels were last recapitalized during the 1990s, and these ships contain a wide-range of technology and instrumentation from the 1960s through 1990s. Despite modernization that is often limited by available resources, a significant segment of the analysis requires greater instrumentation than is currently available to us.

MARAD has a continuous dialogue with ABS staff and with ABS Consulting to identify relevant tools or analysis that could improve readiness and availability of aging vessels. During these engagements, the promise of gains quickly conflicts with the existing conditions onboard an aging fleet of vessels where data for analysis is simply unavailable. While in Reduced Operating Status (ROS), the RRF vessels are effectively in a continuous maintenance availability vice the selective restricted availability of similar Navy vessels. MARAD is working with ABS to identify maintenance protocols that change from time-based requirements to conditions-based requirements. Often, these conditions-based requirements are queued to operating vessels and some are therefore unsuitable for ROS vessels, in long-term lay berth conditions.

When practical, MARAD analyzes data resident in MARAD's commercial, off-the-shelf system known as Nautical Systems-Enterprise (NS–E). MARAD is working in conjunction with ABS Consulting, the provider for NS–E, to identify greater and more in-depth reporting and dashboards that use NS–E data for informed decision making. MARAD selected NS–E to support the Ready Reserve Force Management System. This comprehensive data repository helps MARAD and contracted Ship Managers guide preventive maintenance, logistics management, and even resourcing decisions on a highly adaptable and widely used commercial platform.

MARAD defers to Navy for comment on development of a pilot program.

MARAD is actively participating in the Performance-to-Plan effort being conducted by the Center for Naval Analyses funded by the Director, Strategic Mobility/Combat Logistics Division, Chief of Naval Operations (OPNAV N42). The goal of this effort is to develop decision tools and "levers" that can affect readiness to hasten gains in vessel availability and readiness.

Mr. WITTMAN. Classification societies have developed cyber security protocols and notations for industry use that promote security and consequently ensure compliance with government contracting requirements. These cybersecurity and risk management protocols are a combination of human and technical factors and are based on an overall security strategy for the business or organization. Government contracting requirements for cybersecurity continue to evolve and tighten as threats evolve.

1. How does Navy/MARAD measure security capabilities onboard surface ships in ways that allow integration of commercial industry best practices, but with Government security requirements in mind?

2. What has Navy/MARAD done to incorporate the classification standards for cybersecurity piloted by Military Sealift Command for other Navy/MARAD ships and systems?

3. Will the Navy consider specifying classification standards for cybersecurity and tools similar to the MSC pilot program in contracts for leased, contract operated and new construction contracts?

Admiral BUZBY. MARAD ships maintain a current Vessel Security Plan, approved by the USCG, and handled and protected as Sensitive Security Information. This document includes best practices from the commercial industry, and it is common practice that these are updated as new threats, vulnerabilities, or concerns are identified. The USCG is responsible for interpreting and implementing the International Maritime Organization (IMO) requirements as well as any other commercial maritime cyber requirements for U.S. vessels, including on RRF ships.

MARAD encourages all commercial operators to adopt effective cybersecurity measures and to report vulnerabilities as appropriate to ensure safety and continued, effective operations of ships, ports, and the networks that support them. We also, support industry efforts to adopt best practices and see promise in the forward-looking guidance of the IMO to align cybersecurity as a component of safety.

Finally, MARAD's contract for services of the onboard network known as the Ready Reserve Force Management System (RMS) includes cybersecurity elements, response, and authentication processes. We will consider increasing the breadth of cybersecurity requirements, and a focus on more support for response to any breach or vulnerability, in future contracts.

MARAD also hosted cybersecurity penetration tests, and will continue to do so during FY20.

There is no current classification society standard that is required. We have worked with ABS Consulting to determine if ABS's CyberSafety Notation will meet the requirements of the IMO and keep NDRF/RRF vessels available.

MARAD permitted ABS to assess the Fast Sealift Ship (FSS) Regulus to fully develop their onboard assessment model. They returned to the vessel to further refine the model, and much of this effort is now being used in the version used for MSC.

MARAD believes that the presence of Contract Mariners (CONMARs) on the majority of sealift ships means that any cybersecurity practice should reflect commercial practices with which the mariner pool is likely to be familiar.

MARAD's FY 2020 Ready Reserve Force (RRF) program funding from Department of Navy included $1 million that was requested for cybersecurity initiatives. The funding will be used to engage a cybersecurity contactor to perform a baseline assessment of the RRF fleet to help develop additional management practices that meet IMO guidance and are acceptable to USCG and ABS.

MARAD defers to Navy to comment on what it will specify with respect to classification standards. MARAD already has cybersecurity requirements in its contract for the operation of the RMS network. The systems, applications, and networks MSC uses are significantly different than from those MARAD uses on the RRF fleet. With regard to the NSMV, the Vessel Construction Manager is responsible for development of cybersecurity considerations which will align with commercial best practices.

Mr. WITTMAN. In recent years, commercial ship owners and operators, and certain classification societies, have begun using digital analytic tools and artificial intelligence (AI) capabilities to aid in the overall maintenance and management of vessels. These tools also apply to the commercial offshore exploration and drilling industries. These tools can be particularly important for tracking the readiness of our nation's fleet, as highlighted in the recent turbo activation of sealift vessels. The material condition of many government vessels is a major issue affecting our nation's ability to go to war. These advanced analytic tools have been incorporated into a pilot program to determine their effectiveness at Military Sealift Command (MSC) within U.S. Navy. Ultimately these tools can and will be used with the classification societies in a condition-based maintenance approach versus the former time-based methods of periodic maintenance on ships. These tools, coupled with new classification methods, are expected to streamline maintenance planning and provide clarity into the readiness status of MSC's vessels. These tools can equally benefit the U.S. Navy surface and auxiliary fleet as well as the sealift fleet.

Since Navy already applies commercial classification rules for shipbuilding and lifecycle operations, the potential exists for these advanced digital classification and AI tools to assist Navy and MARAD with ship management and maintenance planning. To that end:

1. With the success demonstrated to date at MSC, is the U.S. Navy and MARAD considering incorporation of digital analytic tools and AI methods into other surface vessels?

2. If not, why not? If yes, when does Navy and MARAD plan to utilize these tools for maintenance planning and condition monitoring on its ships?

3. Has Navy considered a pilot program with these new tools similar to the pilot program MSC has underway? If no, why not?

Admiral.WILLIAMSON. *1. With the success demonstrated to date at MSC, is the U.S. Navy and MARAD considering incorporation of digital analytic tools and AI methods into other surface vessels?*

- Yes. The digital modeling, data collection and AI approach is designed to apply to any surface ship. The digital twin model of the ships structures are built through finite element analysis tools that would apply to any vessel. Machine learning technology is used for corrosion and coating analysis applied to the digital twin model for predictive analytics and repair recommendations.
- Similarly, Machinery Health Monitoring (MHM) capabilities can be applied to any machinery whether on a surface ship or an ashore facility. Machinery anomaly detection analytics of gauge data is applied to individual machine digital models. Historical machinery data is used to train AI anomaly detection that is correlated to past failures. The resultant machinery models will therefore detect future anomalies and provide alerts prior to failure. Mature machinery models will ultimately be able to provide failure projections, which will support refined maintenance planning and assist with risk-based decisions.
- Based on the progress of MSC's pilot program, the Naval Sea Systems Command (NAVSEA) Condition Based Maintenance Plus Enterprise System (CBM+ES) program intends to complete a data analytics project with ABS to develop a suite of algorithms (supervised and unsupervised) to detect early indications of failures on LPD49 Class Drive Train. They will develop corresponding prototype software user interfaces to provide situational awareness of condition assessment. ABS will deliver software requirements to the CBM+ES Program for implementation of ABS algorithms and user interfaces into the Navy's data

repository for machinery assessment. This data repository is available to any maintenance technician or engineer to access with a CAC card.

- MARAD continues to review emerging maintenance approaches proposed by the classification society. MARAD recently attended the ABS Special Committee for Ship Operations meeting in February 2020, and recognizes using data analytics in a condition-based approach is a more effective maintenance strategy compared to time-based approach. time-based

2. If not, why not? If yes, when does Navy and MARAD plan to utilize these tools for maintenance planning and condition monitoring on its ships?

- Yes, the Navy's CBM+ES program will complete a data analytics project with ABS in FY20.
- MARAD currently uses analysis of data, resident in MARAD's commercial, off-the-shelf (COTS) system known as Nautical Systems-Enterprise (NS–E). MARAD is working with ABS Consulting, the provider for NS–E, to identify greater more in-depth, enterprise-wide reporting and dashboards that use NS–E data to inform decision-making. MARAD selected NS, later upgraded to be an enterprise wide application to support the Ready Reserve Force Management System (RMS). This comprehensive data repository helps MARAD and contracted Ship Managers guide preventive maintenance, logistics management, and even resourcing decisions on a highly adaptable and widely used commercial platform.

3. Has Navy considered a pilot program with these new tools similar to the pilot program MSC has underway? If no, why not?

- Yes. Navy is embracing advanced technology to optimize maintenance costs while increasing materiel readiness through the use of sensor based technologies and prognostic health monitoring. NAVSEA is moving forward to increase use of CBM+ technologies where applicable and cost effective. The entire shipboard CBM+ portfolio will be managed by NAVSEA's Chief Engineer. This will ensure tested and validated CBM+ solutions and capabilities are applied across the Navy's fleet, with common data assessment and ship maintenance strategies that can be tailored to specific ship classes/hulls and onboard systems/equipment.

Mr. WITTMAN. Classification societies have developed cyber security protocols and notations for industry use that promote security and consequently ensure compliance with government contracting requirements. These cybersecurity and risk management protocols are a combination of human and technical factors and are based on an overall security strategy for the business or organization. Government contracting requirements for cybersecurity continue to evolve and tighten as threats evolve.

1. How does Navy/MARAD measure security capabilities onboard surface ships in ways that allow integration of commercial industry best practices, but with Government security requirements in mind?

2. What has Navy/MARAD done to incorporate the classification standards for cybersecurity piloted by Military Sealift Command for other Navy/MARAD ships and systems?

3. Will the Navy consider specifying classification standards for cybersecurity and tools similar to the MSC pilot program in contracts for leased, contract operated and new construction contracts?

Admiral WILLIAMSON. *1. How does Navy/MARAD measure security capabilities onboard surface ships in ways that allow integration of commercial industry best practices, but with Government security requirements in mind?*

- Navy and MSC abide by Department of Defense requirements to assess cybersecurity via National Institute of Science and Technology (NIST) 800–53 standards, Risk Management Framework. There is flexibility in how these standards are implemented as long as the standards themselves are met. Industry best practices can be used as long as they meet the 800–53 requirements.
- In accordance with Assistant Secretary of the Navy Research Development and Acquisition memo dated 6 Sep 2019, MSC incorporates Defense Federal Acquisition Regulations Supplement (DFARS) 252.204–7012 requirements into all contracts with commercial operating companies, obliging them to abide by NIST 800–171 cybersecurity standards Industry best practices can be used as long as they meet the 800–171 requirements. MSC will be incorporating the Cybersecurity Maturing Model Certification (CMMC) as guidance is released by DOD. CMMC will require third-party certification that contractors are meeting cybersecurity requirements. The number and granularity of the cyber requirements will be commensurate with the sensitivity of the data that the contractor processes.

- MARAD ships maintain a current, approved Vessel Security Plan, approved by the U.S. Coast Guard (USCG), and handled and protected as Sensitive Security Information (SSI). This document includes best practices from commercial industry and is routinely reviewed and updated as new threat, vulnerabilities, or concerns are identified.
- MARAD's contract for services of the onboard network known as the Ready Reserve Force Management System (RMS) includes cybersecurity elements, response, and authentication processes.
- MARAD plans to host additional cybersecurity penetration tests during FY20.

2. What has Navy/MARAD done to incorporate the classification standards for cybersecurity piloted by Military Sealift Command for other Navy/MARAD ships and systems?

- There is no current classification society standard that is required. MARAD has worked with American Bureau of Shipping (ABS) Consulting to determine if ABS' CyberSafety Notation will meet the requirements of the International Maritime Organization (IMO) and keep National Defense Reserve Fleet (NDRF)/Ready Reserve Fleet (RRF) vessels available.
- Navy and MSC are guided by the same Department of Defense requirements to assess cybersecurity via NIST 800–53 standards via the Risk Management Framework process for cybersecurity of Navy-owned ships and systems.

3. Will the Navy consider specifying classification standards for cybersecurity and tools similar to the MSC pilot program in contracts for leased, contract operated and new construction contracts? Not yet. To date MSC has been focused on the pilot, the results of which will determine how the classification standards can be incorporated for leased, contract operated or new construction contracts. However, MSC has been working with ABS to develop a government-specific CyberSafety notation, which is an independent review. The notation provides a foundation for the assessment of a subset of NIST standards required for government systems (NIST 800–53, Risk Management Framework) and focuses on the assessment of an organization's overall cybersecurity strategy as well as the security of operational technology (OT) systems. The notation is complimentary, but does not replace the Risk Management Framework requirements.

QUESTIONS SUBMITTED BY MR. NORCROSS

Mr. NORCROSS. As the Navy continues its modernization to address great power competition, logistics will be critically important. The Navy has announced the CMV–22 Osprey as its next carrier onboard delivery (COD) aircraft. After completing its first flight operation earlier this year, the CMV–22 is scheduled for its first operational deployment in 2021 aboard the aircraft carrier *Carl Vinson.*

Can you talk about how this aircraft will support carrier-based logistics? Given the enhancements to the CMV–22B, are you considering the platform for a larger mission set?

Admiral WILLIAMSON. The CMV–22B Osprey re-capitalizes the long-range aerial logistics support and carrier onboard delivery (COD) capabilities from the aging C–2A Greyhound, remaining a critical enabler to carrier air wing (CVW) operations. The CMV–22B is a variant of the MV–22 with additional range and avionics upgrades that enable carrier strike group (CSG) integration and is an integral part of the F–35B/C logistics support at sea Concept of Operations. While the use of the CMV–22B will be primarily for COD, the fleet will benefit from the tiltrotor capability in support of a wide variety of other warfighting areas. CMV–22B secondary missions include: vertical onboard delivery/vertical replenishment as an adjunct to MH–60S; casualty evacuation; Naval special warfare support; missions of state to included distinguished visitor movement and humanitarian assistance and disaster relief; search and rescue as an adjunct to MH–60S. The increased capability of the tiltrotor CMV–22B over the legacy C–2A will allow evolution of the long range aerial logistics mission from a central point that supplies the CSG, to a point-to-point concept. This flexibility will improve the Navy's ability to maintain forward presence by enabling forces to sustain prolonged operations with credible combat capacity. Given the enhancements to the CMV–22B, we are currently considering the CMV–22B for an expanded mission set. Analysis of this requirement increase and the associated force structure requirements is ongoing and expect to be completed in the future. Currently, the CMV–22B program is only resourced to support re-supply of the CSG. With the evolution of Distributed Maritime Operations and Expeditionary Advanced Base Operations concepts, the intra-theater airlift requirement will increase. Following initial operational capability in fiscal year 2021, the CMV–22B program will begin post-production integration of additional capabilities to better

enable great power competition and civil aviation requirements. These additional capabilities include: Link-16; required navigation performance area navigation; secondary beyond line-of-sight communications; upgrade to the Mobile User Objective System satellite communications system; Joint Precision Approach Landing System. These capabilities will be critical to ensuring CMV–22B logistics support in a high-end fight.

QUESTIONS SUBMITTED BY MR. VELA

Mr. VELA. What activities are you doing to further advertise and recruit more mariners? Can you talk to how you've balanced having the right qualifications onboard, while having a large enough pool of citizens to recruit from?

Admiral BUZBY. The Maritime Administration (MARAD) is exploring a range of options to ensure that a sufficient number mariners are trained and available to crew the U.S. Government owned fleet in times of crisis. This is a challenge, due to the number of vessels in the U.S. flag commercial fleet and jobs available to U.S.-citizen mariners. Maritime Security Program vessel operators employ up to 2,400 of these mariners, which provides some reserve of crew needed. However, concerns exist about having enough mariners to meet sealift needs during a full mobilization exceeding 4–6 months in duration. There continues to be significant interest in working in the industry. Each of the maritime academies has more qualified applicants than they can accept, which is also true of the union, commercial, and community college maritime schools. MARAD is researching ways to ascertain mariner availability and willingness to serve in times of crisis. The goal of this research effort is to help us better determine the numbers of mariners who might be available. MARAD continues to pursue opportunities to encourage private operators to internationally sail U.S. flag vessels that employ U.S. mariners. MARAD further supports the industry by operating the U.S. Merchant Marine Academy (USMMA) and assisting the six State Maritime Academies (SMA) to keep the pipeline of qualified mariners going. Also, pursuant to Congressional authority, MARAD established a program to recognize Maritime Centers of Excellence (CoE) for domestic maritime workforce training and education offered through qualified community colleges and maritime training centers. MARAD leverages its resources to aggressively advertise the opportunities available in the maritime industry. We publish informational booklets and pamphlets and maintain a dedicated phone line for the public to call and have their questions answered. For almost a decade, MARAD, in cooperation with the USMMA and SMAs, has co-sponsored the Annual Women on the Water Conference at one of the seven maritime academies. This gives an opportunity for all aspiring mariners, especially aspiring women mariners, to learn about current issues and opportunities, and network with leaders and role models in the maritime world.

Mr. VELA. The Navy has stated it will purchase two used sealift ships this year. Can you provide this committee the actual or planned dates for RFP release, when proposals are due and when the Navy will award the contract for those two ships?

Admiral WILLIAMSON. The used vessel contracting strategy will be executed through a joint Department of Navy (DON)/Department of Transportation (DOT) acquisition program. DOT's Maritime Administration (MARAD) will lead program management activities using a Vessel Acquisition Manager (VAM) with assistance from the Navy's Program Executive Office, Ships, as the Milestone Decision Authority (MDA). While DOD retains overall oversight, MDA and MARAD are finalizing the processes, roles and responsibilities associated with the stand-up of an Integrated Program Office for the acquisition of sealift used vessels. The acquisition of the used ships is contingent on having a Vessel Acquisition Manager who will assist the DOD/DOT team with identifying and selecting used vessels to fulfill DOD sealift requirements (VAM) under contract. On February 24, 2020, MARAD released a Request for Proposal (RFP) to hire a VAM for the recapitalization of the aging surge sealift fleet. VAM offers were originally due April 1, 2020 to facilitate acquisition of the first two vessels in FY21. Proposals have been delayed 30 days to May 1, 2020 due to COVID19 impacts. Navy and MARAD will evaluate proposals and anticipate awarding VAM contract in July 2020. Following the VAM contract award, the program can proceed with the acquisition of the first used sealift ship, expected in Q1 of FY21, followed by the second ship later in the FY.

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